



**LAWRENCE G. LENKE, M.D.**  
**Professor of Orthopedic Surgery with Tenure**  
**Chief, Division of Spinal Surgery**  
**Chief of Spinal Deformity Surgery**  
**Columbia University Irving Medical Center**  
**College of Physicians and Surgeons**

**Surgeon-in-Chief**  
**Daniel and Jane Och Spine Hospital**  
**New York Presbyterian/The Allen Hospital**  
**5141 Broadway, 3FW-025**  
**New York, NY 10034**  
**212.932.5100 Tel, 212.932.5097 Fax**  
**[www.spinal-deformity-surgeon.com](http://www.spinal-deformity-surgeon.com)**  
**[www.LawrenceLenkeMD.com](http://www.LawrenceLenkeMD.com)**

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**7/7/2020**

## Curriculum Vitae

### LAWRENCE G. LENKE, M.D.

Surgeon-in-Chief  
The Spine Hospital  
New York Presbyterian/The Allen Hospital  
5141 Broadway, 3FW-025  
New York, NY 10034  
Mobile: (314) 605-2989  
E-mail: ll2989@columbia.edu  
[www.spinal-deformity-surgeon.com](http://www.spinal-deformity-surgeon.com)

## I. DEMOGRAPHICS

### Place of Birth

Harvey, IL

### Marital Status

Married: Beth (M.H.A. Washington University-St. Louis)  
Children: Lauren, Bradley & Erin

### Education

#### *Medical School*

Northwestern University Medical School  
Chicago, IL  
M.D., 1986  
Alpha Omega Alpha

#### *Undergraduate*

University of Notre Dame  
Notre Dame, IN  
B.S., Pre-Professional Studies, 1982  
Summa cum Laude  
Phi Beta Kappa

## GRADUATE CLINICAL EXPERIENCE

#### *Internship*

Washington University School of Medicine  
St. Louis, MO  
General Surgery  
July 1986 – June 1987

#### *Residency*

Washington University School of Medicine  
St. Louis, MO  
Orthopaedic Surgery  
July 1987 – June 1991

Shriners Hospital for Children  
St. Louis, MO  
Pediatric Orthopaedics  
July 1987 – June 1991

#### *Fellowship*

Washington University School of Medicine

<sup>v</sup>Student, <sup>\*r</sup>esident, <sup>\*f</sup>ellow, <sup>l</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

St. Louis, MO  
Pediatric & Adult Spinal Surgery  
July 1991 – June 1992

Licensure

*Diplomat of National Board of Medical Examiners*

MO MD R5P11

NY MD R5P11

**Board Certification**

*American Board of Orthopaedic Surgery*

2014 Recertified

2004 Recertified

1994 Certified

**Academic Appointments**

July 1, 2015 – Present

Professor of Orthopedic Surgery with Tenure

Chief of Spinal Surgery

Chief of Spinal Deformity Surgery

Co-Director, Adult and Pediatric Comprehensive Spine Surgery Fellowship

Columbia University Medical Center

August 2012 – June 30, 2015

Director, Advanced Deformity Fellowship

Department of Orthopaedic Surgery

Washington University-St. Louis

January 2012 – June 30, 2015

Chief, Spinal Surgery

Department of Orthopaedic Surgery

Washington University-St. Louis

2006 – June 30, 2015

Professor, Neurological Surgery

Department of Neurologic Surgery

Washington University-St. Louis

August 2005 – August 2006

Co-Director, Orthopaedic Surgery Residency Program

Department of Orthopaedic Surgery

Washington University-St. Louis

January 2004 – June 30, 2015

Co-Director, Spinal Deformity Service

Department of Orthopaedic Surgery

Washington University-St. Louis

August 2001 – June 30, 2015

Jerome J. Gilden Distinguished Professor of Orthopaedic Surgery

Department of Orthopaedic Surgery

Washington University-St. Louis

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

January 2001 – August 2001  
Professor, Orthopaedic Surgery  
Department of Orthopaedic Surgery  
Washington University-St. Louis

September 1999 – August 2005  
Director, Orthopaedic Surgery Residency Program  
Department of Orthopaedic Surgery  
Washington University-St. Louis

March 1998 – January 2001  
Associate Professor (tenure)  
Department of Orthopaedic Surgery  
Washington University-St. Louis

August 1993 – February 2012  
Chief, Spinal Surgery  
Shriners Hospital for Children – St. Louis Unit

July 1992 – July 1997  
Assistant Professor  
Department of Orthopaedic Surgery  
Washington University-St. Louis

July 1991 – June 1992  
Instructor  
Department of Orthopaedic Surgery  
Washington University-St. Louis

### **Hospital Appointments**

Surgeon-in-Chief  
Daniel and Jane Och Spine Hospital  
New York-Presbyterian/The Allen Hospital  
New York-Presbyterian Morgan Stanley Children's Hospital

### **Administrative Duties/Special Programs**

Fellowship Program  
Visiting Surgeon Program

### **Societal Memberships**

American Academy of Orthopaedic Surgeons  
American Orthopaedic Association  
American Spinal Injury Association  
AOSpine International  
Missouri State Orthopaedic Association  
North American Spine Society  
Orthopaedic Research Society  
Pediatric Orthopaedic Society of North America  
Scoliosis Research Society  
St. Louis Guild of the Catholic Medical Association

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

St. Louis Spine Society  
The Scoliosis Association  
Spinal Deformity Club of New York

**Societal Committees**

*American Academy of Orthopaedic Surgeons*

2010-2013 Board of Specialty Societies, Representative  
2014-Present Academy Member Volunteer

*American Orthopaedic Association*

2001-2004 ABC Exchange Fellowship Committee  
2000-2009 Publications Committee

*AOSpine International*

2012-2015 Knowledge Forum Deformity Steering Committee, Chairman  
2016- Present Knowledge Forum Deformity Steering Committee, Member

*Group International Cotrel-Dubousset*

2000-2002 Board Member

*National Spine Network*

1997-2004 Executive Committee  
1997-1999 Quality Assurance Committee, Chair  
1996-2002 Membership Committee  
1995-2004 Attending Spine Surgeon

*North American Spine Society*

2011-2012 Education Council Committee  
2009-2011 Spine Summit Steering Committee, SRS Liaison

*Orthopedic Research and Education Foundation*

2015-Present Board of Directors

*Scoliosis Research Society*

2018- Present Research Planning Committee  
2018-2019 Nominating Committee  
2016-2017 Nominating Committee  
2012-2014 CME Committee  
2012-2014 Development Committee  
2013-2014 3D Scoliosis Task Force  
2013-2014 Education Committee, Cadaver Course Liaison  
2013-2014 Governance Council, Globalization  
2012-2014 Globalization Committee, Chair  
2012-2013 Long Range Planning Committee, Past Chair  
2011-2012 3D Scoliosis Committee, Board Liaison  
2011-2012 Board of Directors, PPI  
2011-2012 CME Committee, PPI  
2011-2012 Corporate Relations Committee, Chair  
2011-2012 Endowment Committee, PPI  
2011-2012 E-Text Committee, Board Liaison  
2011-2012 Finance Committee, PPI  
2011-2012 Finance Council, Long Range Planning Liaison

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

2011-2012	Globalization Committee, Chair
2011-2012	Governance Council, Industry Relations Liaison
2011-2012	IMAST Committee, Board Liaison
2011-2012	Industry Relations Committee, Chair
2011-2012	Long Range Planning Committee, Chair
2011-2012	Long Range Planning Committee, Board Liaison
2011-2012	Multi-Society Spine Registry Task Force, Chair
2011-2012	Nominating Committee, Chair
2011-2012	Development Committee, PPI
2010-2012	Adult Deformity Classification Task Force
2010-2012	Directed Research Task Force
2010-2012	Journal Task Force, Chair
2010-2012	Scoliosis Screening Task Force
2010-2011	Board of Directors, President
2010-2011	CME Committee, Past Chair
2010-2011	Industry Relations Committee, Chair-Elect
2010-2011	Long Range Planning Committee, Chair-Elect
2010-2011	Multi-Society Spine Registry Task Force, Chair-Elect
2010-2011	Nominating Committee, Chair-Elect
2009-2014	E-Text Committee
2009-2010	CME Committee, Chair
2009-2013	Board of Specialty Societies, Representative (formerly COMSS), Health Policy
2009-2012	3D Scoliosis Committee
2009-2010	Education Council, CME Representative
2009-2010	President Elect
2009-2010	Program Committee, IMAST Past Chair
2009-2010	Program Committee, Program Reviewer
2009-2010	Spine Deformity Curriculum Committee, Board Liaison
2008-2014	Executive Committee
2008-2013	Long Range Planning Committee
2008-2012	Industry Relations Committee
2008-2012	Advocacy & Public Policy Committee, Rapid Response Team
2008-2011	IMAST Committee, Board Liaison, Past Chair
2008-2009	Continuing Medical Education Committee, Chair-Elect
2008-2009	Vice-President
2007-2008	Morbidity & Mortality Committee
2006-2009	Program Committee, IMAST Chair
2006-2008	Study Group Task Force, Chair
2006-2013	Board of Directors
2006-2008	Long Range Planning Committee
2004-2010	Global Outreach, Advocacy & Finance Committee
2002-2005	Nominating Committee
2001-2012	Finance Committee
2001-2002	Ad Hoc Committee - International Journal of Spinal Deformity Development, Chair
2001-2002	Outcomes Research Planning Committee, Chair
2000-2009	International Meeting on Advanced Spine Techniques, Chair
2000-2001	Nominating Committee
1999-2001	Spinal Deformities Journal Committee Task Force, Chair
1998-2008	3D Spinal Classification Committee, Chair
1998-2000	Core Curriculum for Spinal Deformity Task Force, Section Leader
1996-1998	Prevalence and Natural History Committee

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

### *Spinal Deformity Education Group*

2002-2003 Board Member  
2002-2003 Second Vice Chair

### *Southern Orthopaedic Association*

1996-2010 Missouri Councilor  
1996-2001 Young Physicians Subcommittee

### **Study Groups**

2017- Present International Spine Study Group  
2015- Present Fox PSDS (Pediatric Spine Deformity Surgery)  
2014-Present Setting Scoliosis Straight, Harms Study Group, DePuy Synthes Spine  
2014-Present Harms Study Group  
2011-Present AOKnowledge Forum- Deformity  
2011-2015 Fox Prospective Pediatric Vertebral Column Resection (VCR) Trial, Chair  
2010-2011 Intraoperative Neurophysiologic Monitoring (IONM) Workgroup  
2009-Present Fox Retrospective Pediatric Vertebral Column Resection (VCR) Trial, Chair  
2000-2008 Spinal Deformity Study Group, Medtronic, Chair  
2000-2001 Young Lions Degenerative Scoliosis Spinal Surgery Study Group, Chair  
1999-2000 International Biomechanical Spine Study Group  
1996-1997 BAK Fusion Cage Study Group for PLIF Applications, DePuy AcroMed Corporation  
1993-2000 Harms Anterior vs. Posterior Thoracic Scoliosis Instrumentation Study Group

### **Board of Directors**

2017- Present Setting Scoliosis Straight (SSS)  
2015- Present Orthopaedic Research and Education Foundation (OREF)  
2014- Present Global Spine Outreach (GSO)

## **II. HONORS/AWARDS/SCIENTIFIC RECOGNITION/TRAVELLING FELLOWSHIPS**

2020 **Super Doctors** - New York Super Doctors 2020. May 10, 2020 edition of The New York Times Magazine  
2019 **Physician Partner of the Year** - The Daniel and Jane Och Spine Hospital, New York, NY  
2019 **Super Doctors** - New York Super Doctors 2019. May 13, 2019 edition of The New York Times Magazine  
2018 **Super Doctors** - New York Super Doctors 2018. May 13, 2018 edition of The New York Times Magazine  
2018 **Best Clinical Paper:** *The Amount of Curve Correction is More Important than Upper Instrumented Vertebra Selection for Ensuring Postoperative Shoulder Balance in Lenke Type 1 Adolescent Idiopathic Scoliosis.* 25th Whitecloud Award International Meeting on Advanced Spine Techniques (IMAST) 2018. Los Angeles, California.  
2017 **Best Clinical Paper:** *Optimal Selection of the LIV in Lenke 1 and 2 AIS.* AOSpine Global Spine Congress 2017. Milan, Italy  
2016 **Russell A. Hibbs Clinical Award, Best Clinical Presentation Runner-up:** Neurologic Complications Following Complex Adult Spinal Deformity Surgery: 2 Year Follow-up of the Scolio-Risk 1 Prospective, Multicenter, International Study. 51st SRS Annual Meeting & Course Prague, Czech Republic  
2016 **23<sup>rd</sup> IMAST Thomas E. Whitecloud Award for Best Clinical Paper:** *Incidence of Proximal Junctional Kyphosis in Patients with Adult Spinal Deformity Fused to the Pelvis: A ScolioRisk-1 Sub-analysis*  
2016 **AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves :** Meritorious Service Award- Orthopaedic Surgery  
2015 **New York Super Doctors** 2016 list, *The New York Times*, May 15, 2016 issue  
2015 **Best Clinical Paper:** *Pre-operative Predictors of Neurological Motor Decline in Complex Adult Spinal Deformity Surgery: Results of Prospective, International, Multicenter Scolio-RISK-1 Study in 271 Patients.* 22<sup>nd</sup> International Meeting on Advance Spine Techniques, Kuala Lumpur, Malaysia  
2015 **Best Paper:** *Risk Factors for Non-Neurological Complications in Adult Spinal Deformity Surgery: An*

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>§</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

- International Large-Scale, Prospective Multi-Center Study.* AOSpine Global Spine Annual Meeting, Buenos Aires, Argentina
- 2015 **Achievement Award for Volunteerism** American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, Nevada
- 2013 The Top 28 Spine Surgeons in North America, *Orthopedics This Week* Volume 9, Issue 20
- 2013 Top 10% Rank: Patient Survey for Clinicians, Washington University Physicians
- 2013 **Leon Wiltse Award for Excellence in Leadership and/or Clinical Research in Spine Care**, North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA
- 2013 **Russell A. Hibbs Clinical Award, Best Clinical Paper:** *Prospective, Multi-Center Assessment of Acute Neurologic Complications Following Complex Adult Spinal Deformity Surgery: The Scolio-Risk-1 Trial.* Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France
- 2012 **John H. Moe Award, Best Basic Science Paper:** *The Ventral Lamina and Superior Facet Rule: A Morphometric Analysis for Ideal Thoracic Pedicle Screw Start Point.* Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL
- 2012 **President's Resident Paper Award:** *The Ventral Lamina and Superior Facet Rule: A Morphometric Analysis for Ideal Thoracic Pedicle Screw Start Point.* Southern Orthopaedic Association 29<sup>th</sup> Annual Conference, White Sulphur Springs, WV. \$1,500.00 Award
- 2012 **Resident Paper Award:** *The Effect of Pedicle Screw Hubbing on Pullout Strength in the Thoracic Spine.* Western Orthopaedic Association 76<sup>th</sup> Annual Meeting, Portland, OR. \$1,000.00 Award
- 2011 **Resident/Fellow Travel Grant Award, Outstanding Resident Paper:** *The Ventral Lamina and Superior Facet Rule: The Key to Accurate Placement for Thoracic Pedicle Screws.* Eastern Orthopaedic Association 42<sup>nd</sup> Annual Meeting, Williamsburg, VA
- 2011 **Whitecloud Award, Best Clinical Science Paper:** *Preoperative Vitamin D Status in Adults Undergoing Spinal Fusion Surgery.* 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark
- 2011 **Eastern Orthopaedic Association's Travel Grant:** *The Ventral Lamina and Superior Facet Rule: The Key to Accurate Placement for Thoracic Pedicle Screws.* Eastern Orthopaedic Association 42<sup>nd</sup> Annual Meeting, Williamsburg, VA
- 2011 **Heartworks St. Louis, Hero with a Heart** Honoree, National Marfan Association, St. Louis, MO
- 2011 **Eduardo Luque Honorary Award**, Mexican Association of Spine Surgeons, Degenerative and Deformity Spine Disease 2010 Congressional Meeting, Mexico City, Mexico
- 2008-2010 *Guide to America's Top Surgeons - Consumer Guide e-book*, Consumer's Research Council of America, Washington, DC
- 2008-2010 *Guide to America's Top Orthopedists - Consumer Guide e-book*, Consumer's Research Council of America, Washington, DC
- 2008 **Louis A. Goldstein Award, Best Clinical Presentation:** *Risk Factors for Critical Intraoperative Neuromonitoring Changes during AIS Surgery.* Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT
- 2007 **Russell A. Hibbs Award, Best Clinical Science Paper:** *Posterior Vertebral Column Resection (VCR) for Severe Pediatric & Adult Spinal Deformity: Indications, Results & Complications of 43 Consecutive Cases.* Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland
- 2005-2015 *America's Top Doctors*, Castle Connolly Medical Ltd.
- 2005 **Louis A. Goldstein Award, Best Clinical Poster:** *Decompression Alone vs. Decompression and Limited Fusion for the Treatment of Degenerative Lumbar Scoliosis.* Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL
- 2003 **1<sup>st</sup> Place, Outstanding Resident/Fellow Paper Award:** *Thoracic Anterior Spinal Fusion and Structures at Risk.* Eastern Orthopaedic Association/Southern Orthopaedic Association, Dublin, Ireland
- 2000 **Regional Zimmer Travel Award.** American Orthopaedic Association 113<sup>th</sup> Annual Meeting, Hot Springs, VA
- 2000 **Best Clinical Research Paper, Annual Residents Conference.** American Orthopaedic Association, St. Louis, MO
- 2000 Life member of the National *Who's Who* Registry
- 2000-2015 *Best Doctors in America – St. Louis Magazine*

<sup>v</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>\$</sup>International Research Scholar



- 1999 **Outstanding Paper Award:** *Can Nerve Root Injections Obviate the Need for Operative Treatment?* North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL
- 1999 **American, British, Canadian (ABC) Exchange Fellowship Program Award participant.** American Orthopaedic Association
- 1998 *Best Doctors in America* – 4<sup>th</sup> listing, Woodward/White, Inc.
- 1998 **Lee T. Ford Academic Achievement 2<sup>nd</sup> Annual Award,** Washington University Medical Center, St. Louis, MO
- 1997 **Russell A. Hibbs Award, 1<sup>st</sup> Runner-up, Best Clinical Research Paper:** *A Prospective Evaluation of Pulmonary Function in Adolescent Idiopathic Scoliosis Relative to the Surgical Approach for Spinal Fusion.* Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO
- 1995 **John H. Moe Award, Best Scientific Poster:** *Can We Lordose the Spine with Zielke Instrumentation Anteriorly?* Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC
- 1995 **European Traveling Fellowship Award participant.** Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC
- 1994 **Spinal Surgery Paper Award for Fellows and Residents:** TGF-Beta treatment of spinal cord monitoring. Group International Cotrel-Dubousset-USA 11<sup>th</sup> International Congress, Arachon, France
- 1993 **Research Grant Winner:** *Astrocyte Response and Transforming Growth Factor- $\beta$  Localization in Acute Spinal Cord Injury.* North American Spine Society 8<sup>th</sup> Annual Meeting, San Diego, CA
- 1992 **Best Resident/Fellow Paper:** *The Surgical Treatment of Lumbar Hemivertebra.* Missouri State Orthopaedic Association Annual Meeting, Lake of the Ozarks, MO
- 1991 **Russell A. Hibbs Award, Best Clinical Presentation:** *Preventing Decompensation in King Type II and III Curves Treated with Cotrel-Dubousset Instrumentation (CDI). 24 to 64 month follow-up.* Scoliosis Research Society 25<sup>th</sup> Annual Meeting, Minneapolis, MN

#### Travelling Fellowships

1. Scoliosis Research Society European Traveling Fellowship, Scoliosis Research Society (SRS), Cappagh Orthopaedic Hospital, Dublin, Ireland, May 8, 1995.  
Short segment pedicle screw constructs for thoraco-lumbar fractures
1. Scoliosis Research Society European Traveling Fellowship, SRS, Our Lady's Hospital for Sick Children, Crumlin, Ireland, May 9, 1995.  
Short segment pedicle screw constructs for thoracal-lumbar fractures
2. Scoliosis Research Society European Traveling Fellowship, SRS, Nuffield Orthopaedic Centre, Oxford, England, May 11, 1995.
  - EMG and pedicle screw placement
  - Spinal investigations in patients with adolescent idiopathic scoliosis with large curves
 Etiology and correction of transition syndrome following spinal instrumentation
3. Scoliosis Research Society European Traveling Fellowship, SRS, University of Malmö Hospital, Malmö, Sweden, May 15-16, 1995.
  - Etiology and correction of transition syndrome following spinal instrumentation
 CD for AIS, 5-10 year follow-up
4. Scoliosis Research Society European Traveling Fellowship, SRS, Langensteinbach, Germany, May 19, 1995.
  - Etiology and correction of transition syndrome following spinal instrumentation
 CD for AIS, 5-10 year follow-up
5. Scoliosis Research Society European Traveling Fellowship, SRS, University of Verona Hospital, Verona, Italy, May 22, 1995.
  - CD for AIS, 5-10 year follow-up
 Sagittal spinal alignment: segmental, regional, and global perspectives
6. Scoliosis Research Society European Traveling Fellowship, SRS, Trousseau Hospital, Paris, France, May 24, 1995.
  - CD for AIS, 5-10 year follow-up

<sup>v</sup>Student, <sup>\*R</sup>esident, <sup>\*F</sup>ellow, <sup>†N</sup>eurosurgical Resident, <sup>†A</sup>dvanced Deformity Fellow, <sup>^D</sup>omestic Visiting Surgeon, <sup>\$</sup>International Research Scholar

- Sagittal spinal alignment: segmental, regional, and global perspectives
- Etiology and correction of transition syndrome following spinal instrumentation

7. Scoliosis Research Society European Traveling Fellowship, SRS, St. Vincent DePaul Hospital, Paris, France, May 25, 1995.
  - CD for AIS, 5-10 year follow-up
  - Sagittal spinal alignment: segmental, regional, and global perspectives

Etiology and correction of transition syndrome following spinal instrumentation
8. American, British, Canadian (ABC) Exchange Fellowship Program, American Orthopaedic Association (AOA), Stanmore Hospital, University of London, April 1999.
  - Intraoperative and perioperative halo traction in severe pediatric spinal deformity

Comparison of anterior vs. posterior instrumentation for correction of thoracic adolescent idiopathic scoliosis: Analysis by an objective radiographic scoring system
9. American, British, Canadian (ABC) Exchange Fellowship Program, AOA, University of Bristol, Bristol, United Kingdom, April 1999.
 

Algorithm approach to adolescent idiopathic scoliosis
10. American, British, Canadian (ABC) Exchange Fellowship Program, AOA, University of Manchester, Manchester, United Kingdom, April 1999.
 

Anterior single solid rod instrumentation for adolescent idiopathic scoliosis
11. American, British, Canadian (ABC) Exchange Fellowship Program, AOA, University of Nottingham, Nottingham, United Kingdom, April 1999.
 

Anterior single solid rod instrumentation for adolescent idiopathic scoliosis
12. American, British, Canadian (ABC) Exchange Fellowship Program, AOA, University of Perth, Perth, Australia, May 1999.
 

Long fusions to the sacrum
13. American, British, Canadian (ABC) Exchange Fellowship Program, American Orthopaedic Association, University of Melbourne, Melbourne, Australia, May 1999.
 

Algorithm approach to adolescent idiopathic scoliosis
14. American, British, Canadian (ABC) Exchange Fellowship Program, AOA, University of Christchurch, Christchurch, New Zealand, May 1999.
 

Anterior single solid rod instrumentation for adolescent idiopathic scoliosis

American, British, Canadian (ABC) Exchange Fellowship Program, AOA, Auckland, New Zealand, May 1999.

Radiographic evaluation of anterior titanium mesh (Harms) cages

### III. GRANT/RESEARCH SUPPORT

#### *NON-GOVERNMENT – Current*

**Funding Agency:** Orthopaedic Science and Research Foundation (OSRF)  
**Period:** December 2018- December 2020  
**Grant Title:** *In Vivo Advanced Deformity Spine Surgery Torque Sensing*  
**Investigators:** Lawrence G. Lenke, MD, Joseph Lombardi, MD, Linda Effiong, Silvio Torres Betancur, Thomas Gardner  
**Funding:** \$2,690

**Funding Agency:** Orthopaedic Science and Research Foundation (OSRF)  
**Period:** December 2017- December 2020  
**Grant Title:** *Confirming S2AI screw placement by routine fluoroscopy*  
**Investigators:** Lawrence G. Lenke, MD, Melvin Makhni, MD, Martin Pham, MD, Alex Sielatytcki, MD  
**Funding:** \$8,700

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>§</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

**Funding Agency:** EOS Imaging  
**Period:** January 1, 2014 – January 1, 2017  
**Grant Title:** *Correlating Three-Dimensional (3D) Spino-Pelvic Parameters with Two-Dimensional (2D) Traditional Imaging and HRQOL-Impact of New 3D Measures on the Evaluation of Adult Spinal Deformity*  
**Aim:** Assess the clinical relevance of 3D stereographic reconstructions (EOS 3D) in the setting of adults with spinal deformity. Divergence between 2D and 3D radiographic parameters will be evaluated as well as correlations with patient reported outcomes. This prospective study could be the first one of several projects aiming to answer the following questions/key-points:  
 · Can EOS 3D help in the identification of deformity patterns specific to axial versus radicular pain?  
 · What additional, relevant information can EOS provide that conventional radiography cannot?  
 · How can EOS assist a physician in his/her diagnosis, patient follow-up, or surgical planning?  
**Investigators:** Virginie Lafage PhD, (PI) Frank Schwab MD, Themistocles Protopsaltis MD, Thomas Errico MD, **Lawrence G. Lenke MD**, Han Jo Kim MD\*  
**Funding:** (\$629.00/non-operative patient, \$801.00/surgical patient)

**Funding Agency:** John and Marcella Fox Foundation  
**Period:** January 2009 – Present  
**Grant Title:** *Fox Retrospective Pediatric Vertebral Column Resection (VCR) Trial*  
**Aim:** Analyze data from a consecutive series of patients from eight institutions who have had the posterior VCR procedure to determine the efficacy and safety of this procedure.  
**Investigators:** **Lawrence G. Lenke MD** (PI), John B. Emans MD, Peter O. Newton MD, Suken A. Shah MD, Harry L. Shufflebarger MD, Paul D. Sponseller MD, Daniel J. Sucato MD  
**Funding:** \$250,000.00

**Funding Agency:** Setting Scoliosis Straight Foundation  
**Period:** October 1, 2013 – December 31, 2017  
**Grant Title:** *Scoliosis Surgery Outcome Database Registry: A Prospective, Multi-Center Database Registry of the DePuy Spine Harms Study Group ("STUDY")*  
**Investigators:** Peter O. Newton MD (PI), **Lawrence G. Lenke MD** (Site PI), numerous institutions  
**Funding:** \$2355.00/per patient over 5 years

**Funding Agency:** John and Marcella Fox Foundation  
**Period:** January 2011 – Present  
**Grant Title:** *Fox Prospective Pediatric Vertebral Column Resection (VCR) Trial*  
**Investigators:** **Lawrence G. Lenke MD** (PI), Oheneba Boachie-Adjei MD, John B. Emans MD, Munish Gupta MD, Scott J. Luhmann, Jr. MD\*, Richard E. McCarthy MD, Peter O. Newton MD, David W. Polly MD, Amer Samdani MD, Suken A. Shah MD, Harry L. Shufflebarger MD, David L. Skaggs MD, Paul D. Sponseller MD, Peter F. Sturm MD, Daniel J. Sucato MD, Michael Vitale MD  
**Funding:** \$1,000,000.00

NON-GOVERNMENT - *Past*

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

**Funding Agency:** AOSpine International and the Scoliosis Research Society (NCT01305343)  
**Period:** July 2011 – February 28, 2013  
**Grant Title:** *Evaluation of Neurologic Complications Associated with Surgical Correction of Adult Spinal Deformity (Scoli-RISK-1): A Prospective, Observational, Multi-center Study*  
**Investigators:** **Lawrence G. Lenke MD(PI)**, Michael G. Fehlings MD, Christopher I. Shaffrey MD, Kenneth M.C. Cheung MD, Leah Y. Carreon MD MSc  
**Funding:** \$700,000.00

**Funding Agency:** Axial Biotech, Inc.  
**Period:** April 2008 – October 2014  
**Grant Title:** *Linkage Analysis and Gene Mapping of Familial Spinal Disorders (Scoliosis, Scheuermann's Kyphosis, Spondylolisthesis, Lumbar Disc Disease, Osteoporosis) (08-0084)*  
**Investigators:** **Lawrence G. Lenke MD**, Keith H. Bridwell MD, Scott J. Luhmann, Jr. MD\*  
**Funding:** \$100.00/per patient

**Funding Agency:** Medtronic Sofamor Danek, Memphis, TN  
**Period:** March 2005 – July 2009  
**Grant Title:** *Washington University Spine Research Center*  
**Investigators:** Keith H. Bridwell MD, **Lawrence G. Lenke MD**, K. Daniel Riew MD  
Timothy R. Kuklo JD MD\* (as of 2007)  
**Funding:** \$1,948,615.00

**Funding Agency:** Medtronic Sofamor Danek, Memphis, TN  
**Period:** October 2003 – September 2008/Renewed May 2009 – July 2009  
**Grant Title:** *Prospective Pediatric Scoliosis Study (PPSS) (02-0689)*  
**Investigators:** **Lawrence G. Lenke MD**, Matthew B. Dobbs MD, Keith Bridwell MD,  
Scott J. Luhmann Jr. MD\*, Timothy R. Kuklo JD MD\* (as of 2007)  
**Funding:** \$50,000.00 (funded in full)

**Funding Agency:** Scoliosis Research Society, Foundation Yves Cotrel, Rosemont, IL  
**Period:** October 2003 – September 2005  
**Grant Title:** *Idiopathic Scoliosis: Gene Mapping and Identification*  
**Investigators:** Matthew B. Dobbs MD, Michael Lovett PhD, Michael Whyte MD, **Lawrence G. Lenke MD**  
**Funding:** \$49,177.00 (funded in full)

**Funding Agency:** Medtronic Sofamor Danek, Memphis, TN  
**Period:** March 2001 – February 2005  
**Grant Title:** *Washington University Spine Research Center*  
**Investigators:** Keith H. Bridwell MD, **Lawrence G. Lenke MD**, K. Daniel Riew MD  
**Funding:** \$1,494,604.00 (funded in full)

**Funding Agency:** Max-Biedermann-Institut, Berlin, Germany  
**Period:** July 2000 – June 2001  
**Grant Title:** *Center of Gravity Investigation in Scoliosis*  
**Investigators:** Jack R. Engelsberg PhD, **Lawrence G. Lenke MD**, Kyongta Tye Bae MD PhD  
**Funding:** \$40,440.00 (funded in full)

**Funding Agency:** Medtronic Sofamor Danek, Memphis, TN  
**Period:** January 2000 – December 2001  
**Grant Title:** *Genetic Manipulation of the Secondary Injury Cascade of Acute Spinal Cord Injury*  
**Investigators:** Jueren Lou PhD, F. Xu PhD, **Lawrence G. Lenke MD**  
**Funding:** \$25,000.00 (funded in full)

**Funding Agency:** Scoliosis Research Society, Rosemont, IL  
**Period:** October 1998 – September 2001

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>\$</sup>International Research Scholar

Grant Title: *Comparison of Outcome Measures in Adult Scoliosis Patients Undergoing an Extended Spinal Fusion to L5 or Sacrum or Revision of Previous Long Spinal Deformity Fusion Surgery*

Investigators: Keith H. Bridwell MD, Jack R. Engsberg PhD, Scott D. Minor PhD,  
**Lawrence G. Lenke MD**

Funding: \$80,308.00 (funded in full)

**Funding Agency:** Sofamor Danek USA, Memphis, TN

Period: August 1998 – August 2000

Grant Title: *Structural and Performance Changes in AIS Patients Fused into the Mid and Lower Lumbar Spine*

Investigators: **Lawrence G. Lenke MD**, Jack R. Engsberg PhD, James S. Kemp MD,  
Keith H. Bridwell MD, George S. Bassett MD

Funding: \$75,000.00 (funded in full)

**Funding Agency:** Orthopaedic Research and Education Foundation (OREF), Rosemont, IL

Period: July 1998 – June 2000

Grant Title: *Amicar versus Aprotinin in Controlling Blood Loss in Scoliosis Surgery*

Investigators: **Lawrence G. Lenke MD**, George S. Bassett MD, Jennifer Cole MD

Funding: \$42,722.00 (funded in full)

**Funding Agency:** Ortho-Biotech, Inc., Raritan, NJ

Period: July 1998 – December 1999

Grant Title: *An Open-Label, Randomized, Parallel-Group Study Comparing the Perioperative Administration of Procrit7 (Epoetin Alfa) to the Standard of Care in Blood Conservation for Idiopathic Pediatric/Adolescent Scoliosis and Adult Spinal Deformity Surgeries*

Investigators: Keith H. Bridwell MD, **Lawrence G. Lenke MD**, Terri G. Monk MD

Funding: \$60,000.00 (funded in full)

**Funding Agency:** Sofamor Danek USA, Memphis, TN

Period: June 1997 – June 1999 (extended to June 2001)

Grant Title: *Biomechanics of Spinopelvic Fixation in a Human Cadaveric Model of Isthmic Spondylolisthesis*

Investigators: Keith H. Bridwell MD, Stephen J. Lewis MD\*, Ravishankar Vedantam MD,  
Douglas Linville MD\*, John Long DVM, Bryan W. Cunningham MSc,  
**Lawrence G. Lenke MD**

Funding: \$50,556.00, first year; \$35,000.00, second year (funded in full)

**Funding Agency:** DePuy-Motech, Inc., Warsaw, IN

Period: February 1997 – February 1999

Grant Title: *Structural and Performance Changes in Adolescent Idiopathic Scoliosis Patients Undergoing Anterior vs. Posterior Thoracic Spinal Fusion*

Investigators: **Lawrence G. Lenke MD**, Jack Engsberg PhD, James Kemp MD, Marilyn Siegel MD,  
Keith Bridwell MD

Funding: \$84,000.00 (funded in full)

**Funding Agency:** BJC Health System – Innovations in Healthcare Program, St. Louis, MO

Period: December 1996 – December 1998

Grant Title: *Selective Nerve Root Corticosteroid Injection: Can Its Use Obviate the Need for Surgery in Patients with Lumbar Radicular Pain?*

Investigators: K. Daniel Riew MD, Yuming Yin MD, **Lawrence G. Lenke MD**, Keith H. Bridwell MD, Lou Gilula MD

Funding: \$19,350.00 (funded in full)

**Funding Agency:** Sofamor Danek USA, Memphis, TN

Period: August 1996 – August 1997

Grant Title: *Retrospective and Prospective Surgical Spinal Database (~4,000 entries)*

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>\$</sup>International Research Scholar

Investigators: Keith H. Bridwell MD, **Lawrence G. Lenke MD**, K. Daniel Riew MD  
 Funding: \$10,000.00 (funded in full)

**Funding Agency:** AcroMed – North American Spine Society, Rosemont, IL  
 Period: January 1994 – January 1995  
 Grant Title: *The Role of Transforming the Growth Factor - Beta in the Spinal Cord Response to Acute Spinal Trauma*

Investigators: Michael E. Joyce MD, Michael F. O’Brien MD\*, **Lawrence G. Lenke MD**, Keith H. Bridwell MD  
 Funding: \$12,500.00 (funded in full)

**Funding Agency:** EOS Imaging (201310081)  
 Period: August 2013 – August 2014  
 Grant Title: *Occipitocervical Parameters and Regional Alignment in Normal Controls using EOS Imaging Technology*

Investigators: **Lawrence G. Lenke MD**, K. Daniel Riew MD, Keith H. Bridwell MD, Michael P. Kelly MD\*†, Lukas P. Zebala MD‡\*, Jacob M. Buchowski MD\*  
 Funding: \$31,755.00

**Funding Agency:** 2013 AOSpine North America Young Investigator Research Grant  
 Grant Title: *A Randomized Trial of Two Tranexamic Acid Dosing Protocols in Adult Spinal Deformity Surgery*  
 Investigators: Michael P. Kelly MD\*† (PI), **Lawrence G. Lenke MD**  
 Funding: \$30,000.00

**Funding Agency:** Scoliosis Research Society, Milwaukee, WI  
 Period: August 2018 – 2020  
 Grant Title: *Understanding and managing intraoperative neuromonitoring changes during spinal deformity surgery: a prospective observational study based on two clinical sites*

Investigators: **Lawrence G. Lenke MD**  
 Funding: \$25,000.00

**Funding Agency:** International Spine Study Group  
 Period: August 2019 – December 2029  
 Grant Title: *Complex Adult Deformity Study*  
 Investigators: **Lawrence G. Lenke MD**  
 Funding: \$242,500.00

**Funding Agency:** AOSpine Foundation  
 Period: September 2019  
 Grant Title: *Spinal Deformity Intraoperative Monitoring Study*  
 Investigators: **Lawrence G. Lenke MD**  
 Funding: \$2,000.00

#### **GOVERNMENT – Past**

**Funding Agency:** National Institute for Health (NIH) (5U01AR4544-02)  
 Period: July 1999 – June 2004  
 Grant Title: *Spinal Patients Outcomes Research Trial (SPORT) - Low Back Pain: A Multi-Center Trial*  
 Investigators: James N. Weinstein DO MS, **Lawrence G. Lenke MD**, Keith H. Bridwell MD, K. Daniel Riew MD, Ralph Dacey MD, Carl Lauryssen MD  
 Funding: \$79,235.00 (funded in full) (part of a \$14,000,000 grant)

**Funding Agency:** National Institute for Health (NIH) (U01AR45444-01A1)  
 Period: May 2004 – May 2005

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

Grant Title: *Spinal Patients Outcomes Research Trial (SPORT): A Multi-Center Trial*  
 Investigators: **Lawrence G. Lenke MD**, Keith H. Bridwell MD, K. Daniel Riew MD, Ralph G. Dacey, Jr. MD, Carl Lauryssen MD, Anthony Margherita MD, Heidi Prather DO  
 Funding: \$503,252.00 locally (\$13,546,017.00 nationally) (funded in full)

**Funding Agency:** National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) (R01 AR052113)  
 Period: December 2004 – December 2009  
 Grant Title: *Bracing in Adolescent Idiopathic Scoliosis Treatment (BrAIST)*  
 Investigators: Stuart Weinstein MD, Matthew B. Dobbs MD, **Lawrence G. Lenke MD**, Keith H. Bridwell MD  
 Funding: \$242,260.00 locally (\$6,500,000.00 nationally)

**Funding Agency:** Canadian Institutes of Health Research  
 Period: July 2010 – July 2013  
 Grant Title: *3-D Classification of Adolescent Idiopathic Scoliosis*  
 Investigators: Hubert B. Labelle MD, Carl E. Aubin MD, Jean Mac-Thiong MD, **Lawrence G. Lenke MD**, Stefan Parent MD, Ian A. F. Stokes MD, Peter O. Newton MD, Roger P. Jackson MD  
 Funding: \$61,533.00/per year

**Funding Agency:** BJH Foundation Grant to Lawrence G. Lenke, MD (201301054)  
 Grant Title: *A Prospective Dose Escalation Trial of the Pharmacokinetics and Bactericidal Potency of Intrathecal Lyophilized Vancomycin to Prevent Wound Infections in Instrumented Spinal Surgery*  
 Investigators: Terrence F. Holekamp MD PhD<sup>‡</sup>, **Lawrence G. Lenke MD**, Keith H. Bridwell MD, Jacob M. Buchowski MD MS\*, Michael P. Kelly MD\*<sup>†</sup>, Lukas P. Zebala MD\*<sup>‡</sup>, Ian G. Dorward MD<sup>‡</sup>\*, Jakub Godzik BS<sup>§</sup>, Todd J. Stewart MD, Neill M. Wright MD, Paul Santiago MD, Wilson Z. Ray MD, David D. Limbrick MD, Jeffrey R. Leonard MD, Brenda A. Sides MA, Linda A. Koester BS  
 Funding: \$10,000

#### GOVERNMENT – Current

**Funding Agency:** DoD PRORP  
 Grant Title: *Spinal Column Trauma: Epidemiology, Timing of Stabilization, and the Inflammatory Response to Trauma and Surgery*  
 Investigators: LTC Ronald A. Lehman, Jr. MD\*, **Lawrence Lenke MD**, Michael Kelly MD\*<sup>†</sup>, Brian K. Kwon MD PhD FRCSC, Todd J. Albert MD, CPT Adam J. Bevevino MD, CPT Daniel Kang MD, COL Michael Rosner MD, David D. Limbrick Jr. MD PhD, Carlos A. Puyo MD FCCP  
 Funding: \$2,500,000.00/4 years

#### IV. SPINAL SURGERY FELLOWS

1992-1993 Michael F. O'Brien MD  
 1993-1994 Daniel E. Gelb MD  
 1994-1995 Michael P. Chapman MD; Christopher L. Hamill MD  
 1995-1996 Purnendu Gupta MD; Joseph G. Marsicano MD  
 1996-1997 Douglas A. Linville MD; Ravishankar Vedantam MD  
 1997-1998 Kevin C. Booth MD; Robert W. Molinari MD  
 1998-1999 Kevin R. Eck MD; Mark A. Lapp MD  
 1999-2000 Timothy R. Kuklo MD JD; Stephen J. Lewis MD MSc FRCSC; Fred A. Sweet MD  
 2000-2001 Darrell S. Hanson MD; John M. Rhee MD  
 2001-2002 Charles C. Edwards, II MD; Anthony S. Rinella MD  
 2002-2003 Rudolph (Chris) C. Glattes MD; Joseph R. Orchowski MD; Upshur M. Spencer MD

<sup>§</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

2003-2004	Ivan Cheng MD; Robert K. Hurford, Jr. MD PhD; Stanley S. Lee MD
2004-2005	Peter D. Angevine MD MPH; Robert Shay Bess MD; Scott J. Luhmann, Jr. MD
2005-2006	Jacob M. Buchowski MD, MS; Craig A. Kuhns MD; Ronald A. Lehman, Jr. MD
2006-2007	Geoffrey A. Cronen MD; Daniel S. Mulconrey MD; Peter S. Rose MD
2007-2008	Christopher R. Good MD; Patrick T. O'Leary MD; Mark A. Pichelmann MD
2008-2009	Joshua D. Auerbach MD; Michael Chan MD; Charles H. Crawford, III MD; Brian A. O'Shaughnessy MD
2009-2010	Samuel K. W. Cho MD; Matthew M. Kang MD; Joshua M. Pahy, MD; Lukas P. Zebala MD
2010-2011	Douglas D. Dickson MD; Michael P. Kelly MD; Ra'Kerry K. Rahman MD; Jeremy J. Stallbaumer MD
2011-2012	Jeremy L. Fogelson MD; Stuart H. Hershman MD; Han Jo Kim MD; Addisu Mesfin MD
2012-2013	Ian G. Dorward MD; Sang Do Kim MD MS; Brian J. Neuman MD; Kevin R. O'Neill MD MS
2013-2014	Jeffrey L. Gum MD; David B. Bumpass MD; Isaac O. Karikari MD; Patrick A. Sugrue MD
2014-2015	Todd Chapman MD; Daniel Kang MD; Lionel Metz MD; Jamal McClendon MD
2015-2016	Venu Nemani MD; William R. Hotchkiss MD, Andrew Pugley, MD, Frank Valone, MD
2016-2017	Lee Tan MD; Xudong Li MD; Alexander Tuchman MD, Brian Kelly, MD
2017-2018	Melvin Makhni MD; Martin Pham MD; John Sielatycki MD
2018-2019	Griffin Baum, MD, James Lin, MD, Joseph Osorio, MD, Simon Morr, MD
2019-2020	Jun Kim, MD, Joseph Lombardi, MD, Jay Reidler, MD, Andrew Vivas, MD

*Advanced Spine Deformity Fellows (non-accredited) 6 months*

2011-2012	Michael P. Kelly MD
2013-2014	Ra'Kerry Rahman MD
2014	Ronald A. Lehman, Jr. MD
2014-2015	David B. Bumpass MD
2015	Fernando E. Silva MD
2015-2016	Terrence F. Holekamp MD, PhD
2016	Zeeshan Sardar, MD
2016-17	Brian Kelley, MD (Pediatric)
2017-2018	Eduardo Beauchamp, MD (Pediatric)
2018-2019	Richard Menger, MD (Pediatric)
2019-2020	Anand Segar, MBChB, PhD

*Host Surgeon, National/International Visiting Research Scholar (≥1 year)*

03/99-03/01	Yasutuga Yukawa MD PhD, Chubu Rosai Hospital, Nagoya University, Nagoya, Japan
09/00-07/06	Yongjung J. Kim MD PhD, Pundang Chung General Hospital/CHA Medical University, Sungnam City, Korea
03/01-02/03	Kotaro Satake MD PhD, Nagoya University School of Medicine, University Hospital, Showa-ku, Nagoya, Japan
03/02-02/03	Yong-Sun Cho MD PhD, University of Ulsan, College of Medicine, Songpa-ku, Ulsan, Korea
07/04-05/06	Gene Cheh MD, Chung-Ang University, College of Medicine, Sungnam, Seoul, Korea
08/04-07/05	Jun-Young Yang MD PhD, Chungnam National University Hospital, Jung-gu, Daejeon, Korea
09/05-08/06	Young-Woo Kim MD PhD, Hallym University Sacred Heart Hospital, Anyang-Si, Gyeonggi-do, Korea
09/05-08/06	Young-Bae Kim MD, Seoul Veterans Hospital, Guangdong-gu, Seoul, Korea
10/05-09/06	Kei Watanabe MD PhD, Niigata University, Niigata Prefecture, Japan
10/05-09/06	Kota Watanabe MD PhD, Keio University School of Medicine, Minato, Tokyo, Japan
06/07-06/08	Takuya Mishiho MD PhD, Takamatsu Red Cross Hospital, Takamatsu-city, Kagawa, Japan
12/07-05/10	Woojin Cho MD PhD, Korea
09/08-02/09	Zezhang Zhu MD PhD, Nanjing University Medical School, Nanjing, Jiangsu, China
01/09-01/10	Jung Sub Lee MD PhD, Pusan National University School of Medicine, Seo-ku, Pusan, Korea
09/09-09/10	Jin-Seok Yi MD, Catholic University of Korea Catholic Medical Center, St. Mary's Hospital, Daejeon, Korea
11/09-11/10	Guangxun Hu MD, Nanshan People's Hospital of Shenzhen, Shenzhen, Guangdong, China
08/10-08/11	Woo-Kie Min MD PhD, Kyungpook National University Hospital, Daegu, Korea
09/11-09/12	Yang Xu, MD PhD, Fujian Provincial Hospital, Gulou District, Fuzhou, Fujian, China
08/12-07/13	Seung-Jae Hyun MD, Seoul National University Bundang Hospital, Seongnam-si, Gyeonggi-do, Korea
02/13-09/14	Yong-Chan Kim, MD, University Sacred Heart Hospital, Seoul, Korea

<sup>v</sup>Student, <sup>r</sup>Resident, <sup>f</sup>Fellow, <sup>l</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>s</sup>International Research Scholar



09/14-08/15 Chang Ju Hwang, MD, University of Ulsan College of Medicine, Asan Medical Center, Seoul, Korea  
 10/14-09/15 Xiafang Zang MD PhD, The 3rd Xiangya Hospital, Central South University, Xiangya, China  
 12/14-11/15 Ke-Bing, MD PhD, The 3rd Affiliated Hospital of Southern Medical University, Guangzhou City, China

*Host Surgeon, National/International Visiting Research Scholar (<1 year; ≥30 days)*

04/02-02/03 Omar Mohammed Isa MD, University of Malaya, Kuala Lumpur, Malaysia  
 04/03-10/03 Mitsuhiro Kamiya MD PhD, Aichi Medical University, Nagukute, Aichi-ken, Japan  
 07/03-01/04 Kuniyoshi Tsuchiya MD, Saiseikai Yahata General Hospital, Yahata-Higashi, Kitakyushu, Japan  
 03/04-05/04 Seung-Chul Rhim MD PhD, Asan Medical Center, University of Asan, Songpa, Seoul, Korea  
 10/04-12/04 Lee M. Breakwell MSc FRCS, University of Cardiff, Royal National Orthopaedic Hospital, England  
 10/04-12/04 Fernando E. Silva MD, Northwestern University, Chicago, IL  
 01/05-02/05 Luis Valenté, MD Hospital de S. João, Porto, Portugal  
 04/05-06/05 Julius Fernandez MD, Semmes-Murphey Clinic, Memphis, TN  
 08/05-01/06 Michael Daubs MD, Valley Hospital Medical Center, Las Vegas, NV  
 10/05-11/05 Ezequiel Cassinelli MD, Case Western University, Cleveland, OH  
 08/06-02/07 Richard M. Schwend MD, Children's Medical Hospital, Kansas City, MO  
 09/06-06/07 Katsumi Harimaya MD PhD, Kyushu University Hospital, Higashi-ku, Fukuoka, Japan  
 01/07-03/07 Dawei He MD PhD, Changhai Hospital, Second Military Medical University, Shanghai, China  
 03/07-05/07 Jochen Son-Hing MD, Rainbow Babies & Children's Hospital, Cleveland, OH  
 06/07-08/07 Miguel Puigdevall MD, Hospital Italiano, Buenos Aires, Argentina  
 10/07-05/08 Takeshi Maeda MD PhD, Kyushu University Hospital, Higashi-ku, Fukuoka, Japan  
 01/08-03/08 Rodrigo Remondino MD, Hospital Italiano, Buenos Aires, Argentina  
 05/08-07/08 Ming (Brian) Xiang MD, Shekou Peoples Hospital, Shenzhen, Guangdong, China  
 09/08-11/08 Louis WY Cheung FRCS, University of Hong Kong, Pokfulam, Hong Kong, China  
 10/08-12/08 Naoki Shoda FRCS, University of Tokyo, Tokyo, Japan  
 12/08-02/09 Xiangyang Ma MD PhD, Liu Hua Qiao Hospital, Guangzhou, Guangdong, China  
 01/09-05/09 Junlin Yang MD PhD, The 1st Affiliated Hospital of Sun Yat-Sen University, Guangzhou, Guangdong, China  
 03/09-06/09 Fu-Zhi Ai MD PhD, The 1st Affiliated Hospital of Sun Yat-Sen University, Guangzhou, Guangdong, China  
 07/09-08/09 Tamas Fekete MD, Schulthess Klinik, Zurich, Switzerland  
 07/09-08/09 Hui ren Tao MD, Xijing Hospital, The 4th Military Medical University, Xi'An, ShaanXi, China  
 07/09-08/09 Haiying Tao MD, Xijing Hospital, The 4th Military Medical University, Xi'An, ShaanXi, China  
 10/09-12/09 Jian-Hua Wang MD PhD, Liu Hua Qiao Hospital, Guangzhou, Guangdong, China  
 10/09-04/10 Zenghui Wu MD, Liu Hua Qiao Hospital, Guangzhou, Guangdong, China  
 03/10-08/10 Lei Xia MD, The 1st Affiliated Hospital of Zhengzhou University, Zhengzhou, Henan, China  
 06/21-12/17/10 Yutaka Nakamura MD, Dokkyo Medical University, Koshigaya Hospital, Koshigaya, Saitama, Japan  
 08/10-11/10 Yuan Ning MD, Jishuitan Hospital, Xijiekou, Beijing, China  
 05/11-06/11 Cui Geng MD, Chinese PLA General Hospital, Beijing, China  
 06/13-07/07/11 Gururaj Sangondimath MD, Indian Spinal Injuries Center, New Delhi, India  
 06/20-07/29/11 Carlos Fernando P. S. Herrero MD, de Universidad de São Paulo, University of São Paulo, Brazil  
 06/27-08/05/11 Gabriel A. Esquivel MD, Hospital de Niños Dr. Orlando Alassia, Santa Fe, Argentina  
 09/01-12/31/11 Yasushi Oshima MD PhD, University of Tokyo, Bunkyo-ku, Tokyo  
 01/30-08/01/12 Lin Wang MD, Xijing Hospital, The 4th Military Medical University, Xi'An, ShaanXi, China  
 02/02-05/01/15 Jean Carlo Queruz MD, Hospital Pequeno Principe, Batel Curitiba, Brazil  
 05/07-11/07/12 Samuel Romero MD, National Institute of Rehabilitation, Mexico City, Mexico  
 04/08-07/05/13 Qiyi Li, MD PhD, Peking Union Medical College, Peking, China  
 04/01-09/30/14 Xiaobin (Shawn) Wang MD PhD, The 2nd Xiangya Hospital, Central South University, Xiangya, China  
 02/15-04/17/15 Jean Queruz MD, Paraná Medical Center, Curitiba, Paraná, Brazil  
 04/01-06/29/15 Yoichiro Takata MD, University of Tokushima, Tokushima, Tokushima Prefecture, Japan  
 11/15-01/16 Chen-hung Tu, MD, Kaohsiung Veterans Gen Hospital, Kaohsiung City, Taiwan

*Scoliosis Research Society Traveling Fellowship Host Site*

10/31-11/03/05 Avraam Ploumis MD, Twin Cities Spine Center, Minneapolis, MN

<sup>\*</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

05/05-07/09 Jean Marc Mac-Thiong MD, CHU Sainte-Justine, Montréal, Québec, Canada  
 08/20-22/12 Michael J. McMaster MD DSc FRCS, Royal Hospital for Sick Children, Edinburgh, Scotland  
 08/20-22/12 Ian Harding BA FRCS (Ortho), Frenchay Hospital, Bristol, UK  
 08/20-22/12 Srinivasa Vidyadhara MS DNB FNB, Manipal Hospital, Bangalore, India  
 08/20-22/12 Elias Papadopoulos MD, University of Athens, Athens, Greece  
 08/25-28/14 Daniel Chopin MD, University of Lille Nord de France, Lille University Hospital, Lille, France  
 08/25-25/14 J. Naresh-Babu MS FNB (Spine), Medciti Hospital, Hyderabad, Mallika Spine Centre, unter, India  
 08/25-28/14 Nasir Ali Quraishi FRCS, Queen's Medical Centre, Centre for Spine Studies and Surgery, Nottingham, UK  
 08/25-28/14 Meric Enercan MD, Orthopedics and Traumatology Specialist, Florence Nightingale Hospital, Istanbul Spine Clinic, Turkey

*Scoliosis Research Society Global Outreach Visiting Fellowship Host Site*

09/23-25/14 Krishna Kumar Ramachandran Nair MD, Amrita Institute of Medical Sciences, Cochin, India  
 09/30-10/25/13 Tie Liu MD, Beijing Chao-Yang Hospital, Capital Medical University, GongTiNanLu, Chaoyang District, Beijing, P.R. China  
 09/15-30/14 Santiago Balderrama, Sr. MD, Fernando Barreyro Pediatric Hospital, Posadas, Argentina

*Scoliosis Research Society Edward Dawson Fellowship Host Site*

08/06-08/12 Justin S. Smith MD PhD, University of Virginia health System, Charlottesville, VA  
 09/23-25/14 Matthew Oetgen MD Children's National Medical Center, Washington D.C.

*Lenke-Lowe International Research Fellowship*

10/05-12/05 John Ferguson MD, Starship Children's Health, Auckland, New Zealand

*International Spinal Scientific Advancement Foundation (SSAF). Three-Month Spinal Research Fellowship*

06/02-09/02 Hui-Yong Shen MD, The First Affiliated Hospital of Sun Yat-Sen University, Guangzhou, Guangdong, China  
 06/02-09/03 Katsushi Takeshita MD, University of Tokyo, Tokyo, Japan  
 09/02-12/02 Zanariah Othman MD, University Putra, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia

*Surgical/Clinical Observations*

1998 Howard Place MD, St. Louis University, St. Louis, MO  
 07/17/00 Peter Sturm MD, Pediatric Orthopaedics, Annandale, VA  
 07/17/00 Karl Rathjen MD, Texas Scottish Rite Hospital, Dallas, TX  
 05/14/01 R. Dale Blasier MD, Arkansas Children's Hospital, Little Rock, AR  
 05/14/01 Vincent Deeney MD, Children's Hospital of Pittsburgh, Pittsburgh, PA  
 05/14/01 Laura Flawn MD, University of Texas Health Science Center, San Antonio, TX  
 05/21/01 Dr. Schrader, OH  
 05/21/01 Dr. Riley, OH  
 06/25/01 Gregory Mencia MD, Vanderbilt University Medical Center, Nashville, TN  
 06/25/01 Nigel Price MD, Children's Mercy Hospital, Kansas, MO  
 06/25-26/01 Donald Rohl MD, Orthopedic & Neurological Consultants, Columbus, OH  
 07/02/01 Dr. Gonda, Showa University School of Medicine, Tokyo, Japan  
 07/02/01 Dr. Sogo, Showa University School of Medicine, Tokyo, Japan  
 07/23/01 Morey Moreland, MD, Children's Hospital of Pittsburgh, PA  
 07/23/01 Michael Coscia MD, OrthoIndy Physicians, Indianapolis, IN  
 07/23/01 Rolando Roberto MD, Tucson Orthopaedic Institution, Tucson, AZ  
 01/02/02 Richard Gross MD, University of South Carolina, Columbia, SC  
 03/12/02 Jeffrey Spivak MD, New York University, New York, NY  
 04/08/02 Peter Masso MD, Shriners Hospital, Springfield, MA  
 04/29/02 Hugh Brown MD, University Orthopedic Associates, Chattanooga, TN  
 04/29/02 Michael Moore MD, Bone & Joint Center, Bismarck, ND  
 04/29/02 Matthew Bueche MD, M & M Orthopaedics, Ltd., Oakbrook Terrace, IL  
 04/29-30/02 Scott Russo MD, Orthopaedic & Spine Specialists, Grand Rapids, MI

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

04/29-30/02 Andres Fuentes MD, de Universidad de São Paulo, São Paulo, Brazil  
05/13-14/02 Stephen Ondra MD, Northwestern University, Chicago, IL  
06/10/02 Kurt von Rueden MD, Austin Orthopaedic Clinic, Austin, TX  
06/10/02 Douglas Armstrong MD, Children's Hospital of Buffalo, Buffalo, NY  
07/29/02 Rolando Roberto MD, Tucson Orthopaedic Institution, Tucson, AZ  
02/25-28/03 Yutaka Sasao MD, St. Marianna University, Miyamae-Ku, Kawasaki, Kanagawa Prefecture, Japan  
02/25-28/03 Tsunehiko Ishikawa, Medtronic Sofamor Danek, Japan  
02/25-28/03 Teruyuki Morita, Medtronic Sofamor Danek, Japan  
03/10-14/03 Gregory Hoffman MD, Orthopaedics North East, Fort Wayne, IN  
03/19/03 Praveen Mummaneni MD, Emory University, Atlanta, GA  
04/21-28/03 Tom Reinsel MD, Texas Scoliosis & Spine Center, Austin, TX  
04/25/03 Matthew Geck MD, Texas Scoliosis & Spine Center, Austin, TX  
04/28/03 Carl Fackler MD, Peachtree Orthopaedic Clinic, Atlanta, GA  
04/28/03 William Phillips MD, Texas Children's Hospital, Houston, TX  
04/28/03 Gary Tebor MD, University Orthopaedic Associates, Rochester, NY  
05/05-06/03 Linda D'Andrea MD, Shriners Hospital, Philadelphia, PA  
05/05-06/03 Ian Torode MD, Royal Children's Hospital, Melbourne, Australia  
05/05-06/03 David Godfried MD, Schneider Children's Hospital, New Hyde Park, NY  
05/12/03 Dennis Devito MD, Children's Orthopaedics, Atlanta, GA  
06/04-06/03 Yudou Hachiya MD, Nagoya University School of Medicine, University Hospital, Showa-Ku, Nagoya, Japan  
06/04-06/03 Takayasu Ito MD, Nagoya University School of Medicine, University Hospital, Showa-Ku, Nagoya, Japan  
06/04-06/03 Kiji Sato MD, Nagoya University School of Medicine, University Hospital, Showa-Ku, Nagoya, Japan  
06/09/03 John Thometz MD, Medical College of Wisconsin, Milwaukee, WI  
06/09/03 William Samuelson MD, Samuelson Bone, Joint, and Spine Center, Sioux City, IA  
06/23/03 James Harms MD, Carle Clinic, Urbana, IL  
06/23/03 Sanjeev Sabharwal MD, New Jersey Medical School, Newark, NJ  
06/23/03 John Killian MD, Pediatric Orthopaedic Clinic, Birmingham, AL  
01/05-09/04 Praveen Mummaneni MD, Emory University, Atlanta, GA (SDEG sponsored)  
02/16/04 Torin Cunningham MD, Tichenor Orthopaedic Clinic, Long Beach, CA  
02/16/04 Mary Nagai MD, University of Toronto, Toronto, Ontario, Canada  
02/17/04 Michelle Caird MD, University of Michigan, Ann Arbor, MI  
02/17/04 Aaron Buerk MD, Brookline, MA  
03/03/04 Sean McCance MD, (private practice) New York, NY  
04/15/04 Jason Watson, Medtronic Sofamor Danek, Memphis, TN  
04/26/04 Akihito Wada MD, Semmes-Murphy Clinic, Memphis, TN  
04/29/04 Christopher Kim MD, West End Orthopaedics, Richmond, VA  
05/17/04 Barney Freeman MD, Campbell Clinic, Collierville, TN  
05/17/04 Nigel Price MD, Children's Mercy Hospital, Kansas City, MO  
05/17/04 Jonathan Camp MD, Children's Bone & Spine, Las Vegas, NV  
05/17-21/04 Andres Fuentes MD, de Ribeirão Preto-Universidade, São Paulo, Brazil  
06/14/04 John Blanco MD, Children's Orthopaedics of Atlanta, Atlanta, GA  
06/14/04 Daniel Mason MD, The DuPont Hospital for Children, Wilmington, DE  
06/14/04 Mario Turi MD, Pediatric Orthopaedic Associates, Bangor, ME  
07/06-30/04 Douglas Won MD, Spine Center, Mansfield, TX  
07/06-16/04 Eduardo Galaretto MD, Hospital de Pediatría Garrahan, Buenos Aires, Argentina  
07/09/04 Donald Corenman MD, Steadman Hawkins Clinic, Vail, CO  
07/19/04 Eric Jamrich MD, Rocky Mountain Spine Clinic, Lone Tree, CO  
07/19/04 David Feldman MD, New York University, New York, NY  
07/29/04 Michelle See, Medtronic Sofamor Danek, Memphis, TN  
08/06/04 Jon Martin, Medtronic Sofamor Danek, Memphis, TN  
08/09/04 Dr. Mendez, Holy Cross Medical Center, Mission Hills, CA

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

08/09/04 Hamid Miraliak MD, Holy Cross Medical Center, Mission Hills, CA  
08/12/04 John Young, Medtronic Sofamor Danek, Memphis, TN  
08/13/04 Daniel Sucato MD, Texas Scottish Rite Hospital, Dallas, TX  
09/03/04 Jeffrey Nepple BS, WUSM student  
09/20/04 Steven Buckley MD, The Orthopaedic Center, Huntsville, AL  
09/20/04 Adam Barmada MD, Bone & Joint Clinic, Portland, OR  
09/23/04 Won-Gyu Choi MD, Wooridul Spine Hospital, Seoul, Korea  
09/30/04 Richard Schwend MD, University of New Mexico, Albuquerque, NM  
09/30/04 Patrick Bosch MD, University of New Mexico, Albuquerque, NM  
10/04-05/04 Mazakazu Matsumoto MD, Keio University School of Medicine, Tokyo, Japan  
10/04/04 Michael Wattenbarger MD, Miller Orthopaedic Clinic, Charlotte, NC  
10/04/04 Anis Mekhail MD, Parkview Orthopaedic Clinic/University of Illinois, Palos Heights, IL  
10/22/04 Kimball Fuiks MD, Wisconsin Neurosurgery, S.C., Brookfield, WI  
10/22/04 Sumon Bhattacharjee MD, Wisconsin Neurosurgery, S.C., Brookfield, WI  
11/01/04 Heather Lindenman, Medtronic Sofamor Danek, Memphis, TN  
11/01/04 Paul Nichter, Medtronic Sofamor Danek, Memphis, TN  
11/22/04 Sumon Bhattacharjee MD, Wisconsin Neurosurgery, S.C., Brookfield, WI  
11/22/04 Ravinder Bains MD, Kaiser Permanente, Oakland, CA  
11/22/04 David Parsons MD, Alberta Children's Hospital, Calgary, Alberta, Canada  
12/13/04 Lori Karol MD, Texas Scottish Rite Hospital, Dallas, TX  
01/10/05 Samarjit Jaglan MD, Des Plaines, IL  
01/10/05 Joseph Davey MD, Oklahoma University, Oklahoma City, OK  
01/13-14/05 Kimball Fuiks MD, Wisconsin Neurosurgery, WI  
01/17/05 Brian Hasley MD, University of Nebraska – MC, Omaha, NE  
01/17/05 Jacob Weinberg MD, Children's Hospital, Boston, MA  
01/18/05 Kevin McCarthy MD, Bone and Joint Clinic of Baton Rouge, LA  
01/18/05 Ron El-Hawary MD, Dalhousie University, Halifax, Nova Scotia  
01/20-21/05 Kazuhiro Hasegawa MD, Niigata University, Nishi-Ku, Niigata, Japan  
02/04/05 Jefferson Eyke MD, Orthopaedic Associates of Muskegon, Muskegon, MI  
02/04/05 Stephen Delahunt MD, The Spine Center of Wisconsin, Milwaukee, WI  
02/07/05 Todd Milbrandt MD, University of Virginia, Charlottesville, VA  
02/07/05 Lyall Ashberg MD, Orthopaedic Specialists of Brevard, Melbourne, FL  
03/11/05 Yousif Hamati MD, Orthopaedic Associates of Muskegon, Muskegon, MI  
03/11/05 Ty Carter MD, Carolina Musculoskeletal Institute, Aiken, SC  
04/11/05 James Tucci MD, CT  
04/11/05 John Churchill MD, Pediatric Orthopedics Southwest, Fort Myers, FL  
04/11-13/05 Koichiro Morishita MD, Mie University Graduate School of Medicine, Tsu City, Mie Prefecture, Japan  
04/18-28/05 Mark McFarland MD, Florida Spine Institute, Clearwater, FL  
04/22/05 Nigel Price, MD Children's Mercy Hospital, Kansas City, MO  
04/22/05 Robert Bohinski MD, Christ Hospital MOB, Cincinnati, OH  
05/02/05 Gary Tebor MD, University Orthopaedic Associates, Rochester, NY  
05/02-03/05 Étienne Goetzee MD, Pretoria East Hospital, Pretoria, Gauteng, South Africa  
06/10/05 Matthew Geck MD, Austin Spine Center, Austin, TX  
06/13/05 Allen Sossan DO, Reconstructive Spinal Surgery & Orthopedic Surgery, P.C., Norfolk, NE  
06/13/05 Tien Nguyen MD, Orange County Brain & Spine Group, Fountain Valley, CA  
06/14/05 Fred Molz, Medtronic Sofamor Danek, Memphis, TN  
06/14/05 Frank Bono, Medtronic Sofamor Danek, Memphis, TN  
07/05-08/05 Ruy Lloyd MD, British Hospital of Buenos Aires/Austral Hospital, Buenos Aires, Argentina  
07/25/05 Michael Kasten MD, Borgess Medical Center, Kalamazoo, MI  
07/25/05 Matthew Mermer MD, Kaiser Permanente, Oakland, CA  
08/01-02/05 Robert Watkins, Jr. MD, Los Angeles Spine Surgery Institute, Los Angeles, CA

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

08/01-04/05 Norberto Ventura MD, Madrid, Spain  
08/01-04/05 Julio Gallego MD, Group Director, Medical Education & Training, International, Medtronic, Madrid, Spain  
08/03/05 Dr. Abumi, Japan  
08/19/05 Faissal Zahrawi MD, Celebration, FL  
09/09/05 Gerard Jeong MD, Oceanside, NY  
09/09/05 Jonathan Lewin MD, Northshore Forest Hills, New York, NY  
09/12/05 Afshin Aminian MD, Adult and Pediatric Orthopedic Specialists, Orange, CA  
09/26/05 Randy Loder MD, Riley Children's Hospital, Indianapolis, IN  
09/26/05 Ellen Raney MD, Shriners Hospital, Honolulu, HI  
10/10/05 Charles "Ted" Shuff MD, Virginia Commonwealth University Health Systems, Richmond, VA  
10/10/05 Matthew Mermer MD, Kaiser Permanente, Oakland, CA  
10/20/05 Michael Fry MD, Tahoe Fracture, Regional Spine Institute, NV  
10/20/05 John Labiak MD, John Labiak, MD, P.C., Smithtown, NY  
10/21/05 Tiffany Rogers MD, Torrance Orthopaedic & Sports Medicine Group, Torrance, CA  
10/21/05 Kathryn Beauchamp MD, University of Colorado, Aurora, CO  
11/09/05 Purnendu Gupta MD, University of Chicago Medical Center, Chicago, IL  
11/14/05 Geoffrey Haft MD, Sanford Clinic Orthopedics & Sports Medicine, Sioux Falls, SD  
11/16/05 G. Ray Williams MD, Doctor's Hospital, Opelousas, LA  
11/16/05 Sarkis (Sam) Kaspar MD, Mary Greeley Medical Center, Ames, IA  
12/05/05 Harry Kim MD, Shriners Hospital for Children, Tampa, FL  
12/05/05 William Schrader MD, Akron Children's Hospital, Akron, OH  
12/05/05 Stephen Renwick MD, Oregon Health & Science University, Portland, OR  
12/12/05 Nigel Price MD, Children's Mercy Hospital, Kansas City, MO  
12/12/05 Jill Ariagno RN, Children's Mercy Hospital, Kansas City, MO  
12/12-13/05 Masahiro Hayashi MD, Okitama Public General Hospital, Kawanishi, Yamagata Prefecture, Japan  
12/19/05 Mark Rieger MD The Orthopedic Center, Cedar Knolls, NJ  
01/16-02/03/06 Tomoaki Kitagawa MD, Teikyo University School of Medicine, Tokyo, Japan  
01/18-27/06 Tyler Koski MD, Northwestern University, Chicago, IL  
01/23-02/03/06 Wansoo Lee MD, Stanford University, Stanford, CA  
01/24/06 Brian Nielson MD, Tucson, AZ  
01/24/06 Claude Scott MD, Kings County Hospital, Brooklyn, NY  
02/10/06 Brian Witwer MD, Brian Witwer, MD, P.C., Owensboro, KY  
02/10/06 Michael Tooke MD, Guilford Orthopaedic & Sports, Greensboro, NC  
02/14/06 John Labiak MD, John Labiak, MD, PC., Smithtown, NY  
02/14/06 Mauro Román Tropini MD, Austral University Hospital, Pilar, Buenos Aires, Argentina  
02/27/06 G. Ray Williams MD, Doctor's Hospital, Opelousas, LA  
02/27/06 Aaron Blanchard PA, Doctor's Hospital, Opelousas, LA  
02/27-03/02/06 Toru Hirano MD PhD, Niigata University, Nishi-Ku, Niigata, Japan  
03/09/06 Pawel Michalski MD, Mother & Child Institute, Warsaw, Poland  
03/10/06 John Grimm MD, Tri-State Orthopaedics, Evansville, IN  
03/13/06 Shaden Marzouk MD, Chicago, IL  
03/13/06 Donald Deinlein MD, Orthopaedic Specialists of Alabama, Birmingham, AL  
03/13/06 Richard Hostin MD, Twin Cities Spine Center, Minneapolis, MN  
03/14/06 John Beck MD, Shriners Hospital for Children, Philadelphia, PA  
03/14/06 Klane White MD, Texas Scottish Rite Hospital, Dallas, TX  
03/14/06 Eric Shirley MD, Cherry Hill, NJ  
04/03-04/06 Alvin Crawford MD, Cincinnati Children's Hospital, Cincinnati, OH  
04/03-06/06 Guo Chang Ming MD, Singapore General Hospital, Singapore  
04/13-14/06 Scott Russo MD, Orthopaedic Associates of Grand Rapids, Grand Rapids, MI  
04/19-20/06 Noriaki Kawakami MD, Meijo Hospital, Tempaku, Nagoya, Japan  
04/24-26/06 Jorge Mineiro MD, Hospital Santa Maria, Lisbon, Portugal

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

04/24-27/06 Jason Bernard FRCS, Royal National Orthopaedic Hospital, England  
04/24-27/06 Sean Molloy FRCS, St. George's Hospital, London, England  
05/01-12/06 Yogesh Pithwa MD, Hosmat Hospital, Bangalore, India  
05/02-15/06 Oscar Alfredo Carreras Scotto MD, Center of Deformities, de Columbia, Uruguay  
05/12/06 Scott Dulebohn MD, St. Mary's/Duluth Clinic, Duluth, MT  
05/25-26/06 Jonathon Camp MD, Children's Bone & Spine, Las Vegas, NV  
06/16/06 Doug Cave, Medtronic Sofamor Danek, Memphis, TN  
06/16/06 Kelly Phillips, Medtronic  
06/22/06 Jeff Acuff, Medtronic Sofamor Danek, Memphis, TN  
06/29/06 Frank Chan, Medtronic Sofamor Danek, Memphis, TN  
06/29/06 Stuart Pratt, Medtronic Sofamor Danek, Memphis, TN  
06/30/06 Patrick Jacob MD, University of Florida, Gainesville, FL  
06/30/06 Trey Fulp MD, McAllen Medical Center, McAllen, TX  
07/06/06 Laurence Mermelstein MD, Long Island Spine Specialists, Commack, NY  
07/10/06 Samuel Smith MD, Front Range Orthopaedic Center, Longmont, CO  
07/10/06 Curtis Leonard MD, Front Range Orthopaedic Center, Longmont, CO  
07/19/06 Pierre Mercier MD, Laval University, Québec, Canada  
07/19-21/06 Alfonso Canadas MD, University Hospital Bergen of Snø, Granada, Norway  
07/20/06 Matthew Geck MD, Austin Spine Center, Austin, TX  
07/20/06 Melissa Esquivel CST, Austin Spine Center, Austin, TX  
07/25/06 John Purvis MD, Pediatric Orthopaedic Specialists, Jackson, MS  
08/25/06 Marc Arginteanu MD, Englewood Hospital, Englewood, NJ  
09/05-08/06 Ikka Helenius MD, Tampere University Hospital, Tampere, Pirkanmaa, Finland  
09/05-08/06 Olli Pajulo MD, Tampere University Hospital, Tampere, Pirkanmaa, Finland  
09/05-08/06 Jarmo Valipakka MD, Tampere University Hospital, Tampere, Pirkanmaa, Finland  
09/05-08/06 Jari Vanhanen, Medtronic Sofamor Danek, Finland  
09/18-22/06 Woo-Kie Min MD, Kyungpook National University Hospital, Daegu, South Korea  
09/25/06 Alex Santos PA, McAllen Medical Center, McAllen, TX  
10/02-05/06 Toshiaki Kotani MD, Seirei Sakura Citizen Hospital, Sakura, Chiba, Japan  
10/02-13/06 Masahiko Takahata MD, Hokkaido University Graduate School of Medicine, Sapporo, Hokkaido, Japan  
10/03/06 Michael Vitale MD, Children's Hospital of New York, New York, NY  
11/06-10/06 A. Nick Shamie MD, UCLA Medical Center, Los Angeles, CA  
11/09/06 Donald W. Kucharzyk DO, St. Margaret Hospital, Hammond, IN  
11/13-16/06 John Andrews FRCS, Royal Orthopaedic Hospital, Northfield, Birmingham, England  
11/20/06 C. William Bacon MD, Central Utah Clinic, Provo, UT  
12/11/06 Donald Deinlein MD, Trinity Medical Center, Birmingham, AL  
01/19/07 Loren Jenkins MD, Kaiser Sunnyside, Clackamas, OR  
01/23/07 William Hennrikus MD, Madera Children's Hospital, Madera, CA  
01/25/07 Nigel Price MD, Children's Mercy Hospital, Kansas City, MO  
01/25/07 Jill Ariagno RN, Children's Mercy Hospital, Kansas City, MO  
01/25/07 Valerie Thomas RN, Children's Mercy Hospital, Kansas City, MO  
01/25/07 Vishal Sarwahi MD, Montefiore Medical Center, Bronx, NY  
01/25/07 Terry Amaral MD, Montefiore Medical Center, Bronx, NY  
01/29/07 Melanie Middleton, Medtronic Sofamor Danek, Memphis, TN  
02/05/07 Rolf Riise MD, Universitetssykehuset Rikshospitalet, Oslo, Norway  
02/06-08/07 Ari Adler, Medtronic Sofamor Danek (IDEO), Memphis, TN  
02/06-08/07 Jeff Chapin, Medtronic Sofamor Danek (IDEO), Memphis, TN  
02/06-08/07 Stacey McCullough, Medtronic Sofamor Danek (IDEO), Memphis, TN  
02/06-08/07 Jason Robinson, Medtronic Sofamor Danek (IDEO), Memphis, TN  
02/06-08/07 Lenore Moskey, Medtronic Sofamor Danek, Memphis, TN  
02/06-08/07 Doug Baker, Medtronic Sofamor Danek, Memphis, TN

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

02/06-08/07 Jeff Beale, Medtronic Sofamor Danek, Memphis, TN  
02/08/07 Amy Schwartz, Medtronic Sofamor Danek (IDEO), Memphis, TN  
02/08/07 Jose Colucci, Medtronic Sofamor Danek (IDEO), Memphis, TN  
02/08/07 Allan Beebe MD, Children's Hospital, Columbus, OH  
02/08/07 Jan Klamar MD, Children's Hospital, Columbus, OH  
02/09/07 Nelson Cassis MD, Cirujano en Jefe Hospital Shriners para Niños Lisiados AC, Mexico  
02/21-22/07 Brian Hasley MD, University of Nebraska Medical Center, Omaha, NE  
02/26-03/02/07 Michael Millgram MD, Israel Spine Center, Assuta Hospital, Tel Aviv, Israel  
02/26-03/02/07 Pawel Michalski MD, Mother & Child Institute, Warsaw, Poland  
03/01-08/07 Ozkan Atep MD, Inonu University, Turgut Ozal Medical Center, Malatya, Turkey  
03/05-09/07 Antonio Martin-Benlloch MD, Hospital g de Octubre, Valencia, Spain  
03/07/07 Anthony Melkent, Medtronic Sofamor Danek, Memphis, TN  
03/12/07 Brian Scholl MD, University Hospital, Birmingham, AL  
03/12/07 Steven Theiss MD, University Hospital, Birmingham, AL  
04/12/07 Andrew Dickson, Medtronic Sofamor Danek, Memphis, TN  
04/16/07 David Hanscom MD, Orthopedics International, Seattle, WA  
04/23/07 Yolanda Cillo MD, Medtronic Sofamor Danek, Memphis, TN  
04/24/07 John Anderson MD, Twin City Orthopedics, Edina, MN  
04/24/07 Daniel Hoernschemeyer MD, University of Missouri School of Medicine, Columbia, MO  
04/24/07 Jochen Son-Hing MD, Rainbow Babies & Children's Hospital, Cleveland, OH  
04/26/07 Anthony Scaduto MD, University of California – Los Angeles, Shriners Hospital for Children, Los Angeles, CA  
05/02-04/07 Carlos Villanueva MD, Hospital Del Valle De Hebron, Barcelona, Spain  
05/03/07 Jeff Garner PA, Consulting Orthopedists, Plano, TX  
05/17/07 Bernard Rawlins MD, Hospital for Special Surgery, New York, NY  
05/30/07 Jeffrey Sabin MD, Precison Orthopedics, P.C., Lakewood, CO  
05/31/07 Keith Gabriel MD, St. John's Hospital, Springfield, MO  
05/31/07 Sumon Bhattacharjee MD, NeuroScience Group of North East Wisconsin, Neenah, WI  
06/12/07 James Mirda, Medtronic Sofamor Danek, Memphis, TN  
06/12/07 Eric Densford, Medtronic Sofamor Danek, Memphis, TN  
06/18-21/07 Luciano Miller MD, São Paulo Federal University, São Paulo, Brazil  
07/06/07 John Asghar MD, Shriners Hospital for Children, Philadelphia, PA  
07/06/07 C. William Bacon, MD, Central Utah Clinic, Orthopaedic Specialty Center, Provo, UT  
07/16-18/07 Eric Hooley, MD San Diego Center for Spinal Disorders, La Jolla, CA  
07/16-18/07 Juan Carlos Olaverri MD, Maimonides Medical Center, Brooklyn, NY  
07/16-18/07 Stefano Sinicropi MD, Midwest Spine Institute, Stillwater, MN  
07/18-20/07 Jeffrey Sabin MD, Precison Orthopedics, P.C., Lakewood, CO  
07/18-20/07 Robert Myles MD, Texas Orthopedic & Spine Associates, Hurst, TX  
07/28/07 John Blanco MD, Children's Orthopaedics of Atlanta, Atlanta, GA  
07/28/07 Michael Schmitz MD, Children's Orthopaedics of Atlanta, Atlanta, GA  
07/28/07 M. Darryl Antonacci MD, Institute for Spine and Scoliosis, New York, NY  
08/02/07 Barry Hildreth, Medtronic Sofamor Danek, Memphis, TN  
08/02/07 Jesse Moore, Medtronic Sofamor Danek, Memphis, TN  
08/16-17/07 Delio Martins MD, São Paulo Federal University, São Paulo, Brazil  
08/16-17/07 Fabio Santana MD, São Paulo Federal University, São Paulo, Brazil  
08/17/07 John O'Toole MD, Rush University Medical Center, Chicago, IL  
08/17/07 Thu Nguyen, Medtronic Sofamor Danek, Chicago, IL  
08/20-21/07 R. Blake Dennis MD, West End Orthopaedics, Richmond, VA  
08/20-24/07 Hirotooshi Yoshida MD, Saiseikai Kawaguchi General Hospital, Saiseikai, Kawaguchi, Japan  
08/27/07 John Grimm MD, Tri-State Orthopaedic Surgeons, Evansville, IN  
09/14/07 Igor Kurilets MD, International Neurosurgical Centre in Kyiv, Ukraine  
09/18-21/07 Donald Deinlein MD, Orthopaedic Specialists of Alabama, Birmingham, AL

<sup>v</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

09/18-21/07 Vishal Sarwahi MD, Montefiore Medical Center, New York, NY  
10/01/07 Jeetendra Bharadwaj, Medtronic Sofamor Danek, Memphis, TN  
10/1-26/07 Marcelo Poderoso Araujo MD, de Ribeirão Preto-Universidade, São Paulo, Brazil  
10/1-11/23/07 Rajesh Arakal MD, Olympia Orthopaedic Associates, Seattle, WA  
10/29-30/07 Hans Snyckers MD, Pretoria Academic Hospital, Pretoria, South Africa  
10/29/07 Matthew Mermer MD, Kaiser Permanente, Roseville, CA  
10/29/07 Donald Matthews MD, Kaiser Permanente, Roseville, CA  
11/05-07/07 Yongjung J. Kim MD, Hospital for Special Surgery, New York, NY  
11/08-10/07 Christopher Hamill MD, University at Buffalo, Amherst, NY  
11/27/07 Benjamin Hogbin Medtronic Sofamor Danek, Memphis, TN  
12/10/07 Gregory Elders MD, North Texas Orthopaedics & Sports Medicine, Houston, TX  
12/13/07 Joseph Bellflower MD, St. Vincent Hospital, Indianapolis, IN  
01/07-08/08 Kenneth Paonessa MD, William Backus Hospital, North Franklin, CT  
01/07-08/08 Robert Ritzman MD, Children's Hospital of Akron, Akron, OH  
01/07-08/08 Ronald A. Lehman, Jr. MD, Walter Reed Army Medical Center, Washington, DC  
01/07-08/08 Melvin Helgeson MD, Walter Reed Army Medical Center, Washington, DC  
01/07-18/08 Matthew Geck MD, SpineAustin, Austin, TX  
01/10-11/08 Robert Morgan MD, Regions Hospital, Coon Rapid, MN  
01/10-11/08 Gregory Elders MD, North Texas Orthopaedics & Sports Medicine, Houston, TX  
02/25/08 Ming Liu, Medtronic Sofamor Danek, Memphis, TN  
03/10-13/08 Choon-Sung Lee MD, Asan Medical Center, University of Ulsan, Seoul, Korea  
03/11-13/08 Koichi Sairyō MD, University of Tokushima, Shikoku, Japan  
03/11-13/08 Tomoya Terai MD, University of Tokushima, Shikoku, Japan  
03/11-13/08 Yoshitaka Noguchi, Surgical Spine, Inc., Japan  
03/17-20/08 Junichiro Nakamura MD, Yokohama City University, Japan  
03/17-20/08 Katsumi Kuge, Medtronic Manager, Yokohama City University, Yokohama, Japan  
03/18/08 Wendell Moses MD, Thompson Children's Hospital, Chattanooga, TN  
03/08/08 Anthony Stans MD, Mayo Clinic, Rochester, MN  
03/08/08 Christopher Sullivan MD, University of Chicago, Chicago, IL  
04/09/08 Colleen Walters, Medtronic Sofamor Danek, Memphis, TN  
04/21/08 Gordon Yee MD, Avista Hospital, Boulder, CO  
04/21/08 Roy Haschenburger, Medtronic Sofamor Danek, Memphis, TN  
04/28/08 Howard Place MD, St. Louis University, St. Louis, MO  
04/28/08 Scott Hodges DO, Center for Sports Medicine & Orthopaedics, Chattanooga, TN  
05/05-06/08 Ming Li MD, Changhai Hospital, Second Military Medical University, Shanghai, China  
05/05-06/08 Qiang Fu MD, Changhai Hospital, Second Military Medical University, Shanghai, China  
05/07-09/08 Jin-Hwan Kim MD, Emory Hospital, Atlanta, GA  
05/12-14/08 Ahmad Nassr MD, Mayo Clinic, Rochester, MN  
05/12-14/08 Robert Wienecke MD, Neuroscience Specialists, Oklahoma City, OK  
05/12-14/08 Simon Salerno MD, Loma Linda Healthcare, Loma Linda, CA  
05/14-16/08 Benjamin Roye MD, Mount Sinai School of Medicine, New York, NY  
05/14-16/08 Khadid Sethi MD, Southern New York Neurosurgical Group, Johnson City, NY  
05/14-16/08 Jeffrey Stambough MD, Orthopaedic Diagnostic & Treatment, Norwood, OH  
05/19-23/08 Junlin Yang MD, The First Affiliated Hospital of Sun Yat-Sen University, Sun Yat-Sen, China  
05/22/08 David Schiffman MD, Kaiser Permanente, Oakland, CA  
05/29/08 Christopher Hamill MD, University at Buffalo, Amherst, NY  
05/29/08 Christopher DeWald MD, Midwest Orthopaedics at Rush, Chicago, IL  
06/09-13/08 Niall Eames MD, Royal Victoria Hospital, Belfast, Ireland  
06/09-13/08 Alistair Hamilton MD, Royal Victoria Hospital, Belfast, Ireland  
06/16/08 Kamal Ibrahim MD, M & M Orthopedics, Chicago, IL  
06/16-17/08 Motohiro Okada MD, Emory Hospital, Atlanta, GA

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



06/16/08 Kosaku Higashino MD PhD, Emory Hospital, Atlanta, GA  
06/16/08 Hui Liu, MD Emory Hospital, Atlanta, GA  
07/03/08 Yevgenity (Eugene) Gitelman, WUSM student, St. Louis, MO  
07/17/08 Miguel Ferreira MD, Hospital Curry Cabral, Lisbon, Portugal  
07/17/08 Nelson de Carvalho MD, Hospital Curry Cabral, Lisbon, Portugal  
07/17/08 Luis Torres MD, Hospital Pedro Hispano, Matosinhos, Portugal  
07/17/08 Manuela Schaflechner, Medtronic Sofamor Danek, Portugal  
07/30-08/01/08 Mark Weston MD, Portland Spine & Neck Surgery, Portland, OR  
07/30-08/01/08 Ki Soo Hwang MD, St. Joseph's Regional Medical Center, Paterson, NJ  
07/30-08/01/08 Yousif Hamati MD, FACS, Mercy Granada Military University, Bogotá, Colombia  
08/04/08 Steve Polkosky, Medtronic Sofamor Danek, Memphis, TN  
08/04-29/08 Juan Carlos Oviedo MD, Clinica Central del Quindio, Armenia, Quindio, Colombia  
08/04-08/08 Mauro Román Tropini MD, Austral University Hospital, Pilar, Buenos Aires, Argentina  
08/04-08/08 Raul Furmento MD, Austral University Hospital, Pilar, Buenos Aires, Argentina  
08/18-20/08 David Polly, Jr. MD, University of Minnesota, Minneapolis, MN  
08/28/08 Peter Sturm MD, Shriners Hospital for Children, Chicago, IL  
08/28/08 Jonathan Lewin MD, Northshore Forest Hills, New York, NY  
08/28-29/08 Bo Okubadejo MD, Hospital for Special Surgery, New York, NY  
09/03-26/08 Feng Li, MD Tongji Medical College, Wuhan, China  
09/15-19/08 Étienne Coetzee MD, University of Cape Town, Cape Town, South Africa  
09/15-19/08 Robert Dunn MD, University of Cape Town, Cape Town, South Africa  
09/15-19/08 Hans Snyckers MD, Pretoria Academic Hospital, Pretoria, South Africa  
09/15-19/08 Kun-Woo Park MD, Seoul National University, Bundang Hospital, Gyeonggi-do, Seoul, Korea  
09/15-26/08 Thomas Kishen MD, St. George Hospital, Sydney, Australia  
10/16/08 Rick Bowen MD, Shriners Hospital for Children, Los Angeles, CA  
10/20-24/08 Stefano Boriani MD, Ospedale Maggiore, Bologna, Italy  
10/21/08 Amr Abdelgawad MD, Rainbow Babies & Children's Hospital, Cleveland, OH  
10/27-29/08 Paul Dernbach MD, Collier Neurologic Specialists, Naples, FL  
10/27-29/08 Eric Hooley MD, Canyon Orthopaedics, Logan, UT  
10/27-29/08 Michael Chapman, Medical Associates Clinic, Dubuque, IA  
10/29-31/08 John Labiak MD, Scoliosis & Spinal Surgery Institute, Smithtown, NY  
10/29-31/08 Daniel Lee MD, Nevada Orthopedic and Spine Center, Las Vegas, NV  
10/29-31/08 Michael Thomas MD, Nevada Orthopedic and Spine Center, Las Vegas, NV  
10/29-31/08 Jeffrey McConnell MD, Pennsylvania Spine and Scoliosis Institute, Allentown, PA  
11/04-5/08 Jin-Uk Kim MD, Wooridul Spine Hospital, Seoul, Korea  
11/04-13/08 John Street MD, Vancouver General Hospital, Vancouver, British Columbia, Canada  
11/04-26/08 Sang Hyun Kim MD, Ajou University School of Medicine, Yeongtong-Gu, Suwon, Korea  
11/04-26/08 Hoon Kim MD, Ajou University School of Medicine, Yeongtong-Gu, Suwon, Korea  
11/10/08 Kurt Von Rueden MD, SpineAustin, Austin, TX  
11/24/08 David Stevens MD, Lake View Hospital, Bountiful, UT  
11/24/08 William Stevens MD, Scottsdale Healthcare, Scottsdale, AZ  
11/25-26/08 Sergey Mlyavykh MD, Nizhni Novgorod Research Institute, Russia  
01/05-07/09 Ashish Sahai MD, West Boca Medical Center, Boca Raton, FL  
01/05-07/09 Stephen Falatyn MD, OAA Orthopaedic Specialists, Allentown, PA  
01/05-07/09 Kevin Morrill MD, University of Texas, Southwestern Medical Center, Dallas, TX  
01/07-09/09 Gary Colon MD, Collier Neurologic Specialists, Naples, FL  
01/07-09/09 Curt Freudenberger MD, Sportsmed Orthopaedic Surgery and Spine Center, Huntsville, AL  
01/07-09/09 Michael Gerling MD, SUNY Downstate Medical Center, Brooklyn, NY  
01/12-16/09 Adrian Gardner FRCS, Leeds Teaching Hospital, United Kingdom  
01/12-16/09 Jae Taek Hong MD, Catholic University, St. Vincent Hospital, Yeongtong-Gu, Suwon, Korea  
01/12-30/09 Toshiaki Kotani MD, Seirei Sakura Citizen Hospital, Sakura, Chiba, Japan

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

01/22/09 Thomas Errico MD, New York University, Langone Medical Center, New York, NY

01/22/09 Baron Lonner MD, Scoliosis Association, New York, NY

01/16/09 Jeff Phelps MD, North Richland Hills, VA

02/03-12/09 Wong Chung Chek MD, Sarawak General Hospital, Sarawak, Malaysia

02/03-12/09 Kwan Mun Keong MD, University of Malaya, Kuala Lumpur, Malaysia

02/09-12/09 Patrick Kiely MD, The Blackrock Clinic, Dublin, Ireland

02/09-3/13/09 Zhensheng Ma MD, Xijing Hospital, Fourth Military Medical University, Xi'An, ShaanXi, China

02/16-20/09 Kristian Hoy MD, Aarhus University Hospital, Aarhus, Denmark

03/02-06/09 Hongguang Xu MD, Yijishan Hospital, Wuhu, Anhui, China

03/09-13/09 Carlos Mounier MD, University Institute, CEMIC, Buenos Aires, Argentina

03/09-23/09 Xia Hong MD, Liu Hua Qiao Hospital, Guangzhou, Guangdong, China

03/26/09 C. William Bacon MD, Central Utah Clinic, Provo, UT

03/30/09 Michael Smith MD, Montefiore Medical Center, New York, NY

03/31/09 Clinton Devin MD, Vanderbilt University, Houston, TX

03/31/09 Edward Song MD, Center for Spinal Disorders, Phoenix, AZ

04/01-02/09 Shinjiro Kaneko MD, NHO Murayama Medical Center, Tokyo, Japan

04/06-08/09 Javier Garcia MD, The Lyerly Group, Jacksonville, FL

04/06-08/09 Anh Le MD, Dameron Hospital, Stockton, CA

04/06-08/09 Elian Shepherd MD, Southlake Methodist Hospital, Merrillville, IN

04/08-09/09 Allan Beebe MD, Cardinal Orthopaedic Institute, Columbus, OH

04/08-09/09 Stephen Enguidanos MD, Twin Cities Hospital, Richmond, VA

04/08-09/09 Christopher Kim MD, Chippenham Hospital, Richmond, VA

04/08-09/09 Jan Klamar MD, Cardinal Orthopaedic Institute, Columbus, OH

04/20-24/09 Mauricio Montalvo MD, Shriners Hospital for Children, Mexico City, Mexico

04/21/09 David Zaleske MD, Children's Hospital, Minneapolis, MN

04/21/09 Janet Walker MD, Shriners Hospital for Children, Lexington, KY

04/05-10/09 Massimo Balsano MD, Hospital of Thiene, Vicenza, Italy

04/05-10/09 Pier Paolo Mura MD, Santelena General Clinic, Rome, Polo Pontino, Italy

05/06/09 Ki Hon Lin MD, Phoebe Putney Memorial Hospital, Albany, GA

05/11-14/09 Alessandro Gasbarrini MD, Hospital Maggiore, Bologna, Italy

05/11-14/09 Federico De Iure MD, Hospital Maggiore, Bologna, Italy

05/21/09 Joshua Klatt MD, University of Utah, Salt Lake City, UT

05/21/09 Michael Luckett MD, (private practice), Great Falls, MT

06/08/09 Ankur Gupta MD, The Spine Clinic, Kanpur, India

06/15-16/09 Harel Arzis MD, University of Kansas Medical Center, Kansas City, KS

06/15-19/09 David Buzek MD, Faculty Hospital, Darvina, Czech Republic

06/15-26/09 Baron Zarate MD, Instituto Nacional de Rehabilitacion, Mexico

06/23/09 Kan Min MD, Uniklinik Balgrist, Zurich, Switzerland

06/23/09 David Marks FRCS, The Royal Orthopaedic Hospital, Birmingham, England

06/23/09 Jonathan Spilsbury FRCS, The Royal Orthopaedic Hospital, Birmingham, England

06/25/09 Raymund Woo MD, University of Florida, Jacksonville, FL

06/29-07/03/09 Mario Ver MD, St. Luke's Medical Center, Quezon, Philippines

07/01/09 Stephen Pirris MD, Jacksonville, FL

07/06-10/09 Sergio Murilo MD, Universidade Federal Da Bahia, Salvador, Bahia, Brazil

07/06-10/09 Ricardo Cotias MD, Universidade Federal Da Bahia, Salvador, Bahia, Brazil

07/08/09 Jeetendra Bharadwaj, Medtronic, Memphis, TN

07/08/09 Brad Steele, Medtronic Spinal & Biologics, Memphis, TN

07/08/09 Erwin Sahagun, Medtronic Spinal & Biologics, Memphis, TN

07/08/09 Brett Malsom, Medtronic Spinal & Biologics, Memphis, TN

07/08/09 Bryan Wilcox, Medtronic Spinal & Biologics, Memphis, TN

07/20/09 Michael Catino MD, Presbyterian Hospital, Denton, TX

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

07/20-28/09 Nigel Gummerson FRCS, Sheffield Children's NHS, Sheffield, England

09/28-10/02/09 Yong Qiu MD, Drum Tower Hospital, Nanjing, China

09/28-10/02/09 Zhu Feng MD, Drum Tower Hospital, Nanjing, China

09/28-10/02/09 Bin Wang MD, Drum Tower Hospital, Nanjing, China

09/28-10/02/09 Xuesong Zhang MD, General Hospital of PLA, Beijing, China

09/28-10/02/09 Wang Zheng MD, General Hospital of PLA, Beijing, China

10/14-10/16/09 John Grimm MD, Tri-State Orthopedic Surgeons, Evansville, IN

10/20-22/09 Oheneba Boachie-Adjei MD, Hospital for Special Surgery, New York, NY

11/02-05/09 Sumon Bhattacharjee MD, NeuroScience Group of North East Wisconsin, Neenah, WI

11/04-05/09 Hooman Melamed MD, Cedars-Sinai Medical Center, Los Angeles, CA

11/04-05/09 Mark Rahm MD, Scott & White Memorial Hospital, Temple, TX

11/09-12/09 Mario Herrera MD, Fundacion Universitaria de Ciencias de La Salud, Bogota, Colombia

11/24/09 Jaclyn Larson, Medtronic Spinal & Biologics, Memphis, TN

11/24/09 Michelle Hennard, Medtronic Spinal & Biologics, Memphis, TN

11/30/09 Saad Khairi MD, Indianapolis Neurosurgical Group, Indianapolis, IN

12/09-10/09 Fernando Silva MD, North Texas Neurosurgical and Spine Center, Fort Worth, TX

12/10/09 Mark Rahm MD, Scott & White Memorial Hospital, Temple, TX

12/14-18/09 Alejo Vernengo-Lezica MD, San Isidro Children's Hospital, San Isidro, Argentina

01/11-13/10 David Antezana MD, Microneurosurgical Consultants, PC, Portland, OR

01/11-21/10 Luis Eduardo Carelli MD, Trauma-Ortho National Institute, Rio de Janeiro, Brazil

01/25-27/10 Gus Halamandaris MD, Central Coast Brain and Spine Associates, Monterey, CA

01/25-27/10 Mark Howard MD, Salinas Valley Memorial Hospital, Salinas, CA

01/25-27/10 Greg Mundis MD, Scripps La Jolla Memorial Hospital, La Jolla, CA

01/27-29/10 Jason Gallina MD, Hospital for Joint Disease, New York, NY

01/27-29/10 Ashvin Patel MD, Kennedy White Orthopaedic Center, Sarasota, FL

01/27-29/10 Daniel Sciubba MD, Johns Hopkins, Baltimore, MD

01/27-29/10 Shuriz Hishmeh MD, Beth Israel, New York, NY

02/01-12/10 Fang Huang MD, Tongji Hospital, Huazhong University of Science and Technology, Wuhan, Hubei, China

02/23/10 Fernando Silva MD, North Texas Neurosurgical & Spine Center, Fort Worth, TX

02/25/10 Gus Halamandaris MD, Central Coast Brain and Spine Associates, Monterey, CA

03/01-05/10 Ram Chaddha MD, Lilavati Hospital and Research Center, Bandra, India

03/01-05/10 Johari Navratnamal MD, Children's Orthopaedic Center, Mumbai, India

03/15-26/10 Ning Xie MD, Changzheng Hospital, Huangpu, Shanghai, China

03/16-17/10 Lodewijk van Rhijn MD, University Hospital Maastricht, Maastricht, Netherlands

03/22-23/10 Adam Barmada MD, Legacy Emanuel Hospital, Portland, OR

03/22-26/10 Dror Ovadia MD, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

03/29-4/23/10 Rohit Amritanand MD, Christian Medical College, Vellore, India

04/14/10 Christopher Good MD, Virginia Spine Institute, Reston, VA

04/19-23/10 Mario Di Silvestre MD, Istituto Ortopedico Rizzoli, Bologna, Italy

04/19-23/10 Wilmer Codoy Carrero MD, Clinica Martha, Villavicencio, Colombia

04/19-23/10 Pedro Fernandes MD, University Hospital Santa Maria, Lisbon, Portugal

05/03-05/10 Antony Kallur MD, AI DuPont Children's Hospital, Hockessin, DE

05/05-06/10 Joseph O'Brien MD, George Washington University Hospital, Washington, DC

05/12/10 Richard McCarthy MD, Arkansas Children's Hospital, Little Rock, AR

05/24-28/10 Christian Gross MD, Charité University Medicine, Berlin, Germany

06/21-25/10 Soumajit Basu MD, Kothari Medical Center, Calcutta, India

07/14-15/10 Luca Proietti MD, Catholic University, Rome, Italy

07/14-15/10 Francesco Tamburelli MD, Policlinico Genelli, Rome, Italy

07/14/10 John Grimm MD, Tri-State Orthopaedics, Indianapolis, IN

08/23-24/10 Christopher Noonan MD, Orthopedic Spine Associates, Eugene, OR

09/27-29/10 Abid Qureshi MD, Muir Orthopaedic Specialists, Walnut Creek, CA

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

10/11-14/10 Yu Yang MD, Nanjing Drum Tower Hospital, Nanjing, China  
 10/11-14/10 Bangping Qian, MD, Nanjing Drum Tower Hospital, Nanjing, China  
 10/11-14/10 Amit Jhala MD, Chirayu Orthopaedic and Spine Hospital, Gujarat, India  
 10/13/10 Barney Carter, Medtronic Spinal & Biologics, FL  
 10/13/10 Chris Fair, Medtronic Spinal & Biologics, FL  
 10/14/10 Matthew Berchuck MD, Orthopaedic Surgeons East, Birmingham, AL  
 10/18/10 Jared Brandoff MD, North Shore University Hospital, Great Neck, NY  
 10/18-21/10 Ricardo Restrepo MD, Fundación Cardio Infantil, Bogota, Cundinamarca, Colombia  
 10/18-21/10 Leonardo Duplat MD, Fundación Cardio Infantil, Bogota, Cundinamarca, Colombia  
 10/18-11/12/10 Yongming Xi MD, Qingdao University, Qingdao, Shandong, China  
 11/01-04/10 Yoran Andekstein MD, ASSAF - Harofeh Medical Center, Zerifin, Israel  
 11/01-04/10 Nissim Ohana MD, Rabin Medical Center, Petach-Tikva, Israel  
 12/02/10 Nils Hansen-Algenstaedt MD, University Medical Center, Hamburg, Germany  
 12/02/10 Hazeem Ahmed, MD Loyola University Medical Center, Maywood, IL  
 12/09/10 Henry Iwinski MD, Shriners Hospital for Children, Lexington, KY  
 12/09/10 John Churchill MD, Pediatric Orthopaedics of Southwest Florida, Ft. Myers, FL  
 12/09/10 Thomas Dempsey MD, Alabama Orthopaedic Clinic, P.C., Mobile, AL  
 01/03-28/11 Fangcai Li MD, The Second Affiliated Hospital of Zhejiang University School of Medicine, Zhejiang, China  
 02/22-3/16/11 Xiao-Dong Zhu MD, The Second Military University, Shanghai, P.R. China  
 02/22-3/18/11 Piotr Harasymczuk MD, University of Medical Sciences, Poznan, Poland  
 03/07-18/11 Manuel Aparicio MD, Shriners Hospital for Children, Mexico City, Mexico  
 03/28/11 Shyam Kishan MD, Indiana University, Indianapolis, IN  
 04/04-05/11 Frank Hassel MD, Helios Rosmann Klinik in Breisach, Germany  
 04/04-05/11 Bernd Wiedenhoeer MD, University Hospital of Heidelberg, Heidelberg, Germany  
 04/14/11 Allan Beebe MD, Nationwide Children's Hospital, Columbus, OH  
 04/18-21/11 Ibrahim Omeis MD, Baylor College of Medicine, Houston, TX  
 04/26/11 Joseph Davey MD, Oklahoma University Health Science Center, Oklahoma City, OK  
 04/26/11 Chris Johnson, Medtronic Spinal & Biologics, Memphis, TN  
 04/26/11 Alison Powers, Medtronic Spinal & Biologics, Memphis, TN  
 05/02-05/11 Hongbo Liu MD, Mayo Clinic, Rochester, MN  
 07/18-29/11 Vikas Tandon MD, Indian Spinal Injuries Center, New Delhi, India  
 07/25-29/11 Norimitsu Wakao MD, Nagoya University School of Medicine, Showa-ku, Nagoya, Aichi, Japan  
 08/11/11 Christopher Hamill MD, State University of New York at Buffalo, Buffalo, NY  
 08/15-19/11 Ravel John Sewchand Ramlakan MD, Kingsway Hospital, Amanzintoti, Durban, South Africa  
 08/15-09/02/11 Bhavuk Garg MD, Postgraduate Institute of Medical Education and Research, Chandigarh, Punjab, India  
 09/01-09/12/11 Gabriel Piza MD, Hospital Universitari Son Dureta, Palma, Spain  
 09/26-10/15/11 Hongguang Xu MD, Yijishan Hospital, Wuhu, Anhui, China  
 10/17-19/11 Sven Kevin Tschoke MD, University Hospital Leipzig, Leipzig, Germany  
 10/17-19/11 Jens Seifert MD, Orthopaedic Clinic of University Hospital Carl Gustav Carus, Dresden, Germany  
 10/17-19/11 Mario Dittman, Medtronic, Germany  
 10/24-28/11 Javier Cobo-Soriano MD, Rúber International Hospital, Madrid, Spain  
 10/24-28/11 Marcos Sendino MD, Hospital Ramon y Cajal, Madrid, Spain  
 11/14-23/11 Yan Zeng MD, Peking University Third Hospital, Beijing, China  
 11/15/11 George Thompson MD, Rainbows & Babies Children's Hospital, Cleveland, OH  
 11/17/11 Alison Powers, Medtronic Spinal & Biologics, Memphis, TN  
 01/03-13/12 Asdrubal Falavigna MD, University of Caxias do Sul Medical School, Caxias do Sul, Brazil  
 01/03-17/12 Darren Lebl MD, Hospital for Special Surgery, New York, NY  
 01/09-10/12 Erik Fritzche MD, Wandsbek Hospital, Hamburg, Germany  
 01/10/12 Philip O. S. Kunkel MD, Altona Children's Hospital, Hamburg, Germany  
 01/12-13/12 Frank Gossé MD, Medical University of Hannover, Hannover, Germany  
 01/12-13/12 Almut Scheiber, Medtronic Representative, Hannover, Germany

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

01/23-24/12 Anthony Sin MD, LSUHSC – Shreveport, Shreveport, LA  
01/23-23/12 Harel Arzi MD, Haim Sheba Medical Center, Tel-Sashomer, Israel  
03/12-14/12 Seamus Morris MD, Azienda University Hospital of Siena, Siena, Italy  
03/14-15/12 Francesco Cacciola MD, University Hospital Siena, Italy  
03/26-28/12 Jason Lowenstein MD, Spine Austin, Austin, TX  
03/26-28/12 Yousuf Ali MD, Bangabandhu Sheikh Mujib Medical University, Shahbag, Datta  
04/09-11/12 Scott Russo MD, Orthopaedic Associates of Michigan, Grand Rapids, MI  
04/23-24/12 Ignacio Dockendorff MD, Clinica Alemana, Santiago de Chile, Chile  
04/23-05/04/12 Murilo Daher MD, Federal University of Goiás-UFG, Brazil  
04/23-05/04/12 Raphael Pratali MD, Hospital Sirio-Libanes, San Paola, Brazil  
05/21-25/12 Tenner Guillaume MD, Gillette Children’s Specialty Healthcare, St. Paul, MN  
05/29-31/12 Shu-Hua Yang MD, National Taiwan University Hospital, Taiwan  
06/13-14/12 Neil Davidson MD, Royal Liverpool Children’s Hospital, Liverpool, England  
06/13-14/12 Colin Bruce MD, Royal Liverpool Children’s Hospital, Liverpool, England  
06/18-20/12 J. Scott Schoeb MD, New Jersey Spine Center, Chatham, NJ  
07/02-13/12 Jorge Alves MD, Centro Hospitalar do Tamega e Sousa, Penafiel, Portugal  
07/23-26/12 Javier Pizones Arce MD PhD, Hospital University Getafe, Spain  
07/23-26/12 Enrique Izquierdo MD, Hospital University Getafe, Spain  
06/13-17/12 Juan Pablo Guyot MD, Hospital Universitario Fundación Favaloro, Buenos Aires, Argentina  
08/13-17/12 Guillermo Holtmann MD, Milstein Hospital, Buenos Aires, Argentina  
09/10-18/12 Hyounmin Noh MD, University of Ulsan College of Medicine, Seoul, South Korea  
09/10-18/12 Chang Ju Hwang MD, University of Ulsan College of Medicine, Seoul, South Korea  
09/10-21/12 Antonio Hurtado MD, Lomas Verdes Trauma and Orthopedic Center, Lomas Verdes, Mexico  
09/10-21/12 Alfredo Moheno MD, Trauma and Orthopaedic Surgery Hospital, Mexico  
09/25-27/12 Ryan Ilgenfritz MD, University of Iowa Hospitals and Clinics, Iowa City, IA  
10/08-10/12 Zachariah George MD, Neurologic Surgery, P.C., Smithtown, NY  
10/08-10/12 Todd Weisbrot Medtronic Spinal & Biologics/Spinal Associates, Ltd., Mineola, NY  
11/05-09/12 Marko Neva MD PhD, Tampere University Hospital, Tampere, Finland  
11/12-1/11/13 Keyi Yu MD, Peking Union Medical Center Hospital, Beijing, PR of China  
01/07-17/13 Xuexiao Ma MD, Hospital of Medical College, Qingdao University, Qingdao, Shandong, PR of China  
01/07-17/13 Qingyi He MD, The Southwest Hospital, Chongqing, Sha Ping Ba, P. R. of China  
02/04-08/13 Thomas Faciszewski MD, Marshfield Spine, Marshfield Clinic, Marshfield, WI  
02/18-22/13 K. Appaji Krishnan MD, Apollo Hospitals Chennai, Andhra Pradesh, India  
02/19/13 John Grayhack MD, Children’s Memorial Hospital, Chicago, IL  
02/21-22/13 Sung-Shik Kang MD, Pusan National University, Yangsan Hospital, Yangsan, Korea  
02/26/13 Gary Brock, MD Texas Orthopedic Hospital, Fondren Orthopedic Ltd., Houston, TX  
03/04-06/13 Fernando Herrero MD, de Universidade de Ribeirão Preto, University of São Paulo, Brazil  
03/05/13 Si Young Park MD PhD, Korea University, College of Medicine, Seongbukgu, Seoul, Korea  
03/22-25/13 Junghoon Lee MD PhD, Wooridul Spine Hospital, Gangseogu, Seoul, Korea  
04/15-16/13 Sumon Bhattacharjee MD, Neuroscience Group, Neenah, WI  
04/15-24/13 Samer Samy MD, Alexandria University Student Hospital, Alexandria University, Alexandria, Egypt  
04/22-23/13 Andrew Cree MD, Royal Alexandra Children’s Hospital, Sydney, Australia  
05/06/13 Andreas Tomac MD PhD, Florida Spine Institute, Port Charlotte, FL  
05/06-07/13 Sebastien Charosky MD, Spine and Scoliosis Center Polyclinique du Parc, Toulouse, France  
05/21-22/13 Florian Geiger MD, The University of Frankfurt, Frankfurt, Germany  
05/27-06/14/13 Aaron Hilis, MD Hospital de Braga, Sete Fontes – São Victor, Braga, Portugal  
07/29-31/13 Fernando Silva MD, North Texas Neurosurgical & Spine Center, Fort Worth, TX  
07/22-08/02/13 Asdrubal Falavigna MD, Universidade de Caxias do Sul – UCS, São Paulo, Brazil  
07/30-08/01/13 Fernando Herrero MD, University of Medicine, Ribeirao Preto, USP, Brazil  
07/30-08/01/13 Mario Daher MD, University of Medicine, Ribeirao Preto, USP, Brazil  
08/12/13 Ripul Panchal DO, University of California, Davis Medical Center, Sacramento, CA

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

08/26-30/13 Federico Lizarraga MD, Dr. Rafael Guerra Mendez, Medical Center, Valencia, Venezuela  
08/26-30/13 Guillermo Alvarez MD, Dr. Rafael Guerra Mendez, Medical Center, Valencia, Venezuela  
09/09-13/13 Stefano Bandiera MD, A. S. L. Città di Bologna, Maggiore Hospital, Bologna, Italy  
09/10/13 Rene Castelein MD PhD, Universitair Medisch Centrum, Utrecht, Netherlands  
09/23-26/13 Ian Neil MD, Tygerberg Academic Hospital and Stellenbosch Mediclinic, South Africa  
09/23-10/25/13 Hazem Nicola MD, Clinica Sanatrix, Caracas, Venezuela  
10/07-11/13 Javier Pizones Arce MD, Spine Unit, Hospital University, Getafe, Spain  
10/28-31/13 Gerd Bordon MD PhD, Hospital de Manises, Valencia, Spain  
10/28-31/13 Domingo Iglesias MD, Hospital Xeral-Calde, Lugo, Galicia, Spain  
11/04/13 Matthew Mermer MD, Roseville Medical Center, Roseville, CA  
11/04-12/31/13 Baher Labib MD, Cairo University, Cairo, Egypt  
11/07/13 Kevin M. Neal MD, Nemours Children's Clinic, Jacksonville, FL  
11/11/13 Scott Russo MD, Orthopaedic Specialists of Michigan, Grand Rapids, MI  
11/18-22/13 Johan Davis MD, Stellenbosch Mediclinic, Stellenbosch, Western Cape Province, South Africa  
11/25/13 Jonathan Fuller MD, Nebraska Spine Center, L.L.C., Omaha, NE  
12/02-21/13 Paulo Coutinho MD, Braga University Hospital, Braga, Portugal  
01/06-10/14 Galina Polevaya PA, Springfield Clinic, Springfield, IL  
01/06-10/14 Andreas Zeugner MD, Regional Hospital Buchen/Odenwald, Neckar-Odenwald, Baden-Württemberg, Germany  
07/27-27/14 Kyle Mitsunaga MD, Bone and Joint Clinic Of Hawaii, Honolulu, HI  
02/03-04/14 Marc Dreimann MD, Werner Wicker Klinik, Bad Wildungen, Germany  
02/03-04/14 Hans-Peter Köhler MD, Neurosurgery University Hospital Lübeck, Güstrow, Germany  
02/06-07/14 David Roberts MD, NorthShore University Health System, Evanston, IL  
02/18-27/14 Sreedharan Namboothiri MD, Kovai Medical Center and Hospitals, Coimbatore, Tamil Nadu, India  
02/24/14 Kirkham Wood MD, Massachusetts General Hospital, Boston, MA  
02/24-03/05/14 Michio Hongo MD, Akita University School of Medicine, Akita City, Japan  
02/27/14 Scott Russo MD, Orthopaedic Associates of Michigan, Grand Rapids, MI  
02/27/14 John Regan MD, Spine Group Beverly Hills, Beverly Hills, CA  
02/27/14 Leok Lim Lau MD, Nemours/AI duPont Hospital for Children, Wilmington, DE  
02/27/14 C. William Bacon MD, Central Utah Clinic, Provo, UT  
04/21-05/14/14 Haruki Funao MD, John's Hopkins University, Baltimore, MD  
04/28-05/02/14 Domingo Lombao MD, Lucas Augusti University Hospital, Lugo, Spain  
05/05-07/14 Luis Ferraris MD, German Scoliosis Center, Bad Wildungen, Germany  
05/05-07/14 Axel Hempfing MD, German Scoliosis Center, Werner Wicker Klinik, Bad Wildungen, Germany  
05/07/14 Kirkham Wood MD, Massachusetts General Hospital, Boston, MA  
05/20-21/14 Shadi Shararah MD, Leopoldina Krankenhaus Hospital, Schweinfurt, Germany  
05/19-30/14 Ranjith Aunnikrishnan MD, Kerala Institute of Medical Sciences (KIMS), Kerala, India  
06/02-13/14 Joseph Butler MD, Cappagh National Orthopaedic Hospital, Dublin, Ireland  
07/07-25/14 Ranjith Udayakumar MD, Rush University, Chicago, IL  
08/04-08/14 Yongfei Zhao MD, New England Baptist Hospital, Boston, MA  
08/11-15/14 Fernando Herrero MD, University of Medicine, Ribeirao Preto, USP, Brazil  
08/11-10/31/14 Kamil Eyvazov MD, Gazi University Medical School, Ankara, Turkey  
10/01-11/26/14 Xinyu Liu MD PhD, Qilu Hospital of Shandong University, Shandong, China  
10/02/14 Greg Mundis MD, San Diego Center for Spinal Disorders, San Diego, CA  
10/13-17/14 Mohamed Mossaad MD, Zagazig University, Zagazig, Ash Sharqiyah, Egypt  
10/23/14 Theodore Belanger MD, Texas Back Institute, Rockwall, TX  
12/08-13/14 Patricio Melero MD, Instituto Traumatológico, Santiago, Chile  
12/09/15 Michael Drnek Thompson SCI, Salem, NH  
01/05-16/15 Pawel Grabala MD, Children's Hospital, Olsztyn, Poland  
01/20-30/15 Pham Ty MD, Gia Lai Provincial General Hospital, Gia Lai province, Vietnam  
01/27-28/15 Alexander Richter MD, Spine Centre Hamburg, Asklepios Klinik, St. Georg, Hamburg  
02/02-13/15 Zhaomin Zheng MD, The First Affiliated Hospital of Sun Yat-sen University, Guangzhou, Guangdong, China

<sup>v</sup>Student, <sup>\*r</sup>Resident, <sup>\*f</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

02/16-27/15 Xuhua Lu MD, Shanghai Chang Zheng Hospital, Shanghai, P. R. China  
03/02-06/15 Domingo Lombao MD, Hospital Universitario Lucas Augusti, Spain  
03/25-26/15 Jayesh Trivedi FRCS, Robert Jones & Agnes Hunt Orthopaedic Hospital NHS Foundation Trust, Oswestry, Shropshire, UK  
03/26/15 Laurence Mermelstein MD, Long Island Spine Specialists, PC, Commack, NY  
03/26/15 Hargovind DeWal MD, Long Island Spine Specialists, PC, Commack, NY  
03/26/15 Darrell Hanson MD, Baylor College of Medicine, Houston, TX  
05/11-15/15 Weihu Ma MD, The Sixth People's Hospital, Ningbo, Zhejiang, China  
05/11-06/15/15 Shaoxiong Min, MD, Zhujiang Hospital, Southern Medical University, Guangzhou, China  
06/04-30/15 Jun Zhu MD PhD, Rush University (visitor from China)  
06/08-09/15 Mohamed Mossaad MD, Zagazig University, Zagazig, Ash Sharqiyah, Egypt  
08/2 – 08/28/15 Shaoxiong Min MD, Zhujiang Hosp of Southern Med Univ, Guangzhou, China  
09/1-09/18/15 Yushu Bai MD, Changhai Hospital/Second Military Medical University, Shanghai, China  
09/1/15-08/31/16 Ho-Joong Kim MD, Seoul National Univ College of Medicine, Bundang Hosp, Seoul, S Korea  
10/2-12/31/15 Degang Fan MD, Tangdu Hospital, China  
10/25-11/7/15 Gaurav Raj Dhakal MD, Norvic Spine Clinic, Norvic International Hospital, Nepal  
11/1/15-1/1/16 Le-qun Shan MD, Tangdu Hospital, The Fourth Military Medical University, China  
11/1/15-1/1/16 Chen-Hung Tu MD, Kaohsiung Veterans Gen Hosp, Kaohsiung City, Taiwan  
11/2-11/20/15 Anupreet Bassi MBBS, Singapore General Hospital, Singapore  
11/15-12/15/15 Dalin Wang MD, Nanjing First Hospital, Nanjing Medical University, China  
11/15- 12/15/15 Shengnai Zheng, Nanjing First Hospital, Nanjing Medical University, China  
12/6-12/9/15 Hogaku Gen MD, Chiba Central Medical Centre, China  
12/6-12/9/15 Takao Nakajima MD, Nippon Medical School Chiba Hokusoh Hospital, Japan  
12/6-12/9/15 Kazuhiro Takeuchi MD, National Hospital Organization Okayama Medical Center, Japan  
12/6-12/9/15 Hidetoshi Nojiri MD, Juntendo Tokyo Koto Geriatric Medical Center, Japan  
1/2/16-7/2/16 Quentin Chometon, Clinical Researcher , EOS Imaging  
2/8/16-3/30/16 Hamid Hassanzadeh MD, University of Virginia School of Medicine, Charlottesville, Virginia  
2/29/16-3/31/16 Bachar Harfouch MD, King Fahad Specialist Hospital Dammam, Saudi Arabia  
3/7/16- 3/16/16 Yoh Kumano MD, University of Tokyo Hospital, Japan  
4/1/16-6/30/16 Islam Sorour MD, Alexandria University, Egypt  
4/18/16-4/29/16 Domingo Lombao MD, Lucas Augusti University Hospital, Spain  
4/18/16-5/13/16 Jingjie Wang MD, Yantai Shan Hospital, China  
5/16/16- 7/8/16 Eun-Sang Kim MD, Samsun Medical Center, Department of Neurosurgery, South Korea  
5/22/16-6/13/16 Rahul Parmar MD, Smimer Surat Municipal Institute of Medical Education & Research Hospital, India  
5/23/16-5/24/16 Umesh Metkar MD, Beth Israel Deaconess Medical Center, Boston, SC  
5/30/16-6/24/16 Carlos Romeiro MD, Hospital de Fraturas, Brazil  
6/1/16-5/31/17 Masashi Tanaka MD, Red Cross Ostu Hospital, Japan  
6/13/16-6/20/16 Leonardo Oggiano MD, Pediatric Hospital Bambino Gesù Palidoro, Italy  
7/1/16-12/31/16 Che-Wei Liu MD, Cathay General Hosp, Taipei City, Taiwan  
7/11/16- 7/11/16 Rick McCarthy MD, University of Arkansas for Medical Sciences, USA  
7/11/16-7/12/16 Zheng Wang MD, General Hospital of People's Liberation Army China, China  
7/11/16-7/12/16 Weibin Sheng MD, The First Affiliated Hosp. Xinjiang Medical University, China  
7/11/16-7/12/16 Chao- Febg Guo MD, Xiangya Hospital Central South University, China  
7/11/16-7/12/16 Yuxiang Wang MD, Dept of Spinal Surgery of Xiangya Hospital Central South University, China  
7/11/16-7/12/16 Cao Yang MD, Dept of Orthopedic Surgery Union Hosp Tongji Medical College, China  
7/11/16-7/12/16 Terry Jianguo Zhang MD, Peking Union Medical College (PUMC) Hospital, China  
7/11/16-7/18/16 Muhamed Mossaad MD, Zagazig University, Egypt  
8/1/16- 9/30/16 Jiawen Wu MD, Huizhou Municipal Central Hospital Dept of Spinal Surgery, China  
8/1/16-7/31/17 Ekkapoj Korwutthikulrangsri MD, Siriraj Hospital, Mahidol University, Bangkok, Bangkoknoi, Thailand  
8/1/16-10/27/16 Ziqiang Chen MD, The First Affiliated Hospital Changhai Department of Spine, China  
8/1/16-1/30/17 Chih-Chien Wang MD, Tri-Service General Hospital, Taipei City, Taiwan

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

8/1/16- 1/31/17 Ming Yang MD, Xi'an Honghui Hospital,Xi'an Jiaotong University, China  
 8/15/16-8/26/16 Ali Maziad MD, California Spine Institute, California,USA  
 8/22/16-8/25/16 Shin Byung-Joon MD, Soonchungyang University Hospital, Korea  
 9/5/16-10/30/16 Shan-Jin Wang MD, Shanghai East Hospital, China  
 10/3/16-10/21/16 Ahmad Allam MD, Minia University Hospital, Egypt  
 10/11/16-10/20/16 Lloyd Hey MD, Duke University Medical Center, North Carolina  
 10/15/16-11/15/16 Dazhi Yang MD, Shenzhen People's Hospital, Shenzhen, China  
 10/29/16-11/11/16 Pallav Bhatia MD, India  
 11/16/16-11/23/16 Natascha Gomez MD  
 11/14/16-12/29/16 Zhiqiang Fei MD, University of Hong Kong Shenzhen Hospital, China  
 11/14/16-12/12/16 Guibing Fu MD, Chiang Mai University, China  
 11/28/16-12/2/16 Andrew Vivas MD, University of Florida, Florida  
 12/18/16-11/30/17 Ming Yang MD, Xi'an Honghui Hospital,Xi'an Jiaotong University, China  
 1/4/17-7/3/17 Ying Zhang MD, 2nd Affiliated Hospital of Kunming Medical University, China  
 3/1/17-8/31/17 Jidong Guo MD, First Affiliated Hospital, China  
 3/20/17-3/23/17 Luca Proietti MD, Agostino Gemelli Hospital , Italy  
 4/3/17-4/14/17 Domingo Lombao MD, Lucus Augusti University Hospital, Spain  
 4/10/17-4/14/17 Cloe Curri MD, Italy  
 5/1/17-1/31/18 Hazem Negm, Menoufia University Hospital, Egypt  
 6/1/17-5/31/17 Chao Wei MD, The First Affiliated Hospital of Fujian Medical University, China  
 6/1/17-11/30/17 Xu Sun MD, Nanjing Drum Tower Hospital, Medical School of Nanjing University,China  
 6/5/17-6/6/17 Clifford Lin MD, Oregon Health & Science University, USA  
 6/12/17-6/15/17 Cesare Faldini MD, Chairman of Dept of Ortho and Trauma Surgery, Italy  
 6/12/17-6/30/17 Miguel Angel Luna Ortiz MD, Hospital Regional Infantil Universetario Arturo Grullon, Dominican Rep.  
 7/15/17-9/15/17 Axel Garcia Villasenor MD, Ortho and Traumatology at the National Rehabilitation Institute, Mexico  
 7/24/17-7/28/17 Manish Kasliwal MD, University Hospitals Cleveland Medical Center, Ohio  
 8/1/17- 8/31/17 Nourollah Eshraghi, MD, Qom University of Medical Sciences, Iran  
 8/14/17-8/18/17 Huang Yunpeng MD, The First Affiliated Hospital of Fujian Medical University, China  
 8/21/17-9/1/17 Wang Xiang-Yang MD, The Second Affiliated Hosp. of Wenzhou Medical University, China  
 9/18/17-12/31/17 Nourollah Eshraghi MD, Qom University of Medical Sciences, Iran  
 9/20/17-9/19/18 Xinchun Liu MD, The Second Affiliated Hospital, NanChang University, China  
 9/28/17-10/31/17 Rui Xue MD, The Third Hospital of Hebei Medical University, China  
 10/2/17-10/6/17 Yin Xiaofan MD, Zhong Shan Hospital Military Branch,China  
 10/2/17-10/13/17 Khalife Marc MD, Paris Creteil University, France  
 10/2/17-10/30/17 Saifi Camron MD, University of Pennsylvania, USA  
 10/2/17-10/31/17 Melcher Carolin MD, Dept of Orthopedic Surgery University Hospital LMU Munich, Germany  
 10/10/17-10/12/17 Pumberger Matthias MD, Orthopedic Specialist, Germany  
 10/16/17-10/19/17 Siewe Jan MD, Germany  
 10/16/17-11/24/17 Oluwole Ige MD, Ondo State Trauma and Surgical Centre, Nigeria  
 11/1/17-3/1/18 Rongping Zhou MD, The Second Affiliated Hospital, NanChang University, China  
 11/6/17- 11/19/17 Xiao Qiang MD, People's Hospital of Jiangxi Province. China  
 11/10/17-2/10/18 Fujang Cao MD, Tianjin Medical University General Hospital, China  
 12/1/17-11/30/18 Hui Wang MD, The Third Hospital of HeBei Medical University, China  
 12/1/17-12/30/18 Wenbo Lin MD, Shanghai Changzheng Hospital The Second Military Medical University, China  
 1/2/18-2/28/18 Xiutong Fang, MD, Beijing Shijitan Hospital, Capital Medical University,China  
 2/5/18-2/16/18 Charbel Jacob, MD , USA  
 2/13/18-2/14/18 Yoav Ritter, MD, USA  
 3/5/18- 3/15/18 Bachar Hrfouch, MD, King Fahad Specialist Hospital Dammam, Saudia Arabia  
 3/26/18-4/26/18 Hongguang Xu MD, Archiater Yijishan Hospital, China  
 5/28/18-6/28/18 Shanglong Ning, MD, Tian Hospital, China  
 6/18/18-6/22/18 Takashi Chikawa, MD, Tokushima University, Japan

<sup>¥</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



6/18/18–6/22/18 Takuya Mishihiro, MD, Takamatsu Red Cross Hospital, Japan  
7/23/18–8/20/18 Dhiraj Sonawane, MD, Grant Medical College, GT Hospital, & Sir JJ Group of Hospital, Mumbai, India  
9/17/18-10/7/18 Xinyu Liu, MD, Qilu Hospital, Shandong University, China  
9/17/18-11/2/18 Ronnachai Manopaprasert, MD, Bangkok Metropolitan General Hospital, Thailand  
9/21/18–9/30/18 Yesica Bolivar, MD, Valme University Hospital Seville Spain, Columbia  
10/15/18-10/26/18 Eunsoo Park, MD, Daegu Wooridul Spine Hospital, Daegu, Korea  
10/15/18-11/14/18 Siddharth Sanjay Shah, MD, Hinduja Hospital & Medical Research Centre, F.A.S.S.I , India  
1/14/19-2/01/19 Fernando Nin, MD, Medica Uruguay, Uruguay  
1/18/19- 6/15/19 Chih-Chien Wang, MD, Tri-Service General Hospital, National Defense Medical Center, Taiwan  
4/8/19- 4/8/19 Yakov (Jake) Gologorsky, MD, Metropolitan Neurosurgery Associates, USA  
5/6/19-5/24/19 Serbes Gokhan, MD, Private Practice, Turkey  
6/1/19 – 6/14/19 Dattaraj Sawarkar, MD, All India Institutes of Medical Sciences, India  
6/1/19 – 7/31/19 Li-Kun Hung, MD, Taichung Veterans General Hospital, Taiwan  
7/1/19 – 7/12/19 Nikhil Malewar, MD, A.K Medical Centre, New York  
7/15/19 -8/15/19 Ting Wang, MD, The Affiliated Hospital of Qingdao University, China  
8/1/19 – 9/30/19 Shih Chen- Min, MD, Taichung Veterans General Hospital, Taiwan  
8/5/19 – 9/30/19 Kazuaki Morizane, MD, Kyoto University Graduate School of Medicine, Japan  
8/22/19 – 9/22/19 Yang Zongde, MD, Spine Surgery Dept. of Shanghai Hospital, China  
9/2/19 – 9/17/19 Changhong Chen, MD , Jiangyin Affiliated Hospital, China  
9/2/19 – 9/17/19 Guodong Sun, MD, First Affiliated Hospital of Jinan University, China  
9/9/19 – 9/19/19 Igor Moura Mota, MD, Ribeirao Preto, Brazil  
9/30/19 – 10/18/19 Patel Ankit, MD, K.E.M Hospital, India  
10/14/19-11/6/19 He Wei, MD, Beijing Jishuitan Hospital, China  
10/21/19-12/21/19 Daniel William Tan Yu, Philippine General Hospital, Philippine  
11/1/19-11/27/19 Jarkko Halme, MD, University Hospital Kuopio, Finland  
11/12/19-11/29/19 Abhishek Srivastav, MD, India  
1/1/2020-2/9/2020 Anne Kathleen Ganai Antonio, MD, University of the Philippines College of Medicine, Philippine  
1/1/2020-2/29/2020 Shanglong Ning, MD, Tianjin Hospital, China

#### *Industry Representatives and Vendors*

02/25-28/03 Tsunehiko Ishikawa, Medtronic Sofamor Danek, Japan  
02/25-28/03 Teruyuki Morita, Medtronic Sofamor Danek, Japan  
07/29/04 Michelle See, Medtronic Sofamor Danek, Memphis, TN  
08/12/04 John Young, Medtronic Sofamor Danek, Memphis, TN  
11/01/04 Paul Nichter, Medtronic Sofamor Danek, Memphis, TN  
06/14/05 Frank Bono, Medtronic Sofamor Danek, Memphis, TN  
08/02/07 Jesse Moore, Medtronic Sofamor Danek, Memphis, TN  
08/17/07 Thu Nguyen, Medtronic Sofamor Danek, Chicago, IL  
10/01/07 Jeetendra Bharadwaj, Medtronic Sofamor Danek, Memphis, TN  
11/27/07 Benjamin Hogbin Medtronic Sofamor Danek, Memphis, TN  
02/25/08 Ming Liu, Medtronic Sofamor Danek, Memphis, TN  
04/09/08 Colleen Walters, Medtronic Sofamor Danek, Memphis, TN  
07/17/08 Manuela Schaflechner, Medtronic Sofamor Danek, Portugal  
08/04/08 Steve Polkosky, Medtronic Sofamor Danek, Memphis, TN  
07/08/09 Jeetendra Bharadwaj, Medtronic, Memphis, TN  
07/08/09 Brad Steele, Medtronic Spinal & Biologics, Memphis, TN  
07/08/09 Erwin Sahagun, Medtronic Spinal & Biologics, Memphis, TN  
07/08/09 Brett Malsom, Medtronic Spinal & Biologics, Memphis, TN  
07/08/09 Bryan Wilcox, Medtronic Spinal & Biologics, Memphis, TN  
07/20/09 Michael Catino MD, Presbyterian Hospital, Denton, TX  
10/13/10 Barney Carter, Medtronic Spinal & Biologics, FL  
10/13/10 Chris Fair, Medtronic Spinal & Biologics, FL  
04/26/11 Chris Johnson, Medtronic Spinal & Biologics, Memphis, TN

<sup>¥</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>§</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

04/26/11	Alison Powers, Medtronic Spinal & Biologics, Memphis, TN
10/17-19/11	Mario Dittman, Medtronic, Germany
11/17/11	Alison Powers, Medtronic Spinal & Biologics, Memphis, TN
01/12-13/12	Almut Scheiber, Medtronic Representative, Hannover, Germany
10/08-10/12	Todd Weisbrot Medtronic Spinal & Biologics/Spinal Associates, Ltd., Mineola, NY

## V. EDITORIAL RESPONSIBILITIES

1. *Spine - Scoliosis Research Society issue*, associate ed, 28<sup>th</sup> Annual Meeting, Dublin, Ireland, 1993.
2. *Spine*, editorial board advisor, 1994-1999.
3. *Journal of Spinal Disorders and Techniques*, editorial board associate ed, 1995-Present.
4. *Atlas of Spine Surgery, Journal of American College of Surgery*, editorial reviewer, 1995.
5. *The Textbook of Spinal Surgery, Vols. 1 & 2*, 2<sup>nd</sup> Edition, associate ed. Bridwell KH, DeWald RL, eds., Lippincott-Raven, Philadelphia, PA, 130 chapters, 2389 pages, 1997.
6. *The Adult and Pediatric Spine for Orthopaedic Principles and Practices*, section ed. Dee R, ed., C.V. Mosby, St. Louis, MO, 7 chapters, 250 pages, 1997.
7. *Spinal Cord Monitoring for Seminars in Spine Surgery*, guest ed. Boden S, Wiesel S, eds., December 1997.
8. *Journal of Bone and Joint Surgery*, consultant reviewer, December 1998-Present.
9. *Spine Controversies*, spine section ed, June 1999.
10. *Spine*, associate editorial board, 1999-Present.
11. *Orthopaedic Knowledge Update (OKU) – VII*, section ed. Koval K, ed., *American Academy of Orthopaedic Surgeons*, 1999.
12. *spineuniverse.com*, associate editor, Internet publication, 1999-Present.
13. *Iscoliosis.com*, associate editor, Internet publication, 2000-2005.
14. *Thoracic Pedicle Screws Seminars in Spine Surgery*, guest ed. Boden S, Wiesel S, eds., 2002.
15. *Journal of the American Academy of Orthopaedic Surgeons*, reviewer, 2002-Present.
16. *Pediatric Spinal Deformity, Seminars in Spine Surgery*, guest ed. Boden S, Wiesel S, eds., 2003.
17. *The Spine Journal, North American Spine Society*, associate board, 2003-2004.
18. *The Spine Journal, North American Spine Society*, reviewer, 2003-Present.
19. *The Adult and Pediatric Spine, Third Edition, Volumes 1 & 2*. An HS, Boden SD, Laueran WC, **Lenke LG**, McLain RF, associate eds. Frymoyer JW, Wiesel SW, eds., Lippincott Williams & Wilkins, Philadelphia, PA, 62 chapters, 1210 pages, 2004.
20. *Modern Anterior Scoliosis Surgery*. **Lenke LG**, Betz RR, Harms J, eds. Quality Medical Publishing, St. Louis, MO, 48 chapters, 68 contributors, 727 pages, 2004.
21. *Radiographic Measurement Manual*. Spinal Deformity Study Group (SDSG), O'Brien MF\*, Kuklo TR\*, Blanke KM, **Lenke LG**, eds. Medtronic Sofamor Danek, Memphis, TN, 6 chapters, 110 pages, 2004.
22. *Clinical Orthopaedics and Related Research*, reviewer, 2005-Present.
23. *The Spine Journal, North American Spine Society*, associate board, 2006-Present.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

24. *Journal of Pediatric Orthopaedics*, consultant reviewer, 2006-Present.
25. *Journal of Pediatric Orthopaedics*, associate editorial board, 2007-2008.
26. *The Immature Spine, Journal of Bone and Joint Surgery*, co-ed, 2007.
27. *Spinal Deformity: A Guide to Surgical Planning & Management*. Mummaneni P, **Lenke LG**, Haid R, eds., Quality Medical Publishing, St. Louis, MO, 38 chapters, 79 contributors, 826 pages, 2008.
28. *Scoliosis, Society on Scoliosis Orthopaedic and Rehabilitation Treatment*, SOSORT official journal, editorial board, 2008-Present.
29. *The Lancet*, external clinical reviewer, 2008-Present.
30. *Backtalk, The Scoliosis Association*, professional advisory board, 2008-Present.
31. *CiOS, Clinics in Orthopedic Surgery, The Korean Orthopaedic Association*, ed, 2009.
32. *BioMed-series Journals*, reviewer, 2009-Present.
33. *Journal of Neurosurgery: Spine*, reviewer, 2011-Present.
34. *Journal of Orthopedic Research*, reviewer, 2011-Present.
35. *Journal of Neurosurgery: Spine*, associate board, 2012-2017.
36. *Spinal Deformity, Scoliosis Research Society*, deputy ed, 2012-Present.
37. *Spinal Osteotomy*. Wang Y, Boachie-Adjei O, **Lenke LG**, eds. Springer Science+Business Media Dordrecht, 21 chapters, 43 contributors, 277 pages, 2015.
38. *Rigid Spine Deformities: Strategy of Care, Medical and Surgical Option, Tips and Tricks*. Kaplan L, **Lenke LG**, eds. Thieme (*in progress winter 2012*).
39. *AOSpine Masters Series*. guest ed, section 4: Adult Deformities. Thieme Publishers,
40. *CiOS, Clinics in Orthopedic Surgery, The Korean Orthopaedic Association, Vol. 7 No. 4, December 2015*
41. *The Korean Spinal Neurosurgery Society*, Volume 15 No.1 March 2018

## VI. COURSE CHAIRMAN

1. Spinal Surgery for Nurses and Allied Health Personnel, Sofamor-Danek Group, Memphis, TN, October 1998.
2. 6<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Vancouver, British Columbia, Canada, July 8-10, 1999.
3. Cervical Spine Instrumentation Principles and Techniques, PAWS, St. Louis, MO, August 1999.
4. 7<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Barcelona, Spain, July 2000.
5. Pedicle Fixation in the Thoracic Spine, Medtronic Sofamor Danek, Memphis, TN, September 22, 2000.
6. Classic and Contemporary Insights into Spinal Surgery, Group International Cotrel-Dubousset, New York, NY, December 8-9, 2000.
7. Advanced Pedicle Screw Instrumentation Mobile Unit, Medtronic Sofamor Danek, Memphis, TN, February 2001.
8. Complex Pediatric and Adult Spinal Deformity Reconstruction, Group International Cotrel-Dubousset, Washington University School of Medicine, St. Louis, MO, March 7-9, 2001.
9. Advanced Pedicle Screw Instrumentation Mobile Unit, Medtronic Sofamor Danek, Memphis, TN, May 2001.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

10. 8<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Paradise Island, Bahamas, July 2001.
11. Thoracoscopic Spinal Surgery & Endoscopic Spinal Surgery, DePuy AcroMed, San Diego, CA, July 2001.
12. Advanced Pedicle Screw Instrumentation Mobile Unit, Medtronic Sofamor Danek, Half Moon Bay, San Francisco, CA, October 13, 2001.
13. Segmental, Regional, and Global Spinal Malalignment, Group International Cotrel-Dubousset, Chicago, IL, December 2001.
14. Advanced Pedicle Screw Instrumentation Mobile Unit, Medtronic Sofamor Danek, Ritz-Carlton, St. Louis, MO, February 2, 2002.
15. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Montreux, Switzerland, May 23-29, 2002.
16. Global Spine: Surgical Principles and Latest Techniques, BroadWater, San Diego, CA, October 2002.
17. Anterior Deformity Course, Medtronic Sofamor Danek, St. Louis, MO, November 2002.
18. Advanced Pedicle Screw Course, Medtronic Sofamor Danek, St. Louis, MO, November 2002.
19. Advanced Concepts in Anterior Scoliosis Treatment & Advanced Techniques in Spinal Deformity Surgery, Medtronic Sofamor Danek, Half Moon Bay, CA, February 21-22, 2003.
20. Orthopedic and Neurosurgeons Equal Spinal Surgeons, Chicago, IL, April 2003.
21. Advanced Anterior and Posterior Spinal Deformity Techniques, Medtronic Sofamor Danek, Colorado Springs, CO, May 18-19, 2003.
22. Global Spine: Surgical Principles and the Latest Techniques, Dana Point, CA, June 27-29, 2003.
23. 10<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Rome, Italy, July 10-12, 2003.
24. Spinal Deformity Study Group Symposium: Emerging Trends and Advanced Surgical Techniques in Spinal Deformity, Medtronic Sofamor Danek, St. Louis, MO, November 13-15, 2003.
25. Advanced Anterior and Posterior Spinal Deformity Techniques, San Francisco, CA, February 27-28, 2004.
26. Sacral and Sacroiliac Fixation Focus Workshop, American Academy of Orthopaedic Surgeons, San Francisco, CA, March 10, 2004.
27. Global Spine: Surgical Principles and Latest Techniques, BroadWater, Chicago, IL, June 25-26, 2004.
28. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Southampton, Bermuda, July 1-3, 2004.
29. Advanced Techniques in Spinal Deformity Surgery, Medtronic Sofamor Danek, Memphis, TN, July 16-17, 2004.
30. Spinal Deformity Study Group Symposium 2004: Emerging Trends and Advanced Surgical Techniques, Medtronic Sofamor Danek, St. Louis, MO, November 4-6, 2004.
31. Advanced Techniques in Pediatric Spinal Deformity Surgery, Medtronic Sofamor Danek, San Francisco, CA, March 4-5, 2005.
32. Spinal Deformity Study Group, Medtronic Sofamor Danek, San Diego, CA, April 28-30, 2005.
33. Advanced Techniques in Pediatric Spinal Deformity Surgery, Medtronic Sofamor Danek, Memphis, TN, May 20-21, 2005.

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

34. Pediatric Spinal Deformity Focus Meeting, Medtronic Sofamor Danek, Memphis, TN, May 23-24, 2005.
35. 9<sup>th</sup> Annual International Course on Global Spine: Spinal Motion, Fusion and Realignment, San Francisco, CA, June 24-26, 2005.
36. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Banff, Alberta, Canada, July 7-9, 2005.
37. Asia Pacific Scoliosis Research Society Annual Meeting, Scoliosis Research Society, Jeju Island, Korea, August 25-27, 2005.
38. Aging Spine Program, North American Spine Society, Philadelphia, PA, September 26, 2005.
39. Degenerative Lumbar Scoliosis Seminar, North American Spine Society, Philadelphia, PA, September 29, 2005.
40. Training for Tomorrow's Deformity Surgeon, Medtronic Sofamor Danek, San Diego, CA, October 16-18, 2005.
41. Immature Spine Symposium, Scoliosis Research Society, Miami, FL, October 27-30, 2005.
42. Spinal Deformity Study Group Symposium 2005: Emerging Trends and Advanced Surgical Techniques in Spinal Deformity, Medtronic Sofamor Danek, St. Louis, MO, November 10-12, 2005.
43. Spinal Deformity Study Group, Medtronic Sofamor Danek, Chicago, IL, December 1-3, 2005.
44. Advanced Techniques in Deformity Surgery for Pediatric Spine Surgeons, Medtronic Sofamor Danek, Scottsdale, AZ, February 17-19, 2006.
45. Spine Surgeon Transition Program, Fireside Series: Deformity surgery-is it right for your practice, Medtronic Sofamor Danek, Orlando, FL, March 17, 2006.
46. Pediatric Surgeon Spine Deformity, Medtronic Sofamor Danek, Memphis, TN, April 2-4, 2006.
47. Advanced Techniques in Deformity Surgery for Pediatric Spine Surgeons, Medtronic Sofamor Danek, Dallas, TX, April 28-29, 2006.
48. Global Spine - Techniques and Technologies from Skull to Sacrum, Medtronic Sofamor Danek, Las Vegas, NV, June 9-11, 2006.
49. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Athens, Greece, July 12-15, 2006.
50. Training for Tomorrow's Deformity Surgeons, Medtronic Sofamor Danek, Chicago, IL, August 27-29, 2006.
51. Spinal Deformity Study Group Symposium 2006: Emerging Trends and Advanced Surgical Techniques in Spinal Deformity, Medtronic Sofamor Danek, St. Louis, MO, November 2-4, 2006.
52. Spinal Deformity Study Group, Medtronic Sofamor Danek, Chicago, IL, November 30-December 3, 2006.
53. ONE Spine: Controversies in Spine Surgery 1<sup>st</sup> Annual Meeting, BroadWater, Cancun, Mexico, February 3-4, 2007.
54. Advanced Pediatric Spinal Deformity Course, Medtronic Spinal & Biologics, Scottsdale, AZ, February 23-24, 2007.
55. SRS Worldwide Regional Course/4<sup>th</sup> Chinese Scoliosis International Symposium, Scoliosis Research Society, Beijing, China, April 2-4, 2007.
56. Advanced Pediatric Spinal Deformity Course, Medtronic Spinal & Biologics, Dallas, TX, April 20-21, 2007.
57. Aging Spine Care: Cases in Surgical & Non-Surgical Management, Medtronic Spinal & Biologics, Chicago, IL, April 27-28, 2007.
58. Spinal Deformity Study Group, Medtronic Spinal & Biologics, Scottsdale AZ, May 10-12, 2007.

<sup>v</sup>Student, <sup>s</sup>Resident, <sup>\*Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>\$</sup>International Research Scholar</sup>

59. The Spine Summit: Emerging Technologies & Best Practices, BroadWater, Maui, HI, June 8-10, 2007.
60. Current Concepts & Techniques of Spinal Deformity, Medtronic Spinal & Biologics, Toronto, Canada, June 15-16, 2007.
61. Training for Tomorrow's Deformity Surgeon, Medtronic Spinal & Biologics, Chicago, IL, June 24-26, 2007.
62. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, BroadWater, Scoliosis Research Society, Paradise Island, Bahamas, July 11-14, 2007.
63. Spinal Deformity Study Group Symposium: Emerging Trends and Advanced Surgical Techniques in Spinal Deformity, Medtronic Spinal & Biologics, St. Louis, MO, November 8-10, 2007.
64. Spinal Deformity Study Group, Medtronic Spinal & Biologics, Chicago, IL, November 29-December 1, 2007.
65. ONE Spine: Controversies in Spine Surgery 2<sup>nd</sup> Annual Meeting, BroadWater, Cancun, Mexico, February 8-9, 2008.
66. Advanced Techniques in Deformity Surgery for Spine Surgeons, Medtronic Spinal & Biologics, Los Angeles, CA, February 15-16, 2008.
67. 19<sup>th</sup> Annual Spine Surgeons Transition Program's Spine+Science+Management, Medtronic Spinal & Biologics, Memphis, TN, March 13-15, 2008.
68. Aging Spine Care, Medtronic Spinal & Biologics, Chicago, IL, April 4-5, 2008.
69. Spinal Deformity Study Group (SDSG), Medtronic Spinal & Biologics, Scottsdale, AZ, May 8-10, 2008.
70. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Hong Kong, China, July 8-11, 2008.
71. Spinal Deformity Study Group (SDSG) Symposium: Emerging Trends and Advanced Surgical Techniques in Spinal Deformity, Medtronic Spinal & Biologics, St. Louis, MO, November 6-8, 2008.
72. ONE Spine: Controversies in Spine Surgery 3<sup>rd</sup> Annual Meeting, BroadWater, Cancun, Mexico, February 6-7, 2009.
73. Spinal Deformity Study Group, Medtronic Spinal & Biologics, Scottsdale, AZ, April 16-18, 2009.
74. ONE Spine: Controversies in Spine Surgery 4<sup>th</sup> Annual Meeting, BroadWater, Paradise Island, Bahamas, June 25-26, 2010.
75. First Annual ONE Spine Residents & Fellows Course, Seattle Science Foundation, Swedish Neuroscience Institute, Seattle, WA, August 20-22, 2010.
76. Spinal Deformity LIVE, BroadWater, St. Louis, MO, March 10-11, 2011.
77. Evaluation and Treatment of Adult Spinal Deformity: Skull to Sacrum, North American Spine Society, Scoliosis Research Society, Burr Ridge, IL, April 29-30, 2011.
78. Second Annual ONE Spine Residents & Fellows Course, Seattle Science Foundation, Swedish Neuroscience Institute, Seattle, WA, August 19-20, 2011.
79. The 6<sup>th</sup> International Congress of Chinese Orthopaedic Association, Scoliosis Research Society, Beijing, China, December 1-2, 2011.
80. AOSpine Davos Course, Davos, Switzerland, December 11-16, 2012.
81. Evaluation and Treatment of Adult Spinal Deformity: Skull-to-Sacrum, North American Spine Society, Scoliosis Research Society, Burr Ridge, IL, March 16-17, 2012.
82. Spinal Deformity LIVE, BroadWater, Washington University School of Medicine, St. Louis, MO, April 19-20, 2012.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

83. Third Annual ONE Spine Residents & Fellows Course, Seattle Science Foundation, Swedish Neuroscience Institute, Seattle, WA, August 17-19, 2012.
84. Masters Deformity Peer-to-Peer, DePuy Synthes Spine, Raynham and Boston, MA, September 28-29, 2012.
85. Global Faculty Training, Medtronic Spinal & Biologics, Dallas, TX, October 22-23, 2012.
86. Masters Deformity Peer-to-Peer, DePuy Spine, Raynham & Boston, MA, November 8-10, 2012.
87. Spinal Deformity LIVE, BroadWater, Washington University School of Medicine, St. Louis, MO, March 7-9, 2013.
88. Spine Subspecialty Day, Pediatric Orthopaedic Society of North America, American Academy of Orthopaedic Surgeons, Toronto, Ontario, Canada, May 3, 2013.
89. AOSpine Knowledge Forum Deformity Meeting, AOSpine, 20<sup>th</sup> IMAST, Vancouver, Canada, July 11, 2013.
90. Washington University Spine Fellow Reunion, BroadWater, Beaver Creek, CO, August 8-10, 2013.
91. Fourth Annual ONE Spine Resident's & Fellow's Course, Seattle Science Foundation, Swedish Neuroscience Institute, Seattle, WA, August 16-18, 2013.
92. 1<sup>st</sup> Spine Deformity Solutions: A Hands-On Course, American Association of Neurological Surgeons, Scoliosis Research Society, Chicago, IL, October 4-5, 2013.
93. Spine: Base to Summit, BroadWater, Beaver Creek, CO, January 17-20, 2014.
94. Spinal Pelvic Realignment in the Adult Spine, Medtronic Spinal & Biologics, Orlando, FL, February 21-22, 2014.
95. Spinal Deformity Live, BroadWater, Washington University School of Medicine, St. Louis, MO, February 28-March 1, 2014.
96. Spinal Deformity Complications & Revisions: Lessons Learned, Medtronic Spinal & Biologics, Dublin, Ireland, March 6-7, 2014.
97. Advanced Spinal Deformity Training, K2M, Washington, D.C., April 4-5, 2014.
98. Spinal Deformities Complications & Revisions LatAm: Lessons Learned, Medtronic Spinal & Biologics, Miami, FL, August 14-15, 2014.
99. 2<sup>nd</sup> Spine Deformity Solutions: A Hands-On Course, American Association of Neurological Surgeons, Scoliosis Research Society, Houston, TX, April 24-26, 2014.
100. Innovative and Advanced Surgery of the Degenerative and Deformed Lumbar Spine, PASE Course, St. Louis University, St. Louis, MO, October 2-4, 2014.
101. 3<sup>rd</sup> Spine Deformity Solutions: A Hands-On Course, American Association of Neurological Surgeons, Scoliosis Research Society, Burr Ridge, IL, October 9-11, 2014.
102. Spine: Base to Summit, BroadWater, Beaver Creek, CO, January 16-19, 2015.
103. Spinal Pelvic Realignment, Medtronic Spinal & Biologics, Phoenix, AZ, February 27-28, 2015.
104. 1<sup>st</sup> Annual International Spinal Deformity Symposium, BroadWater, Chicago, IL, December 4-5, 2015.
105. Spine: Base to Summit, BroadWater, Beaver Creek, CO, January 28-31, 2016.
106. 1<sup>st</sup> Annual Safety In Spine Surgery Summit, New York, NY, February 19<sup>th</sup>, 2016
107. Skull to Sacrum, Jersey City, NJ, Medtronic, March 31-April 2, 2016
108. Principles and Techniques of Complex Spine Reconstruction, Weill Cornell Medical College, New York, NY, April 9<sup>th</sup>, 2016

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>\$</sup>International Research Scholar

109. Spine Surgery Live, Medtronic, The Spine Hospital, New York, NY April 1-2, 2016
110. The Total Spine Series 2016, The Spine Hospital New York –Prebetyrian/ Allen, Live Surgery of PSO Spinal Reconstruction, New York, NY, April 18<sup>th</sup>, 2016
111. 2nd Annual International Spinal Deformity Symposium. November 11-12, 2016, Broadwater, Chicago, IL
112. Spine: Base to Summit. January 26 – 29, 2017, Broadwater, Beaver Creek, CO
113. 2nd Annual Safety in Spine Surgery Summit. February 10, 2017, Broadwater, New York, NY
114. Medtronic: Skull to Sacrum. September 21-23, 2017, Medtronic, Jersey City, NJ
115. 3rd Annual International Spinal Deformity Symposium, November 3<sup>rd</sup> – 4<sup>th</sup>, 2017, Broadwater, Chicago, IL
116. Spine Base to Summit, Beaver Creek, CO, Broadwater, January 18-21, 2018
117. 35th Anniversary of the CD Correction Philosophy, January 25 - 26, 2018, Medtronic, Athens, Greece
118. Decision Making for the Complex Pediatric & Adult Patient, February 16-17-2018, Westin Lake Las Vegas, Medtronic, Henderson, NV
119. Medtronic Surgery Observation Program. September 11-12, 2018, New York, NY
120. Skull To Sacrum, Medtronic, September 13-15, 2018, New York, NY
121. 4th Annual International Spinal Deformity Symposium (ISDS), Broadwater, November 30 - December 1, 2018, New York, NY.
122. Spine: Base to Summit 2019. January 18-21, 2019, Vail, CO
123. 4th Annual Safety in Spine Surgery Summit, April 26<sup>th</sup>, 2019, Broadwater, New York, NY
124. Medtronic: Skull to Sacrum. October 10-11, 2019, New York, NY
125. 5th Annual International Spinal Deformity Symposium (ISDS), December 6<sup>th</sup>-7<sup>th</sup>, 2019, New York, NY
126. Medtronic Global Webinar on COVID-19 & Spine Care Worldwide, April 28, 2020

## VII. PEER-REVIEWED PUBLICATIONS

1. **Lenke LG**, Bridwell KH, Baldus C, Blanke K. Analysis of pulmonary function and axis rotation in adolescent and young adult idiopathic scoliosis patients treated with Cotrel-Dubousset instrumentation. *J Spinal Disord* 1992;5(1):16–25
2. **Lenke LG**, Bridwell KH, Bullis D, Betz RR, Baldus C, Schoenecker PL. Results of in situ fusion for isthmic spondylolisthesis. *J Spinal Disord* 1992;5(4):433–42
3. **Lenke LG**, Bridwell KH, Baldus C, Blanke K, Schoenecker PL. Cotrel-Dubousset instrumentation for adolescent idiopathic scoliosis. *J Bone Joint Surg Am* 1992;74(7):1056–67
4. **Lenke LG**, Bridwell KH, Baldus C, Blanke K. Preventing decompensation in King Type II curves treated with Cotrel-Dubousset instrumentation. Strict guidelines for selective thoracic fusion. *Spine* 1992;17(8):274–81
5. Owen JH, Bridwell KH, **Lenke LG**. Innervation pattern of dorsal roots and their effects on the specificity of dermatomal somatosensory evoked potentials. *Spine* 1993;18(6):748–54
6. Kai Y<sup>§</sup>, Owen JH, **Lenke LG**, Bridwell KH, Oakley DM, Sugioka Y. Use of sciatic neurogenic motor evoked potentials versus spinal potentials to predict early-onset neurologic deficits when intervention is still possible during overdistraction. *Spine* 1993;18(9):1134–9

<sup>§</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



7. **Lenke LG**, Bridwell KH, Baldus C, Blanke K, Schoenecker PL. Ability of Cotrel-Dubousset instrumentation to preserve distal lumbar motion segments in adolescent idiopathic scoliosis. *J Spinal Disord* 1993;6(4):339–50
8. Bridwell KH, Sedgewick TA<sup>‡</sup>, O'Brien MF\*, **Lenke LG**, Baldus C. The role of fusion and instrumentation in the treatment of degenerative spondylolisthesis with spinal stenosis. *J Spinal Disord* 1993;6(6):461–72
9. **Lenke LG**, Sutherland CJ, Gilula LA. Osteoid osteoma of the proximal femur: CT-guided preoperative localization. Case report. *Orthopedics* 1994;17(3):289–92
10. **Lenke LG**, Bridwell KH, Jaffe AS. Increase in creatine kinase MB isoenzyme levels after spinal surgery. *J Spinal Disord* 1994;7(1):70–6
11. Adams III JE, Sicard GA, Allen BT, Bridwell KH, **Lenke LG**, Dávila-Román VG, Bodor GS, Ladenson JH, Jaffe AS. Diagnosis of perioperative myocardial infarction with measurement of cardiac Troponin I. *N Engl J Med* 1994;330(10):670–4
12. O'Brien MF\*, Bridwell KH, **Lenke LG**, Schoenecker PL. Intracanalicular osteochondroma producing spinal cord compression in hereditary multiple exostoses. *J Spinal Disord* 1994;(3):236–4
13. **Lenke LG**, Bridwell KH, O'Brien MF\*, Baldus C, Blanke K. Recognition and treatment of the proximal thoracic curve in adolescent idiopathic scoliosis treated with Cotrel-Dubousset instrumentation. *Spine* 1994;19(14):1589–97
14. O'Brien MF\*, **Lenke LG**, Bridwell KH, Blanke K, Baldus C. Preoperative spinal canal investigation in adolescent idiopathic scoliosis curves  $\geq 70^\circ$ . *Spine* 1994;19(14):1606–10
15. O'Brien MF\*, **Lenke LG**, Bridwell KH, Padberg AM, Stokes M. Evoked potential monitoring of the upper extremities during thoracic and lumbar spinal deformity surgery: a prospective study. *J Spinal Disord* 1994;7(4):277–84
16. O'Brien MF\*, **Lenke LG**, Lou J, Bridwell KH, Joyce ME<sup>‡</sup>. Astrocyte response and transforming growth factor-beta localization in acute spinal cord injury. *Spine* 1994;19(20):2321–9S
17. Owen JH, **Lenke LG**, Danto J. Spinal cord monitoring in patients undergoing surgery for neuromuscular scoliosis. *Spine* 1994;19(20):2371–2S
18. Bridwell KH, O'Brien MF\*, **Lenke LG**, Baldus C, Blanke K. Posterior spinal fusion supplemented with only allograft bone in paralytic scoliosis. Does it work? *Spine* 1994;19(23):2658–66
19. **Lenke LG**, Bridwell KH, Blanke K, Baldus C. Analysis of pulmonary function and chest cage dimension changes after thoracoplasty in idiopathic scoliosis. *Spine* 1995;20(12):1343–50
20. Gelb DE\*, **Lenke LG**, Bridwell KH, Blanke K, McEnery KW. An analysis of sagittal spinal alignment in 100 asymptomatic middle and older aged volunteers. *Spine* 1995;20(12):1351–8
21. **Lenke LG**, Bridwell KH, Blanke K, Baldus C. Prospective analysis of nutritional status normalization after spinal reconstructive surgery. *Spine* 1995;20(12):1359–67
22. Bridwell KH, **Lenke LG**, McEnery KW, Baldus C, Blanke K. Anterior fresh frozen structural allografts in the thoracic and lumbar spine. Do they work if combined with posterior fusion and instrumentation in adult patients with kyphosis or anterior column defects? *Spine* 1995;20(12):1410–8
23. **Lenke LG**, Padberg AM, Russo MH, Bridwell KH, Gelb DE\*. Triggered electromyographic threshold for accuracy of pedicle screw placement. An animal model and clinical correlation. *Spine* 1995;20(14):1585–91S

<sup>‡</sup>Student, \*Resident, \*Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

24. Padberg AM, Russo MH, **Lenke LG**, Bridwell KH, Komanetsky RM. Validity and reliability of spinal cord monitoring in neuromuscular spinal deformity surgery. *J Spinal Disord* 1996;9(2):150–8
25. Curran MP<sup>‡</sup>, **Lenke LG**. Torulopsis glabrata spinal osteomyelitis involving two contiguous vertebrae: A case report. *Spine* 1996;21(7):866–70
26. Hamill CL\*, **Lenke LG**, Bridwell KH, Chapman MP\*, Blanke K, Baldus C. The use of pedicle screw fixation to improve correction in the lumbar spine of patients with idiopathic scoliosis: Is it warranted? *Spine* 1996;21(10):1241–9
27. Hamill CL\*, Bridwell KH, **Lenke LG**, Chapman MP\*, Baldus C, Blanke K. Posterior arthrodesis in the skeletally immature patient: assessing the risk for crankshaft: Is an open triradiate cartilage the answer? *Spine* 1997;22(12):1343–51
28. Gelb DE\*, **Lenke LG**, Pond J<sup>‡</sup>. Dural tear associated with a flexion distraction subluxation to the cervical spine without neurologic injury. *Acta Orthopaedica Belgica* 1998;64(2):224–8
29. Komanetsky RM, Padberg AM, **Lenke LG**, Bridwell KH, Russo MH, Chapman MP\*, Hamill CL\*. Neurogenic motor evoked potentials: a prospective comparison of stimulation methods in spinal deformity surgery. *J Spinal Disord* 1998;11(1):21–8
30. Gupta P\*, **Lenke LG**, Bridwell KH. Incidence of neural axis abnormalities in infantile and juvenile patients with spinal deformity: Is a magnetic resonance image screening necessary? *Spine* 1998;23(2):206–10
31. Vedantam R\*, **Lenke LG**, Keeney JA<sup>‡</sup>, Bridwell KH. Comparison of standing sagittal spinal alignment in asymptomatic adolescents and adults. *Spine* 1998;23(2):211–5
32. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Major intraoperative neurologic deficits in pediatric and adult spinal deformity patients: Incidence and etiology at one institution. *Spine* 1998;23(3):324–31
33. Lou J, **Lenke LG**, Xu F, O'Brien M\*. In vivo Bcl-2 oncogene neuronal expression in the rat spinal cord. *Spine* 1998;23(5):517–23
34. Marsicano JG\*, **Lenke LG**, Bridwell KH, Chapman M\*, Gupta P\*, Weston J. The lordotic effect of the OSI frame on operative adolescent idiopathic scoliosis patients. *Spine* 1998;23(12):1341–8
35. Padberg AM, Wilson-Holden TJ, **Lenke LG**, Bridwell KH. Somatosensory- and motor-evoked potential monitoring without a wake-up test during idiopathic scoliosis surgery: An accepted standard of care. *Spine* 1998;23(12):1392–400
36. Brown CA<sup>‡</sup>, **Lenke LG**, Bridwell KH, Geideman WM<sup>‡</sup>, Hasan SA<sup>‡</sup>, Blanke K. Complications of pediatric thoracolumbar and lumbar pedicle screws. *Spine* 1998;23(14):1566–71
37. **Lenke LG**, Bridwell KH, Blanke K, Baldus C, Weston J. Radiographic results of arthrodesis with Cotrel-Dubousset instrumentation for the treatment of adolescent idiopathic scoliosis: A five to ten-year follow-up study. *J Bone Joint Surg Am* 1998;80(6):807–14
38. **Lenke LG**, Betz RR, Bridwell KH, Clements DH, Harms J, Lowe TG, Shufflebarger HL. Intraobserver and interobserver reliability of the classification of thoracic adolescent idiopathic scoliosis. *J Bone Joint Surg Am* 1998;80(8):1097–106
39. Lou J, **Lenke LG**, Ludwig FJ, O'Brien MF\*. Apoptosis as a mechanism of neuronal cell death following acute experimental spinal cord injury. *Spinal Cord* 1998;36(10):683–90

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>‡</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

40. Freehill AK<sup>‡</sup>, **Lenke LG**. Severe kyphosis secondary to glucocorticoid-induced osteoporosis in a young adult with Cushing's disease. A case report and literature review. *Spine* 1999;24(2):189–93
41. Betz RR, Harms J, Clements III DH, **Lenke LG**, Lowe TG, Shufflebarger HL, Jeszenszky D, Beele B. Comparison of anterior and posterior instrumentation for correction of adolescent thoracic idiopathic scoliosis. *Spine* 1999;24(3):225–39
42. Linville DA\*, Bridwell KH, **Lenke LG**, Vedantam R\*, Leicht P. Complications in the adult spinal deformity patient having combined surgery. Does revision increase the risk? *Spine* 1999;24(4):355–63
43. Bridwell KH, Baldus C, Iffrig TM, **Lenke LG**, Blanke K. Process measures and patient/parent evaluation of surgical management of spinal deformities in patients with progressive flaccid neuromuscular scoliosis (Duchenne's muscular dystrophy and spinal muscular atrophy). *Spine* 1999;24(13):1300–9
44. Sweet FA\*, **Lenke LG**, Bridwell KH, Blanke KM. Maintaining lumbar lordosis with anterior single solid-rod instrumentation in thoracolumbar and lumbar adolescent idiopathic scoliosis. *Spine* 1999;24(16):1655–62
45. **Lenke LG**, Betz RR, Bridwell KH, Harms J, Clements DH, Lowe TG. Spontaneous lumbar curve coronal correction after selective anterior or posterior thoracic fusion in adolescent idiopathic scoliosis. *Spine* 1999;24(16):1663–72
46. Wilson-Holden TJ, Padberg AM, **Lenke LG**, Larson BJ, Bridwell KH, Bassett GS. Efficacy of intraoperative monitoring for pediatric patients with spinal cord pathology undergoing spinal deformity surgery. *Spine* 1999;24(16):1685–92
47. Molinari Maj. RW\*, Bridwell KH, **Lenke LG**, Ungacta FF<sup>‡</sup>, Riew KD. Complications in the surgical treatment of pediatric high-grade, isthmic dysplastic spondylolisthesis: A comparison of three surgical approaches. *Spine* 1999;24(16):1701–11
48. Booth KC\*, Bridwell KH, **Lenke LG**, Baldus CR, Blanke KM. Complications and predictive factors for the successful treatment of flatback deformity (fixed sagittal imbalance). *Spine* 1999;24(16):1712–20
49. Booth KC\*, Bridwell KH, Eisenberg BA<sup>‡</sup>, Baldus CR, **Lenke LG**. Minimum 5-year results of degenerative spondylolisthesis treated with decompression and instrumented posterior fusion. *Spine* 1999;24(16):1721–7
50. Tenhula J, **Lenke LG**, Bridwell KH, Gupta P\*, Riew KD. Prospective functional evaluation of the surgical treatment of neurogenic claudication in patients with lumbar spinal stenosis. *J Spinal Disord* 2000;13(4):276–82
51. Song EW<sup>‡</sup>, **Lenke LG**, Schoenecker PL. Isolated thoracolumbar and lumbar hyperlordosis in a patient with cerebral palsy: a case report. *J Spinal Disord* 2000;13(5):455–60
52. Eck KR\*, **Lenke LG**, Bridwell KH, Gilula LA, Lashgari CJ<sup>‡</sup>, Riew KD. Radiographic assessment of anterior titanium mesh cages. *J Spinal Disord* 2000;13(6):501–9
53. Vedantam R\*, **Lenke LG**, Bridwell KH, Linville DA\*. Comparison of push-prone and lateral-bending radiographs for predicting postoperative coronal alignment in thoracolumbar and lumbar scoliotic curves. *Spine* 2000;25(1):76–81
54. Vedantam R\*, **Lenke LG**, Bridwell KH, Haas J<sup>‡</sup>, Linville DA\*. A prospective evaluation of pulmonary function in patients with adolescent idiopathic scoliosis relative to the surgical approach used for spinal arthrodesis. *Spine* 2000;25(1):82–90
55. D'Andrea LP, Betz RR, **Lenke LG**, Harms J, Clements DH, Lowe TG. The effect of continued posterior spinal

<sup>‡</sup>Student, \*Resident, <sup>‡</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>‡</sup>Domestic Visiting Surgeon, <sup>‡</sup>International Research Scholar

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<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



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<sup>‡</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



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<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>§</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



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## IX. BOOK CHAPTERS

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<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>‡</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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2. Owen J, Kai Y, **Lenke L**, Bridwell K, Oakley D. The use of antidromic sensory activity to monitor multiple nerve root function simultaneously in animals: Preliminary results. Podium presentation 18. Scoliosis Research Society 25<sup>th</sup> Annual Meeting, Honolulu, HI, September 1990.
3. **Lenke LG**, Bridwell KH, Capelli A, Baldus C, Blanke K. Analysis of pulmonary function and axis rotation in adolescent and young adult idiopathic scoliosis patients treated with Cotrel-Dubousset Instrumentation. Podium presentation 57. Scoliosis Research Society 25<sup>th</sup> Annual Meeting, Honolulu, HI, September 1990.
4. **Lenke LG**, Bridwell KH, Baldus C, Blanke K, Schoenecker PL. Results of 102 consecutive Cotrel-Dubousset Instrumentations for adolescent idiopathic scoliosis. Podium presentation 62. Scoliosis Research Society 25<sup>th</sup> Annual Meeting, Honolulu, HI, September 1990.
5. **Lenke LG**, Bridwell KH, Blanke K, Baldus C, Schoenecker PL. Results of Cotrel-Dubousset Instrumentation for adolescent idiopathic scoliosis. Federation of Spine Associations 6<sup>th</sup> Annual Meeting, Anaheim, CA, March 1991.
6. **Lenke LG**, Bridwell KH, Baldus C, Blanke K, Schoenecker PL. Results of Cotrel-Dubousset Instrumentation for adolescent idiopathic scoliosis with minimum two-year follow-up. North American Spine Society 6<sup>th</sup> Annual Meeting, Keystone, CO, August 2, 1991.
7. Sedgewick T<sup>‡</sup>, Bridwell KH, **Lenke LG**, Baldus C. Surgical treatment of degenerative spondylolisthesis with associated spinal stenosis: the need for transverse process fusion with and without fixation coupled with decompression. Podium presentation 39. North American Spine Society 6<sup>th</sup> Annual Meeting, Keystone, CO, August 3, 1991.
8. **Lenke LG**, Bridwell KH, Bullis D, Betz R, Baldus C, Schoenecker PL. Results of *in-situ* fusion for isthmic spondylolisthesis. Podium presentation 21. Scoliosis Research Society 26<sup>th</sup> Annual Meeting, Minneapolis, MN, September 1991.
9. Sedgewick T<sup>‡</sup>, Bridwell KH, **Lenke L**, Baldus C. Surgical treatment of degenerative spondylolisthesis with associated spinal stenosis: The need for transverse process fusion with and without fixation coupled with decompression. Podium presentation 22. Scoliosis Research Society 26<sup>th</sup> Annual Meeting, Minneapolis, MN, September 1991.
10. **Lenke LG**, Bridwell KH, Baldus C, Blanke K. Preventing decompensation in King Type II and III curves treated with Cotrel-Dubousset Instrumentation (CDI): 24 to 64 month follow-up. Podium presentation 59. Scoliosis Research Society 26<sup>th</sup> Annual Meeting, Minneapolis, MN, September 1991. **Russell A. Hibbs Award, Best Clinical Research Podium presentation**

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

11. **Lenke LG**, Bridwell KH. Achieving coronal balance in adolescent idiopathic scoliosis treated with Cotrel-Dubousset instrumentation. Cotrel-Dubousset Instrumentation VIII International Congress, Minneapolis, MN, September 1991.
12. **Lenke LG**. Cotrel-Dubousset Instrumentation (CDI) for adolescent idiopathic scoliosis (AIS) with minimum two-year follow-up. Clinical Orthopaedic Society 79<sup>th</sup> Annual Meeting, St. Louis, MO, September 19-21, 1991.
13. **Lenke LG**, Bridwell KH, Blanke K, Baldus C, Schoenecker PL. Results of Cotrel-Dubousset instrumentation for adolescent idiopathic scoliosis: Minimum two year follow-up. Podium presentation 259. American Academy of Orthopaedic Surgeons 59<sup>th</sup> Annual Meeting, Washington, D.C., February 20-25, 1992.
14. **Lenke LG**, Bridwell KH, Blanke K, Baldus C. Preventing decompensation in King Type II and III curves treated with Cotrel-Dubousset instrumentation (CDI): 24-64 month follow-up. Podium presentation 9. Federation of Spine Associations 7<sup>th</sup> Annual Meeting, Washington, D.C., February 1992.
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18. **Lenke LG**, Bridwell KH, Marushack M<sup>‡</sup>. The surgical treatment of lumbar hemivertebra. Missouri State Orthopaedic Association Annual Meeting, Lake of the Ozarks, MO, June 1992. **Best Resident/Fellow Podium Presentation**
19. **Lenke LG**, Bridwell KH, Jaffe AS. Effects of spinal surgery on Creatine Kinase MB levels: possible confusion with diagnostic criteria for acute myocardial infarction. Podium presentation 131. North American Spine Association 7<sup>th</sup> Annual Meeting, Boston, MA, July 9-11, 1992.
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21. Marushack MM<sup>‡</sup>, **Lenke LG**, Bridwell KH. Lumbar hemivertebra resection in children: An analysis of the technique. American Academy of Orthopaedic Surgeons 60<sup>th</sup> Annual Meeting, San Francisco, CA, February 18-23, 1993.
22. **Lenke LG**. The surgical treatment of thoracic and lumbar spinal fractures. American Fracture Association 55<sup>th</sup> Annual Meeting, St. Louis, MO, April 1993.
23. O'Brien MF\*, **Lenke LG**, Bridwell KH, Blanke K. Preoperative spinal canal investigation in "large" adolescent idiopathic scoliosis curves (70° to 140°): Is it warranted? Podium presentation 9. Scoliosis Research Society 28<sup>th</sup> Annual Meeting, Dublin, Ireland, September 19-23, 1993.
24. O'Brien MF\*, **Lenke LG**, Bridwell KH, Stokes M, Padberg A. SSEP monitoring of upper extremity function during thoracic and lumbar spinal deformity surgery: A prospective study. Podium presentation 40. Scoliosis Research Society 28<sup>th</sup> Annual Meeting, Dublin, Ireland, September 19-23, 1993.
25. Bridwell KH, **Lenke LG**, O'Brien MF\*, Baldus C, Blanke K. The use of fresh frozen allograft for posterior spinal fusions in neuromuscular scoliosis: Does it work? Podium presentation 74. Scoliosis Research Society 28<sup>th</sup> Annual Meeting, Dublin, Ireland, September 1993.
26. O'Brien MF\*, **Lenke LG**, Bridwell KH, Baldus C, Blanke K. Recognition and treatment of the proximal thoracic curve in adolescent idiopathic scoliosis treated with Cotrel-Dubousset instrumentation. Podium presentation 84. Scoliosis Research Society 28<sup>th</sup> Annual Meeting, Dublin, Ireland, September 19-23, 1993.

<sup>‡</sup>Student, <sup>‡</sup>Resident, \*Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

27. Joyce ME<sup>‡</sup>, O'Brien MF\*, **Lenke LG**, Lou J, Bridwell KH. Astrocyte response and transforming growth factor- $\beta$  localization in acute spinal cord injury. North American Spine Society 8<sup>th</sup> Annual Meeting, San Diego, CA, October 13-15, 1993. (**Research Grant Award**)
28. **Lenke LG**, Bridwell KH, O'Brien MF\*, Blanke K, Baldus C. Recognition and treatment of the proximal thoracic curve in adolescent idiopathic scoliosis treated with Cotrel-Dubousset instrumentation. North American Spine Society 8<sup>th</sup> Annual Meeting, San Diego, CA, October 13-15, 1993.
29. O'Brien MF\*, **Lenke LG**, Bridwell KH, Blanke K. Preoperative spinal canal investigation in "large" adolescent idiopathic scoliosis curves (70° - 140°). North American Spine Society 8<sup>th</sup> Annual Meeting, San Diego, CA, October 13-15, 1993.
30. Bridwell KH, **Lenke LG**, O'Brien MF\*, Baldus C, Blanke K. The use of fresh frozen allograft for posterior spinal fusions in neuromuscular scoliosis. North American Spine Society 8<sup>th</sup> Annual Meeting, San Diego, CA, October 13-15, 1993.
31. O'Brien MF\*, **Lenke LG**, Bridwell KH, Joyce ME<sup>‡</sup>. Astrocyte response to spinal cord injury: an immunohistochemical investigation. Podium presentation 8. Cervical Spine Research Society 21<sup>st</sup> Annual Meeting, New York, NY, December 1-4, 1993.
32. Bridwell KH, **Lenke LG**, O'Brien MF\*, Baldus C, Blanke K. The use of fresh frozen allograft for posterior spinal fusions in paralytic scoliosis: does it work? Podium presentation 442. American Academy of Orthopaedic Surgeons 61<sup>st</sup> Annual Meeting, New Orleans, LA, February 24-March 1, 1994.
33. O'Brien MF\*, **Lenke LG**, Bridwell KH, Blanke K, Baldus C. Preoperative spinal canal investigation in large adolescent idiopathic scoliosis curves (70° to 138°): is it warranted? Podium presentation 444. American Academy of Orthopaedic Surgeons 61<sup>st</sup> Annual Meeting, New Orleans, LA, February 24-March 1, 1994.
34. **Lenke LG**, O'Brien MF\*, Bridwell KH, Baldus C, Blanke K. Recognition and treatment of the proximal thoracic curve in adolescent idiopathic scoliosis treated with Cotrel-Dubousset instrumentation. Podium presentation 455. American Academy of Orthopaedic Surgeons 61<sup>st</sup> Annual Meeting, New Orleans, LA, February 24-March 1, 1994.
35. O'Brien MF\*, **Lenke LG**, Bridwell KH, Stokes M, Padberg A. Somatosensory evoked potential monitoring of upper extremity function during thoracic and lumbar spinal deformity surgery: A prospective study. Podium presentation 465. American Academy of Orthopaedic Surgeons 61<sup>st</sup> Annual Meeting, New Orleans, LA, February 24-March 1, 1994.
36. O'Brien MF\*, **Lenke LG**, Bridwell KH, Joyce ME<sup>‡</sup>. Astrocyte response to SCI: An immunohistochemical investigation. Podium presentation 1. American Spinal Injury Association 20<sup>th</sup> Annual Meeting, Philadelphia, PA, April 25-27, 1994.
37. O'Brien MF\*, **Lenke LG**, Bridwell KH, Padberg A. SSEP monitoring of upper extremity function during thoracic and lumbar spinal deformity surgery: A prospective study. Podium presentation 6. American Spinal Injury Association 20<sup>th</sup> Annual Meeting, Philadelphia, PA, April 25-27, 1994.
38. **Lenke LG**, Joyce M<sup>‡</sup>, O'Brien MF\*. TGF-Beta treatment of spinal cord monitoring. Group International Cotrel-Dubousset-USA 11<sup>th</sup> International Congress, Arachon, France, May 1994. **Spinal Surgery Paper Award for Fellows and Residents**
39. Bridwell KH, **Lenke LG**, O'Brien MF\*, Baldus C, Blanke K. Posterior spinal fusion supplemented with only allograft bone in paralytic scoliosis: Does it work? Association of Bone and Joint Surgeons Annual Meeting, Carlsbad, CA, May 11-15, 1994.
40. Gelb DE\*, **Lenke LG**, Bridwell KH, Blanke K, McEnery KW. An analysis of sagittal spinal alignment in 100 asymptomatic middle and older aged volunteers (age 39 to 82): What is normal? Podium presentation 3. Scoliosis Research Society 29<sup>th</sup> Annual Meeting, Portland, OR, September 21-24, 1994.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

41. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Anterior fresh frozen structural allografts in the thoracic and lumbar spine. Do they work if combined with posterior fusion and instrumentation in adult deformity patients? Podium presentation 7. Scoliosis Research Society 29<sup>th</sup> Annual Meeting, Portland, OR, September 21-24, 1994.
42. **Lenke LG**, Bridwell KH, Blanke K, Baldus C. Analysis of pulmonary function and chest cage dimension changes following thoracoplasty in idiopathic scoliosis. Podium presentation 25. Scoliosis Research Society 29<sup>th</sup> Annual Meeting, Portland, OR, September 21-24, 1994.
43. **Lenke LG**, Bridwell KH, Baldus C, Blanke K. Prospective analysis of nutritional status normalization following spinal surgery: risk factors for delayed return to baseline. Podium presentation 27. Scoliosis Research Society 29<sup>th</sup> Annual Meeting, Portland, OR, September 21-24, 1994.
44. **Lenke LG**, Padberg AM, Russo MH, Bridwell KH, Gelb DE\*. Triggered EMG stimulation threshold for accuracy of pedicle screw placement: An animal model and clinical correlation. Podium presentation 64. Scoliosis Research Society 29<sup>th</sup> Annual Meeting, Portland, OR, September 21-24, 1994.
45. **Lenke LG**, Bridwell KH, Blanke K, Baldus C. Analysis of pulmonary function and chest cage dimension changes following thoracoplasty in idiopathic scoliosis. North American Spine Society 9<sup>th</sup> Annual Meeting, Minneapolis, MN, October 19-22, 1994.
46. O'Brien MF\*, **Lenke LG**, Bridwell KH, Joyce ME<sup>‡</sup>. Astrocyte response to spinal cord injury: an immunohistochemical investigation. North American Spine Society 9<sup>th</sup> Annual Meeting, Minneapolis, MN, October 19-22, 1994.
47. Padberg AM, Russo MH, **Lenke LG**, Bridwell KH. Validity of spinal cord monitoring in neuromuscular spinal deformity surgery. North American Spine Society 9<sup>th</sup> Annual Meeting, Minneapolis, MN, October 19-22, 1994.
48. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Anterior fresh-frozen structural allografts in the thoracic and lumbar spine. Do they work if combined with posterior fusion and instrumentation in adult deformity patients? North American Spine Society 9<sup>th</sup> Annual Meeting, Minneapolis, MN, October 19-22, 1994.
49. **Lenke LG**, Bridwell KH, Blanke K, Baldus C. Analysis of pulmonary function and chest cage dimension changes following thoracoplasty in idiopathic scoliosis. American Academy of Orthopaedic Surgeons 62<sup>nd</sup> Annual Meeting, Orlando, FL, February 16-21, 1995.
50. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Anterior fresh-frozen structural allografts in the thoracic and lumbar spine. Do they work if combined with posterior fusion and instrumentation in adult deformity patients? American Academy of Orthopaedic Surgeons 62<sup>nd</sup> Annual Meeting, Orlando, FL, February 16-21, 1995.
51. O'Brien MF\*, **Lenke LG**, Bridwell KH, Joyce ME<sup>‡</sup>. Astrocyte response to spinal cord injury: an immunohistochemical investigation. Federation of Spine Associations 10<sup>th</sup> Annual Meeting, Orlando, FL, February 21, 1995.
52. Padberg AM, Komanetsky R, **Lenke LG**, Bridwell KH, Russo MH, Chapman MP\*, Hamill C\*. Neurologic motor evoked potentials. A prospective comparison of stimulation methods. American Society of Neurophysiologic Monitoring Annual Meeting, San Francisco, CA, May 18-20, 1995.
53. Chapman MP\*, Bridwell KH, **Lenke LG**, Hamill CL\*, Baldus C, Blanke K. Assignment of risk factors for transition syndrome: An analysis of patients who have broken down above or below a solid fusion. Podium presentation 9. Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC, September 13-17, 1995.
54. Hamill CL\*, Bridwell KH, **Lenke LG**, Chapman MP\*, Baldus C, Blanke K. Posterior arthrodesis in the skeletally immature patient: Assessing the risk for crankshaft. Is an open triradiate cartilage the answer? Podium presentation 10. Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC, September 13-17, 1995.
55. Padberg AM, Komanetsky RM, **Lenke LG**, Bridwell KH, Russo MH, Chapman MP\*, Hamill CL\*. Neurogenic motor evoked potentials: A prospective comparison of stimulation methods in spinal deformity surgery. Podium presentation 38. Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC, September 13-17, 1995.

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

56. **Lenke LG**, Bridwell KH, Blanke K, Baldus C, Weston J. Radiographic and clinical assessment of Cotrel-Dubousset instrumentation (CDI) in adolescent idiopathic scoliosis (AIS): 5 to 10 year follow-up. Podium presentation 48. Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC, September 13-17, 1995.
57. Gertzbein ST, Betz R, Errico T, Hammerberg KW, Robbins S, Shepherd E, Weber A, **Lenke L**, Albin J, Wolk D, Ensor K, Kerina M. A semi-rigid instrumentation and circumferential fusion in the treatment of lumbar spinal conditions: A multi-center study. Podium presentation 53. Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC, September 13-17, 1995.
58. Hamill CL\*, **Lenke LG**, Bridwell KH, Chapman MP\*, Blanke K, Baldus C. The use of pedicle screw fixation to improve correction in the lumbar spine of patients with idiopathic scoliosis: Is it warranted? Podium presentation 79. Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC, September 13-17, 1995.
59. Betz RR, Clements III DH, Harms J, Biedermann L, **Lenke LG**, Lowe TG, Shufflebarger HL. Anterior instrumentation for correction of thoracic idiopathic scoliosis. Shriners Chief of Staff Annual Meeting, Honolulu, HI, September 1995.
60. **Lenke LG**, Bridwell KH, Blanke K, Baldus C, Weston J. 5-10 year follow-up of CD instrumentation for adolescent idiopathic scoliosis. North American Spine Society 10<sup>th</sup> Annual Meeting, Washington D.C., October 18-21, 1995.
61. Hamill CL\*, **Lenke LG**, Bridwell KH, Chapman MP\*, Blanke K, Baldus C. Lumbar pedicle screws to improve correction in idiopathic scoliosis patients. North American Spine Society 10<sup>th</sup> Annual Meeting, Washington D.C., October 18-21, 1995.
62. Chapman MP\*, Bridwell KH, **Lenke LG**, Hamill CL\*, Baldus C, Blanke K. Risk factors for transition syndromes above or below solid fusions. North American Spine Society 10<sup>th</sup> Annual Meeting, Washington D.C., October 18-21, 1995.
63. Chapman MP\*, Hamill CL\*, Bridwell KH, **Lenke LG**, Blanke K, Baldus C. Can we lordose the spine with Zielke instrumentation anteriorly? North American Spine Society 10<sup>th</sup> Annual Meeting, Washington, D.C., October 18-21, 1995.
64. Hamill CL\*, Bridwell KH, **Lenke LG**, Chapman MP\*, Baldus C, Blanke K. Posterior arthrodesis in the skeletally immature patient: assessing crankshaft risks. North American Spine Society 10<sup>th</sup> Annual Meeting, Washington D.C., October 18-21, 1995.
65. Lou J, **Lenke LG**, Xu F, Bridwell KH. *In-vivo* Bcl-2 oncogene neuronal expression in the rat spinal cord. Podium presentation 37. Cervical Spine Research Society 23<sup>rd</sup> Annual Meeting, Santa Fe, NM, November 30-December 2, 1995.
66. Chapman MP\*, Bridwell KH, **Lenke LG**, Hamill CL\*, Baldus C, Blanke K. Assignment of risk factors for transition syndrome. An analysis of patients who have broken down above or below a solid fusion. Podium presentation 51. American Academy of Orthopaedic Surgeons 63<sup>rd</sup> Annual Meeting, Atlanta, GA, February 22-26, 1996.
67. Lou J, Xu F, **Lenke LG**. *In vivo* Bcl-2 oncogene neuronal expression in the rat spinal cord. Podium presentation 422. American Academy of Orthopaedic Surgeons 63<sup>rd</sup> Annual Meeting, Washington D.C., February 22-26, 1996.
68. Lou J, Xu F, **Lenke LG**. *In-vivo* Bcl-2 oncogene neuronal expression in the rat spinal cord. Basic Science Podium presentation 1. American Spinal Injury Association 22<sup>nd</sup> Annual Scientific Meeting, Seattle, WA, April 22-24, 1996.
69. Padberg A, **Lenke LG**, Komanetsky R, Bridwell KH, Russo M. Neurogenic motor evoked potentials: A prospective comparison of stimulation methods in spinal deformity surgery. American Spinal Injury Association 22<sup>nd</sup> Annual Scientific Meeting, Seattle, WA, April 22-24, 1996.
70. Padberg AM, Komanetsky R, **Lenke LG**, Bridwell KH, Russo M. Neurogenic motor evoked potentials: A prospective comparison of stimulation methods in spinal deformity surgery. Spine Topics II Podium presentation 2. American Spinal Injury Association 22<sup>nd</sup> Annual Scientific Meeting, Seattle, WA, April 22-24, 1996.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



71. **Lenke LG**, Betz RR, Bridwell KH, Clements DH, Harms J, King HA, Lowe TG, Shufflebarger HL. Classifying adolescent idiopathic scoliosis by the King method - Is it reliable? Podium presentation 1. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
72. Marsicano J\*, **Lenke LG**, Bridwell KH, Chapman MP\*, Gupta P\*, Weston J. The lordosing effect of the OSI (Jackson) frame on thoracic and thoracolumbar as well as lumbar sagittal alignment in operative adolescent idiopathic scoliosis. Podium presentation 6. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
73. Vedantam R\*, **Lenke LG**, Keeney J<sup>‡</sup>, Bridwell KH. Comparison of standing sagittal spinal alignment in asymptomatic adolescents versus adults. Podium presentation 14. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
74. Gupta P\*, Tenhula J, **Lenke LG**, Bridwell KH, Chapman MP\*, Marsicano J\*. Evaluation of neurogenic claudication and functional outcome of treatment using the treadmill-bicycle test. Podium presentation 19. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
75. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Major intraoperative neurologic deficits in pediatric and adult spinal deformity patients – Incidence and etiology at one institution. Podium presentation 65. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
76. Gupta P\*, **Lenke LG**, Bridwell KH, Marsicano J\*, Baldus C, Blanke K. Incidence of neural axis abnormalities in infantile and juvenile patients with spinal deformity: Is a screening MRI necessary? Podium presentation 70. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
77. Betz RR, Harms J, Clements DH, **Lenke LG**, Lowe T, Shufflebarger HL, Jeszenszky D, Beele B. Comparison of anterior versus posterior instrumentation for correction of thoracic idiopathic scoliosis. Podium presentation 84. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
78. **Lenke LG**, Betz RR, Bridwell KH, Clements III DH, Harms J, King HA, Lowe TG, Shufflebarger HL. Using the King classification to classify adolescent idiopathic scoliosis: Is it reliable? North American Spine Society 11<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Canada, October 23-26, 1996.
79. Gupta P\*, **Lenke LG**, Bridwell KH, Marsicano JG\*. Incidence of neural axis abnormalities in infantile and juvenile patients with spinal deformity: Is a screening MRI necessary? North American Spine Society 11<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Canada, October 23-26, 1996.
80. Gupta P\*, Tenhula J, **Lenke LG**, Bridwell KH, Chapman MP\*, Marsicano JG\*. Evaluation of neurogenic claudication and functional outcome using the treadmill-bicycle test. North American Spine Society 11<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Canada, October 23-26, 1996.
81. Vedantam RW\*, **Lenke LG**, Keeney J<sup>‡</sup>, Bridwell KH. Standing sagittal alignment in adolescents vs. adults: Are they similar? North American Spine Society 11<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Canada, October 23-26, 1996.
82. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Major intraoperative neurologic deficits during spinal deformity correction. North American Spine Society 11<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Canada, October 23-26, 1996.
83. Padberg AM, Russo MH, Kunsemiller J, **Lenke LG**, Bridwell KH, Wilson TA. The utility of dermatomal somatosensory evoked potentials during spinal surgery. North American Spine Society 11<sup>th</sup> Annual Meeting, Vancouver, British Columbia, Canada, October 23-26, 1996.
84. Gupta P\*, Tenhula J, **Lenke LG**, Bridwell KH, Chapman MP\*, Marsicano JG\*. Evaluation of neurogenic claudication and functional outcome using the treadmill-bicycle test. American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

85. Gupta P\*, Bridwell KH, **Lenke LG**, Marsicano JG\*, Baldus C, Blanke K. Evaluation and treatment of flat-back deformity. American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997.
86. **Lenke LG**, Betz RR, Bridwell KH, Clements DH, Harms J, Lowe TG, Shufflebarger HL. Classifying adolescent idiopathic thoracic scoliosis by the King method: Is it reliable? Podium presentation 61. American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997.
87. Gupta P\*, **Lenke LG**, Bridwell KH, Marsicano JG\*. Incidence of neural axis abnormalities in infantile and juvenile patients with spinal deformity: Is a screening MRI necessary? Podium presentation 62. American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997.
88. Brown CA<sup>‡</sup>, Hasan SA<sup>‡</sup>, Bridwell KH, **Lenke LG**. Pediatric thoracolumbar and lumbar pedicle screws: Short and long term complications. Podium presentation 213. American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997.
89. Betz RR, Harms J, Clements III DH, **Lenke LG**, Lowe TG, Shufflebarger HL. Comparison of anterior versus posterior instrumentation correction for thoracic idiopathic scoliosis. Podium presentation 215. American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997.
90. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Major intraoperative neurologic deficits in pediatric and adult spinal deformity patients: Incidence and etiology at one institution. Podium presentation 309. American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997.
91. Padberg AM, Komanetsky RM, **Lenke LG**, Bridwell KH, Russo MH. Neurogenic motor evoked potentials: A prospective comparison of stimulation methods in spinal deformity surgery. Podium presentation 14. Federation of Spine Associations 12<sup>th</sup> Annual Meeting, Cervical Spine Research Society Section III, San Francisco, CA, February 16, 1997.
92. Lou J, **Lenke LG**, Xu F, Bridwell KH. *In-vivo* Bcl-2 expression in a rat spinal cord injury model. Podium presentation 33. Federation of Spine Associations 12<sup>th</sup> Annual Meeting, Cervical Spine Research Society Section IV, San Francisco, CA, February 16, 1997.
93. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Major intraoperative neurologic deficits in pediatric and adult spinal deformity patients – incidence and etiology at one institution. Podium presentation 5. Association of Bone and Joint Surgeons 49<sup>th</sup> Annual Meeting, Scottsdale, AZ, April 30-May 4, 1997.
94. Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Major intraoperative neurologic deficits in pediatric and adult spinal deformity patients – incidence and etiology at one institution. Podium presentation 30. American Orthopaedic Association, 110<sup>th</sup> Annual Meeting, Boca Raton, FL, June 11-14, 1997.
95. **Lenke L**, Betz R, Harms J, Bridwell K, Clements D, Lowe T. Spontaneous lumbar curve correction following selective anterior or posterior thoracic fusion in adolescent idiopathic scoliosis. Podium presentation 22. 4<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 10-13, 1997.
96. Brown CA<sup>‡</sup>, **Lenke LG**, Bridwell KH, Hasan SA<sup>‡</sup>, Blanke K. Pediatric thoracolumbar and lumbar pedicle screws: Short and long term complications. Southern Orthopaedic Association 14<sup>th</sup> Annual Meeting, Pebble Beach, CA, July 24-26, 1997.
97. **Lenke L**, Betz R, Harms J, Bridwell K, Clements D, Lowe T, Harms Study Group. A new and reliable 3-dimensional classification system of adolescent idiopathic scoliosis. Podium presentation 4. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
98. Vedantam R\*, **Lenke LG**, Haas J<sup>‡</sup>, Linville DA\*, Bridwell KH. A prospective evaluation of pulmonary function in adolescent idiopathic scoliotics relative to surgical approach for spinal fusion. Podium presentation 8. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997. **Russell A. Hibbs Award, 1<sup>st</sup> Runner-up Best Clinical Research Paper**

<sup>‡</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

99. Padberg AM, Wilson-Holden TJ, **Lenke LG**, Russo MH, Bridwell KH. Somatosensory and motor evoked potential monitoring without a wake-up test during idiopathic scoliosis surgery: An accepted standard of care? Podium presentation 13. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
100. Linville D\*, Bridwell KH, **Lenke LG**, Vedantam R\*, Leicht P. Complications in the adult spinal deformity patient having combined surgery: Does “revision” increase the risk? Podium presentation 18. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
101. Clements III DH, Betz RR, Harms J, **Lenke LG**, Lowe TG, Huss GK. Critical analysis of proximal sagittal contour after correction of thoracic idiopathic scoliosis: Anterior versus posterior instrumentation. Podium presentation 55. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
102. Bridwell KH, Baldus C, **Lenke LG**, Blanke K. Patient/parent satisfaction with results of surgical treatment of spinal deformities in patients with progressive flaccid neuromuscular (spinal muscular atrophy and Duchenne’s muscular dystrophy) disorders. Podium presentation 64. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
103. Bridwell KH, Baldus C, Iffrig T, **Lenke LG**, Blanke K. Patient/parent satisfaction with results of surgical treatment of spinal deformities in patients with progressive flaccid neuromuscular (spinal muscular atrophy and Duchenne’s muscular dystrophy) disorders. 20<sup>th</sup> Century Orthopaedic Association Annual Meeting, Ponte Vedra, FL, October 1-5, 1997.
104. **Lenke LG**, Betz RR, Harms J, Bridwell KH, Clements III DH, Lowe TG, Harms Study Group. Spontaneous lumbar curve correction following selective fusion in idiopathic scoliosis. North American Spine Society 12<sup>th</sup> Annual Meeting, New York, NY, October 22-25, 1997.
105. Bridwell KH, Baldus C, **Lenke LG**, Blanke K. Patient/parent satisfaction with surgical treatment of flaccid neuromuscular spinal deformities. North American Spine Society 12<sup>th</sup> Annual Meeting, New York, NY, October 22-25, 1997.
106. Betz RR, Harms J, **Lenke LG**, Lowe TG, Clements III DH, Jeszenszky D. Anterior rigid rod instrumentation for thoracic idiopathic scoliosis. North American Spine Society 12<sup>th</sup> Annual Meeting, New York, NY, October 22-25, 1997.
107. **Lenke LG**, Betz RR, Harms J, Clements III DH, Lowe TG, Bridwell KH, Blanke K. A new and reliable comprehensive classification system of adolescent idiopathic scoliosis. Podium presentation 19. 5<sup>th</sup> International Meeting on Advanced Spine Techniques, Sorrento, Italy, May 1-3, 1998.
108. Bridwell KH, Baldus C, Iffrig T, **Lenke LG**, Blanke K. Patient/parent analysis of results of surgical treatment of spinal deformities in patients with progressive flaccid neuromuscular (Duchenne’s muscular dystrophy and spinal muscular atrophy) disorders. American Orthopaedic Association 111<sup>th</sup> Annual Meeting, Asheville, NC, June 3-6, 1998.
109. **Lenke L**, Betz R, Harms J, Bridwell K, Clements D, Lowe T. Spontaneous lumbar curve correction following selective anterior or posterior thoracic fusion in adolescent idiopathic scoliosis. Podium presentation 8. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
110. D’Andrea LP, Betz RR, **Lenke LG**, Harms J, Clements DH, Lowe TG. The effect of continued spinal growth on sagittal contour in patients treated by anterior instrumentation for adolescent idiopathic scoliosis. Podium presentation 10. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
111. Molinari RW\*, Bridwell KH, **Lenke LG**, Ungacta F<sup>‡</sup>, Riew KD. Complications with surgical treatment of pediatric high-grade isthmic dysplastic spondylolisthesis: A comparison of 3 surgical approaches. Podium presentation 23. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
112. Booth KC\*, Bridwell KH, Eisenberg BA<sup>¥</sup>, Baldus C, **Lenke LG**. Minimum 5 year results of degenerative spondylolisthesis treated with decompression & instrumented posterior fusion. Podium presentation 24. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

113. Sweet FA\*, **Lenke LG**, Bridwell KH, Blanke K. Maintaining lumbar lordosis with anterior convex compressive spinal instrumentation. Podium presentation 31. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
114. D'Andrea LP, Betz RR, **Lenke LG**, Clements DH, Lowe TG, Merola A, Haheer T, Harms J, Huss GK, Blanke K, McGlothlen S. Do radiographic parameters correlate with clinical outcomes in adolescent idiopathic scoliosis? Podium presentation 37. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
115. Polly Jr. DW, Cunningham BW, Kuklo TR\*, **Lenke LG**, Oda I, Klemme WR. Biomechanical analysis of anterior scoliosis constructs using intervertebral cages. Podium presentation 43. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
116. Booth KC\*, Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Complications and predictive factors for the successful treatment of flatback deformity (fixed sagittal imbalance). Podium presentation 61. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
117. Eck KR\*, **Lenke LG**, Bridwell KH, Lashgari CJ<sup>‡</sup>, Riew KD. Radiographic fusion evaluation of anterior titanium mesh (Harms) cages. Podium presentation 66. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
118. Riew KD, Hilibrand A, Bridwell KH, Molinari RW\*, Booth KC\*, **Lenke LG**. MR versus CT-myelography: Surgical decision making for lumbar stenosis. Podium presentation 67. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
119. **Lenke LG**, Engsberg JR, Ross SA, Olree KS. Changes in gait as a function of posterior spinal fusion in adolescent idiopathic scoliosis: a dynamic evaluation. Podium presentation 70. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
120. Wilson-Holden TJ, Padberg AM, **Lenke LG**, Larson BJ, Bridwell KH, Bassett GS. Efficacy of intraoperative monitoring for pediatric patients with spinal cord pathology undergoing spinal deformity surgery. Podium presentation 74. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
121. Booth KC\*, Bridwell KH, Eisenberg BA<sup>¥</sup>, Baldus C, **Lenke LG**. Minimum 5 year results of degenerative spondylolisthesis treated with decompression & instrumented posterior fusion. Podium presentation 2. North American Spine Society 13<sup>th</sup> Annual Meeting, San Francisco, CA, October 28-31, 1998.
122. Wilson-Holden TJ, Padberg AM, Larsen BJ, **Lenke LG**, Bridwell KH. Efficacy of intraoperative monitoring for patients with spinal cord pathology. North American Spine Society 13<sup>th</sup> Annual Meeting, San Francisco, CA, October 28-31, 1998.
123. Polly Jr. DW, Cunningham BW, Kuklo TR\*, **Lenke LG**, Oda I, Klemme WR. Biomechanical analysis of anterior scoliosis constructs using intervertebral cages. North American Spine Society 13<sup>th</sup> Annual Meeting, San Francisco, CA, October 28-31, 1998.
124. Riew KD, Hilibrand AS, Bridwell KH, Molinari RW\*, Booth KC\*, **Lenke LG**. MR versus CT-Myelography. Surgical decision making for lumbar stenosis. North American Spine Society 13<sup>th</sup> Annual Meeting, San Francisco, CA, October 28-31, 1998.
125. Riew KD, Hilibrand A, **Lenke LG**, Bridwell KH, Lauryssen C, Löfgren S. Surgical planning for cervical spondylotic disease: are MR and myelo-CT both necessary? Podium presentation 31. Cervical Spine Research Society 26<sup>th</sup> Annual Meeting, Atlanta, GA, December 3-5, 1998.
126. Polly DW, Kuklo TR\*, Cunningham BW, **Lenke LG**, Oda I, Klemme WR. Biomechanical analysis of anterior thoracic scoliosis constructs: effect of rod diameter and intervertebral cages. Society of Military Orthopaedic Surgeons 40<sup>th</sup> Annual Meeting, Vail, CO, December 8, 1998.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

127. Clements III DH, Betz RR, Harms J, **Lenke LG**, Lowe TG, Huss GK. Critical analysis of proximal sagittal contour after correction of thoracic idiopathic scoliosis. Anterior versus posterior instrumentation. Orthopaedic Associations of the English Speaking World combined meeting, Auckland, New Zealand, 1998.
128. Booth KC\*, Bridwell KH, Eisenberg BA<sup>‡</sup>, Baldus C, **Lenke LG**. Minimum 5-year results of degenerative spondylolisthesis treated with decompression and instrumented posterior fusion. Podium presentation 39. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Annual Meeting Anaheim, CA, February 4-8, 1999.
129. Hilibrand AS, Riew KD, **Lenke LG**, Bridwell KH. Variability in surgical decision-making for lumbar stenosis. Podium presentation 43. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 4-8, 1999.
130. **Lenke LG**, Betz RR, Harms J, Bridwell KH, Clements III DH, Lowe TG. Spontaneous lumbar curve correction following selective anterior or posterior thoracic fusion in adolescent idiopathic scoliosis. Podium presentation 105. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 4-8, 1999.
131. Wilson-Holden TJ, Padberg AM, **Lenke LG**, Bridwell KH, Bassett GS, Larsen BJ. Efficacy of intraoperative monitoring for pediatric patients with spinal cord pathology undergoing spinal deformity surgery. Podium presentation 106. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 4-8, 1999.
132. Molinari RW\*, Bridwell KH, **Lenke LG**, Ungacta FF<sup>‡</sup>, Riew KD. Complications with surgical treatment of pediatric high-grade isthmic dysplastic spondylolisthesis. A comparison of 3 surgical approaches. Podium presentation 110. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 4-8, 1999.
133. Booth KC\*, Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Complications and predictive factors for the successful treatment of flatback deformity (fixed sagittal imbalance). Podium presentation 158. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 3-8, 1999.
134. Bridwell KH, Molinari RW\*, **Lenke LG**, Ungacta F<sup>‡</sup>, Riew KD. Complications with surgical treatment of pediatric high-grade isthmic dysplastic spondylolisthesis: A comparison of three surgical approaches. American Orthopaedic Association 112<sup>th</sup> Annual Meeting, Sun Valley, ID, June 5-8, 1999.
135. Bridwell KH, Shufflebarger HL, **Lenke LG**, Lowe TG, Betz RR, Bassett GS, Iffrig TM, Baldus C, Blanke K, Whorton J. Parent/patient preference in idiopathic adolescent scoliosis: a prospective preoperative analysis. Podium presentation 2. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
136. Wilson-Holden TJ, Bassett GS, Parkinson JD, Padberg AM, **Lenke LG**, Bridwell KH. A prospective comparison of neurogenic mixed evoked potential stimulation methods: utility of epidural elicitation during posterior spinal surgery. Podium presentation 11. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
137. Betz RR, **Lenke LG**, Harms J, Lowe TG, Clements DH, Merola A, Maher T, Newton PO, Wenger D, Huss GK, Blanke K. Comparison of anterior versus posterior instrumentation for correction of thoracic adolescent idiopathic scoliosis: Analysis by an objective radiographic scoring system. Podium presentation 17. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
138. Baumann R, Brown H, Johnston C, **Lenke L**, Sanders A, Sink E. Selective anterior lumbar fusion in King I curves: When can the thoracic curve be left unfused? Podium presentation 18. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
139. Graham EJ<sup>‡</sup>, **Lenke LG**, Lowe TG, Betz RR, Bridwell KH, Kong Y. Prospective pulmonary function evaluation following open thoracotomy for anterior thoracic spinal fusion in adolescent idiopathic scoliosis. Podium presentation 21. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
140. Polly Jr. DW, **Lenke LG**, Sturm PF, Lauerma W, Sponseller PD, Hanway JD. True King 2 curves: Independent surgeons' evaluation of radiographic results of various surgical treatment options. Podium presentation 22. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.

<sup>‡</sup>Student, <sup>‡</sup>Resident, \*Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

141. Klepps S<sup>‡</sup>, **Lenke LG**, Bassett GS, Bridwell KH, Whorton J. Prospective comparison of flexibility radiographs in adolescent idiopathic scoliosis (AIS). Podium presentation 24. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
142. O'Brien MF\*, **Lenke LG**, Mardjetko S, Lowe TG, Kong Y, Eck K\*, Smith DAB. Pedicle screw fixation in adolescent idiopathic scoliosis (AIS): is this an anatomically viable and safe technique? Podium presentation 31. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
143. **Lenke LG**, Betz RR, Haheer T, Merola A, Lapp M\*, Harms J, Shufflebarger HL, Blanke K. Multi-surgeon assessment of a new classification of adolescent idiopathic scoliosis (AIS): Can agreement on classification exist? Variability in surgical decision making in adolescent idiopathic scoliosis (AIS) circa 1999. (Combined presentation of two abstracts). Podium presentation 43. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
144. Riew KD, Yin Y, Gilula LA, Bridwell K, **Lenke L**, Goette K, Lauryssen C. Nerve root injections prevent surgery for lumbar radicular pain. Podium presentation 65. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
145. Eck KR\*, Ungacta FF<sup>‡</sup>, Bridwell KH, Riew KD, Lapp MA\*, **Lenke LG**, Baldus C, Blanke K. Analysis of titanium mesh (Harms) cages in adults with minimum two-year follow-up. Podium presentation 69. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, September 23-25, 1999.
146. Eck KR\*, Ungacta FF<sup>‡</sup>, Bridwell KH, Riew KD, Lapp MA\*, **Lenke LG**, Baldus C, Blanke K. Complication and results (minimum 2-year follow-up) of long adult deformity fusion to L4, L5 and the sacrum. Podium presentation 86. Scoliosis Research Society 34<sup>th</sup> Annual Meeting, San Diego, CA, September 23-25, 1999.
147. Hilibrand AS, **Lenke LG**, Bridwell KH, Riew KD. Variability in surgical decision-making for lumbar spinal stenosis. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.
148. Klepps SJ<sup>‡</sup>, **Lenke LG**, Bassett GS, Bridwell KH, Whorton J. Prospective comparison of flexibility radiographs in adolescent idiopathic scoliosis. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.
149. Riew KD, Bridwell KH, Gilula LA, Goette K, Lauryssen C, **Lenke LG**, Yin Y. Can nerve root injections obviate the need for operative treatment? North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.  
**Outstanding Paper Award**
150. Eck KR\*, Ungacta FF<sup>‡</sup>, Bridwell KH, Riew KD, Lapp MA\*, **Lenke LG**, Baldus C, Blanke K. Analysis of titanium mesh (Harms) cages in adults with minimum two-year follow-up. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.
151. **Lenke LG**, Betz RR, Lowe TG, Merola AA, Haheer TR, Clements III DH, Blanke K, Huss GK. Curve prevalence of a new surgical classification of adolescent idiopathic scoliosis. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.
152. Eck KR\*, Ungacta FF<sup>‡</sup>, Bridwell KH, Riew KD, Lapp MA\*, **Lenke LG**, Baldus C, Blanke K. Complications and results of long adult deformity fusions to L4, L5 and the sacrum. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.
153. Riew KD, Sweet FA\*, Hilibrand AS, Wang J, Kang J, **Lenke LG**, Bridwell KH. Plain radiographic assessment of anterior cervical fusion. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.
154. Bridwell KH, Shufflebarger HL, **Lenke LG**, Lowe TG, Betz RR, Bassett GS, Iffrig T, Baldus C, Blanke K, Whorton J. Parent/patient preference in idiopathic adolescent scoliosis: a prospective preoperative analysis. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.
155. Hilibrand AS, **Lenke LG**, Lauryssen C, Riew KD. Variations in the surgical management of cervical spondylosis. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.

<sup>‡</sup>Student, <sup>‡</sup>Resident, \*Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

156. Lapp MA\*, Bridwell KH, **Lenke LG**, Baldus C, Blanke K, Iffrig T. Prospective randomization of parenteral hyperalimentation for long fusions with spinal deformity. North American Spine Society 14<sup>th</sup> Annual Meeting, Chicago, IL, October 20-23, 1999.
157. Bridwell KH, Shufflebarger HL, **Lenke LG**, Lowe TG, Betz RR, Bassett GS, Iffrig T, Baldus C, Blanke K, Whorton J. Parent/patient preference in idiopathic adolescent scoliosis: A prospective preoperative analysis. 20<sup>th</sup> Century Orthopaedic Association Annual Meeting, Kona, HI, October 27-30, 1999.
158. Betz RR, **Lenke LG**, Clements III DH, Lowe TG. Thoracoscopic approach versus open thoracotomy for insertion of anterior instrumentation for the treatment of thoracic adolescent idiopathic scoliosis. Shrine Surgeons Annual Meeting, Tampa, FL, November 1999.
159. Riew KD, Hilibrand A, Wang J, Kang J, **Lenke LG**, Bridwell K. Plain radiographic assessment of anterior cervical fusion. Podium presentation 58. Cervical Spine Research Society 27<sup>th</sup> Annual Meeting, Seattle, WA, December 16-18, 1999.
160. Lapp MA\*, Bridwell KH, **Lenke LG**, Riew KD, Linville DA\*, Eck KR\*. Outcomes in adult spinal deformity patients. A comparison of primary to revision patients. American Academy of Orthopaedic Surgeons 67<sup>th</sup> Annual Meeting, Orlando, FL, March 15-19, 2000.
161. **Lenke LG**. Selective anterior instrumentation of TL/L AIS. 7<sup>th</sup> International Meeting on Advanced Spine Techniques, Barcelona, Spain, July 6-8, 2000.
162. O'Brien MF\*, Wood J, Lowe T, Alongi P, Smith D, Fitzgerald D, **Lenke L**, Mardjetko S. Thoracic pedicle vs. pedicle/rib screw fixation: a biomechanical study. 7<sup>th</sup> International Meeting on Advanced Spine Techniques, Barcelona, Spain, July 6-8, 2000.
163. Lewis SJ\*, **Lenke LG**, Raynor B, Long J, Bridwell KH, Padberg A. Intercostal triggered EMG threshold for accuracy of thoracic pedicle screw placement. Podium presentation 10. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
164. Padberg AM, Parkinson JD, Bridwell KH, Wilson-Holden TJ, Raynor BL, **Lenke LG**, Riew KD. Warning criteria for intraoperative somatosensory evoked potential monitoring data: Experience with 3783 cases. Podium presentation 11. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
165. Kuklo TR\*, Bridwell KH, Lewis SJ\*, Baldus C, Blanke K, **Lenke LG**. Minimum two-year analysis of sacropelvic fixation and L5/S1 fusion utilizing S1 and iliac screws. Podium presentation 21. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
166. O'Brien MF\*, Wood J, Lowe TG, Alongi P, Smith D, Fitzgerald D, **Lenke LG**, Mardjetko SM. Thoracic pedicle vs. pedicle/rib screw fixation: A biomechanical study. Podium presentation 27. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
167. Merola A, Brkaric M, Maher T, Lowe T, **Lenke L**, Betz R, Huss G, Wenger R, Newton P, Clements D, Kohani O. A multi-center prospective study of 737 questionnaires utilizing The Scoliosis Research Society (SRS) Instrument for the surgical treatment of adolescent idiopathic scoliosis. Podium presentation 33. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
168. Sweet FA\*, **Lenke LG**, Blanke K, Whorton J, Bridwell KH. Prospective radiographic and clinical outcomes and complications of single solid rod instrumented anterior spinal fusion in adolescent idiopathic scoliosis. Podium presentation 37. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
169. Kuklo TR\*, **Lenke LG**, Won DS<sup>‡</sup>, Graham EJ<sup>‡</sup>, Sweet FA\*, Betz RR, Blanke K. Spontaneous proximal thoracic curve correction following selective fusion of the main thoracic curve in adolescent idiopathic scoliosis. Podium presentation 40. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

170. Clements DH, Betz RR, Lowe TG, **Lenke LG**, Newton PO. Adolescent idiopathic scoliosis with excessive thoracic kyphosis. Comparison of anterior versus posterior instrumentation for maintaining correction. Podium presentation 41. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
171. Wood J, Lowe T, Betz R, Clements D, **Lenke L**, Newton P, Merola A, Haheer T, Wenger D, Harms J. Large magnitude adolescent idiopathic scoliosis: Anterior vs. posterior surgical stabilization. Podium presentation 42. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
172. Bridwell KH, Kuklo TR\*, Lewis SJ\*, Sweet FA\*, **Lenke LG**. String test measurement to assess the effect of spinal deformity correction on spinal canal length. Podium presentation 56. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
173. Lewis SJ\*, Bridwell KH, **Lenke LG**, Baldus C, Blanke K. The results and complications of pedicle subtraction osteotomies for the treatment of fixed sagittal imbalance. Podium presentation 74. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
174. Bridwell KH, Reitenbach AK, Uhrich ML, **Lenke LG**, Engsberg JR. Preop gait comparisons between adult lumbar scoliotics and those with able bodies. Podium presentation 82. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Queensland, Australia, October 18-21, 2000.
175. Wood J, Harms J, Lowe TG, Betz RR, Clements III DH, **Lenke LG**, Newton PO, Merola AA, Haheer TR, Wenger DR. Large magnitude adolescent idiopathic scoliosis. Anterior versus posterior surgical stabilization. North American Spine Society 15<sup>th</sup> Annual Meeting, New Orleans, LA, October 25-28, 2000.
176. Lewis SJ\*, Bridwell KH, **Lenke LG**, Baldus C, Blanke K. Pedicle subtraction osteotomies. Results/complications in treating fixed sagittal imbalance. North American Spine Society 15<sup>th</sup> Annual Meeting, New Orleans, LA, October 25-28, 2000.
177. Lewis SJ\*, Riew KD, Bridwell KH, **Lenke LG**, Kuklo TR\*, Sethi NS<sup>‡</sup>. Observer variability in the radiographic interpretation of fusion masses. North American Spine Society 15<sup>th</sup> Annual Meeting, New Orleans, LA, October 25-28, 2000.
178. O'Brien MF\*, Wood J, Lowe TG, Alongi P, Smith D, Fitzgerald D, **Lenke LG**. Thoracic pedicle versus pedicle/rib fixation: a biomechanical study. North American Spine Society 15<sup>th</sup> Annual Meeting, New Orleans, LA, October 25-28, 2000.
179. Kuklo TR\*, **Lenke LG**, Won DS<sup>‡</sup>, Graham EJ<sup>‡</sup>, Sweet FA\*, Betz RR, Blanke K. Spontaneous proximal thoracic curve correction following selective fusion of the main thoracic curve in adolescent idiopathic scoliosis. Society of Military Orthopaedic Surgeons 42<sup>nd</sup> Annual Meeting, San Antonio, TX, December 14, 2000.
180. Kuklo TR\*, Bridwell KH, Lewis SJ\*, Baldus C, Blanke K, **Lenke LG**. Minimum two-year analysis of sacropelvic fixation and L5/S1 fusion utilizing S1 and iliac screws. Society of Military Orthopaedic Surgeons 42<sup>nd</sup> Annual Meeting, San Antonio, TX, December 14, 2000.
181. Betz RR, **Lenke LG**, Lowe TG, Clements DH, Merola A, Haheer T, Newton PO, Wenger DR, Huss GK, Blanke K. Comparison of anterior versus posterior instrumentation for correction of thoracic adolescent idiopathic scoliosis: analysis by an objective radiographic scoring system. Podium presentation 84. American Academy of Orthopaedic Surgeons 68<sup>th</sup> Annual Meeting, San Francisco, CA, February 28-March 4, 2001.
182. **Lenke LG**. Thoracic pedicle screws. Federation of Spine Associations 16<sup>th</sup> Annual Meeting, San Francisco, CA, February 28-March 4, 2001.
183. Won DS<sup>‡</sup>, Kuklo TR\*, **Lenke LG**, Graham EJ<sup>‡</sup>, Sweet FA\*, Betz RR, Blanke K. Spontaneous proximal thoracic curve correction following selective fusion of the main thoracic curve in adolescent idiopathic scoliosis. American Orthopaedic Association 34<sup>th</sup> Annual Resident's Competition, Hershey, PA, March 30-31, 2001.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



184. Lewis SJ\*, Riew KD, Bridwell KH, **Lenke LG**, Kuklo TR\*, Sethi NS<sup>‡</sup>. Observer variability in the radiographic interpretation of fusion masses. Canadian Orthopaedic Association 56<sup>th</sup> Annual Meeting, London, Ontario, Canada, June 3, 2001.
185. O'Brien MF\*, Wood J, Lowe TG, Wong P, Smith D, Fitzgerald D, **Lenke LG**, Mardjetko SM. Thoracic pedicle vs. pedicle/rib screw fixation. Spine Society of Australia Annual Meeting, Australia, June 30, 2001.
186. Hanson DS\*, Bridwell KH, **Lenke L**, Rhee JM\*. Correlation of pelvic incidence with low and high-grade isthmic spondylolisthesis. Podium presentation 1. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
187. Hanson DS\*, Bridwell KH, Rhee JM\*, **Lenke LG**. Dowel fibular strut grafts for high-grade dysplastic isthmic spondylolisthesis. Podium presentation 4. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 20, 2001.
188. Raynor BL, **Lenke LG**, Kim Y<sup>§</sup>, Bridwell KH, Hanson DS\*, Padberg AM. Can triggered EMG thresholds accurately predict thoracic pedicle screw placement? Podium presentation 9. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
189. Dobbs MB, **Lenke LG**, Morcuende J, Weinstein SL, Bridwell KH, Sponseller PD. Incidence of neural axis abnormalities in infantile patients diagnosed with idiopathic scoliosis: is a screening MRI necessary? Podium presentation 10. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
190. Wilson PL, Newton PO, Wenger DR, Maher T, Merola A, **Lenke L**, Lowe T, Clements D, Betz R. A multi-center study analyzing the relationship of standardized radiographic scoring system of adolescent idiopathic scoliosis (AIS) and the Scoliosis Research Society (SRS) Outcomes Instrument. Podium presentation 11. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
191. Yukawa Y<sup>§</sup>, **Lenke LG**, Fukui N, Lou J. Optimal treatment timing to rescue neuronal cells from spinal cord injury via Bcl-2 gene transfer *in vitro* and *in vivo*. Podium presentation 14. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH September 19-22, 2001.
192. Bridwell KH, Hanson DS\*, Rhee JM\*, **Lenke LG**, Baldus C, Blanke K. Correction of thoracic idiopathic adolescent scoliosis with segmental hooks, rods, Wisconsin wires posteriorly: It's bad and obsolete, correct? Podium presentation 33. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
193. Kuklo TR\*, **Lenke LG**, Graham EJ<sup>‡</sup>, Won DS<sup>‡</sup>, Sweet FA\*, Blanke K, Bridwell KH. Correlation of radiographic, clinical and patient assessment of shoulder balance following fusion versus non-fusion of the proximal thoracic curve in adolescent idiopathic scoliosis. Podium presentation 34. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
194. Rhee JM\*, Bridwell KH, Won DS<sup>‡</sup>, **Lenke LG**, Chotigavanichaya C, Hanson DS\*. Sagittal plane analysis of adolescent idiopathic scoliosis: The effect of anterior vs. posterior instrumentation. Podium presentation 39. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
195. Merola A, Brkaric M, Maher T, Kohani O, Betz R, Clements D, Huss G, Gilbert E, **Lenke L**, Lowe T, Newton P, Wenger D, Marks M. Do outcome parameters correlate with surgical complications utilizing the SRS Questionnaire in the treatment of AIS? Podium presentation 40. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
196. Engsberg JR, **Lenke LG**, Hollander KW, Reitenbach AK, Bridwell KH. Trunk motion in adolescents undergoing scoliosis spinal fusion. Podium presentation 54. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
197. Bridwell KH, Wagner JM, Uhrich ML, **Lenke LG**, Engsberg JR. Gait changes as the result of deformity reconstruction surgery in adult female lumbar scoliotics. Podium presentation 62. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>‡</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

198. White DK, **Lenke LG**, Kemp JS, Bridwell KH, Blanke KM, Engsborg JR. Can idiopathic scoliosis fusion improve aerobic efficiency during exercise? Podium presentation 70. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
199. Hanson DS\*, Bridwell KH, Rhee JM\*, **Lenke LG**, Baldus C. Dowel fibular strut grafts for high-grade dysplastic isthmic spondylolisthesis. North American Spine Society 16<sup>th</sup> Annual Meeting, Seattle, Washington, October 31-November 3, 2001.
200. Cole J, Murray D, **Lenke L**, Bridwell K, Bassett G. Use of Amicar versus Aprotinin during pediatric spinal deformity surgery. North American Spine Society 16<sup>th</sup> Annual Meeting, Seattle, Washington, October 31-November 3, 2001.
201. Kim Y<sup>§</sup>, **Lenke L**, Bridwell K, Kim K, Sides B, Whorton J, Blanke K. Prospective evaluation of pulmonary function in adolescent idiopathic scoliosis relative to the surgical approach: minimum 5 year follow-up. North American Spine Society 16<sup>th</sup> Annual Meeting, Seattle, Washington, October 31-November 3, 2001.
202. Kuklo T\*, Lehman Jr. R, **Lenke L**. Preoperative and postoperative computer tomography evaluation of structures at risk with anterior spinal fusion. North American Spine Society 16<sup>th</sup> Annual Meeting, Seattle, Washington, October 31-November 3, 2001.
203. Bridwell K, Edwards C\*, Patel A<sup>‡</sup>, Rinella A\*, Della Rocca G<sup>‡</sup>, Berra A, **Lenke L**. Thoracolumbar deformity arthrodesis to L5 in adult scoliotics: the fate of the L5-S1 disc: is it protected by a deep-seated L5? North American Spine Society 16<sup>th</sup> Annual Meeting, Seattle, Washington, October 31-November 3, 2001.
204. Padberg AM, Wilson-Holden TJ, Bridwell KH, **Lenke LG**, Raynor BL, Riew KD. Warning criteria for intraoperative somatosensory evoked potential monitoring data: Experience with 3783 cases. Podium presentation 216. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
205. Hanson DS\*, **Lenke LG**, Bridwell KH, Riew KD. Variability in surgical management of degenerative lumbar scoliosis. Podium presentation 282. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
206. Burd T<sup>‡</sup>, **Lenke LG**, Pawelek L. Upper extremity functional assessment following anterior spinal fusion via open thoracotomy for adolescent idiopathic scoliosis. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
207. Dobbs MB, **Lenke LG**, Morcuende JA, Weinstein JN, Bridwell KH, Sponseller PD. Incidence of neural axis abnormalities in infantile patients diagnosed with idiopathic scoliosis - Is screening MRI necessary? American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
208. Hanson DS\*, Bridwell KH, Rhee JM\*, **Lenke LG**. Dowel fibular strut grafts for high-grade dysplastic isthmic spondylolisthesis. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
209. Rhee JM\*, Bridwell KH, **Lenke LG**, Hanson DS\*. The results and complications of pedicle subtraction osteotomies for the treatment of fixed sagittal imbalance. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
210. Tenhula J, **Lenke LG**, Yukawa Y<sup>§</sup>, Riew KD. A prospective and comprehensive outcome study of surgically treated lumbar spinal stenosis with neurologic claudication. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
211. **Lenke LG**, Engsborg JR, Hollander KW, Reitenbach AK, Bridwell KH. Trunk motion in adolescents undergoing scoliosis spinal fusion. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
212. Yukawa Y<sup>§</sup>, **Lenke LG**, Tenhula J, Bridwell KH, Riew KD, Blanke K. A prospective and comprehensive outcome study of surgically treated lumbar spinal stenosis with neurogenic claudication. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

213. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Riew KD, Rhee JM\*, Hanson DS\*. Free hand pedicle screw placement in the thoracic spine - Is it safe? American Orthopaedic Association/CAO 115<sup>th</sup> Annual Meeting, Victoria, British Columbia, Canada, June 2002.
214. **Lenke LG**, Yukawa Y<sup>§</sup>, Fukui N, Lou J. Optimal treatment timing to rescue neuronal cells from spinal cord injury via Bcl-2 gene transfer *in-vitro* and *in-vivo*. American Orthopaedic Association/CAO 115<sup>th</sup> Annual Meeting, Victoria, British Columbia, Canada, June 2002.
215. **Lenke LG**, Yukawa Y<sup>§</sup>, Tenhula J, Bridwell KH, Riew KD, Blanke K. A prospective and comprehensive outcome study of surgically treated lumbar spinal stenosis with neurogenic claudication. American Orthopaedic Association/CAO 115<sup>th</sup> Annual Meeting, Victoria, British Columbia, Canada, June 2002.
216. Sanders JO, Polly DW, Cats-Baril W, Jones J, **Lenke LG**, O'Brien MF\*, Richards BS, Sucato DJ, AIS section of the Spinal Deformity Study Group. An Analysis of patient and parent assessment of deformity in idiopathic scoliosis using the Walter Reed Visual Assessment Scale. Podium presentation 5. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
217. Rhee JM\*, Bridwell KH, **Lenke LG**, Baldus C, Blanke K, Berra A. Staged posterior surgery for severe adult deformity. Podium presentation 22. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
218. Edwards C\*, Bridwell K, Patel A<sup>‡</sup>, Rinella A\*, Della Rocca GJ<sup>‡</sup>, Berra A, **Lenke L**. Thoracolumbar deformity arthrodesis to L5 in adult scoliotics: The fate of the L5-S1 disk: Is it protected by a deep-seated L5? Podium presentation 24. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
219. Rinella A\*, Bridwell K, Kim Y<sup>§</sup>, Rudzki J<sup>‡</sup>, Edwards C\*, Roh M\*, **Lenke L**. Late complications of adult idiopathic scoliosis primary fusions to L4 and above - The effect of age and distal fusion level. Podium presentation 25. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
220. Polly DW, Kuklo TR\*, O'Brien MF\*, Schroeder TM, Nelson L, **Lenke LG**. Reliability of radiographic parameters for scoliosis evaluation. Podium presentation 43, Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
221. Kuklo TR\*, Lehman Jr. RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with ASF. Podium presentation 44. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
222. Eule JM, Lowe TG, **Lenke LG**, Betz RR, Harms J, Clements DH, Newton PO, Barmada A, Maher TR, Merola AA. Selective anterior or posterior thoracic fusions in Lenke 1 adolescent idiopathic scoliosis with lumbar curves greater than forty degrees. Podium presentation 48. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
223. Dobbs MB, **Lenke LG**, Bridwell KH, Steger-May K. Can we predict the ultimate lumbar curve in adolescent idiopathic scoliosis patients undergoing a selective thoracic fusion? Podium presentation 49. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
224. Edwards C\*, **Lenke L**, Peelle M<sup>‡</sup>, Sides B, Rinella A\*, Bridwell K. Time dependent response of the unfused lumbar curve after selective thoracic fusion for AIS: 2-16 year radiographic and clinical follow-up. Podium presentation 50. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
225. Rinella A\*, **Lenke L**, Peelle M<sup>‡</sup>, Edwards C\*, Bridwell KH, Sides B. Comparison of SRS Questionnaire results submitted by both parents and patients in the operative treatment of idiopathic scoliosis. Podium presentation 53. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
226. Kim YJ<sup>§</sup>, **Lenke LG**, Cho YS, Bridwell KH, Riew KDI. Free hand pedicle screw placement in the thoracic spine: is it safe? Podium presentation 62. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.

<sup>§</sup>Student, <sup>‡</sup>Resident, \*Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

227. Clements DH, Betz RR, Newton PO, **Lenke LG**, Lowe TG, Merola AA, Haher TR, Marks M. Incidence of vascular complications associated with anterior thoracic instrumentation for adolescent idiopathic scoliosis. Podium presentation 64. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
228. Bridwell K, Lewis S\*, Edwards C\*, **Lenke L**, Berra A, Baldus C, Blanke K. Complications (pseudarthrosis, neurologic deficit) of pedicle subtraction osteotomies for fixed sagittal imbalance. Podium presentation 69. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
229. Betz RR, MacDonald JH, **Lenke LG**, Lowe TG, Newton PO, Clements DH, Wenger DR, Haher TR, Merola AA, Harms J, Shufflebarger HL. Perioperative complications of spinal fusion for thoracic adolescent idiopathic scoliosis. Podium presentation 71. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
230. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim KN<sup>§</sup>, Sides B, Whorton J, Blanke K. Prospective evaluation of pulmonary function in adolescent idiopathic scoliosis relative to the surgical approach: minimum 5 year follow up. Podium presentation 77. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
231. Cole J, Murray D, **Lenke L**, Bridwell K, Bassett G. Use of Amicar vs. Aprotinin during pediatric spinal deformity surgery: Can they help decrease blood loss? Podium presentation 81. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
232. Cole J, Murray DJ, **Lenke LG**, Bridwell KH, Bassett GS. Use of Amicar vs. Aprotinin during pediatric spinal deformity surgery: can they help decrease blood loss? North American Spine Society 17<sup>th</sup> Annual Meeting, Montréal, Canada, October 12-15, 2002.
233. Bridwell KH, Edwards II CC\*, Patel AA<sup>‡</sup>, Rinella AS\*, Della Rocca GJ<sup>‡</sup>, Berra A, **Lenke LG**. Thoracolumbar deformity arthrodesis to L5 in adult scoliosis. The fate of the L5-S1 disk: is it protected by a deep-seated L5? North American Spine Society 17<sup>th</sup> Annual Meeting, Montréal, Canada, October 12-15, 2002.
234. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Sides B, Whorton J, Blanke K. Prospective evaluation of pulmonary function in adolescent idiopathic scoliosis relative to the surgical approach: minimum 5 year follow-up. North American Spine Society 17<sup>th</sup> Annual Meeting, Montréal, Canada, October 12-15, 2002.
235. Kuklo TR\*, Lehman Jr. RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with ASF. North American Spine Society 17<sup>th</sup> Annual Meeting, Montréal, Canada, October 12-15, 2002.
236. Kuklo TR\*, Lehman RA, **Lenke LG**. Thoracic anterior spinal fusion and structures at risk. North American Spine Society 17<sup>th</sup> Annual Meeting, Montréal, Canada, October 12-15, 2002.
237. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim KH<sup>§</sup>, Sides B, Whorton J, Blanke K. A prospective evaluation of pulmonary function in adolescent idiopathic scoliosis relative to the surgical approach used for spinal fusion: minimum 5 year F/U study. Australian Orthopaedic Association 62<sup>nd</sup> Annual Scientific Meeting, Melbourne, Victoria, Australia, October 13-15, 2002.
238. Polly DW, Kuklo TR\*, O'Brien MF\*, Schroeder TM, Nelson L, **Lenke LG**. Reliability of radiographic parameters for scoliosis evaluation. Society of Military Orthopaedic Surgeons 44<sup>th</sup> Annual Meeting, San Diego, CA, December 10-15, 2002.
239. O'Brien MF\*, Smith DAB, Eule JM, Enguidanos ST, Hashim SM, Kuklo TR\*, **Lenke LG**, Lowe TG, Polly DW, Wilson LA. Instrumentation of the cervical thoracic junction (CTJ): A biomechanical comparison of thoracic pedicle screws (TPS) vs. thoracic hooks (TH) as distal anchors for long constructs. Podium presentation 51. Cervical Spine Research Society 30<sup>th</sup> Annual Meeting, Miami, FL, December 5-7, 2002.
240. Satake K<sup>§</sup>, Lou J, **Lenke LG**. Migration of mesenchymal stem cells through cerebrospinal fluid into injured spinal cord tissue. Podium presentation 78. Orthopaedic Research Society 49<sup>th</sup> Annual Meeting, New Orleans, LA, February 2-5, 2003.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

241. Edwards II CC\*, **Lenke LG**, Peelle MW<sup>‡</sup>, Sides B, Rinella AS\*, Bridwell KH. Time dependent response of the unfused lumbar curve after selective thoracic fusion for AIS: 2-16 year radiographic and clinical follow-up. Podium presentation 42. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 5-9, 2003.
242. Edwards II C\*, Bridwell K, Patel A<sup>‡</sup>, Rinella A\*, Kim Y<sup>§</sup>, Berra A, **Lenke LG**. Long deformity fusion to L5 and the sacrum: risk factors for adverse outcomes. Podium presentation 43. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 5-9, 2003.
243. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Sides B, Whorton J, Blanke K. Prospective evaluation of pulmonary function in adolescent idiopathic scoliosis relative to the surgical approach: minimum 5 year follow-up. Podium presentation 45. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 5-9, 2003.
244. Dobbs MB, **Lenke LG**, Bridwell KH, Steger-May K. Can we predict the ultimate lumbar curve in adolescent idiopathic scoliosis patients undergoing a selective thoracic fusion? Podium presentation 48. American Academy of Orthopaedic Surgery 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 5-9, 2003.
245. Kuklo TR\*, Lehman Jr. RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with anterior spinal fusion. Podium presentation 50. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 5-9, 2003.
246. Kim YJ<sup>§</sup>, **Lenke LG**, Cho YS<sup>§</sup>, Bridwell KH, Riew KD. Free hand pedicle screw placement in the thoracic spine: is it safe? Podium presentation 182. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 5-9, 2003.
247. Edwards II CC\*, Bridwell KH, Patel AA<sup>‡</sup>, Rinella AS\*, Della Rocca GJ<sup>‡</sup>, Berra A, **Lenke LG**. Thoracolumbar deformity arthrodesis to L5 in adult scoliotics. The fate of the L5-S1 disk: is it protected by a deep-seated L5? Podium presentation 183. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 5-9, 2003.
248. Newton PO, Betz R, Clements D, **Lenke L**. Anterior thoracoscopic instrumentation: A match comparison to anterior open and posterior open instrumentation. Pediatric Orthopaedic Society of North America Annual Meeting, Amelia Island, FL, May 2-5, 2003.
249. Edwards C\*, **Lenke L**, Peelle M<sup>‡</sup>, Sides B, Rinella A\*, Bridwell KH. Time dependent response of the unfused lumbar curve after selective thoracic fusion for AIS: 2 – 16 year radiographic and clinical follow-up. Pediatric Orthopaedic Society of North America Annual Meeting, Amelia Island, FL, May 2-5, 2003.
250. Sanders J, Polly D, Cats-Baril W, Jones J, **Lenke L**, O'Brien M\*, Richards BS, Sucato D. An analysis of patient and parent assessment of deformity in idiopathic scoliosis using the Walter Reed Visual Assessment Scale. Pediatric Orthopaedic Society of North America Annual Meeting, Amelia Island, FL, May 2-5, 2003.
251. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell K, Kim K, Sides B, Whorton J, Blanke K. Prospective evaluation of pulmonary function in adolescent idiopathic scoliosis relative to the surgical approach: minimum 5 year follow up. Pediatric Orthopaedic Society of North America Annual Meeting, Amelia Island, FL, May 2-5, 2003.
252. Faro F, Newton N, Marks M, Wenger D, Betz R, Clements D, D'Andrea L, **Lenke L**, Lowe T, Merola A, Haheer T. Factors involved in the decision to perform a selective vs. non-selective fusion of Lenke 1B and 1C (King 1D) curves in adolescent idiopathic scoliosis (AIS). Podium presentation 24. 10<sup>th</sup> International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
253. Tis J, Oswald T, Newton P, Wenger D, **Lenke L**, Betz R, Marks M. Pelvic influence on lumbar lordosis in thoracolumbar adolescent idiopathic scoliosis. Podium presentation 60. 10<sup>th</sup> International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
254. Kuklo TR\*, Lehman RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with anterior spinal fusion. Eastern Orthopaedic Association 34<sup>th</sup> Annual Meeting & Southern Orthopaedic Association 20<sup>th</sup> Annual Meeting, Dublin, Ireland, July 30-August 3, 2003.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>‡</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

255. Lehman RA, Kuklo TR\*, **Lenke LG**. Thoracic anterior spinal fusion and structures at risk. Eastern Orthopaedic Association 34<sup>th</sup> Annual Meeting & Southern Orthopaedic Association 20<sup>th</sup> Annual Meeting, Dublin, Ireland, July 30-August 3, 2003. **1<sup>st</sup> Place, Outstanding Resident/Fellow Paper Award**
256. Kuklo TR\*, Lehman RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with anterior spinal fusion. World Spine II, Chicago, IL, August 11-13, 2003.
257. Edwards C\*, **Lenke LG**, Peelle M<sup>‡</sup>, Sides B, Rinella A\*, Bridwell KH. Expandable cages for internal augmentation of fractures in the thoraco-lumbar spine. World Spine II, Chicago, IL, August 11-13, 2003.
258. Kuklo TR\*, **Lenke LG**, O'Brien M\*, Lehman RA, Schroeder T, Polly Jr. DW. Accuracy and efficacy of thoracic pedicle screws in curves over 90 degrees. World Spine II, Chicago, IL, August 11-13, 2003.
259. Asher MA, **Lenke LG**, Labelle HHL, Lonstein JE, Brown CW, Stokes IAF, Coonrad RW, Chan DPK, Deinlein DA, Jackson RP, Emans JB, Knight RQ, King HA, Zeller RD. Reliability of radiographic measurements in operative AIS performed by members of the SRS Working Group on 3D Spinal Classification. Podium presentation 1A. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
260. Asher MA, **Lenke LG**, Labelle HHL, Lonstein JE, Brown CW, Stokes IAF, Coonrad RW, Chan DPK, Deinlein DA, Jackson RP, Emans JB, Knight RQ, King HA, Zeller RD. Interobserver and intraobserver reliability of the SRS classification of adolescent idiopathic scoliosis. Podium presentation 1B. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Québec, Canada, September 10-13, 2003.
261. O'Brien MF\*, Kuklo TR\*, Richards BS, **Lenke LG**, Polly DW, Schreiber D, Pinteric R, Schroeder T, Blanke KM, AIS Section of the Spinal Deformity Study Group. A Multicenter clinical and radiographic analysis of anterior and posterior surgical techniques for treatment of thoracolumbar/lumbar AIS: the current state of the art. Podium presentation 8. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
262. Satake K<sup>§</sup>, Lou J, **Lenke LG**. Migration of mesenchymal stem cells through cerebrospinal fluid into injured spinal cord tissue. Podium presentation 13. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
263. Rinella AS\*, **Lenke LG**, Whitaker C, Kim Y<sup>§</sup>, Park SS, Peelle M<sup>‡</sup>, Bridwell KH. Perioperative halo-gravity traction in the treatment of severe scoliosis and kyphosis. Podium presentation 29. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
264. **Lenke LG**, Marks M, Blanke K, Sides B, Newton PO, Kim Y<sup>§</sup>. Prospective pulmonary function comparison of open vs. endoscopic anterior fusion combined with posterior fusion in adolescent idiopathic scoliosis. Podium presentation 40. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Montréal, Québec City, Canada, September 10-13, 2003.
265. Bridwell KH, Cats-Baril W, Berven S, Glassman S, Farcy JP, Horton W, **Lenke LG**, Radake T. The validity of the SRS-22 Instrument in an adult spinal deformity population compared to the Oswestry and SF-12. Podium presentation 42. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
266. Glattes RC\*, Bridwell KH, **Lenke LG**, Rinella A\*, Edwards II C\*. Proximal junctional kyphosis in adult spinal deformity following long instrumented posterior spinal fusion: incidence, outcomes and risk factors analysis. Podium presentation 46. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
267. Edwards II CC\*, Bridwell KH, Patel A<sup>‡</sup>, Rinella A\*, Berra A, **Lenke LG**. Long adult deformity fusions: Is it better to stop at L5 or the sacrum? Podium presentation 48. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
268. Kim Y<sup>§</sup>, Bridwell KH, **Lenke LG**, Rinella A\*. Pseudarthrosis in adult idiopathic scoliosis primary fusions. Podium presentation 49. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

269. Orchowski JR\*, Bridwell KH, **Lenke LG**. Neurological deficit from a purely vascular etiology after unilateral vessel ligation of segmental arteries during anterior thoracolumbar fusion of the spine. Podium presentation 61. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
270. Kim Y<sup>§</sup>, **Lenke LG**, Bridwell KH. Comparative analysis of pedicle screw versus hook instrumentation in posterior spinal fusion of adolescent idiopathic scoliosis: A matched cohort analysis. Podium presentation 81. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
271. D'Andrea LP, Betz RR, Newton PO, **Lenke LG**, Clements DH, Harms J, Haher TR, Lowe TG, Merola AA, Crawford AH, Sucato DJ. Effects of continued posterior spinal growth on sagittal contour after anterior spinal fusion with instrumentation of different sizes for adolescent idiopathic scoliosis. Podium presentation 82. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
272. **Lenke LG**, Engsberg JR, Bridwell KH, Urich M, Ross S. Prospective evaluation of gait and trunk range of motion (ROM) following anterior or posterior spinal fusion in adolescent idiopathic scoliosis (AIS). Podium presentation 86. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
273. **Lenke LG**, Blanke K, Sides B, Steger-May K, Bridwell KH, Satake K<sup>§</sup>, Kim Y<sup>§</sup>. Can we predict postoperative disc wedging below anterior instrumented thoracolumbar/lumbar adolescent idiopathic scoliosis fusions? Podium presentation 88. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
274. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH. Comparative analysis of pedicle screw versus hook instrumentation in posterior spinal fusion of adolescent idiopathic scoliosis: a matched cohort analysis. North American Spine Society 18<sup>th</sup> Annual Meeting, San Diego, CA, October 21-25, 2003.
275. Orchowski JR\*, Bridwell KH, **Lenke LG**. Neurological deficit from a purely vascular etiology after unilateral vessel ligation of segmental arteries during anterior thoracolumbar fusion of the spine. North American Spine Society 18<sup>th</sup> Annual Meeting, San Diego, CA, October 21-25, 2003.
276. Glattes RC\*, Bridwell KH, Rinella AS\*, Edwards II CC\*, **Lenke LG**. An analysis of proximal junctional kyphosis after posterior spinal fusion for adult spinal deformity. Podium presentation 126. American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 11, 2004.
277. Spencer UM\*, Padberg AM, Raynor BL, **Lenke LG**, Bridwell KH. Lumbar root deficits undetected by monitoring for complex spinal surgeries: a ten-year experience. Podium presentation 127. American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 11, 2004.
278. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**. Pseudarthrosis in adult idiopathic scoliosis primary fusions. Podium presentation 254. American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 12, 2004.
279. **Lenke LG**. Thorascopic anterior versus open posterior spinal fusion for adolescent idiopathic scoliosis. Podium presentation 258. American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 12, 2004.
280. Peelle MW<sup>‡</sup>, **Lenke LG**, Bridwell KH, Patel AA<sup>‡</sup>. Iliac screw versus Galveston rod pelvic fixation techniques in neuromuscular spinal deformity. Podium presentation 99. Mid-America Orthopaedic Association 22<sup>nd</sup> Annual Meeting, La Quinta, CA, April 14-18, 2004.
281. Dobbs MB, **Lenke LG**, Peelle MW<sup>‡</sup>. Curve prevalence of infantile and juvenile curves using a modified Lenke classification scheme. Podium presentation 100. Mid-America Orthopaedic Association 22<sup>nd</sup> Annual Meeting, La Quinta, CA, April 14-18, 2004.
282. **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH. Comparative analysis of pedicle screw versus hook instrumentation in posterior spinal fusion of adolescent idiopathic scoliosis. Pediatric Orthopaedic Society of North American Annual Meeting, St. Louis, MO, April 27-May 1, 2004.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

283. **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH. Can we predict postoperative disc wedging below anterior instrumented thoracolumbar/lumbar adolescent idiopathic scoliosis fusion? Pediatric Orthopaedic Society of North American Annual Meeting, St. Louis, MO, April 27-May 1, 2004.
284. Cheng I\*, Bridwell KH, **Lenke LG**, Hurford Jr. RK\*, Lee SS\*, Chen R<sup>‡</sup>. Use of bone morphogenetic protein-2 for anterior and posterior adult spinal deformity fusion. Podium presentation 3. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
285. Potter BK, Kuklo TR\*, **Lenke LG**. Radiographic outcomes of anterior spinal fusion versus posterior spinal fusion with thoracic pedicle screws for treatment of Lenke type I adolescent idiopathic scoliosis curves. Podium presentation 34. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
286. Kim YJ<sup>§</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Riew KD. CT scan accuracy of “free hand” pedicle screw placement technique in spinal deformity: an analysis of 789 pedicle screws. Podium presentation 38. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
287. **Lenke LG**, O’Brien MF\*, Kuklo TR\*, Polly Jr. DW, Richards BS, Sucato DJ. Indications for circumferential fusion surgery in adolescent idiopathic scoliosis: a multicenter analysis. Podium presentation 40. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
288. O’Brien MF\*, **Lenke LG**, Kuklo TR\*, Polly Jr. DW, Sucato D, Richards BS, Lubicky J, Ibrahim K, Kawakami N, King A. The relationship between the lowest instrumented (LIV), stable (SV), and lowest end vertebra (LEV) in “single overhang” thoracic and thoracolumbar/lumbar AIS: Anterior vs. posterior techniques. Podium presentation 42. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
289. Dobbs MB, **Lenke LG**, Peelle MW<sup>‡</sup>, Bridwell KH. Selective thoracic fusion for AIS with lumbar C modifier curves: comparison of hooks versus pedicle screws. Podium presentation 44. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
290. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>. Bilateral apical vertebral derotational pedicle screw instrumentation in the posterior spinal fusion of adolescent idiopathic scoliosis: comparison with pedicle screw translational techniques. Podium presentation 47. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
291. Newton PO, Marks M, Betz RR, D’Andrea LP, Clements III DH, **Lenke LG**, Lowe TG, Letko LJ, Haher TR, Merola AA, Crawford AH. Outcomes of surgical treatment in males vs. female adolescent idiopathic scoliosis patients. Podium presentation 48. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
292. **Lenke LG**, Eisermann L, Bilancini M, Kayanja M, Zhang J, Ferrara L. Biomechanics of disc arthroplasty placed below a simulated long spinal fusion construct: is it stable and feasible? Podium presentation 68. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton Bermuda, July 1-3, 2004.
293. Cho KJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Kamiya M<sup>§</sup>, Sides B. Selection of the optimal distal fusion level in posterior instrumentation and fusion for thoracic hyper-kypnosis: the sagittal stable vertebra concept. Podium presentation 84. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
294. O’Brien MF\*, **Lenke LG**, Sarwark J, Sucato DJ, Richards BS, Kuklo TR\*, Newton PO, Weinstein SL, Diab M, Suk SI. A multicenter clinical and radiographic analysis of anterior and posterior surgical techniques for treatment of “single overhang” thoracic AIS: the current state of the art. Podium presentation 85. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
295. Takeshita K<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Sides B, Hensley M. Analysis of non-ambulatory neuromuscular scoliosis patients surgically treated to the pelvis with intraoperative halo-femoral traction. Podium presentation 89. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



296. Lowe T, Betz RR, **Lenke LG**, Haheer T, Merola A, Newton PO, Clements D, Crawford A, Sucato D, Letko LJ, Wilson L. An analysis of anterior versus posterior instrumented fusion for thoracic adolescent idiopathic (AIS) curves 70-80 degrees: are there advantages of one over the other? Podium presentation 1. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
297. Luhmann S\*, **Lenke LG**, Kim Y<sup>§</sup>, Bridwell KH, Schootman M. Thoracic adolescent idiopathic scoliosis curves between 70 and 100 degrees: is anterior release necessary? Podium presentation 2. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
298. Cheng I\*, Kim Y<sup>§</sup>, Gupta M, **Lenke LG**, Bridwell KH, Hurford Jr. R\*, Lee S\*. Apical sublaminar wires versus pedicle screws - Which provides better results for surgical correction of adolescent idiopathic scoliosis? Podium presentation 3. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
299. Lowe T, **Lenke LG**, Betz RR, Newton PO, Clements D, Haheer T, Merola A, Crawford A, Sucato D, Letko LJ, Wilson L. Distal junctional kyphosis (DJK) adolescent idiopathic thoracic curves following anterior or posterior instrumented fusion: Incidence, risk factors and prevention. Podium presentation 5. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
300. Kuklo T\*, Potter B, Polly D, **Lenke LG**. Corrective capacity of monaxial versus multiaxial thoracic pedicle screws in adolescent idiopathic scoliosis. Podium presentation 10. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
301. Cho KJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Berra A, Baldus C. Comparison of Smith-Petersen osteotomies versus pedicle subtraction osteotomies for the treatment of fixed sagittal imbalance (71 patients with minimum 2-year follow-up). Podium presentation 18. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
302. Kim Y<sup>§</sup>, Bridwell KH, **Lenke LG**, Cho KJ<sup>§</sup>. Pseudarthrosis in long adult spinal deformity instrumentation and fusions: risk factors and clinical outcome analysis of 228 cases. Podium presentation 20. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
303. Tsuchiya K<sup>§</sup>, Bridwell KH, Kuklo T\*, **Lenke LG**, Baldus C. Minimum 5-year analysis of L5-S1 fusion using sacropelvic fixation (bilateral S1 and iliac screws) for spinal deformity. Podium presentation 21. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
304. Kim Y<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim J, Cho S<sup>¥</sup>. Proximal junctional kyphosis in adolescent idiopathic scoliosis following instrumented posterior only spinal fusion: Incidence and risk factor analysis of 328 patients. Podium presentation 29. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
305. Riew KD, Cho Y, Yin Y<sup>§</sup>, Park JB, Gilula L, Bridwell KH, **Lenke LG**, Taylor B. Effect of nerve root injections on need for operative treatment of lumbar radicular pain: 5-year follow-up. Podium presentation 52. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
306. Thuet E, Padberg A, Raynor B, Bridwell KH, Riew KD, Taylor B, **Lenke LG**. Increased risk of postoperative neurologic deficit for spinal surgery patients with unobtainable intraoperative evoked potential data. Podium presentation 68. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
307. Peelle MW<sup>‡</sup>, **Lenke LG**, Bridwell KH, Sides B. Comparison of Galveston rod vs. iliac screw pelvic fixation techniques in neuromuscular spinal deformity correction. Podium presentation 70. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
308. Kim Y<sup>§</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Riew KD. Evaluation of pedicle screw placement in the deformed spine using intraoperative plain radiographs: A comparison with CT scans. Podium presentation 78. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

309. Newton PO, Faro FD, Gollogly S, Betz RR, Clements D, **Lenke LG**, Lowe T, Crawford A, Haher T, Merola A. Pulmonary function in adolescent idiopathic scoliosis. Podium presentation 95. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
310. Potter BK, Kuklo TR\*, **Lenke LG**. Radiographic outcomes of anterior spinal fusion versus posterior spinal fusion with thoracic pedicle screws. Eastern Orthopaedic Association 35<sup>th</sup> Annual Meeting, Rio Grande, Puerto Rico, October 14, 2004.
311. Olsen M<sup>‡</sup>, Nepple J<sup>¥</sup>, Riew KD, **Lenke LG**, Mayfield J, Fraser V. Independent risk factors for postoperative spinal wound infection. Podium presentation 11. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
312. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Cho KJ<sup>§</sup>. Pseudarthrosis in long adult spinal deformity instrumentation and fusions. Podium presentation 34. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
313. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Sides B. Prospective pulmonary function comparison of anterior spinal fusion in adolescent idiopathic scoliosis: Thoracotomy vs. thoracoabdominal approach. Podium presentation 92. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
314. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim J, Cho SK<sup>¥</sup>. Proximal junctional change in adolescent idiopathic scoliosis following segmental posterior spinal instrumentation and fusion: minimum five-year follow-up. Podium presentation 94. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
315. Cho KJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Kamiya M<sup>§</sup>, Sides B. Selection of distal fusion levels with reference to the sagittal stable vertebra in posterior instrumentation and fusion for thoracic hyperkyphosis. Podium presentation 108. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
316. Lehman RA, Kuklo TR\*, Potter BK, Polly DW, **Lenke LG**. Corrective capacity of monaxial versus multiaxial thoracic pedicle screws in adolescent idiopathic scoliosis. Society of Military Orthopaedic Surgeons 46<sup>th</sup> Annual Meeting, Vail, CO, December 6-10, 2004.
317. Riew KD, Park JB, Cho YS, Yin Y<sup>§</sup>, Gilula LA, Bridwell KH, **Lenke LG**, Taylor BA. Effect of nerve root injections on need for operative treatment lumbar radicular pain, 5 year follow-up. Podium presentation No. 184. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-25, 2005.
318. Lee SS\*, **Lenke LG**, Peelle M<sup>‡</sup>, Okubadejo G<sup>‡</sup>, Cheng I\*, Hurford R\*, Bridwell KH, Sides B, Stobbs G. Preserving the degenerated L5-S1 segment in degenerative lumbar fusion surgery in older patients. Podium presentation No. 187. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting Washington, D.C., February 23-25, 2005.
319. Cho KJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Berra A, Baldus C. Smith-Petersen versus pedicle subtraction osteotomies for fixed sagittal imbalance (71 patients). Podium presentation 190. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-25, 2005.
320. Newton PO, Faro, F, Gollogly S, Betz RR, Clements III DH, **Lenke LG**, Lowe TG, Crawford AH, Haher TR. Pulmonary function in adolescent idiopathic scoliosis. Podium presentation 287. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-25, 2005.
321. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim J<sup>§</sup>, Cho S<sup>¥</sup>. Comparison of pedicle screw versus hybrid instrumentation in adolescent idiopathic scoliosis. Podium presentation 289. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-27, 2005.
322. Cheng I\*, Kim YJ<sup>§</sup>, Gupta MC, **Lenke LG**, Bridwell KH, Hurford Jr. RK\*, Lee SS\*. Apical sublaminar wires vs. pedicle screws-which provides better AIS corrective results? Podium presentation 290. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-25, 2005.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

323. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim J<sup>§</sup>, Cho S<sup>‡</sup>. Proximal junctional kyphosis in 328 adolescent idiopathic scoliosis after posterior spinal fusion. Podium presentation 292. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-25, 2005.
324. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rinella A\*, Edwards II C\*, Cho KJ<sup>§</sup>. Pseudarthrosis in 228 long adult spinal deformity segmental instrumented fusions. Podium presentation 298. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-25, 2005.
325. Dobbs MB, Okubadejo G<sup>‡</sup>, Nunley RM<sup>‡</sup>, **Lenke LG**, Peelle MW<sup>‡</sup>. Selective thoracic fusion for adolescent idiopathic scoliosis: Comparison of hooks versus pedicle screws. Podium presentation 5. Mid-America Orthopaedic Association 23<sup>rd</sup> Annual Meeting, Amelia Island, FL, April 20-24, 2005.
326. Peelle MW<sup>‡</sup>, Dobbs MB, Lee S\*, **Lenke LG**, Bridwell KH. Outcome analysis of adolescent idiopathic scoliosis curves greater than 90 degrees. Podium presentation 79. Mid-America Orthopaedic Association 23<sup>rd</sup> Annual Meeting, Amelia Island, FL, April 20-24, 2005.
327. Sucato DJ, Newton P, Betz R, Picetti G, **Lenke L**, Hresko MT, Hu S, Braun J, Roye D. Defining the learning curve for performing a thoracoscopic anterior spinal fusion and instrumentation for AIS: A multi-center study. Podium presentation 26. Pediatric Orthopaedic Society of North America Annual Meeting, Ottawa, Ontario, Canada, May 12-15, 2005.
328. Luhmann SJ\*, Bridwell KH, Cheng I\*, Imamura T<sup>§</sup>, **Lenke LG**, Schootman M. Use of bone morphogenetic protein-2 for adult spinal deformity. Podium presentation 27. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
329. Polly Jr. DW, **Lenke LG**, Kuklo TR\*. Vertebral number variation and potential impact for wrong level surgery. Podium presentation 29. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
330. Crawford A, Babekhir N, Lowe TG, Betz R, **Lenke L**, Maher T, Merola A, Newton P, Clements D, Sucato DJ, Letko L. Comparison between left and right thoracic curves in idiopathic scoliosis. Podium presentation 30. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
331. Breakwell LM<sup>§</sup>, Silva FE<sup>^</sup>, **Lenke LG**. Are left thoracic curves more kyphotic and stiffer than right-sided curves? Podium presentation 31. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
332. Betz RR, O'Brien MF\*, Porter ST, Newton PO, Clements DH, **Lenke LG**, Lowe TG, Harms J, D'Andrea LP, Harms Study Group. Open anterior spinal fusion for thoracic adolescent idiopathic scoliosis (AIS): A prospective five-year follow-up. Podium presentation 35. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
333. Luhmann SJ\*, **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH, Schootman M. Cost analysis of circumferential fusion versus posterior fusion-only with thoracic pedicle screw constructs of 70-100 degree idiopathic thoracic curves. Podium presentation 37. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
334. Kuklo TR\*, **Lenke LG**, Potter BK, Polly Jr. DW, Sides B, Bridwell KH. Surgical revision rate of hooks versus hybrid versus pedicle screw constructs for AIS. Podium presentation 40. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
335. Clements DH, Marks M, Porter ST, Betz RR, D'Andrea LP, Newton PO, Harms Study Group. Trunk shape correction and patient satisfaction in adolescent idiopathic scoliosis. Podium presentation 45. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.

<sup>§</sup>Student, <sup>‡</sup>Resident, \*Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

336. **Lenke LG**, Braun JT, Bridwell KH, Dimar JR, Dobbs M, Glassman S, Hedequist D, Hresko MT, Kuklo TR\*, McCarthy RE, Polly DW, Richards BS, Sanders J, Sarwark J, Sponseller P, Sucato D, Weinstein S. Reliability analysis of end, neutral, stable, and lowest instrumented vertebrae selection in adolescent idiopathic scoliosis: Surgeon versus digital software determination. Podium presentation 46. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
337. Sucato DJ, **Lenke LG**, Richards BS, Kuklo T\*, O'Brien M\*, Polly DW, Spinal Deformity Study Group. Changes in body mass index in adolescent idiopathic scoliosis surgical patients. Podium presentation 49. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
338. Bess RS\*, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Sides B. Comparison of thoracic pedicle screw to hook instrumentation for the treatment of adult spinal deformity. Podium presentation 81. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
339. Yang Y<sup>§</sup>, **Lenke LG**, Bridwell KH, Riew KD, Stobbs G. The impact of the lumbar spine modifier and thoracic sagittal profile on the main thoracic component of a Lenke type I scoliosis. Podium presentation 5A. Asia Pacific Spine Congress, Jeju Island, Korea, August 25-27, 2005.
340. Kim Y<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim S<sup>§</sup>, Cheh G<sup>§</sup>. Thoracic kyphosis progression following long lumbar fusion from the thoracolumbar junction to L5-S1. Podium presentation 21A. Asia Pacific Spine Congress, Jeju Island, Korea, August 25-27, 2005.
341. Yang Y<sup>§</sup>, **Lenke LG**, Bridwell KH, Riew KD. The association of hip arthroplasty in adjacent segment degeneration after fusion of degenerative spinal disorder – a case control study. Podium presentation 27A. Asia Pacific Spine Congress, Jeju Island, Korea, August 25-27, 2005.
342. Breakwell LM<sup>§</sup>, Marks DS, Thompson AG, Betz RR, D'Andrea L, **Lenke LG**. Complications of scoliosis surgery in Prader-Willi syndrome patients. Podium presentation 22. EuroSpine 14<sup>th</sup> Annual Meeting, Barcelona, Spain, September 21-24, 2005.
343. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim S<sup>§</sup>, Cheh G<sup>§</sup>. Sagittal thoracic decompensation (STD) following adult lumbar spinal instrumentation and fusion to L5 or S1: causes, incidence, and risk factors analysis. Podium presentation 28. EuroSpine 14<sup>th</sup> Annual Meeting, Barcelona, Spain, September 21-24, 2005.
344. Braun JT, Bridwell KH, Dimar JR, Dobbs MB, Glassman SD, Hedequist DJ, Hresko MT, Kuklo TR\*, **Lenke LG**, McCarthy RE. Reliability analysis of end, neutral, stable, and lowest instrumented vertebra selection in adolescent idiopathic scoliosis: Surgeon versus digital software determination. Podium presentation 68. EuroSpine 14<sup>th</sup> Annual Meeting, Barcelona, Spain, September 21-24, 2005.
345. Angevine PD\*, **Lenke LG**, Stobbs G, Bridwell KH. Cost-offset analysis of bone morphogenic protein-2 (rhBMP-2) in primary surgery for adolescent idiopathic scoliosis. Podium presentation 1. EuroSpine 14<sup>th</sup> Annual Meeting, Barcelona, Spain, September 21-24, 2005.
346. Lee SS\*, **Lenke LG**, Peelle MW<sup>‡</sup>, Okubadejo GO<sup>‡</sup>, Cheng I\*, Hurford Jr. RK\*, Bridwell KH, Sides B, Stobbs G. Preserving the degenerated L5-S1 segment in degenerative lumbar fusion surgery in an older patient population: is it possible? Podium presentation 162. North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
347. Labrom RD, Armstrong PF, **Lenke LG**. Growth and maturation of the spine from birth to adolescence. SHC/SRS/POSNA Symposium, Needham, MA, October 26, 2005.
348. **Lenke LG**, Dobbs MB, Armstrong PF. Management of juvenile idiopathic scoliosis. SHC/SRS/POSNA Symposium, Needham, MA, October 26, 2005.
349. Sanders JO, Armstrong PF, **Lenke LG**. Maturity indicators in spinal deformity. SHC/SRS/POSNA Symposium, Needham, MA, October 26, 2005.

<sup>§</sup>Student, <sup>‡</sup>Resident, \*Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

350. Dobbs MB, **Lenke LG**. Selective posterior thoracic fusions for adolescent idiopathic scoliosis: Comparison of hooks versus pedicle screws. Podium presentation 4. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
351. Vora V, Crawford AH, Babekhir N, Boachie-Adjei O, **Lenke LG**, Peskin M, Charles G, Kim YJ<sup>§</sup>. A pedicle screw construct gives an enhanced posterior correction of adolescent idiopathic scoliosis when compared to other constructs – Myth or reality? Podium presentation 5. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
352. Lowe TG, Chien JT, Betz RR, **Lenke LG**, Newton PO, Clements III DH, Crawford AH, Letko LJ. The surgical treatment of double thoracic curves in adolescent idiopathic scoliosis – Factors involved in the decision to perform a selective fusion of the main thoracic curve versus a posterior fusion. Podium presentation 6. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
353. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Cho SK<sup>¥</sup>, Ramo B<sup>¥</sup>, Yoon JY<sup>§</sup>. Sagittal plane analysis following posterior segmental spinal instrumentation. Podium presentation 7. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
354. Dobbs MB, **Lenke LG**, Bridwell KH. Comparison of combined anterior/posterior spinal fusion versus posterior fusion alone for the treatment of adolescent idiopathic curves greater than 90 degrees. Podium presentation 8. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
355. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim SC<sup>§</sup>, Cheh G<sup>§</sup>. When fusing from the thoracolumbar junction to L5-S1, how much lordosis is ideal? Podium presentation 17. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
356. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim SC<sup>§</sup>, Cheh G<sup>§</sup>. Sagittal thoracic decompensation (STD) following adult lumbar spinal instrumentation and fusion to L5 or S1: causes, incidence, and risk factors analysis. Podium presentation 33. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
357. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim SC<sup>§</sup>, Cheh G<sup>§</sup>. Pseudarthrosis in long adult spinal deformity instrumentation and fusions to the sacrum: incidence and risk factor analysis of 149 cases. Podium presentation 34. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
358. Schroeder TM, Blanke KM, Kuklo TR\*, Vaughan A, Morrison MM, Polly Jr. DW, **Lenke LG**, Richards III BS. Validation of radiographic software to determine Lenke classification. Podium presentation 54. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
359. Takeshita K<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Sides B, Hensley M. Analysis on non-ambulatory neuromuscular scoliosis patients surgically treated to the pelvis with intraoperative halo-femoral traction. Podium presentation 66. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
360. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Sides B. Prospective pulmonary function comparison following posterior spinal fusion of adolescent idiopathic scoliosis. Is there a relationship between main thoracic curve correction and PFT improvement? Podium presentation 70. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
361. Kishan S, Newton PO, Betz RR, **Lenke LG**, Lowe TG, Clements III DH, D'Andrea LP, Sucato DJ. Thoracoscopic anterior instrumentation affects pulmonary function less than open thoracotomy at two years postop. Podium presentation 71. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
362. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Sides B. Prospective pulmonary function comparison of anterior spinal fusion in adolescent idiopathic scoliosis: thoracotomy vs. thoracoabdominal approach. Podium presentation 73. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.

<sup>¥</sup>Student, <sup>§</sup>Resident, \*Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

363. Lee SS\*, **Lenke LG**, Kuklo TR\*, Valenté L<sup>§</sup>, Bridwell KH, Sides B, Blanke KM. Comparison of Scheuermann's kyphosis correction by posterior only thoracic pedicle screw fixation vs. combined anterior/posterior fusion. Podium presentation 75. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
364. Lonner BS, Scharf C, Newton PO, O'Brien MF\*, Sponseller PD, **Lenke LG**, Crawford AH, Letko LJ, Lowe TG, Shufflebarger HL. Operative management of Scheuermann's kyphosis in 78 patients. Podium presentation 76. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
365. Raynor BL, **Lenke LG**, Bridwell KH, Taylor BA, Padberg AM. Correlation between low triggered EMG thresholds & lumbar pedicle screw malposition: analysis of 4587 screws. Podium presentation 83. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
366. Hurford Jr. RK\*, **Lenke LG**, Lee SS\*, Cheng I\*, Sides B, Bridwell KH. Prospective radiographic and clinical outcomes of dual rod instrumented anterior spinal fusion in adolescent idiopathic scoliosis: comparison with single rod constructs. Podium presentation 89. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
367. Bess RS\*, **Lenke LG**, Bridwell KH, Steger-May K, Hensley M. Wasting of preoperatively donated autologous blood in the surgical treatment of adolescent idiopathic scoliosis. Podium presentation 94. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 27-30, 2005.
368. Potter BK, Kuklo TR\*, **Lenke LG**, Polly DW, Bridwell KH. Surgical revision rate of hooks vs. hybrid vs. screws vs. ASF/PSF for AIS. Society of Military Orthopaedic Surgeons 47<sup>th</sup> Annual Meeting, Kissimmee, FL, December 12-16, 2005.
369. Buchowski JM\*, Bridwell KH, **Lenke LG**, Kim YJ<sup>§</sup>. Neurologic complications of pedicle subtraction osteotomy. Kostiuk Research Society 1<sup>st</sup> Annual Meeting, San Francisco, CA, February 16-18, 2006.
370. Dobbs MB, **Lenke LG**. Anterior/posterior fusion versus posterior fusion for the treatment of severe pediatric scoliosis. Podium presentation 332. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
371. Crawford AH, Babekhir N, Boachie-Adjei O, Charles G, **Lenke LG**, Kim Y<sup>§</sup>. Pedicle screw construct gives postoperative correction of AIS when compared to other constructs: Myth or reality? Podium presentation 334. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
372. Kuklo TR\*, **Lenke LG**, Bridwell KH, Potter B, Polly Jr. DW, Schroeder TM. Surgical revision rate of hooks versus hybrid versus pedicle screws in AIS. Podium presentation 338. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
373. Lonner B, Lowe TG, Newton PO, O'Brien MF\*, Sponseller PD, Betz RR, **Lenke LG**, Crawford AH, Letko LJ. Operative management of Scheuermann's kyphosis in 78 patients: Outcomes, complications, and technique. Podium presentation 340. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
374. Lee SS\*, **Lenke LG**, Kuklo TR\*, Valenté L<sup>§</sup>, Bridwell KH, Sides B, Blanke K. Posterior only pedicle screw fusion vs. anterior/posterior hybrid fusion in Scheuermann's kyphosis. Podium presentation 341. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
375. Sucato DJ, Newton PO, Betz RR, Picetti III GD, **Lenke LG**, Hresko MT, Hu SS, Braun JT, Roye Jr. DP. Learning curve for thoracoscopic anterior fusion and instrumentation for AIS: A multi-center study. Podium presentation 414. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
376. Kishan S, Newton PO, Betz RR, **Lenke LG**, Lowe TG, Clements III DH, D'Andrea LP, Sucato DJ. Thoracoscopic anterior scoliosis instrumentation improves pulmonary function at two years follow-up. Podium presentation 415. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

377. Newton P, Kishan S, Bastrom T, Betz R, **Lenke L**, Lowe T, Clements D, D'Andrea L, Sucato D. Thoracoscopic scoliosis surgery affects pulmonary function less than thoracotomy at two years post-surgery. Podium presentation 38. Pediatric Orthopaedic Society of North America Annual Meeting, San Diego, CA, May 3-6, 2006.
378. Angevine PD\*, Bridwell KH, Hurford Jr. RK\*, **Lenke LG**, Baldus C. Enhancement of lumbar lordosis with titanium mesh cages (ALIF) in adult deformity patients. Podium presentation 34. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
379. Watanabe K<sup>§</sup>, **Lenke LG**, Daubs MD<sup>^</sup>, Bridwell KH, Stobbs G, Hensley M. Avoiding screw fixation failure during osteotomy closure with the use of a central hook/rod construct. Podium presentation 51. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
380. Newton PO, Perry A, Bastrom T, **Lenke LG**, Betz RR, Clements DH, D'Andrea LP, Harms Study Group. Factors that influence two-year pulmonary function testing after surgical treatment of adolescent idiopathic scoliosis. A prospective study of 269 patients. Podium presentation 59. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
381. Angevine PD\*, **Lenke LG**, Stobbs G, Bridwell KH. Cost-offset analysis of bone morphogenetic protein-2 (rhBMP-2) in primary surgery for adult idiopathic scoliosis: Is it worth it? Podium presentation 100. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
382. Daubs MD<sup>^</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Cheh G<sup>§</sup>, Stobbs G, Bridwell KH. Does correction of preoperative coronal imbalance make a difference in outcomes of adult deformity patients? Podium presentation 107. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
383. Clements DH, Marks MC, Newton PO, Betz RR, **Lenke LG**, O'Brien MF\*, Lowe TG, Harms Study Group. Analysis of adherence to Lenke classification treatment algorithm recommendations. Podium presentation 127. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
384. **Lenke LG**, Sucato DJ, Emans JB, Richards BS, Kuklo TR\*, McCarthy RE, Diab M. Prospective multicenter evaluation of fusion level selection in adolescent idiopathic scoliosis. Are the Lenke classification rules still followed? Podium presentation 128. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
385. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Kim YB<sup>§</sup>, Sides B. Adverse impact of resection thoracoplasty following posterior segmental spinal instrumentation of adolescent idiopathic scoliosis. Podium presentation 129. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
386. **Lenke LG**, Kuklo TR\*, Sucato DJ, Richards BS, Emans JB, Sides B. Comparison of the lower-end vertebra (LEV) to the lowest instrumented vertebra (LIV) in adolescent idiopathic scoliosis. A role for the addition of an LEV modifier to the Lenke classification system. Podium presentation 131. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
387. Kuhns CA\*, **Lenke LG**, Buchowski JM\*, Lehman RA\*, Rajan S, Amor CJ, Lee SS\*, Kuklo TR\*, Bridwell KH. Prediction of kyphosis correction based on the hyperextension lateral radiograph. Podium presentation 132. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
388. Lehman Jr. RA\*, **Lenke LG**, Keeler K<sup>‡</sup>, Kim YJ<sup>§</sup>, Cheh G<sup>§</sup>, Buchowski JM\*, Kuhns CA\*, Sides B, Bridwell KH. Treatment of adolescent idiopathic scoliosis with pedicle screw-only constructs: Minimum 3-year follow-up of 103 cases. Podium presentation 1. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
389. Kuklo TR\*, **Lenke LG**, Potter BK, Polly Jr. DW, Sides B, Bridwell KH. Surgical revision rate of hooks vs. hybrid vs. screws vs. ASF/PSF for AIS. Podium presentation 2. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
390. Glassman SD, Schwab FJ, Bridwell KH, Ondra SL, Berven SH, **Lenke LG**. Why adult scoliosis patients choose surgery. Podium presentation 15. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

391. Kim YB<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Kim YW<sup>§</sup>, Bridwell KH, Stobbs G. Surgical treatment of adult lumbar scoliosis - Is anterior apical release and fusion necessary? Podium presentation 16. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
392. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim S<sup>§</sup>, Kim YW<sup>§</sup>. Is the T9, T11, or L1 proximal level the more stable following lumbar/lumbosacral fusions from the thoracolumbar junction to L5-S1? Podium presentation 19. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006. **Hibbs Award Nominee for Best Clinical Podium presentation**
393. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim SC<sup>§</sup>, Cheh G<sup>§</sup>. Proximal junctional kyphosis following adult spinal deformity long posterior segmental instrumentation and fusion: Minimum 5 years follow-up. Podium presentation 20. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
394. Lehman Jr. RA\*, Bridwell KH, Keeler K<sup>‡</sup>, Cheh G<sup>§</sup>, Buchowski JM\*, Kuhns CA\*, **Lenke LG**. Proximal junctional kyphosis in adult spinal deformity: Comparison of hook versus pedicle screw constructs. Podium presentation 21. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
395. Kuhns CA\*, Bridwell KH, **Lenke LG**. Thoracolumbar deformity arthrodesis stopping at L5. Fate of the L5-S1 disc with a minimum 5-year follow-up. Podium presentation 22. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
396. Buchowski JM\*, **Lenke LG**, Kuhns CA\*, Lehman Jr. RA\*, Seshadri V<sup>¥</sup>, Sides B, Bridwell KH. Infections following spinal deformity surgery: A twenty-year assessment of 2876 patients. Podium presentation 34. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
397. Buchowski JM\*, Bridwell KH, **Lenke LG**, Lehman Jr. RA\*, Kuhns CA\*, Kim YJ<sup>§</sup>, Steward D<sup>¥</sup>, Baldus C. Neurologic complications of pedicle subtraction osteotomy: A ten-year assessment. Podium presentation 36. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
398. Cheh G<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim YJ<sup>§</sup>, Daubs MD<sup>^</sup>, Buchowski JM\*, Baldus C. Risk factors for adjacent segment degeneration following lumbar/thoracolumbar fusion with pedicle screw instrumentation: A minimum 5 year follow-up. Podium presentation 45. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006. **Hibbs Award Nominee for Best Clinical Podium presentation**
399. Kim YW<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH, Kim YB<sup>§</sup>. Free hand pedicle screw placement during revision spinal surgery: Analysis of 552 screws. Podium presentation 51. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
400. Lehman Jr. RA\*, **Lenke LG**, Kim YJ<sup>§</sup>, Cheh G<sup>§</sup>, Keeler K<sup>‡</sup>, Sides B. Computed tomography (CT) evaluation of pedicle screws placed into deformed spines over an 8 year period. Podium presentation 53. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
401. Watanabe K<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Watanabe K<sup>§</sup>, Hensley M, Stobbs G. Comparison of radiographic outcomes for scoliosis curves  $\geq 100$  degrees: Wires vs. hooks vs. screws. Podium presentation 56. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
402. Cheh G<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Daubs MD<sup>^</sup>, Stobbs G. Decompression alone vs. decompression with limited fusion for the treatment of degenerative lumbar scoliosis with stenosis. Podium presentation 58. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
403. Daubs MD<sup>^</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Stobbs G, Bridwell KH. Adult spinal deformity surgery: Complications and outcomes in patients over age 60. Podium presentation 60. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006. **Hibbs Award Nominee for Best Clinical Paper Presentation**

<sup>¥</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>^</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



404. Cheh G<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Daubs MD<sup>^</sup>, Padberg A, Kuhns CA<sup>\*</sup>, Stobbs G, Hensley M. Loss of spinal cord monitoring signals during thoracic kyphosis correction with spinal osteotomy: Why does it occur and what should you do? Podium presentation 61. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006. **Hibbs Award Nominee for Best Clinical Paper Presentation**
405. Watanabe K<sup>§</sup>, **Lenke LG**, Daubs MD<sup>^</sup>, Watanabe K<sup>§</sup>, Bridwell KH, Stobbs G, Hensley M. Is spinal deformity surgery in patients with cerebral palsy truly beneficial? A patient/parent evaluation. Podium presentation 64. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
406. Kim YB<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Kim YW<sup>§</sup>, Blanke K, Stobbs G, Bridwell KH. The morbidity of an anterior thoracolumbar approach in adult patients with greater than five-year follow-up. Podium presentation 67. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
407. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Cheh G<sup>§</sup>, Baldus C. Results of lumbar pedicle subtraction osteotomies for fixed sagittal imbalance: a 5 year minimum follow-up study. Podium presentation 73. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006. **Hibbs Award Nominee for Best Clinical Paper Presentation**
408. Okubadejo GO<sup>‡</sup>, Bridwell KH, **Lenke LG**, Buchowski JM<sup>\*</sup>, Fang D, Baldus C. Aprotinin decreases blood loss in complex adult spinal deformity but increases the risk of acute renal failure. Podium presentation 85. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
409. Puno RM, **Lenke LG**, Richards III BS, Sucato D, Emans JB, Erickson MA, Bridwell KH. Non-neurological complications following surgery for adolescent idiopathic scoliosis. Podium presentation 86. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
410. Cheh G<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Lehman Jr. RA<sup>\*</sup>, Keeler K<sup>‡</sup>, Bridwell KH. The reliability of preoperative supine radiographs to predict the amount of curve flexibility in adolescent idiopathic scoliosis. Podium presentation 91. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 13-16, 2006.
411. Angevine PD<sup>\*</sup>, **Lenke LG**, Stobbs G, Bridwell KH. Cost-offset analysis of bone morphogenetic protein-2 (rhBMP-2) in primary surgery for adult idiopathic scoliosis: Is it worth it? Podium presentation 12. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
412. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim SC<sup>§</sup>, Kim YW<sup>§</sup>. Thoracic kyphosis progression following long lumbar/lumbosacral fusions from the thoracolumbar junction to L5-S1. Podium presentation 22. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
413. Kuhns C<sup>\*</sup>, Amor C<sup>¥</sup>, Buchowski J<sup>\*</sup>, Lehman Jr. R<sup>\*</sup>, Edwards C<sup>\*</sup>, **Lenke LG**, Bridwell K. Thoracolumbar fusions stopping at L5. Fate of the L5-S1 disc with a minimum 5-year follow-up. Podium presentation 24. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
414. Lehman Jr. R<sup>\*</sup>, Kim YJ<sup>§</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Kuhns C<sup>\*</sup>, Buchowski J<sup>\*</sup>, Keeler K<sup>‡</sup>. Evaluation of safety and efficacy of pedicle screw placement evaluated by computed tomography (CT): 8-year review. Podium presentation 25. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
415. Buchowski J<sup>\*</sup>, Kuhns C<sup>\*</sup>, Lehman Jr. R<sup>\*</sup>, Kim Y<sup>§</sup>, **Lenke L**, Bridwell K. Neurologic complications of pedicle subtraction osteotomy: a ten-year review. Podium presentation 64. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
416. Lonner B, Scharf C, Newton P, O'Brien M<sup>\*</sup>, Sponseller P, Betz RR, **Lenke L**, Crawford A, Letko L, Lowe T, Shufflebarger H, Harms J. Operative management of Scheuermann's kyphosis in 78 patients. Podium presentation 133. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
417. Cheh G<sup>§</sup>, **Lenke L**, Kim Y<sup>§</sup>, Lehman R<sup>\*</sup>, Daubs M<sup>^</sup>, Nunley R<sup>‡</sup>, Bridwell K. Use of a supine radiograph to accurately predict structural curve in operative adolescent idiopathic scoliosis. Podium presentation 134. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

418. Puno R, **Lenke L**, Richards BS, Sucato D, Emans J, Erickson M. Non-neurologic complications following surgery for adolescent idiopathic scoliosis. Podium presentation 158. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
419. Buchowski J\*, Lehman Jr. R\*, Kuhns C\*, Bridwell KH, **Lenke LG**. Infections in spinal deformity surgery: a fifteen-year review. Podium presentation 159. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
420. Cheh G<sup>§</sup>, Bridwell K, **Lenke L**, Kim Y<sup>§</sup>, Daubs M<sup>^</sup>, Baldus C. Adjacent segment degeneration following lumbar/thoracolumbar fusion with pedicle screw instrumentation: A minimum 5 year follow-up. Podium presentation 160. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
421. Kim Y<sup>§</sup>, Bridwell K, **Lenke L**, Cheh G<sup>§</sup>. Long-term results of lumbar pedicle subtraction osteotomies for fixed sagittal imbalance: A minimum 5 year follow-up study. Podium presentation 161. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
422. Cheh G<sup>§</sup>, **Lenke L**, Kim Y<sup>§</sup>, Daubs M<sup>^</sup>, Padberg A, Stobbs G. Loss of spinal cord monitoring signals in children during thoracic kyphosis correction with spinal osteotomy. Why does it occur and what should you do? Podium presentation 50. Spine Society of Europe 15<sup>th</sup> Annual Meeting, Istanbul, Turkey, October 25-28, 2006.
423. Kim YB<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Kim YW<sup>§</sup>, Bridwell KH, Stobbs G. Surgical treatment of adult lumbar scoliosis – Is anterior apical release and fusion necessary? Podium presentation 67. Spine Society of Europe 15<sup>th</sup> Annual Meeting, Istanbul, Turkey, October 25-28, 2006.
424. Lehman Jr. RA\*, **Lenke LG**, Keeler KA<sup>‡</sup>, Kim YJ<sup>§</sup>, Buchowski JM\*, Cheh G<sup>§</sup>, Kuhns CA\*, Bridwell KH. Operative treatment of adolescent idiopathic scoliosis with posterior pedicle screw-only constructs: Minimum 3-year follow-up of 103 cases. Podium presentation 69. Spine Society of Europe 15<sup>th</sup> Annual Meeting, Istanbul, Turkey, October 25-28, 2006.
425. Daubs MD<sup>^</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Stobbs G, Bridwell KH. Adult spinal deformity surgery: Complications and outcomes in patients over age 60. Podium presentation 75. Spine Society of Europe 15<sup>th</sup> Annual Meeting, Istanbul, Turkey, October 25-28, 2006.
426. Puno RM, **Lenke LG**, Richards III BS, Sucato DJ, Emans JB, Erickson MA. Non-neurological complications following surgery for adolescent idiopathic scoliosis. Podium presentation 106. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
427. Daubs MD<sup>^</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Stobbs G, Bridwell KH. Adult spinal deformity surgery: Complications and outcomes in patients over age 60. Podium presentation 108. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
428. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Cheh G<sup>§</sup>. Results of lumbar PSO for fixed sagittal imbalance: A minimum 5 years follow-up study. Podium presentation 112. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
429. Kim YJ<sup>§</sup>, Bridwell KH, Cheh G<sup>§</sup>, **Lenke LG**. Proximal junctional kyphosis in adult spine following posterior spinal fusion: minimum 5-Year follow up. Podium presentation 114. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
430. Lehman R\*, **Lenke LG**, Keeler KA<sup>‡</sup>, Kim YJ<sup>§</sup>, Cheh G<sup>§</sup>, Kuhns C\*, Buchowski J\*, Bridwell KH. Surgical treatment of AIS with posterior pedicle screw-only constructs-Min 3yr follow up Podium presentation 117. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
431. Kim YW<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim YJ<sup>§</sup>. Is the T9, T11, or L1 proximal level the more stable after lumbar instrumented fusion to L5-S1? Podium presentation 119. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.

<sup>§</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

432. **Lenke LG**, Watanabe K<sup>§</sup>, Bridwell KH, Kim YJ<sup>§</sup>, Watanabe K<sup>§</sup>, Hensley M, Stobbs G. Comparison of radiographic outcomes for scoliosis curves > 100 degrees: Wires vs. hooks vs. screws. Podium presentation 277. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
433. **Lenke LG**, Cheh G<sup>§</sup>, Kim YJ<sup>§</sup>, Daubs MD<sup>^</sup>, Padberg A, Stobbs G, Hensley M. Loss of spinal cord monitoring in children during thoracic kyphosis correction with spinal osteotomy. Podium presentation 282. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
434. Baldus C, Bridwell KH, **Lenke LG**, Okubadejo G<sup>‡</sup>, Buchowski J<sup>\*</sup>, Fang D. Efficacy and complications associated with aprotinin use in long thoracolumbar arthrodesis. Podium presentation 438. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
435. Yang JY<sup>§</sup>, **Lenke LG**, Riew KD, Lee JK. Usefulness of the laminar nutrient foramen as a landmark for insertion of thoracic pedicle screws. Podium presentation 440. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.
436. Okubadejo GO<sup>‡</sup>, Bridwell KH, Nunley RM<sup>‡</sup>, **Lenke LG**, Baldus CR, Buchowski JM<sup>\*</sup>, Fang D. Aprotinin decreases blood loss in complex adult spinal deformity spinal deformity, but increases the risk of acute renal failure. Podium presentation 105. Mid-America Orthopaedic Association 23<sup>rd</sup> Annual Meeting, April 11-15, 2007.
437. Upasani V, Caltoun C, Petcharaporn M, Bastrom T, Lowe T, Betz R, Clements D, **Lenke L**, Newton P. Adolescent idiopathic scoliosis patients report increased pain at 5 years compared to 2 years after surgical treatment. Podium presentation 5. Pediatric Orthopaedic Society of North America Annual Meeting, Hollywood, FL, May 23-26, 2007.
438. Patel PN, Bastrom TP, Marks MC, Pawelek J, Betz RR, **Lenke LG**, Newton PO. Spontaneous lumbar curve correction in selective thoracic fusions of idiopathic scoliosis - Anterior and posterior approaches. Podium presentation 6. Pediatric Orthopaedic Society of North America Annual Meeting, Hollywood, FL, May 23-26, 2007.
439. Luhmann SJ<sup>\*</sup>, **Lenke LG**, Bridwell KH. Revision surgery after primary spine fusion for idiopathic scoliosis. Results from a different institution. Podium presentation 7. Pediatric Orthopaedic Society of North America Annual Meeting, Hollywood, FL, May 23-26, 2007.
440. Luhmann SJ<sup>\*</sup>, Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH. The impact of curve characteristics and spine fusion on pulmonary function in adolescent idiopathic scoliosis. Podium presentation 55. Pediatric Orthopaedic Society of North America Annual Meeting, Hollywood, FL, May 23-26, 2007.
441. McCarthy RE, **Lenke LG**, Luhmann SJ<sup>\*</sup>, McCullough FL. A new approach for correction of scoliosis in children: The Shilla procedure. Podium presentation 27. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
442. Sanders JO, Dormans JP, Kuklo TR<sup>\*</sup>, **Lenke LG**, Richards BS, Johnston CE, Sucato DJ, Emans JB, Diab M, Shainline MR, Wooten D. Change in thoracic sagittal alignment following posterior instrumentation for Lenke 1A and B curves. Podium presentation 50. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
443. Cheng I<sup>\*</sup>, Lindsey DP, Iezza AP, Hay D, **Lenke LG**. Biomechanical analysis of derotation of the thoracic spine using linked pedicle screws. Podium presentation 84. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
444. Bess RS<sup>\*</sup>, Bridwell KH, Lee SS<sup>\*</sup>, Cronen GA<sup>\*</sup>, **Lenke LG**, Steger-May K, Flynn J. Reconstitution of the posterior iliac crest bone graft site: A prospective evaluation of 3 backfilling techniques. Podium presentation 150. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
445. Aubin CE, Labelle H, **Lenke LG**, Jackson RP, Newton PO, Stokes IA. The central hip vertical axis (CHVA): A new reference axis as an initial basis for the SRS 3D classification of idiopathic scoliosis. Podium presentation 152. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.

<sup>§</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

446. Weinstein JN, Lurie JD, Tosteson TD, Hanscom D, Tosteson ANA, Blood EA, Birkmeyer NJO, Hilibrand AS, Herkowitz H, Cammisa FP, Albert TJ, Emery SE, **Lenke LG**, Abdu WA, Longley M, Errico TJ, Hu SS. Surgical versus nonsurgical treatment for degenerative lumbar spondylolisthesis. *Special Feature: SPINELINE*: North American Spine Society, 2007 July/August 14-25
447. Sucato DJ, Newton PO, Betz RR, **Lenke LG**, Lowe TG, Crawford AH, Letko L, Lonner BS. Patients who have a selective thoracic fusion for Lenke 1 and 2 curves have similar coronal balance but improved functional outcome scores at two years when compared to those who fused into the lumbar spine. Podium presentation 4. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
448. Patel P, Bastrom T, Marks MC, Pawelek J, Betz RR, **Lenke LG**, Newton PO. Spontaneous lumbar curve correction in selective thoracic fusions of idiopathic scoliosis – Anterior versus posterior approaches. Podium presentation 5. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
449. **Lenke LG**, Sides BA, Koester L, Hensley M, Blanke K. Posterior vertebral column resection (VCR) for severe pediatric and adult spinal deformity: Indications, results, and complications of 43 consecutive cases. Podium presentation 13. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007. **Russell A. Hibbs Award Best Clinical Science Paper**
450. Watanabe K<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Koester L, Hensley M. Comparison of radiographic outcomes between anterior/posterior combined fusion and posterior fusion alone for scoliosis curves >100°. Is anterior release necessary? Podium presentation 22. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
451. Rose PS\*, **Lenke LG**, Bridwell KH, Mulconrey DS\*, Cronen GA\*, Schwend RM<sup>^</sup>, Sides BA. Pedicle screw only treatment of adult idiopathic scoliosis: An improvement over hook/hybrid constructs. Podium presentation 27. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
452. Rose PS\*, Bridwell KH, **Lenke LG**, Cronen GA\*, Mulconrey DS\*, Kim YJ<sup>§</sup>. Role of pelvic incidence, thoracic kyphosis, and patient factors on sagittal plane correction following pedicle subtraction osteotomy. Podium presentation 29. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
453. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim YB<sup>§</sup>, Rhim SC<sup>§</sup>. Thoracic kyphosis progression following long lumbar/lumbosacral fusions from the thoracolumbar junction to L5-S1. Risk factors for larger (≥20°) postoperative thoracic kyphosis progression. Podium presentation 31. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
454. Bridwell KH, Baldus C, Harrast J, Edwards II C\*, Glassman SD, Horton WC, **Lenke LG**, Lowe TG, Mardjetko S, Ondra S, Schwab FJ, Shaffrey CI. Age-gender matched comparison of SRS Instrument scores between adult deformity and normal adults. Are all SRS domains disease specific? Podium presentation 34. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
455. Sponseller PD, Betz RR, Newton PO, **Lenke LG**, Lowe TG, Crawford AH, Lonner BS, Marks MC, Harms Study Group. Differences in curve behavior after fusion in AIS with open TRC. Podium presentation 98. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
456. Geck MJ, Rinella A\*, Koester L, Hawthorne D, Kim YJ<sup>§</sup>, Macagno A, Sides BA, Bridwell KH, **Lenke LG**, Shufflebarger HL. Comparison of surgical treatment in Lenke 5C adolescent idiopathic scoliosis. Anterior dual rod versus posterior pedicle fixation surgery: a comparison of two practices. Podium presentation 104. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
457. Upasani VV, Caltoun C, Petcharaporn M, Bastrom T, Pawelek J, Betz RR, Clements DH, **Lenke LG**, Lowe TG, Newton PO. Adolescent idiopathic scoliosis patients report increased pain at 5 years compared to 2 years following surgical treatment. Podium presentation 106. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.

<sup>§</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

458. Sucato DJ, Richards III BS, Johnston II CE, **Lenke LG**, Kuklo TR\*, Sanders JO, Spinal Deformity Study Group. Parent/patient preoperative perceptions of appearance in Lenke 2 curves - Do they correlate with the radiographic and clinical examination? Podium presentation 116. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 5-8, 2007.
459. Rosner MK, Cardoso M, Kuklo TR\*, Gill N, Dmitriev A, Lehman R\*, **Lenke LG**. Does the Wilson frame assist with optimizing surgical approach for lordosis for minimally invasive lumbar fusions? Congress of Neurological Surgeons 57<sup>th</sup> Annual Meeting, San Diego, CA, September 15-20, 2007.
460. Lee CC, Okubadejo GO<sup>‡</sup>, Bridwell KH, **Lenke LG**, Nielson C. Aprotinin use in adult spinal deformity: Effects on blood conservation and associated complications. Podium presentation A1953. American Society of Anesthesiologists Annual Meeting, San Francisco, CA, October 13-17, 2007.
461. Cardoso MJ, Laurel DC, Lehman Jr. R\*, Rosner M, Moser III RP, Dmitriev A, Gill NW, **Lenke LG**. Structures at risk from pedicle screws in the proximal thoracic spine: Computed tomographic (CT) evaluation with magnetic resonance imaging (MRI) correlation. Podium presentation 43. Cervical Spine Research Society 35<sup>th</sup> Annual Meeting, San Francisco, CA, November 29-December 1, 2007.
462. Rose PS\*, **Lenke LG**, Bridwell KH, Mulconrey D\*, Cronen GA\*, Schwend RM<sup>^</sup>. Pedicle screw only treatment of adult idiopathic scoliosis: an advance over hook/hybrid constructs. Podium presentation 175. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, CA, March 5-8, 2008.
463. Kim YJ<sup>§</sup>, Boachie-Adjei O, Bridwell KH, **Lenke LG**, Kim YB<sup>§</sup>. Comparative analysis of two hybrid instrumentation techniques for degenerative lumbar scoliosis. Podium presentation 176. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, CA, March 5-8, 2008.
464. Upasani VV, Caltoun CB, Petcharaporn M, Bastrom T, Pawelek J, Marks M, Betz RR, **Lenke LG**, Newton PO. Does body mass affect surgical outcomes in adolescent idiopathic scoliosis? Podium presentation 185. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, CA, March 5-8, 2008.
465. Sucato DJ, Newton PO, Betz RR, **Lenke LG**, Lowe TG, Crawford AH, Letko LJ, Lonner B. Selective fusion of Lenke 1 & 2 curves have better outcome scores compared to non-selective fusions. Podium presentation 187. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, CA, March 5-8, 2008.
466. **Lenke LG**, O'Leary PT\*, Sides BA, Koester LA, Hensley M, Bridwell KH. Posterior vertebral column resection (VCR) for severe pediatric deformity: Minimum 2-year follow-up on 29 consecutive patients. Podium presentation 39. Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, NM, May 1-3, 2008.
467. Johnston CE, Richards BS, Sucato DJ, **Lenke LG**, Bridwell KH, Erickson MA, Spinal Deformity Study Group. Decreased pulmonary function in post-op AIS patients who remain hypokyphotic. Podium presentation 25. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008. **Whitecloud Clinical Award Finalist**
468. Buchowski JM\*, Good CR\*, **Lenke LG**, Bridwell KH. Epidural spinal cord compression with neurologic deficit associated with intrapedicular application of FloSeal during pedicle screw insertion. Podium presentation 32. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
469. Watanabe K<sup>§</sup>, **Lenke LG**, Harimaya K<sup>§</sup>, Kim YJ<sup>§</sup>, Hensley M. A prospective evaluation of osseous pedicle morphology: How many thoracic scoliotic pedicles have cancellous channels? Podium presentation 33. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
470. Ferguson J<sup>§</sup>, Lehman RA\*, **Lenke LG**, Cheh G<sup>§</sup>, Watanabe K<sup>§</sup>, Kim YB<sup>§</sup>, Kim YW<sup>§</sup>, Daubs MD<sup>^</sup>. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws confirmed by anatomic dissection of 102 thoracic pedicles. Podium presentation 75. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.

<sup>§</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

471. **Lenke LG**, Richards BS, Kuklo TR\*, Sucato DJ, Emans JB, Johnston CE, Bridwell KH, Sides BA, Spinal Deformity Study Group. Multi-center analysis of the operative treatment of adolescent idiopathic scoliosis: Prospective and consecutive analysis of 534 patients. Podium presentation 76. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
472. Sucato DJ, Kuklo TR\*, Diab M, Richards BS, Johnston CE, **Lenke LG**, Spinal Deformity Study Group. Risk factors for critical intra-operative neuromonitoring changes during AIS surgery. Podium presentation 77. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
473. Blanke K, Kuklo TR\*, **Lenke LG**, Cowgill I, McCutcheon B, Spinal Deformity Study Group. Quality analysis of digital radiographic software measures: Evaluation of 29,122 specific data points. Podium presentation 78. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
474. O'Leary PT\*, **Lenke LG**, Good CR\*, Pichelmann M\*, Keeler KA<sup>‡\*</sup>, Bridwell KH, Sides BA. TLIF as an alternative to formal anterior interbody fusion at the caudal end of long spinal deformity constructs: Does it work? Podium presentation 83. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
475. Bedigrew KM, Kuklo TR\*, Luhmann SJ\*, Meyer LA, **Lenke LG**, Bridwell KH. Is Aprotinin safe for pediatric spinal deformity surgery? Podium presentation 118. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
476. Harimaya K<sup>§</sup>, Son-Hing JP<sup>^</sup>, **Lenke LG**, Bridwell KH, Schwend RM<sup>^</sup>, Koester L, Sides BA. Safety and accuracy of pedicle screws placed in pediatric patients less than 10 years of age. Podium presentation 125. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
477. Mulconrey DS\*, Keeler KA<sup>‡\*</sup>, **Lenke LG**, Bridwell KH, Good CR\*, O'Leary PT\*, Pichelmann M\*, Sides BA. Safety and efficacy of bone morphogenetic protein (rhBMP-2) in complex pediatric spinal deformity at a minimum 2-year follow-up. Podium presentation 126. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
478. Geck M, Rinella A\*, Hawthorne D, Macagno A, Sides BA, Koester L, **Lenke LG**, O'Brien MF\*, Bridwell KH, Shufflbarger HL. Anterior dual rod vs. posterior pedicle fixation surgery for the surgical treatment in Lenke 5C adolescent idiopathic scoliosis: A multi-center matched case analysis. Podium presentation 127. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
479. Keeler KA<sup>‡\*</sup>, Lehman RA\*, **Lenke LG**, Bridwell KH, Sides BA. Direct vertebral rotation (DVR) in the treatment of thoracolumbar/lumbar adolescent idiopathic scoliosis (AIS): Can it optimize correction when fusing to L3? Podium presentation 137. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
480. Schlechter J, Newton PO, Upasani VV, Yaszay B, **Lenke LG**, Betz RR, Lowe TG, Harms Study Group. Risk factors for distal adding-on identified: What to watch out for. Podium presentation . Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
481. Keeler KA<sup>‡\*</sup>, Bridwell KH, **Lenke LG**, Flynn J. Subjacent disc wedging after anterior spinal fusion for adolescent idiopathic scoliosis: The fate of the "jacked" lumbar disc. Podium presentation 3. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
482. Luhmann SJ\*, **Lenke LG**, Bridwell KH. Revision surgery after 1057 primary spine fusions for idiopathic scoliosis over 19 years: Identification of causative factors. Podium presentation 7. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
483. **Lenke LG**, O'Leary PT\*, Sides BA, Koester L, Hensley M, Bridwell KH. Posterior vertebral column resection (VCR) for severe pediatric deformity: Minimum 2-year follow-up on 29 consecutive patients. Podium presentation 9. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

484. Upasani VV, Newton PO, Pawelek JB, Bastrom TP, **Lenke LG**, Lowe TG, Clements III DH, Lonner BS, Betz RR, Harms Study Group. Increase patient satisfaction after fusion for adolescent idiopathic scoliosis by minimizing the deformity-flexibility quotient. Podium presentation 10. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
485. Pichellmann M\*, **Lenke LG**, Good CR\*, O'Leary PT\*, Bridwell KH, Sides BA. Revision rates following primary adult spinal deformity surgery: 667 consecutive patients followed up to 21 years postoperatively. Podium presentation 19. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
486. Kim YJ<sup>§</sup>, Boachie-Adjei O, Bridwell KH, **Lenke LG**, Kim YB<sup>§</sup>, Lawhorne TW. Comparative analysis of two hybrid instrumentation techniques for adult lumbar scoliosis from the thoracolumbar spine to L5 or S1. Podium presentation 22. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
487. Harimaya K<sup>§</sup>, **Lenke LG**, Bridwell KH, Mishiro T<sup>§</sup>, Koester L, Sides BA. Etiology and revision surgical strategies in failed lumbosacral fixation of adult spinal deformity constructs. Podium presentation 23. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
488. Zebala LP<sup>‡</sup>, Bridwell KH, Baldus C, Richards III BS, Dormans JP, **Lenke LG**, Auerbach JD. 5-year radiographic results of long scoliosis fusion in juvenile spinal muscular atrophy patients: Crankshaft and ultimate correction. Podium presentation 39. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
489. Keeler KA<sup>‡\*</sup>, Luhmann SJ\*, **Lenke LG**, Good CR\*, Sides BA, Schootman M, Bridwell KH. Spinal fusion for spastic neuromuscular scoliosis (NMS): Is anterior releasing necessary when intraoperative halo-femoral traction used? Podium presentation 40. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
490. McCarthy RE, McCullough FL, Luhmann SJ\*, **Lenke LG**. Shilla Growth Enhancing System for the treatment of scoliosis in children: Greater than two year follow up. Podium presentation 50. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
491. Harimaya K<sup>§</sup>, Mishiro T<sup>§</sup>, **Lenke LG**, Bridwell KH, Koester L, Sides BA. Increasing lumbar lordosis of adult spinal deformity patients via intraoperative prone positioning. Podium presentation 60. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
492. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Hosogane N, Kim YB<sup>§</sup>. Significance of intraoperative thoracic kyphosis increase to prevent the proximal junctional kyphosis in adolescent idiopathic scoliosis following posterior segmental spinal instrumentation and fusion: A multicenter analysis of 518 cases. Podium presentation 75. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
493. Kuklo TR\*, Keeler KA<sup>‡\*</sup>, Meyer LA, Luhmann SJ\*, Bridwell KH, **Lenke LG**. Is extended preoperative halo traction safe and effective for severe pediatric spinal deformity? Critical review of 62 pediatric patients. Podium presentation 81. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
494. Sanders JO, Diab M, Richards III BS, **Lenke LG**, Johnston CE, Emans JB, Sucato DJ, Erickson MA, Bridwell KH, McCarthy RE, Sarwark JF, Dormans JP, Kuklo TR\*, Shainline MR, Spinal Deformity Study Group. Fixation points within the main thoracic curve: Does more instrumentation produce greater curve correction? Podium presentation 83. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
495. Flynn JM, Bastrom TP, Newton PO, **Lenke LG**, Crawford AH, Lowe TG, Betz RR, Clements III DH, Lonner BS, Marks MC, Harms Study Group. 'Don't end your fusion at T12 in idiopathic scoliosis: Wisdom or myth? Podium presentation 84. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
496. Sanders JO, Dormans JP, Kuklo TR\*, **Lenke LG**, Richards III BS, Johnston CE, Sucato DJ, Emans JB, Diab M, Shainline MR, Spinal Deformity Study Group. Change in thoracic sagittal alignment following posterior instrumentation for Lenke 1A and B curves. Podium presentation 88. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.

<sup>§</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

497. Upasani VV, Newton PO, Pawelek JB, Bastrom TP, **Lenke LG**, Lowe TG, Crawford AH, Betz RR, Lonner BS, Harms Study Group. Preservation of thoracic kyphosis: A critical component to maintaining post-operative lumbar lordosis during the surgical treatment of adolescent idiopathic scoliosis. Podium presentation 89. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
498. Sangole A, Aubin CE, Labelle H, **Lenke LG**, Stokes IA, Newton PO, Jackson RP. 3D sub-classification of Lenke 1 curves. Podium presentation 90. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
499. Diab M, Kuklo TR\*, Sanders JO, **Lenke LG**, Sucato DJ, Spinal Deformity Study Group. Impact of idiopathic scoliosis and its surgical treatment on appearance in children. Podium presentation 96. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
500. Baldus C, Bridwell KH, Okubadejo GO<sup>‡</sup>, **Lenke LG**. Can we safely reduce blood loss during lumbar pedicle subtraction osteotomy procedures using Tranexamic Acid or Aprotinin? A comparative study with controls. Podium presentation 98. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
501. Good CR\*, Bridwell KH, O'Leary PT\*, Pichelmann M\*, **Lenke LG**, Riew KD, Luhmann SJ\*, Kuklo TR\*, Buchowski JM\*, Flynn J. Major perioperative neurologic deficits in pediatric and adult spine surgery patients: Incidence, etiology and outcomes over a 14 year period at one institution. Podium presentation 102. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
502. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Boachie-Adjei O, Kim YB<sup>§</sup>, Buchowski JM\*. What radiographic sagittal parameters correlate with improved SRS self-image scores postoperatively in patients with sagittal imbalance: An analysis of 102 lumbar pedicle subtraction osteotomy patients. Podium presentation 103. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
503. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Boachie-Adjei O, Hamill CL\*, Kim YB<sup>§</sup>. Sagittal spinopelvic alignment change after lumbar pedicle subtraction osteotomy: A multicenter analysis of 113 patients with a minimum 2 years follow-up. Podium presentation 105. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
504. Baldus C, Bridwell KH, Harrast J, Shaffrey CI, Ondra SL, **Lenke LG**, Schwab FJ, Mardjetko SM, Glassman SD, Edwards II CC\*, DeWald CJ, Lowe TG, Horton III WC, Polly Jr. DW. Normative SRS-QOL data to allow age and gender specific comparisons to adult deformity patients. An analysis of 1346 unaffected subjects. Podium presentation 106. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
505. Good CR\*, **Lenke LG**, O'Leary PT\*, Pichelmann M\*, Keeler KA\*, Bridwell KH, Baldus C, Koester L. Can posterior only surgery replace combined anterior (thoracotomy/thoracoabdominal)/posterior approaches for adult scoliosis? Podium presentation 110. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
506. Daubs MD<sup>^</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Cheh G<sup>§</sup>, Bridwell KH. Does correction of preoperative coronal imbalance make a difference in outcomes of adult deformity patients? Podium presentation 111. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
507. O'Leary PT\*, Bridwell KH, Good CR\*, **Lenke LG**, Buchowski JM\*, Kim YJ<sup>§</sup>, Flynn J. Risk factors and outcomes for catastrophic failures at the top of long pedicle screw constructs (FPSC): A matched cohort analysis performed at a single center. Podium presentation 112. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
508. Pearson A, Blood E, Lurie J, Sengupta D, Abdu W, Hu S, Longley M, **Lenke L**, Weinstein J. SPORT: Predominant Leg pain is associated with better surgical outcomes in degenerative spondylolisthesis and spinal stenosis. Podium presentation 2. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



509. Good C\*, Bridwell K, O'Leary P\*, Pichelmann M\*, **Lenke L**, Riew KD, Luhmann S\*, Kuklo T\*, Buchowski J\*, Flynn J. Major perioperative neurologic deficits in pediatric and adult spine surgery patients: Incidence, etiology and outcomes over a 14-year period at one institution. Podium presentation 25. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
510. O'Leary P\*, Bridwell K, Good C\*, **Lenke L**, Buchowski J\*, Kim Y<sup>§</sup>, Flynn J. Risk factors and outcomes for catastrophic failures at the top of long pedicle screw constructs (FPSC): a matched cohort analysis performed at a single center. Podium presentation 26. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
511. Lehman Jr. RA\*, **Lenke LG**, Richards BS, Kuklo TR\*, Bridwell KH. Change in time of radiographic and balance parameters for the operative treatment of adolescent idiopathic scoliosis posterior pedicle screw-only vs. hybrid constructs. Podium presentation 58. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
512. Kim Y<sup>§</sup>, Bridwell KH, **Lenke LG**, Boachie-Adjei O, Marawar S. What radiographic sagittal parameters correlate with improved SRS self-image scores postoperatively in patients with sagittal imbalance? Analysis of 102 lumbar pedicle subtraction osteotomy patients. Podium presentation 60. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
513. Lehman Jr. RA\*, **Lenke LG**, Keeler K, Helgeson MD. Accuracy of an intraoperative scoliosis radiograph to determine ultimate correction and balance after deformity correction: should it be mandatory? Podium presentation 189, North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
514. Pichelmann M\*, **Lenke LG**, Good C\*, O'Leary PT\*, Bridwell KH. Revision rates following primary adult spinal deformity surgery: 667 consecutive patients followed up to 21 years postoperatively. Podium presentation 192. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
515. Lehman RA\*, **Lenke LG**, Richards BS, Kuklo TR\*, Bridwell KH. Comparative analysis between Lenke type 1A-, B- and C- curve patterns: Pedicle screw versus hybrid constructs. Which maintains correction better? Podium presentation 127, North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
516. Lehman RA\*, **Lenke LG**, Richards BS, Kuklo TR\*, Bridwell KH. Hybrid constructs lose correction/balance over time while pedicle screws do not in adolescent idiopathic scoliosis (AIS) surgery. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
517. Lehman Jr. RA\*, **Lenke LG**, Helgeson MD, Keeler KA<sup>†\*</sup>. Accuracy/benefit of intraoperative scoliosis radiograph to determine ultimate correction and balance on the postoperative standing film. Eastern Orthopaedic Association 39<sup>th</sup> Annual Meeting, Henderson, NV, October 22-25, 2008.
518. McCarthy R, McCullough F, Luhmann S\*, **Lenke L**. Greater than two year follow-up Shilla Growth Enhancing System for the treatment of scoliosis in children. Podium presentation 1. 2<sup>nd</sup> International Congress on Early Onset Scoliosis & Growing Spine, Montréal, Québec, Canada, November 7-8, 2008.
519. Lehman RA\*, **Lenke LG**, Keeler KA<sup>†\*</sup>, Helgeson MD. Accuracy/benefit of intraoperative scoliosis radiograph to determine ultimate correction and balance on the postoperative standing film. Society of Military Orthopaedic Surgeons 58<sup>th</sup> Annual Meeting, Las Vegas, NV, December 8-12, 2008.
520. Freedman BA, Javernick M, Kuklo T\*, **Lenke LG**, Richards BS, Sucato DJ, Polly DW. Frequency and distribution of anatomical variants in vertebral numbers in adolescent idiopathic scoliosis – Results of a large cross-sectional study. Podium Presentation 7. Society of Military Orthopaedic Surgeons 58<sup>th</sup> Annual Meeting, Las Vegas, NV, December 8-12, 2008.
521. Upasani VV, Newton PO, Pawelek J, Bastrom T, **Lenke LG**, Clements III DH, Lonner B, Betz RR. Increase AIS patient satisfaction after fusion by minimizing the deformity-flexibility quotient. Podium presentation 286. American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas NV, February 25-28, 2009.

<sup>§</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

522. Sucato DJ, Kuklo TR\*, Diab M, Richards III BS, Johnston II CE, **Lenke LG**. Intraoperative AIS neuromonitoring: Factors associated with good baseline data and critical changes. Podium presentation 289. American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas NV, February 25-28, 2009.
523. Newton PO, Upasani VV, Pawelek J, Bastrom T, **Lenke LG**, Lowe T, Crawford AH, Betz RR, Lonner B. Preservation of thoracic kyphosis: A critical component to maintaining lumbar lordosis in AIS. Podium presentation 291. American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas NV, February 25-28, 2009.
524. Schlechter J, Newton PO, Upasani VV, Yaszay B, **Lenke LG**, Betz RR. Risk factors for distal adding-on identified: what to watch out for. Podium presentation 295. American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas NV, February 25-28, 2009.
525. Pichelmann MA\*, **Lenke LG**, Good C\*, O'Leary PT\*, Bridwell KH, Sides B. Revision rates following primary spinal deformity surgery: 667 adults with up to 21 years follow-up. Podium presentation 301. American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas NV, February 25-28, 2009.
526. Schlechter JA, Newton PO, Upasani VV, Yaszay B, **Lenke LG**, Betz RR, Lowe T, Harms Study Group. Risk factors for distal adding-on identified: What to watch out for. Podium presentation 44. Pediatric Orthopaedic Society of North America Annual Meeting, Boston, MA, April 29-May 2, 2009.
527. Kuklo TR\*, Keeler KA<sup>‡</sup>\*, Meyer LA, Luhmann SJ\*, Bridwell KH, **Lenke LG**. Is extended preoperative halo traction safe and effective for severe pediatric spinal deformity? Critical review of 62 pediatric patients. Podium presentation 45. Pediatric Orthopaedic Society of North America Annual Meeting, Boston, MA, April 29-May 2, 2009.
528. Thuet ED, Winscher JC, Padberg AM, Bridwell KH, **Lenke LG**, Kuklo TR\*, Dobbs MB, Schootman M, Luhmann SJ\*. A 22-year perspective of electrophysiologic monitoring for pediatric spinal deformity surgery: Is there value to monitoring ALL pediatric spine cases? Podium presentation 71. Pediatric Orthopaedic Society of North America Annual Meeting, Boston, MA, April 29-May 2, 2009.
529. Sucato DJ, Kuklo TR\*, Diab M, Richards III BS, Johnston II CE, **Lenke LG**, Spinal Deformity Study Group. Intraoperative AIS neuromonitoring: Factors associated with good baseline data and critical changes. Podium presentation 72. Pediatric Orthopaedic Society of North America Annual Meeting, Boston, MA, April 29-May 2, 2009.
530. Zhu Q, Jones C, Schwab T, Larson C, Itshayek E, **Lenke L**, Cripton P. Maverick total disc replacement in the lower lumbar spine adjacent to a long spinal fusion: An *in vitro* biomechanical study of kinematics. Podium presentation 39. Canadian Orthopaedic Association 64<sup>th</sup> Annual Meeting, Whistler, British Columbia, July 3-6, 2009.
531. Cho W<sup>§</sup>, **Lenke LG**, Koester LA, Sides B, Baldus C. How much kyphosis correction can be obtained with posterior vertebral column resection (VCR)? Podium presentation 24. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
532. **Lenke LG**, Kuklo TR\*, Bridwell KH, Sucato DJ, Richards BS, Emans JB, Spinal Deformity Study Group. What radiographic and clinical factors appear crucial for the decision to perform a selective thoracic fusion in Lenke 1C/King II adolescent idiopathic scoliosis curves? Podium presentation 43. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
533. Cronen GA\*, Zebala LP<sup>‡</sup>, **Lenke LG**, Auerbach JD\*, Sides B, Bridwell KH, Mulconrey DS\*, Rose PS\*. Male versus female adult deformity surgery: Is there a difference in complications and outcomes? Podium presentation 50. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
534. Zebala LP<sup>‡</sup>, Kuklo TR\*, **Lenke LG**, Luhmann SJ\*, Auerbach JD\*, Bridwell KH. Dual growing rod instrumentation with pedicle screw foundation at a single institution: Assessment of outcomes and complications. Podium presentation 92. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

535. Sarwark J, Schwartz D, Roberts D, Savage J, Richards BS, Sucato DJ, **Lenke LG**, Sanders JO, Emans JB, Parent S, Spinal Deformity Study Group. Clinical and radiographic predictors of coronal balance at two-years after surgery for adolescent idiopathic scoliosis with Lenke type 1 curves. Podium presentation 141. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
536. Crawford CH\*, **Lenke LG**, Cho W<sup>§</sup>, Lehman RA\*, Keeler KA\*, Kuklo TR\*, O'Shaughnessy BA\*, Chang MS\*, Auerbach JD\*, Sides B, Baldus C, Bridwell KH. Adolescent idiopathic scoliosis patients treated with pedicle screw constructs: Do the favorable 2yr SRS-30 outcomes hold up at 5yr follow-up? Podium presentation 142. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
537. Blanke KM, Koester LA, **Lenke LG**, Bridwell KH, Baldus C, Lehman RA\*, Helgeson MD, Revell CJ. Comparison of 3 surgical treatments for degenerative lumbar scoliosis with symptomatic spinal stenosis. Podium presentation 143. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
538. **Lenke LG**, Bridwell KH, Erickson MA, Sucato DJ, Richards III BS, King A, Johnston II CE, Oswald T, Sides BA, Spinal Deformity Study Group. Prospective radiographic and clinical outcomes and complications of 756 consecutive operative adolescent idiopathic scoliosis patients. Podium presentation 3. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
539. **Lenke LG**, Sucato DJ, Erickson MA, Emans JB, Richards III BS, Diab M, Bridwell KH, Spinal Deformity Study Group. Pedicle screw constructs provide superior thoracic rib hump and lumbar prominence correction following adolescent idiopathic scoliosis surgery. Podium presentation 6. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
540. Chang MS\*, Bridwell KH, **Lenke LG**, Cho W<sup>§</sup>, Baldus C, Auerbach JD\*, Crawford CH\*, O'Shaughnessy BA\*. Predicting the outcome of selective thoracic fusion in false double major lumbar "C" cases with five to 15 year followup. Podium presentation 7. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
541. Sucato DJ, Richards BS, Johnston CE, **Lenke LG**, Kuklo TR\*, Sanders JO, Spinal Deformity Study Group. Postoperative shoulder height assessment in AIS by parents and patients: Do their perspectives correlate to radiographic and clinical measurements? Podium presentation 10. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
542. Gitelman Y<sup>‡</sup>, **Lenke LG**, Auerbach JD\*, Sides BA, Bridwell KH. Pulmonary function in adolescent idiopathic scoliosis relative to the surgical procedure: A 10-year follow-up analysis. Podium presentation 11. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009. **Russell A. Hibbs Award Nominee for Best Clinical Presentation**
543. Richards BS, Sucato DJ, Johnston CE, Diab M, Sarwark J, Kuklo TR\*, **Lenke LG**, Parent S, Spinal Deformity Study Group. Right thoracic curves in AIS – Which clinical and radiographic findings correlate with a preoperative abnormal MRI? Podium presentation 1. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
544. Sharkey MS, Sucato DJ, Emans JB, Oswald TS, **Lenke LG**, Takemoto S, Diab M. Bracing before posterior spinal fusion with instrumentation (PSFI) for adolescent idiopathic scoliosis (AIS) is associated with reduced satisfaction, lower activity levels and more pain at two years after operation. Podium presentation 16. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
545. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Boachie-Adjei O, Hamill CL\*, Cha TD, Cho S. Proximal thoracic versus thoracolumbar stop following pedicle subtraction osteotomy for adult patients with sagittal imbalance: Which one is better? Podium presentation 18. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.

<sup>‡</sup>Student, <sup>§</sup>Resident, \*Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

546. O'Shaughnessy BA\*, Bridwell KH, **Lenke LG**, Kuklo TR\*, Cho W<sup>§</sup>, Baldus C, Chang MS\*, Auerbach JD\*, Crawford CH\*. Does a long fusion (T3-sacrum) portend a worse outcome than a short fusion (T10-sacrum) in primary adult scoliosis surgery? Podium presentation 19. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
547. O'Shaughnessy BA\*, Kuklo TR\*, **Lenke LG**, Chang MS\*, Auerbach JD\*, Crawford CH\*, Baldus C, Bridwell KH. Is there a difference in outcome between patients under and over age 60 who have long fusions to the sacrum for the primary treatment of adult scoliosis? Podium presentation 21. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
548. O'Leary PT\*, O'Shaughnessy BA\*, **Lenke LG**, Sides BA, Kuklo TR\*, Buchowski JM\*, Bridwell KH. TLIF vs. ALIF: A matched cohort analysis of caudal interbody grafting strategies in adult spinal deformity. Podium presentation 26. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
549. Auerbach JD\*, Bridwell KH, **Lenke LG**, McKeon K<sup>‡</sup>, Zebala LP<sup>‡</sup>, Milby AH<sup>¥</sup>, Crawford CH\*, O'Shaughnessy BA\*, Chang MS\*, Baldus C. Major complications in primary adult deformity surgery: Risk factors and clinical outcomes at one institution with two to six year follow-up. Podium presentation 27. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
550. McCarthy RE, Luhmann SJ\*, **Lenke LG**, McCullough F. Do growth guidance rods have acceptable complications and fewer surgeries? Podium presentation 38, Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
551. Auerbach JD\*, **Lenke LG**, Bridwell KH, Sehn JK<sup>¥</sup>, Milby AH<sup>¥</sup>, Bumpass D<sup>‡</sup>, Crawford CH\*, O'Shaughnessy BA\*, Chang MS\*, Zebala LP<sup>‡</sup>, Sides BA. Major complications of three-column osteotomies in 240 consecutive spinal deformity patients. Podium presentation 68. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009. **Russell A. Hibbs Award Nominee for Best Clinical Presentation**
552. Thuet ED, Winscher JC, Padberg AM, Bridwell KH, **Lenke LG**, Dobbs MB, Schootman M, Luhmann SJ\*. Validity and reliability of intraoperative monitoring in pediatric spinal deformity surgery: A 23 year experience of 3,436 surgical cases. Podium presentation 74. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009. **Russell A. Hibbs Award Nominee for Best Clinical Presentation**
553. Harimaya K<sup>§</sup>, Son-Hing JP<sup>^</sup>, **Lenke LG**, Bridwell KH, Schwend RM<sup>^</sup>, Luhmann SJ\*, Koester LA, Sides BA. Safety and accuracy of pedicle screws placed in infantile and juvenile patients. Podium presentation 89. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
554. Johnston CE, Richards BS, Sucato DJ, Bridwell KH, **Lenke LG**, Erickson MA, Spinal Deformity Study Group. Correlation of preop curve severity with pulmonary function tests (PFTs) in AIS. Podium presentation 98. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
555. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Kim P, Kim YB<sup>§</sup>. Comparative analysis of sagittal plane measures following three different posterior segmental spinal instrumented fusion of AIS. Podium presentation 101. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
556. O'Shaughnessy BA\*, **Lenke LG**, Bridwell KH, Kuklo TR\*, Cho W<sup>§</sup>, Chang MS\*, Auerbach JD\*, Crawford CH\*, Koester LA. Should symptomatic iliac screws be electively removed in postoperative adult spinal deformity patients fused to the sacrum? Podium presentation 106. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
557. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Boachie-Adjei O, Hamill CL\*, Cho S, Kim YB<sup>§</sup>. Sagittal decompensation following pedicle subtraction osteotomy for adult patients with sagittal imbalance: Incidence, risk factors, and SRS outcomes score. Podium presentation 109. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

558. Lehman Jr. R\*, Helgeson M, Dmitriev A, **Lenke L**. Caudal pedicle screw compression optimizes thoracic kyphosis correction: A micro CT and biomechanical analysis of pedicle morphology and screw failure. Podium presentation 61. North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009.
559. Kim Y<sup>§</sup>, Bridwell K, **Lenke L**, Boachie-Adjei O, Hamill C\*, Cha T, Cho S. Proximal thoracic vs. thoracolumbar stop following pedicle subtraction osteotomy for adult patients with sagittal imbalance: Which one is better? Podium presentation 111. North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009.
560. Kim Y<sup>§</sup>, Bridwell K, **Lenke L**, Boachie-Adjei O, Hamill C\*, Cho S, Cha T. Sagittal decompensation following pedicle subtraction osteotomy for adult patients with sagittal imbalance. Podium presentation 149. North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009.
561. Kim Y<sup>§</sup>, Boachie-Adjei O, Bridwell H, **Lenke L**, Kim Y<sup>§</sup>, Cho S, Kim P. Selection of proximal fusion level in adult lumbar segmental instrumented fusion to L5 or S1 for degenerative lumbar scoliosis. Podium presentation 184. North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009.
562. Lehman R\*, **Lenke L**, Richards BS, Bridwell K. Hybrid constructs lose correction/balance over time while pedicle screws do not in adolescent idiopathic scoliosis (AIS) surgery. Podium presentation 207. North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009.
563. Cheung KC, Samartzis D, Natarajan D, Li J, Cheung WY, **Lenke LG**. Pedicle screw fixation strategies of the thoracic curve in adolescent idiopathic scoliosis (AIS). Podium presentation 183. American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, New Orleans, LA, March 9-13, 2010.
564. Crawford III CH\*, **Lenke LG**, Cho W<sup>§</sup>, O'Shaughnessy BA\*, Chang M\*, Auerbach JD\*, Sides B, Baldus C, Bridwell KH. Adolescent idiopathic scoliosis (AIS): Do the favorable 2yr SRS-30 outcomes hold-up at 5yrs? Podium presentation 192. American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, New Orleans, LA, March 9-13, 2010.
565. Kuhn M<sup>‡</sup>, Luhmann SJ\*, **Lenke LG**, Kuklo TR\*, Bridwell KH. The utility of ESR and WBC counts after spinal deformity surgery in the early postoperative period. Podium presentation 459. American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, New Orleans, LA, March 9-13, 2010.
566. Cha T, Kim YJ<sup>§</sup>, **Lenke LG**, Boachie-Adjei O, Hamill CL\*, Cho SKW. PT versus TL Stop after lumbar pedicle subtraction osteotomy for patients with sagittal imbalance. Podium presentation 460. American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, New Orleans, LA, March 9-13, 2010.
567. Cho W<sup>§</sup>, **Lenke LG**, O'Shaughnessy BA\*, Koester LA, Sides B, Baldus C. How much kyphosis correction can be obtained with posterior vertebral column resection (VCR)? Podium presentation 463. American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, New Orleans, LA, March 9-13, 2010.
568. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Clement JL, Cho SKW, Kim YB<sup>§</sup>. Distal Stop at T12 vs. L1 for posterior spinal instrumented fusion in adolescent idiopathic scoliosis. Podium presentation 513. American Academy of Orthopaedic Surgeons 77<sup>th</sup> Annual Meeting, New Orleans, LA, March 9-13, 2010.
569. Luhmann SJ\*, **Lenke LG**, Erickson MA, Bridwell KH, Richards III BS. Correction of moderate (<70 degree) Lenke 1A and 2A curve patterns: Comparison of hook, hybrid, and all-pedicle screw systems at 2-year follow-up. Podium presentation 40. Pediatric Orthopaedic Society of North America Annual Meeting/Joint Meeting with Asia Pacific Orthopaedic Association, Waikoloa, Hawaii, May 4-7, 2010.
570. Sucato DJ, Richards BS, **Lenke LG**, Johnston CE, Sanders JO, Emans JB, Erickson MA, Carreon LY, Spinal Deformity Study Group. Revision surgery for AIS results in SRS scores comparable to primary surgery patients. Podium presentation 17. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
571. Kang MM\*, Bridwell KH, **Lenke LG**, Zebala LP<sup>‡\*</sup>, Pahys JM\*, Cho SK\*, Cho W<sup>§</sup>, Dorward IG<sup>‡</sup>, Baldus C. Proximal junctional kyphosis in primary adult deformity surgery – PJK of 20 degrees as a critical angle. Podium presentation 38. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.

<sup>§</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

572. Goldthwait A, Emans JB, **Lenke LG**. Pediatric posterior-only vertebral column resection successfully treats congenital spinal dysgenesis and dislocation. Podium presentation 57. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
573. Luhmann SJ\*, **Lenke LG**, Erickson MA, Bridwell KH, Richards BS. Correction of moderate (<70-degree) Lenke 1A and 2A curve patterns: Comparison of hook, hybrid and all-pedicle screw systems at 2-year follow-up. Podium presentation 86. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
574. Zebala LP<sup>‡\*</sup>, **Lenke LG**, Bridwell KH, Luhmann SJ\*, Pahys JM\*, Cho SK\*, Kang MM\*, Cho W<sup>§</sup>, Sides B. The use of low dose tranexamic acid reduces blood loss and blood transfusions in adolescent idiopathic scoliosis surgery. Podium presentation 88. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
575. Crawford CH\*, **Lenke LG**, Sucato DJ, Richards BS, Emans JB, Vitale MG, Erickson MA, Sanders JO, Bridwell KH. Selective thoracic fusion in Lenke 1C curves: Prevalence and criteria. Podium presentation 89. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
576. Morse LJ, Kawakami N, **Lenke LG**, Sucato DJ, Sanders JO, Diab M. Cross-ethnicity comparisons of the Scoliosis Research Society outcomes instrument in adolescent idiopathic scoliosis. Podium presentation 90. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
577. Vitale MG, Miller DJ, Sucato DJ, Emans JB, Erickson MA, Sanders JO, **Lenke LG**, Richards BS. Factors predicting coronal decompensation of Lenke 1C curves following selective fusion. Podium presentation 96. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
578. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Gupta MC, Clement JL, Cha TD, Cho SK\*. Sagittal plane changes according to the thoracic kyphosis change following posterior segmental spinal instrumented fusion of adolescent idiopathic scoliosis. Podium presentation 98. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
579. Shah SA, Sucato DJ, Newton PO, Shufflebarger HL, Emans JB, Sponseller PD, Neiss G, Yorgova P, **Lenke LG**. Perioperative neurologic events from a multicenter consecutive series of pediatric vertebral column resection: Nature, frequency and outcomes. Podium presentation 103. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
580. Dorward IG<sup>‡</sup>, **Lenke LG**, Bridwell KH, Cho W<sup>§</sup>, Kang MM\*, Koester L. Clinical outcomes and complications following spinal deformity correction with Smith-Petersen osteotomies. Podium presentation 104. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
581. Cho SK\*, **Lenke LG**, Bolon S, Pahys JM\*, Cho W<sup>§</sup>, Kang MM\*, Zebala LP<sup>‡\*</sup>, Koester L. Can intraoperative spinal cord monitoring reliably help prevent paraplegia during posterior VCR surgery? Podium presentation 115. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
582. Sucato DJ, Shah SA, **Lenke LG**, Newton PO, Emans JB, Shufflebarger HL, Sponseller PD. Prompt response to critical spinal cord monitoring changes during vertebral column resection results in a low incidence of permanent neurologic deficit. Podium presentation 117. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
583. Sanders JO, **Lenke LG**, Emans JB, Johnston CE, Richards BS, Sucato DJ, Diab M, Erickson MA, Polly DW. Are surgical results in larger curves inferior to those in smaller curves? Podium presentation 4. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
584. Vitale MG, Jameel OF, Sucato DJ, Richards BS, Emans JB, Erickson MA, Sanders JO, **Lenke LG**. How much is too much? Higher degrees of curve correction correlate with worsened sagittal balance. Podium presentation 16. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

585. Pahys JM\*, **Lenke LG**, Bridwell KH, Zebala LP<sup>‡\*</sup>, Cho SK\*, Kang MM\*, Cho W<sup>§</sup>, Baldus C. Prevalence and outcomes of coronal decompensation following primary multilevel spinal fusion for adult deformity. Podium presentation 40. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
586. Cho SK\*, Bridwell KH, **Lenke LG**, Kang MM\*, Pahys JM\*, Zebala LP<sup>‡\*</sup>, Yi JS<sup>§</sup>, Cho W<sup>§</sup>, Baldus C. Comparative analysis of clinical outcome of perioperative complications in primary vs. revision adult scoliosis surgery. Podium presentation 47. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
587. Samartzis D, Natarajan D, Kwan K, Cheung WY<sup>§</sup>, Li J, Wong Y, **Lenke LG**, Luk KD, Cheung KM. Pedicle screw fixation strategies of the thoracic curve in adolescent idiopathic scoliosis. Podium presentation 55. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
588. Cho SK\*, Bridwell KH, **Lenke LG**, Yi JS<sup>§</sup>, Cho W<sup>§</sup>, Zebala LP<sup>‡\*</sup>, Pahys JM\*, Kang MM\*, Baldus C. Major complications in revision adult deformity surgery: Risk factors and clinical outcomes with two to seven year follow-up. Podium presentation 58. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
589. Cho SK\*, **Lenke LG**, Bolon S, Kang MM\*, Zebala LP<sup>‡\*</sup>, Pahys JM\*, Cho W<sup>§</sup>, Koester L. Myelopathic patients who lack intraoperative spinal cord monitoring data have the highest rate of spinal cord deficits following posterior VCR surgery. Podium presentation 60. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
590. Newton PO, **Lenke LG**, Shufflebarger HL, Sucato DJ, Emans JB, Sponseller PD, Shah SA, Bastrom T. Perioperative complications of pediatric vertebral column resections. Podium presentation 64. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
591. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Dorward IG<sup>‡</sup>, Shoda N<sup>§</sup>, Baldus C, Cho SK\*, Kang MM\*, Zebala LP<sup>‡\*</sup>, Pahys JM\*, Koester L. Comparison of spinal deformity surgery in patients with non-insulin dependent diabetes mellitus (NIDDM) vs. controls. Podium presentation 65. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
592. Pahys JM\*, **Lenke LG**, Bridwell KH, Cho SK\*, Zebala LP<sup>‡\*</sup>, Kang MM\*, Cho W<sup>§</sup>, Koester L. Matched cohort analysis of posterior only vertebral column resection vs. combined anterior/posterior vertebrectomy for severe spinal deformity. Podium presentation 89. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
593. **Lenke LG**, Newton PO, Sucato DJ, Shufflebarger HL, Emans JB, Sponseller PD, Shah SA, Sides B, Blanke K. Multicenter analysis of 147 consecutive vertebral column resections for severe pediatric spinal deformity. Podium presentation 90. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
594. Newton PO, Bastrom T, Emans JB, Shah SA, Shufflebarger HL, Sponseller PD, Sucato DJ, **Lenke LG**. Antifibrinolytic agents substantially reduce blood loss during vertebral column resection. Podium presentation 96. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
595. Chang MS\*, **Lenke LG**, Bridwell KH, Cho W<sup>§</sup>, Chang YH, Bogunovic L<sup>‡</sup>, Koester L, Auerbach JD\*, Crawford CC\*, O'Shaughnessy BA\*. Combined anterior-posterior vs. posterior only fusion for severe non-spastic neuromuscular deformity. Podium presentation 105. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
596. Luhmann SJ\*, Keeler KA<sup>‡\*</sup>, Fuhrhop S, Oto M, Miller F, Dabney KW, **Lenke LG**, Bridwell KH. Surgical treatment of scoliosis in non-ambulatory spastic quadriplegic cerebral palsy patients: A matched cohort comparison of Luque-Galveston technique and all-pedicle screw construct. Podium presentation 107. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.
597. Cho SK\*, Bridwell KH, **Lenke LG**, Baldus CR. Is there a difference in clinical outcome between adult patients under and over age 60 who have revision scoliosis fusion to the sacrum? Podium presentation 133. North American Spine Society 25<sup>th</sup> Annual Meeting, Orlando, FL, October 5-9, 2010.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

598. Cho SK\*, Bridwell KH, **Lenke LG**, Baldus CR. Comparative analysis of clinical outcome and perioperative complications in primary vs. revision adult scoliosis surgery. Podium presentation 217. North American Spine Society 25<sup>th</sup> Annual Meeting, Orlando, FL, October 5-9, 2010.
599. Shah SA, Sucato DJ, Newton PO, Shufflebarger HL, Emans JB, Sponseller PD, Neiss G, Yorgova P, **Lenke LG**. Perioperative neurologic events in pediatric vertebral column resection: Nature, frequency & outcomes. Podium presentation 396. American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 15-19, 2011.
600. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Clement JL, Cho SKW\*, Fischer CR. Optimal lowest instrumented vertebra for thoracic adolescent idiopathic scoliosis. Podium presentation 442. American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 15-19, 2011.
601. Zebala LP<sup>‡\*</sup>, **Lenke LG**, Bridwell KH, Luhmann SJ\*, Cho SKW\*, Pahys J\*, Kang MM\*, Cho W<sup>§</sup>, Sides B. Low dose tranexamic acid reduces blood loss and blood transfusions in AIS surgery. Podium presentation 446, American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 15-19, 2011.
602. Pahys J\*, **Lenke LG**, Bridwell KH, Cho SKW\*, Zebala LP<sup>‡\*</sup>, Kang MM\*, Cho W<sup>§</sup>, Koester LA. Posterior only vertebral column resection vs. anterior/posterior vertebrectomy in spinal deformity. Podium presentation 449. American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 15-19, 2011.
603. Bastrom T, Newton PO, Emans JB, Shah SA, Shufflebarger HL, Sponseller PD, Sucato DJ, **Lenke LG**. Antifibrinolytic agents substantially reduce blood loss during vertebral column resections. Podium presentation 671. American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 15-19, 2011.
604. Dorward IG<sup>‡</sup>, **Lenke LG**, Blanke KM, O'Leary PT\*, Sides BA, Koester LA. Vertebral column resection for kyphoscoliosis and angular kyphosis: Outcomes with minimum 2-year follow-up. Podium presentation 622. American Association of Neurological Surgeons 78<sup>th</sup> Annual Meeting, Denver, CO, April 9-13, 2011.
605. Dorward IG<sup>‡</sup>, **Lenke LG**, Bridwell KH, O'Leary PT\*, Stoker GE<sup>‡</sup>, Pahys JM\*, Kang MM\*, Sides BA, Koester LA. Anterior versus transforaminal lumbar interbody fusion in long deformity constructs: A matched cohort analysis. Podium presentation 804. American Association of Neurological Surgeons 78<sup>th</sup> Annual Meeting, Denver, CO, April 9-13, 2011.
606. Stoker GE<sup>‡</sup>, Buchowski JM\*, Bridwell KH, **Lenke LG**, Riew KD, Zebala LP<sup>‡\*</sup>. Preoperative vitamin D status in adults undergoing spinal fusion surgery. Podium presentation 2. 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011. **Whitecloud Award for Best Clinical Science Podium presentation**
607. Min WK<sup>§</sup>, **Lenke LG**, Nakamura Y<sup>§</sup>, Lee DH<sup>§</sup>, Park MS<sup>§</sup>, Sides BA. Clinical outcomes and complications of posterior vertebral column resection (PVCR) for severe adult spinal deformity. Podium presentation 3. 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011. **Whitecloud Award Nominee in Clinical Science**
608. Mishiro T<sup>§</sup>, **Lenke LG**, Koester LA, Bridwell KH, Luhmann SJ\*. Modified Lenke Classification System for infantile and juvenile idiopathic scoliosis. Podium presentation 24. 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
609. Dickson DD\*, **Lenke LG**, Bridwell KH, Sides BA. Prevalence and risk factors for pseudarthrosis after lumbar pedicle subtraction osteotomy (PSO) in adult spinal deformity. Podium presentation 51. 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
610. Koller H<sup>§</sup>, **Lenke LG**, Nakamura Y<sup>§</sup>, Bridwell KH, Koester LA, Hempfing A, Ferraris L, Meier O, Zenner J, Hitzl W. Comparison of anterior/posterior to posterior-only correction of Scheuermann's kyphosis: A matched pair analysis of 166 patients. Podium presentation 80. 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



611. Vitale MG, Mackenzie S, Matsumoto H, Colacchio ND, Sucato DJ, Richards BS, Erickson MA, Sanders JO, **Lenke LG**, Roye DP, Williams BA. Frontal or sagittal spinal imbalance does not affect quality of life two years after posterior spinal instrumentation and fusion for adolescent idiopathic scoliosis. Podium presentation 89. 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
612. Bumpass D<sup>‡</sup>, **Lenke LG**, Bridwell KH, Stallbaumer JJ\*, Kim YJ<sup>§</sup>, Wallendorf MJ, Min WK<sup>§</sup>, Sides BA. Pulmonary function changes following posterior vertebral column resection in pediatric and adult spinal deformity patients. Podium presentation 133. 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
613. Zebala LP<sup>‡\*</sup>, **Lenke LG**, Bridwell KH, Buchowski JM\*, Sides BA. Preoperative autologous blood donation results in more transfusions in the surgical treatment of AIS. Podium presentation 1. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
614. Gomez JA, Matsumoto H, Colacchio N, Miller DJ, Roye DP, Sucato DJ, Richards BS, Emans JB, Erickson MA, Sanders JO, **Lenke LG**, Vitale MG. Characteristics of patients with AIS who experience coronal decompensation following posterior spinal instrumentation and fusion. Podium presentation 4. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
615. Stallbaumer JJ\*, Bridwell KH, **Lenke LG**, Baldus C, Koester L. Clinical, radiographic and patient assessment of shoulder imbalance following thoracic adolescent idiopathic scoliosis (AIS) reconstruction. Podium presentation 8, Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
616. Johnston CE, Richards BS, Sucato DJ, Bridwell KH, **Lenke LG**, Erickson MA. Improvement in pulmonary function at 2 years following corrective surgery for adolescent idiopathic scoliosis: a prospective study. Podium presentation 12. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
617. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim YB<sup>§</sup>. Comparative radiographic analysis of the sagittal spinopelvic alignment between 100 asymptomatic adults and 100 sagittally imbalanced patients: the best angular parameters to sagittal vertical axis. Podium presentation 22. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
618. Rahman RK\*, Bridwell KH, **Lenke LG**, Richards BS, Dorward IG<sup>‡</sup>, Koester L. Are TLIFs necessary for L5-S1 arthrodesis in long constructs to the sacrum/pelvis in primary adult deformity patients? Podium presentation 26. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
619. Kelly MP\*, **Lenke LG**, Bridwell KH, Buchowski JM\*, Zebala LP<sup>‡\*</sup>, Koester LA. The fate of the adult revision spinal deformity patient: A single institution experience. Podium presentation 28, Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
620. Cho SK\*, Bridwell KH, **Lenke LG**, Yi JS<sup>§</sup>, Kang MM\*, Zebala LP<sup>‡\*</sup>, Pahys JM\*, Baldus C. Is there a difference in clinical outcome between adult patients under and over age 60 who have revision scoliosis fusion surgery to the sacrum? Podium presentation 29. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
621. Raynor BL, Bright JD, **Lenke LG**, Rahman R\*, Bridwell KH, Riew KD, Buchowski JM\*, Luhmann SJ\*, Padberg AM. Significant change or loss of intraoperative monitoring data: A 25 year experience in 12375 spinal surgeries. Podium presentation 34. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011. **Hibbs Award Nominee for Best Clinical Podium presentation**
622. Rahman R\*, **Lenke LG**, Bridwell KH, Aleem A<sup>‡</sup>, Sides BA. Intrawound Vancomycin powder lowers the acute deep wound infection rate in adult spinal deformity patients. Podium presentation 36. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
623. Cho SK\*, **Lenke LG**, Bolon S, Pahys JM\*, Cho W<sup>§</sup>, Kang MM\*, Zebala LP<sup>‡\*</sup>, Koester L. Can intraoperative spinal cord monitoring reliably help prevent paraplegia during posterior VCR surgery? Podium presentation 41. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.

<sup>‡</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

624. Ning Y<sup>§</sup>, **Lenke LG**, Bridwell KH, Koester LA. How to determine optimal fusion levels of Scheuermann's kyphosis. Podium presentation 73. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
625. Kim YJ<sup>§</sup>, Fischer CR, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Clement JL, Gupta MC. Optimal lowest instrumented vertebra to avoid adding-on or distal junctional kyphosis for thoracic adolescent idiopathic scoliosis. Podium presentation 88. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
626. Stoker GE<sup>¥</sup>, Buchowski JM\*, Bridwell KH, **Lenke LG**, Riew KD, Zebala LP<sup>‡\*</sup>. Preoperative vitamin D status in adults undergoing spinal fusion surgery. Podium presentation 107. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
627. Rahman RK\*, Min WK<sup>§</sup>, Nakamura Y<sup>§</sup>, Zebala LP<sup>‡\*</sup>, Sides BA, Bridwell KH, **Lenke LG**. High dose tranexamic acid reduces blood loss in complex pediatric spine deformity surgery. Podium presentation 110. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
628. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ, Spinal Deformity Study Group (SDSG). Return to sports after surgery to correct adolescent idiopathic scoliosis. Congress of Neurological Surgeons Annual Meeting, Washington, D.C., October 1-6, 2011.
629. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws. Congress of Neurological Surgeons Annual Meeting (Neurosurgical Forum Presentation), Washington, D.C., October 1-6, 2011.
630. Gomez JA, Matsumoto H, Colacchio ND, Sucato D, Richards III BS, Emans J, Erickson MA, Sanders JO, **Lenke LG**, Hyman JE, Roye Jr. DP, Vitale MG. Higher degrees of curve correction correlate with worsened sagittal balance. 2011 American Academy of Pediatrics National Conference and Exhibition, Boston, MA, October 14-18, 2011.
631. Gomez JA, Matsumoto H, Colacchio ND, Miller D, Roye Jr. DP, Sucato D, Richards III BS, Emans J, Erickson MA, Sanders JO, **Lenke LG**, Vitale MG. Characteristics of patients with adolescent idiopathic scoliosis who experience coronal decompensation following posterior spinal instrumentation and fusion. 2011 American Academy of Pediatrics National Conference and Exhibition, Boston, MA, October 14-18, 2011.
632. Mackenzie WGS, Colacchio ND, Matsumoto H, Sucato D, Richards III BS, Erickson MA, **Lenke LG**, Roye Jr. DP, Vitale MG. Frontal or sagittal spinal imbalance does not affect quality of life two years after posterior spinal instrumentation and fusion for adolescent idiopathic scoliosis. 2011 American Academy of Pediatrics National Conference and Exhibition, Boston, MA, October 14-18, 2011.
633. Vitale M, **Lenke LG**. Higher degrees of curve correction correlate with worsened sagittal balance. 2011 American Academy of Pediatrics National Conference and Exhibition, Boston, MA, October 14-18, 2011.
634. Kang DG, Gaume R, Lehman Jr. RA\*, **Lenke L**, Paik H. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws. Eastern Orthopaedic Association 42<sup>nd</sup> Annual Meeting, Williamsburg, VA, October 19-22, 2011. **Resident Travel Grant Award**
635. Cho W<sup>§</sup>, **Lenke L**, Bridwell K, Hu G<sup>§</sup>, Buchowski J\*, Dorward I<sup>†</sup>, Pahys J\*, Cho S\*, Kang M\*, Zebala L<sup>‡\*</sup>, Koester L. The prevalence of abnormal preoperative neurologic exam in Scheuermann's kyphosis: Correlation with x-ray, MRI and surgical outcome. Podium presentation 39. North American Spine Society 26<sup>th</sup> Annual Meeting, Chicago, IL, November 2-5, 2011.
636. Buchowski J\*, Stoker G<sup>¥</sup>, Bridwell K, **Lenke L**, Riew KD, Zebala L<sup>‡\*</sup>. Preoperative vitamin D status in adults undergoing spinal fusion. Podium presentation 45. North American Spine Society 26<sup>th</sup> Annual Meeting, Chicago, IL, November 2-5, 2011. **Best Paper Category**
637. Zebala L<sup>‡\*</sup>, **Lenke L**, Bridwell K, Buchowski J\*, Sides B. Preoperative autologous blood donation results in more transfusions in the surgical treatment of adolescent idiopathic scoliosis. Podium presentation 55. North American Spine Society 26<sup>th</sup> Annual Meeting, Chicago, IL, November 2-5, 2011.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

638. Carreon L, Crawford C\*, **Lenke L**, Sucato D, Richards BS. Does iliac crest harvesting affect outcomes following posterior fusions for adolescent idiopathic scoliosis? Podium presentation 123. North American Spine Society 26<sup>th</sup> Annual Meeting, Chicago, IL, November 2-5, 2011.
639. Lehman R\*, Kang D, **Lenke L**, Gaume R, Paik H. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws. Podium presentation 190. North American Spine Society 26<sup>th</sup> Annual Meeting, Chicago, IL, November 2-5, 2011.
640. Foley K, Toth J, **Lenke L**, Seim H, Wang M, Turner S. Is facet fusion biomechanically equivalent to posterolateral onlay fusion? Podium presentation 224. North American Spine Society 26<sup>th</sup> Annual Meeting, Chicago, IL, November 2-5, 2011.
641. Crawford C\*, **Lenke LG**. Does iliac crest harvesting affect outcomes following posterior fusions for adolescent idiopathic scoliosis? North American Spine Society 26<sup>th</sup> Annual Meeting, Chicago, IL, November 2-5, 2011.
642. Stoker GE<sup>‡</sup>, Buchowski JM\*, Bridwell KH, **Lenke LG**, Riew KD, Zebala LP<sup>‡\*</sup>. Preoperative vitamin D status of adults undergoing spinal fusion surgery. Podium presentation 10. Cervical Spine Research Society 39<sup>th</sup> Annual Meeting, Scottsdale, AZ, December 8-10, 2011. **Best Podium presentation Nominee**
643. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ, Bevevino AJ, Spinal Deformity Study Group. Return to sports after surgery to correct adolescent idiopathic scoliosis. Society of Military Orthopaedic Surgeons 53<sup>rd</sup> Annual Conference, San Diego, CA December 12-16, 2011.
644. Zebala LP<sup>‡\*</sup>, **Lenke LG**, Bridwell KH, Buchowski JM\*, Sides B. Preoperative autologous blood donation results in more transfusions in idiopathic scoliosis surgery. Podium presentation 452. American Academy of Orthopaedic Surgeons 79<sup>th</sup> Annual Meeting, San Francisco, CA, February 7-11, 2012.
645. Kelly MP\*, **Lenke LG**, Bridwell KH, Koester LA. The fate of the adult revision spinal deformity patient: A single institution experience. Podium presentation 692. American Academy of Orthopaedic Surgeons 79<sup>th</sup> Annual Meeting, San Francisco, CA, February 7-11, 2012.
646. Dorward IG<sup>‡</sup>, **Lenke LG**, Stoker GE, Cho W, Koester LA, Sides, BA. Radiographic and clinical outcomes of posterior column osteotomies in spinal deformity correction: analysis of 128 patients. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Orlando, FL, March 8, 2012.
647. Kang DG, Lehman RA\*, **Lenke LG**, Gaume R, Paik H, Bevevino AJ. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws. Podium presentation 418. International Society for the Advancement of Spine Surgery, Barcelona, Spain, March 20-23, 2012.
648. Kang DG, Lehman RA\*, **Lenke LG**, Sucato DJ, Bevevino AJ, Spinal Deformity Study Group. Return to sports after surgery to correct adolescent idiopathic scoliosis. Podium presentation 423. International Society for the Advancement of Spine Surgery, Barcelona, Spain, March 20-23, 2012.
649. Bevevino AJ, Lehman RA\*, Kang DG, Helgeson MD, Dmitriev AE, Paik H, Gaume RE, **Lenke LG**. Caudal pedicle screw compression optimizes thoracic kyphosis correction: A MicroCT and biomechanical analysis of pedicle screw morphology and screw failure. Maryland Orthopaedic Association 71<sup>st</sup> Annual Meeting, Baltimore, MD, April 21, 2012.
650. Kang DG, Lehman RA\*, Bevevino AJ, Dmitriev AE, Gaume RE, Paik H, **Lenke LG**. Biomechanical effects of pedicle screw Hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography analysis. Lumbar Spine Research Society 5<sup>th</sup> Annual Meeting, Chicago, IL, April 26-27, 2012.
651. Bevevino AJ, Lehman RA\*, Kang DG, Helgeson MD, Dmitriev AE, Paik H, Gaume RE, **Lenke LG**. Caudal pedicle screw compression optimizes thoracic kyphosis correction: A MicroCT and biomechanical analysis of pedicle screw morphology and screw failure. Lumbar Spine Research Society 5<sup>th</sup> Annual Meeting, Chicago, IL, April 26-27, 2012.
652. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ, Spinal Deformity Study Group. Return to sports after surgery to correct adolescent idiopathic scoliosis. Virginia Orthopaedic Society Annual Meeting, Williamsburg, VA, May 4-6, 2012.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

653. Lehman RA\*, **Lenke LG**, Kang DG, Blanke KM, Transfeldt EE, Labelle H, Parent S, Mac-Thiong JM, Spinal Deformity Study Group. Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis. Virginia Orthopaedic Society Annual Meeting, Williamsburg, VA, May 4-6, 2012.
654. Mesfin A\*, **Lenke LG**, Bridwell KH, Akhtar U, Jupitz JM, Fogelson JL\*, Hershman S\*, Kim HJ\*, Koester L. Does preoperative narcotic use persist after spinal deformity surgery? Spine Study Group 23<sup>rd</sup> Symposium, Palm Beach, FL, May 17-20, 2012.
655. Kang DG, Paik H, Lehman RA\*, Dmitriev AE, **Lenke LG**. The effect of pedicle screw Hubbing on pullout strength in the thoracic spine. Western Orthopaedic Association 76<sup>th</sup> Annual Meeting, Portland, OR, June 13-16, 2012.
656. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: A morphometric analysis for ideal thoracic pedicle screw start point. Western Orthopaedic Association 76<sup>th</sup> Annual Meeting, Portland, OR, June 13-16, 2012.
657. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ, Spinal Deformity Study Group. Return to sports after surgery to correct adolescent idiopathic scoliosis. Western Orthopaedic Association 76<sup>th</sup> Annual Meeting, Portland, OR, June 13-16, 2012.
658. Kang DG, Lehman RA\*, Dmitriev AE, Bevevino AJ, Gaume RE, Paik H, **Lenke LG**. Biomechanical effects of pedicle screw Hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography analysis. Eastern Orthopaedic Association 43<sup>rd</sup> Annual Meeting, Bolton Landing, NY, June 20-23, 2012.
659. Mesfin A\*, **Lenke LG**, Bridwell KH, Akhtar U, Jupitz JM, Fogelson JL\*, Hershman S\*, Kim HJ\*, Koester L. Does preoperative narcotic use persist after spinal deformity surgery? A comparison of non-narcotic and narcotic using groups. Eastern Orthopaedic Association 43<sup>rd</sup> Annual Meeting, Bolton Landing, NY, June 20-23, 2012. **Resident/Fellow Travel Grant Award**
660. Kang DG, Lehman Jr. RA\*, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: A morphometric analysis for ideal thoracic pedicle screw start point. Southern Orthopaedic Association 29<sup>th</sup> Annual Meeting, White Sulphur Springs, WV, July 18-21, 2012. **Presidents' Resident Award Winner**
661. Kang DG, Lehman RA\*, **Lenke LG**, Sucato DJ. Return to sports after surgery to correct adolescent idiopathic scoliosis: A survey of the spinal deformity study group. Southern Orthopaedic Association 29<sup>th</sup> Annual Meeting, White Sulphur Springs, WV, July 18-21, 2012.
662. Kim HJ\*, **Lenke LG**, Riew KD, Oshima Y<sup>§</sup>, Mesfin A\*, Fogelson JL\*, Hershman S\*, Sides BA. Occipital incidence – a novel morphometric parameter for understanding occipitocervical spinal alignment. Podium presentation 16. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012. **Whitecloud Award Nominee – Best Basic Science Paper**
663. Glassman SD, Richards BS, **Lenke LG**, Sucato DJ, McCarthy KJ, Carreon LY. Does anterior release prevent adding-on following thoracic fusion for Lenke 1 adolescent idiopathic scoliosis? Podium presentation 35. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
664. Schwab F, Blondel B, Chay E, Demakakos J, **Lenke LG**, Tropiano P, Ames CP, Smith JS, Shaffrey CI, Glassman SD, Gaines RW, Farcy JPC, Lafage V. The comprehensive anatomical spinal osteotomy classification. Podium presentation 50. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
665. Mesfin A\*, **Lenke LG**, Bridwell KH, Fogelson JL\*, Hershman S\*, Kim HJ\*, Koester L. Weight change and clinical outcomes following adult spinal deformity surgery in overweight and obese patients. Podium presentation 51. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
666. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Podium presentation 52. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

667. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Pulmonary function following adult spinal deformity surgery: Minimum two-year follow-up. Podium presentation 118. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
668. Oshima Y<sup>§</sup>, **Lenke LG**, Koester L. Revision vs. primary vertebral column resection for severe spinal deformities. Podium presentation 122. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
669. Mishiro T<sup>§</sup>, **Lenke LG**, Koester L, Bridwell KH, Luhmann SJ\*. Modified Lenke Classification System for infantile and juvenile idiopathic scoliosis. Podium presentation 123. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
670. Mesfin A\*, **Lenke LG**, Bridwell KH, Akhtar U<sup>¶</sup>, Jupitz JM<sup>¶</sup>, Fogelson JL\*, Hershman S\*, Kim HJ\*, Koester L. Does preoperative narcotic use persist after spinal deformity surgery? A comparison of non-narcotic and narcotic use groups. Podium presentation 131. 19<sup>th</sup> Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
671. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ, Spinal Deformity Study Group. Return to sports after surgery to correct adolescent idiopathic scoliosis. Southern Orthopaedic Association 29<sup>th</sup> Annual Conference, White Sulpher Springs, WV, July 18-21, 2012.
672. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: A morphometric analysis for ideal thoracic pedicle screw start point. Southern Orthopaedic Association 29<sup>th</sup> Annual Conference, White Sulpher Springs, WV, July 18-21, 2012.
673. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ, Spinal Deformity Study Group. Return to sports after surgery to correct adolescent idiopathic scoliosis. North American Spine Society Spine Across the Sea, Kauai, HI, July 29-August 2, 2012.
674. Lehman RA\*, **Lenke LG**, Sucato DJ, Kang DG, Richards BS, Bridwell KH. Surgeon variability for treatment of Lenke 1C curve patterns with selective thoracic fusions. North American Spine Society Spine Across the Sea, Kauai, HI, July 29-August 2, 2012.
675. Clements DH, Betz RR, Newton PO, **Lenke LG**, Marks MC, Bastrom T, Harms Study Group. Does following the Lenke Classification treatment algorithm improve outcomes? Podium presentation 7. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
676. Lehman RA\*, **Lenke LG**, Sucato DJ, Richards BS, Bridwell KH. Surgeon variability for treatment of Lenke 1C curve patterns with selective thoracic fusions. Podium presentation 12. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
677. Kim HJ\*, **Lenke LG**, Mesfin A\*, Fogelson JL\*, Hershman S\*, Riew KD. Cervical lordosis actually increases with aging and progressive degeneration in spinal deformity patients. Podium presentation 18. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
678. Pahys JM\*, Zebala LP<sup>‡</sup>\*, Cahill PJ, Kelly MP\*, Asghar J, **Lenke LG**, Betz RR, Samdani AF. Comparison of surgical treatments for infantile and juvenile scoliosis. Podium presentation 30. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
679. Kim HJ\*, Bridwell KH, **Lenke LG**, Song KW<sup>§</sup>, Chuntarapas T<sup>§</sup>, Hershman S\*, Piyaskulkaew C<sup>§</sup>, Fogelson JL\*, Mesfin A\*, Park MS<sup>§</sup>. Proximal junctional kyphosis results in inferior SRS pain sub-scores in adult deformity patients. Podium presentation 48, Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
680. Dickson DD\*, **Lenke LG**, Bridwell KH, Sides BA. Prevalence and risk factors for pseudarthrosis following lumbar pedicle subtraction osteotomy (PSO) in adult spinal deformity. Podium presentation 53. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
681. Fogelson JL\*, **Lenke LG**, Bridwell KH, Roth M, Koester L, Kim HJ\*, Hershman S\*, Mesfin A\*. Preventing spinal cord deficits in adult spinal surgery with intraoperative monitoring: A single institution experience. Podium presentation 57. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

682. Kang DG, Lehman RA\*, Dmitriev AE, Bevevino AJ, Gaume RE, Paik H, **Lenke LG**. Biomechanical effects of pedicle screw Hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography analysis. Podium presentation 65. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
683. Smith JS, Saulle D, Chen CJ, **Lenke LG**, Polly DW, Kasliwal MK, Broadstone PA, Glassman SD, Vaccaro AR, Ames CP, Shaffrey CI. Rates and causes of mortality associated with spine surgery based on 108,419 procedures: A review of the Scoliosis Research Society Morbidity and Mortality database. Podium presentation 76. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012. **Russel A. Hibbs Award Nominee for Best Clinical Presentation**
684. Cidambi K, Bastrom T, Bartley CE, Clements DH, Betz RR, **Lenke LG**, Newton PO, Harms Study Group. Surgical treatment of main thoracic adolescent idiopathic scoliosis: A prospective 10-year follow-up study. Podium presentation 88. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
685. Hershman S\*, **Lenke LG**, Bridwell KH, Kim HJ\*, Fogelson JL\*, Mesfin A\*, Sides BA. Minimum five-year follow-up of posterior-only surgery for thoracic and thoracolumbar kyphosis. Podium presentation 103. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
686. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Hu GX<sup>§</sup>, Buchowski JM\*, Dorward IG<sup>†</sup>\*, Pahys JM\*, Cho SK\*, Kang M\*, Zebala LP<sup>†</sup>\*, Koester L. The prevalence of abnormal preoperative neurologic exam in Scheuermann's kyphosis: Correlation with x-ray, MRI, and surgical outcome. Podium presentation 105. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
687. Lehman RA\*, **Lenke LG**, Blanke KM, Kang DG, Transfeldt EE, Labelle H, Parent S, Mac-Thiong JM, Spinal Deformity Study Group. Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis. Podium presentation 108. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
688. Kim DH<sup>§</sup>, Kelly MP\*, Park TS<sup>§</sup>, **Lenke LG**, Limbrick DD. Relationship between syringomyelia size and scoliosis in patients with Chiari I malformation. Podium presentation 114. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
689. Bumpass DB<sup>†</sup>, **Lenke LG**, Bridwell KH, Stallbaumer JJ\*, Kim YJ<sup>§</sup>, Wallendorf MJ, Min WK<sup>§</sup>, Sides BA. Predictors of pulmonary improvement after vertebral column resection for severe spinal deformity. Podium presentation 129. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
690. Vitale MG, Riedel MD, Saiman L, Matsumoto H, Glotzbecker M, Emans J, Erickson MA, Flynn J, Akbarnia BA, Anderson RCE, Brockmeyer D, **Lenke LG**, Luhmann SJ\*, Lewis S\*, Newton PO, Richards III BS, Sucato D, Shah SA, Skaggs DL, Smith JT, Sponseller PD, Zeller R, Nyquist AC, McLeod L, Roye Jr. DP. Building consensus – Development of a best practice guideline (BPG) in pediatric spine SSI prevention. American Academy of Pediatrics Annual Meeting, New Orleans, LA, October 20-23, 2012.
691. Kim HJ\*, Bridwell KH, **Lenke LG**, Park MS<sup>§</sup>, Hershman SH\*, Mesfin A\*. Proximal junctional kyphosis results in inferior SRS pain sub-scores in adult deformity patients. Podium presentation 11. North American Spine Society 27<sup>th</sup> Annual Meeting, Dallas, TX, October 24-27, 2012.
692. Mesfin A\*, **Lenke LG**, Bridwell KH, Fogelson JL\*, Hershman SH\*, Kim HJ\*, Koester L. Does preoperative narcotic use persist after spinal deformity surgery? A comparison of non-narcotic and narcotic using groups. Podium presentation 41. North American Spine Society 27<sup>th</sup> Annual Meeting, Dallas, TX, October 24-27, 2012.
693. Kim HJ\*, **Lenke LG**, Mesfin A\*, Hershman S\*, Fogelson J\*, Riew KD. Cervical lordosis actually increases with aging and progressive degeneration in spinal deformity patients. Podium presentation 331. Cervical Spine Research Society 40<sup>th</sup> Annual Meeting, Chicago, IL, December 6-8, 2012.
694. Kang DG, Lehman Jr. RA\*, **Lenke LG**, Blanke K. Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis: A matched cohort analysis. Society of Military Orthopaedic Surgeons 54<sup>th</sup> Annual Meeting, Naples, FL, December 10-14, 2012.

<sup>§</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

695. Kang DG, Cody JP, Lehman Jr. RA\*, Gaume RE, Paik H, **Lenke LG**. The ventral lamina and superior facet rule: A morphometric analysis for ideal thoracic pedicle screw start point. Society of Military Orthopaedic Surgeons 54<sup>th</sup> Annual Meeting, Naples, FL, December 10-14, 2012.
696. Kang DG, Lehman Jr. RA\*, **Lenke LG**, Sides BA, Stallbaumer JJ\*. Pulmonary function following adult spinal deformity surgery: Minimum two year follow-up. Society of Military Orthopaedic Surgeons 54<sup>th</sup> Annual Meeting, Naples, FL, December 10-14, 2012.
697. Bevevino AJ, Lehman Jr. RA\*, Kang DG, **Lenke LG**, Bridwell KH. Changes in radiographic and balance parameters for the operative treatment of adolescent idiopathic scoliosis: Posterior pedicle screw-only versus hybrid constructs. Society of Military Orthopaedic Surgeons 54<sup>th</sup> Annual Meeting, Naples, FL, December 10-14, 2012.
698. Kang DG, Tracey R, Lehman Jr. RA\*, Bevevino AJ, Gaume RE, Paik H, Dmitriev AE, **Lenke LG**. Pedicle screw hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography evaluation. Society of Military Orthopaedic Surgeons 54<sup>th</sup> Annual Meeting, Naples, FL, December 10-14, 2012.
699. Kang DG, Lehman Jr. RA\*, **Lenke LG**, Sides BA, Stallbaumer JJ\*. Does curve magnitude and amount of deformity correction correlate with pulmonary function after adult deformity surgery? Society of Military Orthopaedic Surgeons 54<sup>th</sup> Annual Meeting, Naples, FL, December 10-14, 2012.
700. Kang DG, Cody JP, Lehman Jr. RA\*, **Lenke LG**, Sides BA, Stallbaumer JJ\*. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Society of Military Orthopaedic Surgeons 54<sup>th</sup> Annual Meeting, Naples, FL, December 10-14, 2012.
701. Larson AN, Aubin CE, Polly Jr. DW, Ledonio C, Lonner BS, Shah SA, Sucato DJ, **Lenke LG**, Richards III BS, Erickson MA, Emans JB, Weinstein SL, Minimize Implants Maximize Outcomes Study Group. Are more screws better? A systematic review of implant density and curve correction in AIS. Podium presentation 454. American Academy of Orthopaedic Surgery 80<sup>th</sup> Annual Meeting, Chicago, IL, March 19-23, 2013.
702. Kang D, Lehman RA\*, Bevevino A, Gaume RE, Paik H, Dmitriev AE, **Lenke LG**. Pedicle screw hubbing in the adult and immature thoracic spine: a biomechanical and micro-CT evaluation. Podium presentation 826. American Academy of Orthopaedic Surgery 80<sup>th</sup> Annual Meeting, Chicago, IL, March 19-23, 2013.
703. Silva FE<sup>^</sup>, **Lenke LG**. Sagittal pelvic parameters plan for correction of adult deformities. Third International Symposium on Spine Surgery, Catholic University of Argentina, Puerto Madero, Buenos Aires, Argentina, March 20-22, 2013.
704. Lehman RA\*, Kang DG, **Lenke LG**, Blanke K, Transfeldt EE, Labelle H, Parent S, Cody J, Mac-Thiong JM, Tracey RW, Spinal Deformity Study Group. Prevalence of Spondylolisthesis and Concomitant Adolescent Idiopathic Scoliosis: A Matched Cohort Analysis. Podium presentation 241. International Society for the Advancement of Spine Surgery Annual Meeting, Vancouver, British Columbia, Canada, April 3-5, 2013.
705. Tracey RW, Lehman R\*, Kang D, Cody J, **Lenke L**, Stallbaumer J\*, Sides B. Pulmonary function following adult spinal deformity surgery: minimum two year follow-up. Podium presentation 618. American Association of Neurologic Surgeons 81<sup>st</sup> Annual Scientific Meeting, New Orleans, LA, April 27-May 31, 2013.
706. Tracey RW, Kang D, Lehman R\*, Bevevino A, Gaume R, Paik H, Dmitriev A, **Lenke L**, Cody J. Pedicle screw hubbing in the adult and immature thoracic spine: a biomechanical and micro-computed tomography evaluation. Podium presentation 831. American Association of Neurologic Surgeons 81<sup>st</sup> Annual Scientific Meeting, New Orleans, LA, April 27-May 31, 2013.
707. Vitale MG, Riedel MD, Saiman L, Matsumoto H, Glotzbecker MP, Emans JB, Erickson MA, Akbarnia BA, Anderson RCE, Brockmeyer DL, **Lenke LG**, Luhmann SJ\*, Lewis S\*, Newton PO, Richards III BS, Sucato DJ, Shah SA, Skaggs DL, Smith JT, Sponseller PD, Zeller RD, Nyquist AC, McLeod LM, Roye DP. Building consensus: "Best Practice Guideline" for high-risk pediatric spine surgical site infection. Pediatric Orthopaedic Society of North America Annual Meeting, Toronto, Ontario, Canada, May 2-3, 2013.

<sup>^</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

708. Skaggs D, Seehausen DA, Yamaguchi K, Hah RJ, Sides BA, Wright M, Vitale M, **Lenke LG**. LIV tilt in Lenke “C” curves correlates with residual lumbar Cobb angle but does not affect decompensation. Pediatric Orthopaedic Society of North America Annual Meeting, Toronto, Ontario, Canada, May 2-3, 2013.
709. Cho SK\*, Lu Y, Skovrlj B, Caridi J, **Lenke LG**. The effect of increasing pedicle screw diameter on thoracic spinal canal dimensions: An anatomic study. Podium presentation 11. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013. **Whitecloud Award Nominee**
710. Lehman RA\*, **Lenke LG**, Kang DG, Blanke K, Transfeldt EE, Labelle H, Parent S. Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis: A match cohort analysis. Podium presentation 40. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
711. O’Neill KR\*, **Lenke LG**, Bridwell KH, Hyun SJ<sup>§</sup>, Neuman BJ\*, Dorward IG<sup>†</sup>\*, Koester L. Clinical and radiographic outcomes following 3-column osteotomies at a minimum 5-year follow-up. Podium presentation 71. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
712. Hyun SJ<sup>§</sup>, **Lenke LG**, Koester L. Comparison of standard 2-rod to multiple-rod constructs for fixation across three-column spinal osteotomies. Podium presentation 77. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
713. Shimer AL, Shaffrey CI, Smith JS, **Lenke LG**, Ames CP, Schwab FJ, Lafage V, Kelly MP\*<sup>†</sup>. Retrospective, multi-center analysis of the efficacy of antifibrinolytics on intraoperative blood loss during complex adult deformity surgery. Podium presentation 100. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
714. Kim HJ\*, **Lenke LG**, Fogelson J\*, Mesfin A\*, Hershman S\*, Sides BA. Can long fusions crossing the cervicothoracic junction have good outcomes at a minimum two years follow-up? Podium presentation 112. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
715. O’Neill KR\*, Bridwell KH, **Lenke LG**, Kelly MP\*<sup>†</sup>, Chuntarapas T, Dorward IG<sup>†</sup>\*, Neuman BJ\*, Ahmad A, Baldus C. Extension of spinal fusion to the sacrum following long fusions for deformity correction. Podium presentation 152. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
716. Holekamp TF<sup>‡</sup>, **Lenke LG**, Godzik J<sup>¥</sup>, Sun SQ<sup>¥</sup>, Dorward IG<sup>†</sup>\*, O’Neill KR\*, Koester L, Kelly MP\*<sup>†</sup>. Neurologic risks associated with treating myelopathy due to severe spinal deformity with vertebral column resection. Podium presentation 156. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
717. Neuman BJ\*, **Lenke LG**, Sides BA, Bridwell KH, Dorward IG<sup>†</sup>\*, O’Neill KR\*, Kim SD\*. Perioperative morbidity and mortality in high risk pediatric patients with severe restrictive lung disease undergoing posterior-only spine deformity surgery. Podium presentation 157. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
718. Hyun SJ<sup>§</sup>, **Lenke LG**, Koester L. Long-term radiographic outcomes of a central hook-rod construct for osteotomy closure: Minimum 5-year follow-up. Podium presentation 168. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 10-13, 2013.
719. Tracey RW, Kang DG, Lehman RA\*, Cody JP, **Lenke LG**. Pulmonary function following adult spinal deformity surgery: minimum two year follow-up. Southern Orthopaedic Association 30<sup>th</sup> Annual Meeting, Palm Beach, FL, July 17-20, 2013. **SOA/OREF Resident Award Winner**
720. Cho SK\*, **Lenke LG**, Bridwell KH, Allen A, Kim YJ<sup>§</sup>. Recent trends in surgical management of adolescent idiopathic scoliosis: A review of 17,412 cases from the Scoliosis Research Society database 2001-2008. Podium presentation 1. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.

<sup>¥</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



721. Dorward IG<sup>‡</sup>, **Lenke LG**, Bridwell KH, McCoy KE, O'Neill KR\*, Neuman BJ\*, Holekamp TF<sup>‡</sup>, Ray W<sup>‡</sup>, Sides BA, Koester L. Surgery for idiopathic scoliosis in adolescents versus young adults: A match cohort analysis. Podium presentation 5. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
722. Cho SK\*, Bridwell KH, **Lenke LG**, Caridi J, Kim YJ<sup>§</sup>. Recent trends in surgical treatment of adult scoliosis: A review of 7,570 cases from the Scoliosis Research Society database 2001-2008. Podium presentation 16. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
723. Kelly MP\*<sup>†</sup>, **Lenke LG**, Shaffrey CI, Smith JS, Ames CP, Glassman SD, Carreon LY, Lafage V, Schwab FJ, Shimer AL. Three column spine reconstructions are not associated with higher rates of complications or new neurologic deficit: A retrospective Scolio-Risk 1 study. Podium presentation 17. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
724. Kim HJ\*, Bridwell KH, **Lenke LG**, Park MS<sup>§</sup>, Song KS<sup>§</sup>, Chuntarapas T<sup>§</sup>, Piyaskulkaew C<sup>§</sup>. Patients with proximal junctional kyphosis requiring revision surgery have higher post-op lumbar lordosis and larger sagittal balance corrections. Podium presentation 20. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
725. Neuman BJ\*, Bridwell KH, Baldus C, Zebala LP\*<sup>‡</sup>, Shaffrey CI, Edwards CC\*, Koski T, Schwab FJ, Boachie-Adjei O, Glassman SD, Parent S, Lewis SJ\*, **Lenke LG**, Buchowski JM\*, Crawford CH\*. How patients decide: Randomization versus surgery versus non-surgical treatment for symptomatic adult lumbar scoliosis. Podium presentation 44. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
726. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Pulmonary function following adult spinal deformity surgery: Minimum two-year follow-up. Podium presentation 45. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
727. Kelly MP\*<sup>†</sup>, **Lenke LG**, Shimer AL, Shaffrey CI, Smith JS, Lewis SJ\*, Ames CP, Carreon LY, Glassman SD, Fehlings MG, Schwab FJ, Lafage V. Comparing prospective to retrospective acute neurologic complication rates in complex adult spinal deformity procedures: Is there a difference? Podium presentation 47. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
728. Kim SD\*, Bridwell KH, **Lenke LG**, Dorward IG<sup>‡</sup>, Neuman BJ\*, O'Neill KR\*, Baldus C, Koester L, Ahmad A. Minimum five-year comparison of different age groups who underwent primary long instrumented fusions to the sacrum for adult spinal deformity. Podium presentation 53. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
729. Shaffrey EC, Smith JS, Ibrahim DM, Singh M, **Lenke LG**, Polly DW, Chen CJ, Coe JD, Broadstone PA, Glassman SD, Vaccaro AR, Ames CP, Shaffrey CI. Defining rates and causes of mortality associated with spine surgery using a Scoliosis Research Society (SRS) registry-based system: Does collection of less data improve compliance? Podium presentation 66. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
730. **Lenke LG**, Fehlings MG, Shaffrey CI, Cheung KM, Carreon LY. Prospective, multi-center assessment of acute neurologic complications following complex adult spinal deformity surgery: The Scolio-Risk-1 trial. Podium presentation 76. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013. **Russell A. Hibbs Award for Best Clinical Science Paper**
731. Cho SK\*, Egorova NN, Bridwell KH, **Lenke LG**, Caridi J, Kim YJ<sup>§</sup>. Comparative analysis of osteotomies during adult and pediatric spinal fusions: A retrospective review of >6,000 cases from the Scoliosis Research Society Morbidity and Mortality database. Podium presentation 79. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013. **Russell A. Hibbs Clinical Science Award Nominee**
732. Raynor BL, Padberg AM, **Lenke LG**, Bridwell KH, Riew KD, Buchowski JM\*, Luhmann SJ\*. Failure of intraoperative monitoring to detect postoperative neurologic deficits: A 25-year experience in 12,375 spinal surgeries. Podium presentation 93. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.

<sup>‡</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

733. Kim HJ\*, Piyaskulkaew C<sup>§</sup>, **Lenke LG**, Riew KD. Comparison of Smith Peterson (SPO) versus pedicle subtraction osteotomy (PSO) versus anterior osteotomy (AO) types for the correction of cervical spine deformities. Podium presentation 113. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
734. Godzik J<sup>¥</sup>, Limbrick D, **Lenke LG**, Holekamp TF<sup>‡</sup>, Ray W<sup>¥</sup>, Kelly MP\*<sup>†</sup>. Risks and outcomes of corrective spine surgery in Chiari malformation with syringomyelia versus idiopathic spine deformity. Podium presentation 120. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
735. Shimer AL, Shaffrey CI, Smith JS, **Lenke LG**, Ames CP, Schwab FJ, Lafage V, Kelly MP\*<sup>†</sup>. A retrospective, multicenter analysis of the efficacy of antifibrinolytics on intraoperative blood loss during complex adult deformity surgery. Podium presentation 55. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
736. Dorward IG<sup>‡</sup>\*, **Lenke LG**, Bridwell KH, McCoy KE<sup>¥</sup>, Holekamp TF<sup>‡</sup>, Neuman BJ\*, O'Neill K\*, Ray WZ<sup>¥</sup>, Sides BA, Koester L. Surgery for idiopathic scoliosis in adolescents versus young adults: A matched cohort analysis. Podium presentation 70. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
737. Gersmeyer NM, de Kleuver M, Lewis SJ\*, Alanay A, Berven SH, Cheung KM, Kamper SJ, **Lenke LG**, Polly DW, Qiu Y, Shaffrey CI, van Tulder M, Ito M. Is there a global consensus on optimal surgical care for adolescent idiopathic scoliosis? A Delphi study. Podium presentation 72. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
738. Lonner BS, Toombs C, Parent S, Shah SA, **Lenke LG**, Sucato DJ, Haber LL, Clements DH, Newton PO. Anterior release: Is it obsolete or does it play a role in contemporary AIS surgery? Podium presentation 74. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
739. Carreon LY, Crawford CH\*, **Lenke LG**, Sucato DJ, Glassman SD. Optimal lowest instrumented vertebra selection for posterior instrumented fusion of Lenke type 5 and 6 adolescent idiopathic scoliosis: Is there a difference in outcome between L3 and L4? Podium presentation 76. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
740. Carreon LY, Gum JL, Crawford CH\*, **Lenke LG**, Buchowski JM\*, Edwards CC\*, Glassman SD. Culture profile of surgical site infections after topical Vancomycin powder use in instrumented spine fusions. Podium presentation 84. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
741. **Lenke LG**, Fehlings M, Shaffrey CI, Cheung K, Carreon L. Prospective, multicenter assessment of acute neurologic complications following complex adult spinal deformity surgery: The Scolio-risk-1 trial. Podium presentation 129. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
742. Lehman RA\*, Kang DG, Bevevino A, Tracey RW, Cody JP, Gaume RE, Paik H, Dmitriev AE, **Lenke LG**. Pedicle screw hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography evaluation. Podium presentation 147. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
743. Cho SK\*, Bridwell KH, **Lenke LG**, Caridi JM, King YJ<sup>§</sup>. Recent trends in surgical treatment of adult scoliosis: A review of 7,570 cases from the Scoliosis Research Society database 2001-2008. Podium presentation 189. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
744. Silva FE<sup>^</sup>, **Lenke LG**. Clinical and radiographic outcomes of Lenke-Silva treatment level 2 and 3. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves Annual Meeting, Orlando, FL, March 5-8, 2014.
745. O'Neill KR\*, **Lenke LG**, Bridwell KH, Neuman BJ\*, Dorward IG<sup>‡</sup>\*, Koester LA. Clinical and radiographic outcomes following 3-column osteotomies at a minimum 5-year follow-up. Podium presentation 104. American Academy of Orthopaedic Surgery 81<sup>st</sup> Annual Meeting, New Orleans, LA, March 11-15, 2014.
746. Cho SK\*, Lu Y, **Lenke LG**. The effect of increasing pedicle screw diameter on thoracic spinal canal dimensions. Podium presentation 540. American Academy of Orthopaedic Surgery 81<sup>st</sup> Annual Meeting, New Orleans, LA, March 11-15, 2014.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>‡</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

747. Kang D, Lehman RA\*, Tracey RW, Gaume RE, Kebaish KM, **Lenke LG**. Sacral screw strain in a long posterior spinal fusion construct with sacral alar-iliac (S2AI) versus iliac fixation. Podium presentation 598. American Academy of Orthopaedic Surgery 81<sup>st</sup> Annual Meeting, New Orleans, LA, March 11-15, 2014.
748. Godzik J<sup>‡</sup>, Dardes A, Kelly M\*<sup>†</sup>, Holekamp T<sup>‡</sup>, **Lenke L**, Smyth M, Park TS, Leonard J, Limbrick D. Comparison of spinal deformity in children with Chiari I malformation with and without syringomyelia: A matched cohort. Podium presentation. American Association of Neurologic Surgeons 82<sup>nd</sup> Annual Scientific Meeting, San Francisco, CA, April 5-9, 2014.
749. Kang DG, Lehman Jr. RA\*, Tracey RW, Gaume RE, Cody JP, Kebaish KM, **Lenke LG**. Sacral screw strain in a long posterior spinal fusion construct with sacral alar-iliac (S2AI) versus iliac fixation. Podium presentation 22. Lumbar Spine Research Society 7<sup>th</sup> Annual Meeting, Chicago, IL, May 1-2, 2014.
750. Skovrlj B, Cho SK\*, Al Maaieh M, Caridi J, Bridwell KH, **Lenke LG**, Kim YJ<sup>§</sup>. Is age associated with increased complications rates in adult scoliosis surgery? A review of 5,591 cases from the Scoliosis Research Society database 2004-2007. Podium presentation 35. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
751. Gum JL\*, **Lenke LG**, Bridwell KH, Sides BA, Zhao J, Bumpass DB<sup>‡\*</sup>, Sugrue PA\*, Karikari I\*, Rahman RK\*<sup>†</sup>, Carreon LY. Does planned staging for posterior-only vertebral column resections in spinal deformity surgery increase perioperative complications. Podium presentation 137. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
752. Sugrue PA\*, **Lenke LG**, Kelly MP\*<sup>†</sup>, Luhmann SJ\*, Sides BA, Bumpass DB<sup>‡\*</sup>, Karikari I\*, Gum JL\*. Halo-gravity traction improves thoracic kyphosis correction for those early onset scoliosis patients undergoing growing spine techniques. Podium presentation 179. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
753. **Lenke LG**, Newton PO, Lehman RA\*, Kelly MP\*<sup>†</sup>, Clements DH, Errico TJ, Samdani AF, Betz RR, Blanke K. Radiographic results of selecting the touched vertebra as the lowest instrumented vertebra in Lenke 1A AIS curves at a minimum five-year follow up. Podium presentation 5. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
754. Norheim EP, Carreon LY, Sucato DJ, **Lenke LG**, Dankowski A, Glassman SD. Cervical spine compensation in adolescent idiopathic scoliosis. Podium presentation 10. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
755. Skovrlj B, Cho SK\*, Caridi J, Al Maaieh MA, Bridwell KH, **Lenke LG**, Kim YJ<sup>§</sup>. Association between surgeon experience and complication rates in adult scoliosis surgery: A review of 5,117 cases from the Scoliosis Research Society database 2004-2007. Podium presentation 17. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
756. Sucato DJ, Tran DP, **Lenke LG**. Is MRI necessary for adolescent idiopathic scoliosis when patients present with curves over 80 degrees? Podium presentation 26. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
757. Sugrue PA\*, **Lenke LG**, Bridwell KH, Kelly MP\*<sup>†</sup>, Luhmann SJ\*, Sides BA, Bumpass DB<sup>‡\*</sup>, Karikari I\*, Gum JL\*. The radiographic and clinical impact of preoperative halo-gravity traction in the treatment of early onset spinal deformity. Podium presentation 50. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
758. O'Neill KR\*, **Lenke LG**, Bridwell KH, Kim HJ\*, Neuman BJ\*, Archer KR. Factors associated with improved long-term outcomes following three-column osteotomy. Podium presentation 58. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

759. Gum JL\*, Carreon LY, Buchowski JM\*, **Lenke LG**, Glassman SD. Utilization trends of pedicle subtraction osteotomies compared to posterior spinal fusion for deformity: a national database analysis between 2008-2011. Podium presentation 59. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
760. **Lenke LG**, Boachie-Adjei O, Sucato DJ, Samdani AF, Shufflebarger HL, Cahill PJ, Garg S<sup>‡</sup>, Erickson MA, Kelly MP\*<sup>†</sup>, Sides BA. Is it the vertebral column resection procedure or the nature of the severe pediatric deformity that creates a high neurologic complication risk? Podium presentation 60. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
761. Fehlings MG, **Lenke LG**, Shaffrey CI, Kopjar B, Cheung KM, Carreon LY, Dekutoski MB, Schwab FJ, Boachie-Adjei O, Kebaish K, Ames CP, Qiu Y, Matsuyama Y, Dahl B, Mehdi H, Pellise F, Lewis SJ\*, Berven SH. Risk factors for neurological complications in patients undergoing corrective surgery for spinal deformity: Results of the Scolio-Risk 1 Study International, Prospective Multicenter Study. Podium presentation 79. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014. **Russell A. Hibbs Clinical Research Award Nominee**
762. Kim HJ\*, Nemani VM, O'Neill KR\*, Neuman BJ, Boachie-Adjei O, Cunningham ME, **Lenke LG**. Distal fusion level selection in Scheuermann's kyphosis: A comparison of lordotic disc segment versus the stable sagittal vertebra. Podium presentation 107. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
763. Carreon LY, Norheim EP, **Lenke LG**, Sucato DJ, Glassman SD, Dankowski AB. Cervical spine compensation in adolescent idiopathic scoliosis. North American Spine Society 29<sup>th</sup> Annual Meeting, San Francisco, CA, November 12-15, 2014.
764. Carreon LY, Gum JL\*, Bridwell KH, **Lenke LG**, Bumpass DB<sup>‡\*</sup>, Sugrue PA\*, Karikari IO\*. SRS appearance domain correlates the most with patient satisfaction after adult deformity surgery to the sacrum at 5 year follow-up. North American Spine Society 29<sup>th</sup> Annual Meeting, San Francisco, CA, November 12-15, 2014.
765. Bumpass DB<sup>‡\*</sup>, **Lenke LG**, Bridwell KH, Zebala LP<sup>‡\*</sup>, Sugrue PA\*, Karikari IO\*, Gum JK\*, Dorward IG<sup>‡\*</sup>, Koester L. Do adult males have greater perioperative morbidity, more complications, and inferior outcomes than females following spinal deformity surgery? North American Spine Society 29<sup>th</sup> Annual Meeting, San Francisco, CA, November 12-15, 2014.
766. Gum J\*, **Lenke LG**, Bridwell KH, Zhao J<sup>‡</sup>, Bumpass DB\*, Sugrue PA\*, Karikari IO\*, Carreon LY. Does planned staging for vertebral column resections increase perioperative complications? Podium presentation 224. American Academy of Orthopaedic Surgeons 82<sup>nd</sup> Annual Meeting, Las Vegas, NV, March 24-28, 2015.
767. Gum J\*, **Lenke LG**, Bridwell KH, Salehi A<sup>‡</sup>, Bumpass DB\*, Sugrue PA\*, Karikari IO\*, Kelly MP\*<sup>†</sup>. What is the fate of adult and pediatric spinal deformity reconstruction after prior deep wound infection? Podium presentation 501. American Academy of Orthopaedic Surgeons 82<sup>nd</sup> Annual Meeting, Las Vegas, NV, March 24-28, 2015.
768. Norheim EP, Carreon LY, Sucato DJ, **Lenke LG**, Glassman SD. Cervical spine compensation in adolescent idiopathic scoliosis. Podium presentation 560. American Academy of Orthopaedic Surgeons 82<sup>nd</sup> Annual Meeting, Las Vegas, NV, March 24-28, 2015.
769. Skaggs DL, Pace GI, Wright M, Anderson R, Flynn KM, **Lenke LG**, Royce Jr. DP, Shah SA, Vitale MG. Best practices in intraoperative neuromonitoring in spine deformity surgery: A consensus-based approach. Podium presentation 565. American Academy of Orthopaedic Surgeons 82<sup>nd</sup> Annual Meeting, Las Vegas, NV, March 24-28, 2015.
770. Kang D, Lehman R\*, Wagner S, **Lenke LG**, Kebaish K. Sacral screw strain in a long posterior spinal fusion construct with sacral alar-iliac (S2A1) versus iliac fixation. Global Spine Congress Annual Meeting, Buenos Aires, Argentina, May 20-23, 2015.
771. Cheung K, Bow C, Samartzis D, Dekutoski M, Schwab F, Boachie-Adjei O, Kebaish K, Ames C, Qiu Y, Matsuyama Y, Dahl B, Mehdi H, Pellisé-Urquiza F, Carreon L, Shaffrey C, Fehlings M, **Lenke L**. Risk factors for non-neurological complications in adult spinal deformity surgery: An international, large-scale, prospective multicenter study. Global Spine Congress Annual Meeting, Buenos Aires, Argentina, May 20-23, 2015. **Best Paper**

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

772. Fehlings M, **Lenke LG**, Shaffrey CI, Kopjar B, Cheung KMC, Carreon LY, Dekutoski MB, Schwab FJ, Boachie-Adjei O, Kebaish KM, Ames CP, Qiu Y, Matsuyama Y, Dahl BT, Mehdian H, Pellisé F, Lewis SJ\*, Berven SH. Pre-operative predictors of neurological motor decline in complex adult spinal deformity surgery: results of the prospective, international, multicenter Scolio- RISK-1 study in 271 patients. Podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
773. Berven SH, Saigal R, Lafage V, Kelly MP\*<sup>†</sup>, Kopjar B, Smith JS, Dahl BT, Cheung KMC, Carreon LY, Schwab FJ, Rebmann K, Shaffrey CI, Fehlings MG, **Lenke LG**, Ames CP. Defining normative quality metrics in complex high-risk deformity cases: results from the Scolio-Risk 1 study. 2 minute podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
774. Hyun SJ<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH, Koester L, Blanke KM. AIS treated by PSSIF caudal to L3: When is fusion to L3 stable? 2 minute podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
775. Kang DG\*, Lehman RA\*<sup>†</sup>, **Lenke LG**, Luksanapruksa P<sup>§</sup>, Abraamyan T, Koester L, Metz LN\*, McClendon J\*, Chapman M\*. Does single- versus two-stage pedicle subtraction osteotomy in spinal deformity surgery influence perioperative complications? 2 minute podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
776. Iyer S, **Lenke LG**, Nemani VM, Albert TJ, Sides BA, Metz LN\*, Cunningham ME, Kim HJ\*. Variations in sagittal alignment parameters based on age: a prospective study of normal patients using EOS imaging. 2 minute podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
777. Parent S, Newton PO, Lafage V, Aubin CE, Labelle H, **Lenke LG**. Towards a new 3D classification for adolescent idiopathic scoliosis (AIS): 3D subgroups derived from a consensus approach from members of the SRS 3D taskforce. 2 minute podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
778. **Lenke LG**, Newton PO, Lehman RA\*<sup>†</sup>, Kelly MP\*<sup>†</sup>, Clements DH, Errico TJ, Betz RR, Samdani AF, Blanke KM, Harms Study Group. Radiographic results of selecting the touched vertebra as the lowest instrumented vertebra in Lenke type 1 (main thoracic) & type 2 (double thoracic) curves at a minimum 5-year follow-up. 2 minute podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
779. Kang DG\*, Buchowski JM\*, **Lenke LG**, Lehman RA\*<sup>†</sup>, Luksanapruksa P<sup>§</sup>, McClendon J\*, Chapman TM\*, Metz LN\*. Can S2-alar-iliac (S2AI) screws be placed accurately without fluoroscopy? 2 minute presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
780. Kim HJ\*, Iyer S, Theologis A, Nemani VM, Albert TJ, **Lenke LG**, Burch S, Boachie-Adjei O, Deviren V, Protosaltis TS, Smith JS, Scheer JK, Mizutani J, Klineberg EO, Ames CP. Outcomes and complications of fusions from the cervical spine to the pelvis: series of 46 cases with average 2.7 year follow up. Podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
781. Iyer S, **Lenke LG**, Nemani VM, Albert TJ, Sides BA, Metz LN\*, Cunningham ME, Kim HJ\*. Variations in sagittal alignment parameters based on age: a prospective study of normal patients using EOS imaging. 2 minute presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
782. Murphy JS, Upasani VV, Yaszay B, Bastrom T, Bartley CE, Samdani AF, **Lenke LG**, Newton PO. Validation of the “substantially” touched vertebra as the lowest instrumented vertebra in thoracic major curves with AR lumbar modifiers. 2 minute presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

783. Jain A, Naef F, **Lenke LG**, Ames CP, Matsuyama Y, Dahl BT, Shaffrey CI, Qiu Y, Fehlings MG, Mehdi H, Boachie-Adjei O, Schwab FJ, Cheung KMC, Carreon LY, Kebaish KM. Analysis of ScolioRisk-1 prospective multicenter database comparing perioperative complications and patient reported outcomes in primary vs. Revision surgery for severe adult spinal deformity. Podium presentation. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Kuala Lumpur, Malaysia, July 8-11, 2015.
784. Lewis ND, Keshen SG, **Lenke LG**, Zywiell M, Skaggs DL, Dear TE, Strantzas S, Lewis SJ\*. The deformity angular ratio: Can it predict high risk cases for potential spinal cord monitoring alerts in pediatric three-column thoracic spinal deformity corrective surgery? Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
785. Bumpass DB<sup>†\*</sup>, **Lenke LG**, Kelly MP<sup>\*†</sup>, Blanke KM, Betz RR, Clements DH, Labelle H, Lehman RA<sup>\*†</sup>, Lonner BS, Luhmann SJ\*, Newton PO, Pahys JM\*, Parent S, Samdani AF, Shah SJ, Sponseller PD, Sucato DJ. Radiographic variability among Scheuermann's kyphosis patients: Appreciating the individual differences of the deformity. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
786. Chapman TM\*, **Lenke LG**, Kang DG\*, McClendon J\*, Metz LN\*, Sides BA, Blanke KM. Clinical and radiographic outcomes after posterior vertebral column resection with 5 year follow up. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
787. Lehman RA<sup>\*†</sup>, Shufflebarger HL, Marks MC, Flynn JM, **Lenke LG**, Shah SA, Upasani VV, Newton PO. 3 year dashboard reporting and performance improvement modules (PIMs) significantly improved blood loss and operative time in adolescent idiopathic scoliosis. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
788. Kim HJ\*, Iyer S, Theologis A, Albert TJ, **Lenke LG**, Deviren V, Nemani VM, Boachie-Adjei O, Burch S, Mizutani J, Klineberg EO, Protopsaltis TS, Smith JS, Scheer JK, Ames CP. Extent of proximal fusion correlates with worse clinical outcomes in cervical to pelvis fusions. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
789. Chapman Jr TM, Baldus CR, Zebala LP, Kelly MP, Kang DG, McClendon Jr J, Metz LN, Shaffrey, CI, **Lenke LG**, Buchowski JM, Schwab FJ, Boachie-Adjei O, Glassman SD, Bridwell KH. Baseline Patient Reported Outcomes Do Not Correlate with Radiographic Parameters: A multicenter prospective NIH adult spinal deformity study of 286 patients. Scoliosis Research Society. October 2015. Podium Presentation.
790. Kim YC<sup>§</sup>, **Lenke LG**, Kelly MP<sup>\*†</sup>, Bridwell KH, You KH, Wilartratsami S, Koester L, Blanke KM. Do all adult spinal deformity patients with probable pseudarthrosis at a minimum 5 year follow-up need revision surgery? Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
791. Kim YC<sup>§</sup>, **Lenke LG**, Gum JL\*, Chang HG, Yang CJ, Wilartratsami S, Koester L, Blanke KM. Is the C7 sagittal vertical axis (SVA) the best radiographic measure to predict clinical outcomes in adult spinal deformity? Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
792. Wang X<sup>§</sup>, **Lenke LG**, Thuet E, Blanke KM, Koester L, Roth M. The deformity angular ratio describes the severity of spinal deformity and predicts the risk of neurologic deficit in posterior vertebral column resection surgery. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
793. Wang X<sup>§</sup>, **Lenke LG**, Bridwell KH, Buchowski JM\*, Koester L, Blanke KM. Does the preoperative SRS mental health domain predict clinical outcomes in adult spinal deformity surgery? Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
794. Huang CJ<sup>§</sup>, **Lenke LG**, Sides BA, Blanke KM. Comparison of single level vs multi-level vertebral column resection surgery for pediatric patients with severe spinal deformities. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.

<sup>§</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

795. **Lenke LG**. The effect of preoperative opioid use on in-hospital pain control in adult spinal deformity patients. Mid-America Orthopaedic Association 2016 Annual Meeting. Bonita Springs, Florida, April 13-17, 2016.
796. Berven S, Kamper S, Gersmeyer N, Dahl B, Shaffrey C, **Lenke LG**, Lewis S, Cheung K, Alanay A, Ito M, Polly D, Kleuver MD. An International Consensus on the Appropriate Treatment for Adults with Spinal Deformity: An AOSpine Knowledge Forum Deformity Study. Podium Presentation 862. Global Spine Congress/World Forum for Spine Research (GSC/WFSR 2016), Dubai, United Arab Emirates, April 13-16, 2016.
797. Saifi C, Ha A, Cazzulino A, Makhni M, Fischer, Kim YG, Weidenbaum M, Lehman R, **Lenke LG** National Trends for Primary and Revision Posterior Lumbar Fusions throughout the United States. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C. July 13-16, 2016
798. Saifi C, Ha A, Cazzulino A, Makhni M, Fischer, Kim YG, Weidenbaum M, Lehman R, **Lenke LG**. National Trends for Primary and Revision Lumbar Disc Arthroplasty Throughout the United States from 2005-2013. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C. July 13-16, 2016
799. Jain A, Kebaish FN, **Lenke LG**, Qiu Y, Matsuyama Y, Ames C, Fehlings M, Dahl B, Mehdi H, Cheung K, Schwab F, Pellisé F, Carreon L, Shaffrey C, Kebaish K. Incidence of Proximal Junctional Kyphosis in Patients with Adult Spinal Deformity Fused to the Pelvis: A ScolioRisk-1 Sub-analysis. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C. July 13-16, 2016
800. Saifi C, Ha A, Cazzulino A, Makhni M, Fischer, Kim YG, Weidenbaum M, Lehman R, **Lenke LG**. National Trends for Primary and Revision Anterior and Lateral Lumbar Interbody Fusion Throughout the United States from 2004-2013. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C. July 13-16, 2016
801. Jain A, Kebaish FN, **Lenke LG**, Qiu Y, Matsuyama Y, Ames C, Fehlings M, Dahl B, Mehdi H, Cheung K, Schwab F, Pellisé F, Carreon L, Shaffrey C, Kebaish K Early Postoperative Surgical Site Infections in the Scolio-Risk 1 Cohort of Complex Spinal Deformity Patients Still Allowed For Improved Health Related Quality of Life Outcomes at 2 Year Follow-Up Session Title: 4B. Complications & Infection. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C. July 13-16, 2016
802. Carreon L, Glassman S, Shaffrey C, Fehlings M, Dahl B, Ames C, Matsuyama Y, Qiu Y, Mehdi H, Cheung K, Schwab F, Pellisé F, Kebaish K, **Lenke LG**. Predictors of Health-related Quality-of-Life After Complex Adult Spinal Deformity Surgery: A Scolio-RISK-1 Secondary Analysis Session. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C. July 13-16, 2016
803. Kang D, Lehman R, Wagner S, **Lenke LG**, Kebaish K. Sacral Screw Strain in a Long Posterior Spinal Fusion Construct with Sacral Alar-Iliac (S2AI) versus Iliac Fixation. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C. July 13-16, 2016
804. Saigal R, Berven SH, Lafage V, Kelly MP, Kopjar B, Smith JS, Dahl BT, Cheung KM, Carreon LY, Schwab FJ, Reibmann K, Shaffrey CI, Fehlings MG, **Lenke LG**, Ames CP, Harms Study Group. Impact of New Motor Deficit on early HRQOL after Adult Spinal Deformity Surgery: Subanalysis of 272 patients from Scolio Risk 1 Prospective Study. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C. July 13-16, 2016
805. **Lenke LG**, Lehman R, Newton P, Kelly M, Clements D, Errico T, Betz R, Samdani A, Blanke K, Yan Y. Radiographic Results of Selecting the Touched Vertebra as the Lowest Instrumented Vertebra in Lenke Type 1 (Main Thoracic) & Type 2 (Double Thoracic) Curves at a Minimum 5-year Follow-up. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016

806. **Lenke LG**, Shaffrey C, Carreon L, Cheung K, Kebaish K, Schwab F, Pellisé F, Ames C, Qiu Y, Dahl B, Fehlings M, AOS Knowledge Forum. Neurologic Complications Following Complex Adult Spinal Deformity Surgery: 2 Year Follow-up of the Scolio-Risk 1 Prospective, Multicenter, International Study. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
807. Djurasovic M, Glassman S, Sucato D, **Lenke LG**, Carreon L. Improvement in SRS22R Pain Scores after Surgery for Adolescent Idiopathic Scoliosis. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
808. Jain A, Kebaish FN, **Lenke LG**, Shaffrey C, Fehlings M, Dahl B, Mehdian H, Ames C, Matsuyama Y, Qiu Y, Cheung K, Schwab F, Carreon L, Pellisé F, Kebaish K. Effect of Age on Postoperative Complications and Patient Reported Outcomes in Severe Adult Spinal Deformity: Patients ?60 Years vs. > 60 Years. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
809. Jain A, Kebaish FN, **Lenke LG**, Fehlings M, Ames C, Carreon L, Dahl B, Matsuyama Y, Qiu Y, Shaffrey C, Mehdian H, Pellisé F, Schwab F, Cheung K, Kebaish K. Impact of Depression on Health Related Quality of Life Outcomes in Surgically Treated Adult Spinal Deformity Patients: A ScolioRisk-1 Sub-analysis. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
810. Jain A, Kebaish FN, **Lenke LG**, Fehlings M, Ames C, Carreon L, Dahl B, Matsuyama Y, Qiu Y, Shaffrey C, Mehdian H, Pellisé F, Schwab F, Cheung K, Kebaish K. Complications and Patient Reported Outcomes of Primary vs. Revision Surgery for Severe Adult Spinal Deformity: A ScolioRisk-1 Sub-analysis. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
811. Mac-Thiong JC, Labelle H, Parent S, Hresko M, Sucato D, **Lenke LG**, Marks M. A Prospective Study of The Improvement in Health-Related Quality of Life Following Surgical Treatment of Lumbosacral Spondylolisthesis in Young Patients. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
812. Kang D, Buchowski J, Mokkarala M, Luksanaprukha P, **Lenke LG**. Re-operation Following Sacral Alar-Iliac (S2AI) versus Traditional Iliac Pelvic Fixation. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
813. Newton P, Bastrom T, Bartley C, Yaszay B, Marks M, Betz R, **Lenke LG**, Clements D. A Critical Assessment of [ge] 10-Year Follow-up of Spinal Fusions for Adolescent Idiopathic Scoliosis: Outcome Improvement and Continued Follow-up Required. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
814. Bow C, Kwan K, Samartzis D, Dekutoski M, Schwab F, Boachei-Adjei O, Kebaish K, Ames C, Qiu Y, Matsuyama Y, Dahl B, Mehdian H, Pellise F, Carreon L, Shaffrey C, Fehlings M, **Lenke LG**, Cheung K. Prevalence and risk factors for unplanned return to operating room for complex adult spinal deformity patients: Scolio-Risk 1 Prospective Multicenter International Study. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
815. **Lenke LG**, Lehman R, Lonner B, Errico T, Betz R, Shah S, Shufflebarger H, Kelly M, Newton P, Blanke K, Harm Study Group. Optimal Selection of the Lowest Instrumented Vertebra for Lenke Type 5 & 6 Thoracolumbar/Lumbar Major AIS Curves at Min. 5 Yr. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
816. Neurologic Complications Following Complex Adult Spinal Deformity Surgery: 2 Year Follow-up of the Scolio-Risk 1 Prospective, Multicenter, International Study Session Title: 10E. Two-Minute Point Presentations Session. 23rd International Meeting on Advanced Spine Techniques (IMAST), Washington, D.C., USA July 13-16, 2016
817. Pellisé F, **Lenke LG**, Shaffrey C, Carreon L, Cheung K, Kebaish K, Schwab, Qiu Y, Dahl B, Ames C, Fehlings M. Neurologic Complications Following Complex Adult Spinal Deformity Surgery: 2 Year Follow-Up Of The Scolio-RISK

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



1 Prospective, Multicenter, International Study. AOSpine Knowledge Forum Deformity. EUROSPINE 2016, Berlin, Germany October 5<sup>th</sup>, 2016

818. Kang D, Buchowski J, Mokkarala M, Luksanapruska P, Chen C, **Lenke LG**. Re-operation Following Sacral Alar-Iliac versus Traditional Iliac Pelvic Fixation. AAOS 2017 Annual Meeting. San Diego, California, March 14 – 18, 2017
819. Jain A, Kebaish F, **Lenke LG**, Carreon L, Ames C, Shaffrey C, Fehlings M, Dahl B, Schwab F, Kebaish K. Early Postoperative Surgical Site Infections in the Scolio-Risk 1 Cohort of Complex Spinal Deformity Patients Still Allowed For Improved Health Related Quality of Life Outcomes at 2 Year Follow-Up. AAOS 2017 Annual Meeting. San Diego, California, March 14 – 18, 2017
820. Jain A, **Lenke LG**, Kebaish K, Kelly M, Errico T, Sponseller P. Cost Utility Analysis of Operative vs. Nonoperative Treatment for Adolescent Idiopathic Scoliosis. AAOS 2017 Annual Meeting. San Diego, California, March 14 – 18, 2017
- 821.403. Djurasovic M, Glassman S, Sucato D, **Lenke LG**, Crawford C, Carreon L. Improvement in SRS2 2R Pain Scores after Surgery for Adolescent Idiopathic Scoliosis. AAOS 2017 Annual Meeting. San Diego, California, March 14 – 18, 2017
822. **Lenke LG**, Newton PO, Lehman RA, Kelly MP, Clements DH, Errico TJ, Betz RR, Samdani AF, Blanke KM, Yan Y, Harms Study Group: Radiographic results of selecting the touched vertebra as the lowest instrumented vertebra in Lenke type 1 (main thoracic) and type 2 (double thoracic) curves at a minimum 5-year follow-up. Global Spine Congress. May 3 - 6, 2017, Milan, Italy
823. **LG Lenke**, Lehman R, Lonner B, Errico T, Betz R, Shah S, Shufflebarger H, Kelly M, Newton P, Blanke K, Harms Study Group. Optimal Selection of the Lowest Instrumented Vertebra for Lenke Type 5 & 6 Thoracolumbar/Lumbar Major AIS Curves at Minimum 5 Year Follow up. Global Spine Congress. May 3 - 6, 2017, Milan, Italy
824. **LG Lenke**, Shufflebarger H, L Carreon, Cheung K, Kebaish K, Schwab F, Pellise F, Ames C, Yong Q, Dahl M, Fehlings M, AOSpine Knowledge Forum Deformity. Neurologic Complications Following Complex Adult Spinal Deformity Surgery: 2 Year Follow-up of the Scolio-Risk 1 Prospective, Multicenter, International Study. Global Spine Congress. May 3 - 6, 2017, Milan, Italy
825. Laratta JL, Shillingford JN, Hardy N, Lombardi JM, Saifi C, Romanov A, Fischer CR, Lehman RA, **Lenke LG**, Riew KD. Intra-wound Tobramycin Powder Eradicates Surgical Wound Contamination: An in Vivo Rabbit Study. Lumbar Spine Research Society Annual Meeting April 6th & 7th 2017, Chicago, IL
826. Laratta JL, Hardy N, Shillingford JN, Lombardi JM, Saifi C, Pugely A, An H, Phillips F, Lehman RA, **Lenke LG**. National Trends in the Utilization of Intraoperative Neuromonitoring Throughout the United States. Lumbar Spine Research Society Annual Meeting April 6th & 7th 2017, Chicago, IL.
827. Saifi C, Laratta JL, Shillingford JN, Lombardi JM, Hardy N, Pugely A, Phillips F, Lehman RA, An H, **Lenke LG**. National Trends Spinal Deformity Surgery Throughout the United States. Lumbar Spine Research Society Annual Meeting April 6th & 7th 2017, Chicago, IL
828. Laratta JL, Hardy N, Shillingford JN, Lombardi JM, Lin JD, Saifi C, Pugely A, Fischer CR, **Lenke LG**, Lehman RA. National Trends in the Utilization of Vertebroplasty and Kyphoplasty Procedures Throughout the United States. Lumbar Spine Research Society Annual Meeting April 6th & 7th 2017, Chicago, IL.

829. Saifi CS, Laratta JL, Shillingford JN, Alrabaa R, Bernhard J, Robinson S, Vunjak-Novakovic G, **Lenke LG**, Lehman RA, Weidenbaum M. Tissue Engineered Bone Graft with Hypertrophic Chondrocytes Prevents Fusion in an Athymic Rat Model. Lumbar Spine Research Society Annual Meeting April 6th & 7th 2017, Chicago, IL
830. Lin JD, Shillingford JN, Laratta JL, Tan LA, Fischer CR, Lehman RA, **Lenke LG**. Efficacy and Safety of High-dose Tranexamic Acid Protocol in Adult Spinal Deformity – Analysis of 100 Consecutive Cases. Lumbar Spine Research Society Annual Meeting April 6th & 7th 2017, Chicago, IL.
831. Bao H, Lafage R, Liabaud B, Elysée J, Diebo BG, Poorman G, Jalai C, Passias P, Buckland A, Bess S, Errico T, **Lenke LG**, Gupta M, Kim HJ, Schwab F, Lafage V. Revealing different compensation models in asymptomatic adults: A cluster analysis with a prospective cohort of volunteers. . ISASS17 - 17th Annual Conference, April 12 - April 14, 2017 - Boca Raton, FL
832. **Lenke LG**. Should Targets for Adult Spinal Deformity Correction Depend on Pelvic Incidence? 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
833. **Lenke LG**. Mechanical Loading of the Upper-most Instrumented Vertebra Normative Values and Impact on Proximal Junctional Kyphosis in Adult Spinal Deformity Surgery. 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
834. Samdani A, **Lenke LG**, Sponseller P, Lonner B, Gupta M, Garg S, Park J, Boachie-Adjei .Does the Presence of an Intraspinous Anomaly Increase Neurologic Complications and Lessen the Correction Rate in Severe Pediatric Spinal Deformity? 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
835. Shillingford J, Laratta J, Lombardi J, Tuchman A, Alrabaa R, Lehman R, **Lenke LG**. Human versus Robot A Propensity-Matched Analysis of the Accuracy of Free Hand versus Robotic Guidance for Placement of S2 Alar-Iliac (S2AI) Screws. 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
836. Lin J, Shillingford J, Laratta J, Tan L, Fischer C, Lehman R, **Lenke LG** . Efficacy and Safety of a High-Dose Tranexamic Acid Protocol in Complex Adult Spinal Deformity Analysis of 100 Consecutive Cases. 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
837. **Lenke LG**; Lehman R, Kelly M, Vitale M, Lonner B, Errico T, Betz R, Shah S, Shufflebarger H, Newton P, Blanke K, Harms Study Group. Using The Lower Lumbar Touched Vertebra To Select The Lowest Instrumented Vertebra In Lenke Type 3 & 4 Curves At A Minimum 5 Yr Follow-Up. 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
838. 10 Improved Clinical Outcomes of Intraoperative Lumbar Nerve Root Monitoring Changes Using Motor Evoked Potentials During Thoracolumbar Spinal Surgery. 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
839. Lertdomphonwanit, Gupta, Bridwell, **Lenke LG**, Punyarat, Bryan, Sides, Kelly, Zebala . Rod Fracture in Adult Spinal Deformity Surgery Incidence, Risk Factors and Impact on Health Related Quality of Life in 526 Patients. 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
840. Gupta MC, **Lenke LG**, Asghar JK, Boachie-Adjei O, Cahill PJ, Erickson MA, Garg S, Newton SO, Samdani AF, Shah SA, Shufflebarger HL, Sides, Sponseller PD, Sucato DJ, Kelly MP. Rate of Instrumentation and Fusion-related Complications after Surgical Treatment for Severe Pediatric Spinal Deformity within 2 years A Prospective Multi-center Cohort Study. 24th International Meeting on Advanced Spine Techniques (IMAST), July 12-15, 2017, Cape Town, South Africa
841. Kato S, Fehlings MG, FACS; Lewis SJ, **Lenke LG**, Shaffrey CI, Cheung K, Carreon LY, Dekutoski MB, Schwab FJ, Boachie-Adjei O, Kebaish K, Ames CP, Qiu Y, Matsuyama Y, Dahl BT, DMSci; Pellisé F, Berven SH, Gersmisch NM. Incidence and Risk Factors of Post-operative Neurological Decline after Complex Adult Spinal Deformity Surgery:

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

- Results of the Scolio-RISK-1 Study . SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
842. Kelly MP, Bastrom T, **Lenke LG**, Marks MC, Newton P, Harms Study Group . Mental Health and not Deformity Magnitude Correlate to Self Image in Adolescent Idiopathic Scoliosis . SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
843. Kelly MP, Yanik EL, Shaffrey CI, Glassman SD, Carreon LY, Kim HJ, **Lenke LG**, Lewis SJ, Parent S, Schwab FJ, Baldus CR, Bridwell KH. Adult Symptomatic Lumbar Scoliosis: Randomized Results from a Dual-Arm Study. SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
844. **Lenke LG**; Gupta MC, Sides B, Sponseller PD, Sucato DJ, Shah SA, Samdani AF, Yaszay B, Garg S, Boachie-Adjei O, Kelly MP. Perioperative Complications after Vertebral Column Resection (VCR) for Severe Pediatric Spinal Deformity. SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
845. Mac-Thiong J, Hresko MT, Parent S, Sucato DJ, **Lenke LG**, Marks MC, Labelle H. Guidelines for Surgical Reduction in High-Grade L5-S1 Spondylolisthesis Based on Quality of Life Measures. SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
846. Tuchman A, **Lenke LG**, Fehlings MG, Lewis SJ, Shaffrey CI, Cheung K, Carreon LY, Dekutoski MB, Schwab FJ, Boachie-Adjei O, Kebaish K, Ames CP, Qiu Y, Matsuyama Y, Dahl BT, Mehdian H, Pellisé F, Berven SH. Unilateral vs. Bilateral Lower Extremity Motor Deficit Following Complex Adult Spinal Deformity Surgery: Is there a Difference in Recovery Up to 2 Year F/U? SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
847. Shillingford J, Laratta J, Sarpong N, Lehman R, **Lenke LG**, Fischer C. Visual Loss Following Spine Surgery: What Have We Seen Within the Scoliosis Research Society (SRS) Morbidity and Mortality Database? SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
848. Shillingford J, Laratta J, Ha A, Saifi C, Lehman R, **Lenke LG**, Fischer C. Postoperative Surgical Site Infection after Spine Surgery: An Update from the Scoliosis Research Society (SRS) Morbidity and Mortality Database. SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
849. Laratta J, Shillingford J, Lombardi J, Saifi C, **Lenke LG**, Phillips F, Lehman R. Outpatient Lumbar Laminectomy: A Relatively Common Procedure. 2018 American Academy of Orthopaedic Surgeons Annual Meeting, New Orleans, Louisiana, March 6-10, 2017
850. Laratta J, Saifi C, Shillingford J, Lombardi J, **Lenke LG**, Lehman R, Phillips F. The New Frontier of Outpatient Spinal Fusion Procedures. 2018 American Academy of Orthopaedic Surgeons Annual Meeting, New Orleans, Louisiana, March 6-10, 2017
851. Laratta J, Saifi C, Shillingford J, Lombardi J, **Lenke LG**, Lehman RA, Phillips F. Planned Staged Surgery for Severe Pediatric Spinal Deformity does not Reduce Complications within 90 Days of Surgery: A Prospective Matched Cohort Study. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th, 2017
852. Kato S, Fehlings MG, Lewis SJ, **Lenke LG**, Shaffrey CI, Cheung KM, Carreon LY, Dekutoski MB, Schwab FJ, Boachie-Adjei O, Kebaish K, Ames CP, Qiu Y, Matsuyama Y, Dahl BT, Mehdian H, Pellisé F, Berven SH. An analysis of the relative incidence and outcomes of minor vs. major neurological decline after complex adult spinal deformity surgery: A Sub-analysis of Scolio-RISK-1 Study. Scoliosis Research Society (SRS) 52nd Annual Meeting & Course, Philadelphia, PA, USA, September 06-09, 2017.
853. **Lenke LG**, Lehman, Lombardi, Saifi, Shillingford, Laratta . Lumbar Laminectomy: A Relatively Common Outpatient Procedure. Cervical Myelopathy. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th, 2017

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>§</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

- 854.Laratta, Shillingford, Saifi, Lombardi, **Lenke LG**, Lehman . Outpatient Spinal Fusion: The New Frontier. . The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 855.Laratta, Shillingford, Saifi, Lombardi, **Lenke LG**, Lehman The Rise and Fall of Bone Morphogenetic Protein. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 856.Lin J, Tan L, Shillingford J, Laratta J, Kim Y, Lehman R, **Lenke LG** .The Sacral Laminar Slope is an Anatomic Landmark for Freehand S2AI Screw Insertion. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
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- 858.Laratta, Shillingford, Saifi, Lombardi, **Lenke LG**, Lehman .Vertebroplasty and Kyphoplasty Utilization Trends throughout the United States. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 859.Laratta, Shillingford, Kaushal, Saifi, Lombardi, **Lenke LG**, Lehman . Emergency Department Management of Lumbar Radiculopathy. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 860.Sethi, Kelly, Burton, Ames, Mundis, Klineberg, Hart, Bess, Daniels, **Lenke LG**, ISSG .Complications Can Be Decreased by Creation of Preoperative and Intraoperative Patient Care Guidelines: The Development of a Standard Work Protocol for Adult Spinal Deformity. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 861.Laratta, Shillingford, Saifi, Lombardi, **Lenke LG**, Lehman . The Unprecedented Increase in Neuromonitoring Utilization over a Recent Decade. . The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 862.Lertudomphonwanit, Gupta, Bridwell, **Lenke LG**, Punyarat, Sides, Kelly, Zebala .Early vs Delayed Rod Fracture in Adult Spinal Deformity Surgery Fused to the Sacrum Differ in Presentation and Revision Rates. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 863.Laratta, Shillingford, Lombardi, **Lenke LG**, Lehman .Hospital Readmission following Spinal Laminectomy Procedures throughout the United States. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 864.Lafage, Pesenti, Stein, Varghese, Elysee, Kim, **Lenke LG**, Schwab, Lafage . Distal Lordosis is Defined by Regional Alignment while Proximal Lordosis is More Affected by the Pelvic Incidence. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 865.Laratta, Shillingford, Lombardi, Fischer, **Lenke LG**, Lehman .S2 Alar-Iliac Screw Placement under Robotic Guidance: An Analysis of Safety and Accuracy. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017
- 866.Laratta, Shillingford, Saifi, Lombardi, **Lenke LG**, Lehman .Hypertrophic Chondrocytes Differentiated from Human Adipose Derived Stem Cells Inhibit Posterolateral Fusion in an Athymic Rat Model. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th ,2017

867. Gupta, **Lenke LG**, Asghar, Boachie-Adjei, Cahill, Erickson, Garg, Newton .High rate of Intraoperative Monitoring (IOM) Alerts in 176 Severe Pediatric Deformity Patients (>100° or planned VCR) and its Relationship to DAR. The North American Spine Society Annual Meeting, Orlando, FL October 25th-28th, 2017.
868. Laratta JL, Shillingford JN, Lombardi JM, Saifi C, **Lenke LG**, Lehman RA. The National Impact of Spinal Laminectomy Readmissions throughout the United States. Lumbar Spine Research Society (LSRS) Annual Meeting April 5-6, 2018, Chicago, IL
869. Laratta JL, Kaushal N, Shillingford JN, Lombardi JM, Saifi C, Lehman RA, **Lenke LG**. Massive Increase in Pediatric Spinal Fusions throughout the United States over a Recent Decade. Lumbar Spine Research Society (LSRS) Annual Meeting April 5-6, 2018, Chicago, IL.
870. Shillingford J, Laratta J, Lin J, Lombardi J, Saifi C, Lenke LG, Lehman RA. The Role of Pelvic Parameters on S2AI Screw Trajectory. Lumbar Spine Research Society (LSRS) Annual Meeting, April 5-6, 2018, Chicago, IL
871. **Lenke LG**; Lehman R; Kelly M; Vitale M, Lonner B, Errico T, Betz R, Shah S, Shuffelbarger H, Newton P, Blanke K, Harms Study Group . Thoracic Only Fusions For Double (Type 3) And Triple (Type 4) Major Curves In AIS At A Minimum 5 Year Follow-Up: Are They Possible And Durable. AOSpine 7th Annual Global Spine Congress (GSC), Singapore May 2-5, 2018
872. **Lenke LG**; Gupta MC, Sides B, Sponseller PD, Sucato DJ, Shah SA, Samdani AF, Yaszay B, Garg S, Boachie-Adjei O, Kelly MP. Perioperative Complications After Vertebral Column Resection (VCR) For Severe Pediatric Spinal Deformity. AOSpine 7th Annual Global Spine Congress (GSC), Singapore May 2-5, 2018
873. Responding To Intra-Operative Neuromonitoring Alerts In Spinal Deformity Surgery: A Pilot Data Form Can Summarize Key Intra-operative Data. AOSpine 7th Annual Global Spine Congress (GSC), Singapore May 2-5, 2018
874. Thoracic Only Fusions For Double (Type 3) And Triple (Type 4) Major Curves In AIS At A Minimum 5 Year Follow-Up: Are They Possible And Durable? AOSpine 7th Annual Global Spine Congress (GSC), Singapore May 2-5, 2018.
875. Sielatycki JA, Beauchamp E, Shimizu T, Wei C, Yang J, Suomao Y, Pongmanee S, Wang H, Fang X, Xue R, Zhou R, Liu X, Cerpa M, **Lenke LG**. WC #1 The Amount of Curve Correction is More Important than Upper Instrumented Vertebra Selection for Ensuring Postoperative Shoulder Balance in Lenke Type 1 Adolescent Idiopathic Scoliosis. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, California
876. Shimizu T, Lehman R, Sielatycki J, Pongmanee S, Riew KD, **Lenke LG**. Prevalence and Predictive Factors of Concurrent Cervical Cord Compression in Adult Spinal Deformity. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
877. Shimizu T, Lehman RA, Sielatycki J, Pongmanee S, Wei C, Cerpa M, **Lenke LG**. Preoperative Halo Gravity Traction for Treatment of Severe Adult Kyphosis and Scoliosis. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
878. Shimizu T, Lehman R, Sielatycki J, Pongmanee S, **Lenke LG**. Reciprocal Change in Sagittal Profiles after Adolescent vs Adult Idiopathic Scoliosis Surgery: A Comparison Using Full-Body X-ray. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
879. Bodendorfer B, Shah S, Bastrom T, Lonner BS, Yaszay B, Samdani A, Miyajima F, Cahill P, Sponseller P, Betz R, Clements D, **Lenke LG**, Shuffelbarger HL, Newton PO, Harms Study Group. Restoration of Thoracic Kyphosis in Adolescent Idiopathic Scoliosis over a Twenty-Year Period: Are We Getting Better? 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
880. Lin J, Tan L, Wei C, Shillingford J, Laratta J, Lombardi J, Kim Y, Lehman R, **Lenke LG**. The Posterior Superior Iliac Spine (PSIS) and Sacral Laminar Slope (SLS) are Key Anatomic Landmarks for Freehand S2AI Screw Placement. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

881. Alzakri A, MD, Labelle H, Hresko M, Parent S, Sucato D, **Lenke LG**, Marks M, Harms Study Group, Mac-Thiong J. Restoration of Normal Pelvic Balance from Surgical Reduction of High-Grade Spondylolisthesis. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
882. Theologis A, Iyer S, Kim HJ, **Lenke LG**, Kelly MP. Cervical and Cervicothoracic Sagittal Alignment By Roussouly Thoracolumbar Subtypes in Asymptomatic Volunteers. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
883. Yang J, Zhou R, Yuan S, Cerpa M, **Lenke LG**. Survival of Multiple-Rod Constructs Across 3-Column Osteotomies in Long Fusions to The Sacrum for Adult Spinal Deformity. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
884. **Lenke LG**, Cerpa M, Li XJ, Tuchman A, Tan LA, Jin L. Surgeon Specific Risk Stratification Model for Complex Adult Spinal Deformity Surgery. 25th International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
885. Smith J, Shaffrey C, Kelly M, Baldus C, **Lenke LG**, Lewis S, Parent S, Bess S, Schwab F, Bridwell K. Impact of Serious Adverse Events on Health-Related Quality of Life Measures Following Surgery for Adult Symptomatic Lumbar Scoliosis. EUROSPINE 2018. 19-21 September 2018. Barcelona, Spain.
886. J. Sielatycki A, Cerpa M, Pham M, Lehman RA, **Lenke LG**. A Novel Axial MRI Classification of Spinal Cord Shape and CSF Presence at the Curve Apex to Assess Risk of Intraoperative Neuromonitoring Data Loss with Thoracic Spinal Deformity Correction. North American Spine Society 33rd Annual Meeting, September 26-29, 2018, Los Angeles, CA
887. Meng X, Lehman R, **Lenke LG**. Comparison of Supine Lateral Xray and CT Images with Standing Lateral Xray in Predicting Kyphosis Flexibility with Apex at T10-L2 in Adult Degenerative Spinal Deformity. North American Spine Society 33rd Annual Meeting, September 26-29, 2018, Los Angeles, CA
888. Sielatycki A, Beauchamp E, Shimizu T, Wei C, Pongmanee S, Cerpa M, **Lenke LG**. The Amount of Curve Correction is More Important than Upper Instrumented Vertebra Selection for Ensuring Postoperative Shoulder Balance in Lenke Type 1 Adolescent Idiopathic Scoliosis. North American Spine Society 33rd Annual Meeting, September 26-29, 2018, Los Angeles, CA
889. Bumpass D, **Lenke LG**, Kelly M, Lehman R, McCarthy R, Vitale M, Lonner B. A New Classification for Scheuermann's Kyphosis. North American Spine Society 33rd Annual Meeting, September 26-29, 2018, Los Angeles, CA
890. Renaud, Sebastien, Kim, Gupta, **Lenke LG**, Schwab, Lafage. What is the normal distribution of kyphosis across the thoracic spine in the adult population? North American Spine Society 33rd Annual Meeting, September 26-29, 2018, Los Angeles, CA
891. Four-Rod Construct is Needed to Maximally Decrease Rod Strain Across Lumbosacral Junction with TLIF But Not ALIF in Long Segment Fixation. North American Spine Society 33rd Annual Meeting, September 26-29, 2018, Los Angeles, CA
892. Sielatycki JA, Lehman RA, **Lenke LG**, MD3, Makhni MC. A Novel MRI-based Classification of Spinal Cord Shape and CSF Presence at the Curve Apex to Assess Risk of Intraoperative Neuromonitoring Data Loss with Thoracic Spinal Deformity Correction. North American Spine Society 33rd Annual Meeting. Los Angeles, CA, September 26-29, 2018.
893. Sielatycki JA, **Lenke LG**, Pongmanee S, Lehman RA. The Amount of Curve Correction is More Important than Upper Instrumented Vertebra Selection for Ensuring Postoperative Shoulder Balance in Lenke Type 1 Adolescent Idiopathic Scoliosis. North American Spine Society 33rd Annual Meeting. Los Angeles, CA, September 26-29, 2018.
894. JM Pahys, S Hwang, AF Samdani, PJ Cahill, PO Newton, JK Asghar, SA Shah, PD Sponseller, Harms Study Group, **Lenke LG**. "1.2 Ratio Rule" for Successful Selective Thoracic Fusion for C Lumbar Modifier Curves in Adolescent Idiopathic Scoliosis: Two- to Five-Year Follow-up of All Pedicle Screw Constructs. SRS 53rd Annual Meeting & Course October 10-13, 2018, Bologna, Italy.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

895. Wei C, Lin JD, Ma H, Yang M, Yuan S, Cerpa M, Sielatycki J, Pongmanee S, Messer Z, Leung E; Shimizu T, . Lehman R, **Lenke LG**. Can Pelvic Incidence Change after Surgical Correction in Adult Spinal Deformity Patients with use of S2 Alar Iliac Screws and Cantilever Correction of the Sagittal Plane? SRS 53rd Annual Meeting & Course October 10-13, 2018, Bologna, Italy.
896. Pham M, Cerpa M, **Lenke LG**. Neurologic Deficit During Halo-Gravity Traction in the Treatment of Severe Thoracic Kyphoscoliotic Spinal Deformity. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
897. Owen R, Mardam-Bey S, **Lenke LG**, Gum JL, Kelly MP. Does Preoperative Opioid Use lead to Poorer Outcomes and Continued Opioid Abuse at 2 Years Postoperative? SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy
898. Salari P, Moon H, **Lenke LG**, Gupta M, MD; Kelly M. 2995 Outcomes and Mechanical Complications by Roussouly-Type in Adult Spinal Deformity: A Single Center Study. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
899. Clements D, **Lenke LG**, L Newton P, Betz R, Marks M, Bastrom T. Selective Thoracic Fusion of Lenke 3, 4 Curves: Rule Breakers or New Rule Makers? SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
900. Shimizu T, Beauchamp E, Carreon L, Shaffrey C, Cheung K, Cerpa M, **Lenke LG**. A Radiographic Analysis of Lumbar Fusion Status after Complex Adult Spinal Deformity Surgery: Subanalysis of the Scolio-Risk-1 Database. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
901. Bumpass D, **Lenke LG**, Kelly M, Lehman R, McCarthy R, Vitale M, Lonner B. A New Classification for Scheuermann's Kyphosis. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
902. Theologis A, Lertudomphonwanit T, **Lenke LG**, Bridwell KH, Gupta M. The Role of the Fractional Lumbosacral Curve in Persistent Coronal Malalignment following Adult Thoracolumbar Deformity Surgery. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
903. Pahys J, MD; Hwang S, Samdani A, Cahill P, Newton P, Asghar J, Shah S, Sponseller P, Harms Study Group, **Lenke LG**. Re-evaluating the "1.2 Ratio Rule" for Successful Selective Thoracic Fusion for C Lumbar Modifier Curves in Adolescent Idiopathic Scoliosis: Two- to Five-Year Follow-up of All Pedicle Screw Constructs. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
904. Hyun S, **Lenke LG**, Kim YJ, J K Bridwell K, Blanke K, RN. The Prevalence of Adding-On or Distal Junctional Kyphosis in Adolescent Idiopathic Scoliosis Treated by Anterior Spinal Fusion to L3 was Significantly Higher than By Posterior Spinal Fusion to L3 . SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
905. Klineberg E, Lafage V, Soroceanu A, Pellisé F, Smith J, Shaffrey C, Gum J, Protopsaltis T, Schwab F, Pannu T, De Kleuver M, Ames C, Bess S, **Lenke LG**, Berven S, International Spine Study Group. Preliminary Review of an ISSG AO Multi-Domain Spinal Deformity Complication Classification System. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
906. Shimizu T, Lehman R, Sielatycki J, Pongmanee S, Takemoto M, **Lenke LG**. Reciprocal Change of Sagittal Profile in Unfused Spinal Segments and Lower Extremities after Complex Adult Spinal Deformity Surgery: A Full-Body Radiographic Analysis. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy.
907. Sielatycki J, Cerpa M, Pham M, Lehman R, **Lenke LG**. A Novel Axial MRI Classification of Spinal Cord Shape and CSF Presence at the Curve Apex to Assess Risk of Intraoperative Neuromonitoring Data Loss with Thoracic Spinal Deformity Correction. SRS 53rd Annual Meeting & Course October 10-13, 2018 , Bologna, Italy
908. Theologis AA, Iyer S, **Lenke LG**, Sides BA, Kim HJ, Kelly MP. Cervical And Cervicothoracic Sagittal Alignment By Roussouly Thoracolumbar Subtypes In Asymptomatic Volunteers. 2018 CSRS Annual Meeting. December 6-8, 2018, Scottsdale, Arizona.
909. Makhni M, Park PJ, Cerpa M, Lin JD, **Lenke LG**. The Kickstand Rod Technique for Correction of Coronal Imbalance in Pediatric and Adult Spinal Deformity Patients. AAOS Annual Meeting. March 12 -16, 2019, Las Vegas, Nevada

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

910. Lertudomphonwanit T, Theologis A, **Lenke LG**, Gupta MC, Kelly MP. The Fate of High Pelvic Tilt with Good Alignment (False Type 2) in Adult Spinal Deformity Surgery Fused to the Sacrum. 2019 Global Spine Congress, 15-18 May, 2019, Toronto, Canada.
911. Lee NJ, Lin JD, Lombardi JM, Ha A, Baum GR, Osorio JA, Morr S, Lehman RA, **Lenke LG**. The Effect Of Increased Age On Perioperative Outcomes In Adult Idiopathic Scoliosis. Global Spine Congress, May 15-18, 2019, Toronto, Canada.
912. Lee N, Cerpa M, Lombardi J, Ha A, Park P, Leung E, Sardar Z, Lehman RA, **Lenke LG**. A Predictive Model for Early Reoperations and Readmissions in Adult Spinal Deformity. 26th International Meeting on Advanced Spine Techniques (IMAST), July 17-20, 2019, Amsterdam, the Netherlands.
913. Lee NJ, Cerpa M, Lin JD, Ha A, Park PJ, Leung E, Sardar ZM, **Lenke LG**, Lehman RA. A Predictive Model for Early Reoperations and Readmissions in Complex Adult Spinal Deformity Surgery. 26th International Meeting on Advanced Spine Techniques (IMAST), July 17-20, 2019, Amsterdam, the Netherlands.
914. Lee NJ, Dansby JD, Lin JD, Ha A, Park PJ, Cerpa M, Leung E, Lehman RA, **Lenke LG**. The Risks, Reasons, and Costs for 30- and 90-day Readmissions After Adolescent Idiopathic Scoliosis Surgery. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
915. Baum GR, Ha A, Cerpa M, Lin JD, Osorio JA, Menger RP, Morr S, Leung E, Lehman RA, Sardar ZM, **Lenke LG**. Does the Global Alignment and Proportion Score Overestimate Mechanical Complications after Adult Spinal Deformity Correction. 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
916. Boachie-Adjei O, Duah HO, Yankey KP, **Lenke LG**, Sponseller PD, Sucato DJ, Samdani AF, Newton PO, Shah SA, Erickson MA, Akoto H, Sides BA, Gupta MC, Fox Pediatric Spinal Deformity Study Group. New Neurologic Deficit and Recovery Rates in Treatment of Complex Pediatric Spine Deformities Exceeding 100 Degrees or Treated by 3CO. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
917. Kelly MP, El Dafrawy MH, **Lenke LG**. Randomized, Controlled Trial of Two Tranexamic Dosing Protocols in Adult Spinal Deformity Surgery. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
918. Mac-Thiong JC, Hresko MT, Parent S, Sucato DJ, **Lenke LG**, Marks MC, Labelle H, FRCS. Opportunities to improve the outcome of surgical treatment in high-grade spondylolisthesis. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
919. Lewis SJ, Berven SH, Matsuyama Y, **Lenke LG**, Kelly MP, Shaffrey CI, Dahl BT, Marinus de Kleuver, Spruit M, Pellisé F, Cheung K, Alanay A, Polly Jr D, Sembrano JN, Qiu Y. Outcome of Multilevel Spinal Deformity Surgery in Patients Over 60 Years of Age: A Multicenter International Prospective Study. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
920. Neuman BJ, Baldus C, Zebala LP, Kelly MP, Shaffrey C, Edwards C, Koski T, Schwab F, Glassman S, Parent S, Lewis S, **Lenke LG**, Buchowski JM, Smith JS, Crawford CH, Kim HJ, Lafage V, Lurie J, Carreon L, Bridwell KH. Patient Factors That Influence Decision Making: Randomization Versus Observational Nonoperative Versus Observational Operative Treatment for Adult Symptomatic Lumbar Scoliosis. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
921. Mac-Thiong JM, Hresko MT, Parent S, Sucato DJ, **Lenke LG**, Marks MC, Labelle H, FRCS(C). Opportunities to Improve the Outcome of Surgical Treatment in High-Grade Spondylolisthesis. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
922. Gupta MC, **Lenke LG**, Boachie-Adjei O, Bumpass DB, Garg S, Sponseller PD, Shah SA, Erickson MA, Sucato DJ, Samdani AF, Yaszay B, Pahys JM, Newton PO, Sides BA, Kelly MP, Fox Pediatric Spinal Deformity Study Group. Vertebral Column Resection Improves the Sagittal Plane Greater than Other Techniques but Risks Symptomatic Junctional Kyphosis. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
923. Gupta MC, Yilgor C, Moon HJ, MD, Lertudomphonwanit T, Alanay A, Kelly MP, **Lenke LG**, Bridwell KH. Evaluation of Global Alignment and Proportion Score in an Adult Spinal Deformity Database. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



924. Scheer JK, **Lenke LG**, Smith JS, Passias PG, Kim HJ, Bess S, Protopsaltis T, Burton DC, Klineberg EO, Lafage V, Schwab FJ, Shaffrey CI, Ames CP, International Spine Study Group. Outcomes of Surgical Treatment for One Hundred and Thirty-Eight Patients With Severe Sagittal Deformity at a Minimum 2-Year Follow-Up. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada
925. Wegner AM, Iyer S, Kim HJ, **Lenke LG**, Sides BA, Kelly MP, Global Alignment and Proportion (GAP). Scores in an Asymptomatic Nonoperative Cohort. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada
926. Pham MH, Jakoi AM, Wali AR, **Lenke LG**. Trends in Spine Surgery Training during Neurological and Orthopedic Surgery Residency: A Ten-Year Analysis of ACGME Case Log Data . Congress of Neurological Surgeons (CNS) Annual Meeting October 19-23, 2019, San Francisco, California
927. Lin J, Osorio J, Baum G, Menger R, Reid P, Dyrszka M, Amorosa L, Sardar ZA, Mandigo C, Angevine P, Kelly M, Cerpa M, **Lenke LG**. New Modular Classification of Adult Idiopathic Scoliosis as an Extension of the Lenke Classification of Adolescent Idiopathic Scoliosis. 27th International Meeting on Advanced Spine Techniques (IMAST), April 1-4, 2020, Athens, Greece
928. Preoperative Halo-Gravity Traction for Severe Pediatric Spinal Deformity: Can it Replace a Vertebral Column Resection? Pediatric Orthopaedic Society Of North America (POSNA), May 13-16, 2020, San Diego, CA
929. Ha A, Park PJ, Lombardi JM, Cerpa M, Baum GR, Dyrszka M, **Lenke LG**, .Femoral Head to Lower Lumbar Neural Foramen Distance as a Novel Radiographic Parameter to Predict Postoperative Neuropraxia .The 27th International Meeting on Advanced Spine Techniques April 1-4, 2020, Athens, Greece
930. Lee N, **Lenke LG**, Cerpa M, Lombardi J, Ha A, Park P, Leung E, Sardar Z, Lehman R. A Predictive Model for Early Reoperations and Readmissions in Adult Spinal Deformity Surgery. Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil
931. Menger R, Park P, Marciano G, Bixby E, Cerpa M, Price D, Rote B, Vitale M, **Lenke LG**. Ambulatory Capacity Following Fusion to the Pelvis in Pediatric Spinal Deformity Patients. Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil
932. Cerpa M, Baum G, Leung E, Osorio J, Morr R, Menger R, Vulapalli M, Lee N, Park P, Mathew J, Ha A, Sardar Z, **Lenke LG**. Optimal Intraoperative Fluid Management in Adult Spinal Deformity Correction Surgery. Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil
933. Baum G, Cerpa M, Lin J, Menger R, Morr S, Osorio J, Leung E, Vulapalli M, Sardar Z, Riew KD, Lehman RA, **Lenke LG**. The Posterior Skull to Upper Instrumentation Line (PSUIL): A Novel, Immediate Postoperative Predictor for Proximal Junctional Kyphosis in Spinal Deformity Surgery. Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil
934. Shimizu T, Cerpa M, **Lenke LG**. Relationship Between Pelvic Tilt and Lower Extremity Compensation in Adult Spinal Deformity with Cranio-Hip Sagittal Imbalance. Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil
935. McGowan K, Choi H, Mendiratta A, Thuet E, Cerpa M, Lehman RA, **Lenke LG**. Prospective Study of Intraoperative Motor Evoked Potential Monitoring to Identify Lumbosacral Nerve Root Motor Deficits. Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil
936. A National Perspective on the Morbidity and Readmission Risk for Patients with Ossification of the Posterior Longitudinal Ligament Undergoing Cervical Spine Surgery. Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil
937. Baum G, Cerpa M, Sietatycki J, Thuet E, Lin J, Menger R, Morr S, Osorio J, Lehman RA, **Lenke LG**. Clinical Utility of a Spinal Cord Shape Classification System (SCSCS) in Spinal Deformity Surgery. Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil
938. Ha A, MD. Lee N, Blake R, Matthew J, Cerpa M, **Lenke LG**. Can Spinal Deformity Patients Maintain Proper Arm Position in Full Length Standing Films? Global Spine Congress (GSC) May 20-23, 2020 , Rio de Janeiro, Brazil

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

939. Cerpa M, Sielatycki J, Thuet E, Baum, Park P, Leung E, Sardar Z, Vulapalli M, Lombardi J, Lehman R, **Lenke LG**. Prospective Validation of The Spinal Cord Shape Classification System (SCSCS) to Assess the Risk of Intraoperative Neuromonitoring Data Loss with Thoracic Deformity Correction. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
940. Wichman K, Choi H, Mendiratta A, Thuet E, Kent P, Cerpa M, Lehman R, **Lenke LG**. Prospective Study of Intraoperative MEP Monitoring to Identify Lumbosacral Nerve Root Motor Deficits. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
941. Baum G, Cerpa M, Park P, Osorio J, Lee N, Leung E, Vulapalli M, Lehman R, Riew KD, **Lenke LG**. The Posterior Cranial Vertical Line (PCVL): A Novel Predictor for Proximal Junctional Kyphosis in Spinal Deformity Surgery. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
- 942.
943. Sardar Z, Cerpa M, Le Huec J, Bourret S, Hasegawa K, Wong HK, Liu G, Hey H, Riahi H, Kelly M, **Lenke LG**. Increase in Thoracic Kyphosis with Aging is the Main Factor that Leads to Positive Sagittal Balance: Results of the Multi-Ethnic Alignment Normative Study (MEANS) of Asymptomatic Adults. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
944. Lee N, Kim J, Vivas A, Lombardi J, Reidler J, Zuckerman S, Hong D, Park P, Cerpa M, Leung E, Sardar Z, Lehman R, **Lenke LG**. Do Readmissions and Reoperations Adversely Affect Patient-Reported Outcomes Associated with Complex Adult Spinal Deformity Surgery at a Minimum 2 Year Postoperative? SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
945. Lin J, Lombardi JM, Kim J, Osorio J, Cerpa M, Makhni M, **Lenke LG**. The Iliac Kickstand Screw: A Novel Pelvic Screw for Correction of Coronal Spinal Imbalance. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
946. Shimizu, Cerpa M, Leung E, Lehman R, **Lenke LG**. Understanding sagittal compensation in adult spinal deformity patients: relationship between pelvic tilt and lower extremity position. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
947. Reidler J, Zuckerman S, Vivas A, Lombardi J, Kim J, Cerpa M, Newton P, **Lenke LG**, Harms Study Group. Should Selective Thoracic Fusion Be Reserved for Non-Structural Compensatory Lumbar Curves? Radiographic and Clinical Results from Propensity Score Matched Patients at Minimum 5 Year Follow Up. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
948. Reidler J, Zuckerman S, Vivas A, Lombardi J, Kim J, Cerpa M, Newton P, **Lenke LG**, Harms Study Group. Selective vs. Non-Selective Thoracic Fusion for Lenke Type 1-4C Curves: Which has More Complications at 5-Year Follow-up? SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
- 949.
950. Lee N, Kim J, Vivas A, Lombardi J, Reidler R, Zuckerman S, Hong D, Park P, Cerpa M, Leung E, Sardar Z, Lehman R, **Lenke LG**. Do Readmissions and Reoperations Adversely Affect Patient-Reported Outcomes Associated with Complex Adult Spinal Deformity Surgery at a Minimum 2 Year Postoperative? SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
951. **Lenke LG**, Cerpa M, Zuckerman S, Sardar Z, Pellise, Kebaish, Smith, Shaffrey, Matsuyama, Carreon, Qiu, Cheung, Kelly M, Ames, Schwab, Boachie. Lower Extremity Motor Scores (LEMS) after Complex Adult Spinal Deformity Surgery: 5-year follow-up of the Scolio-Risk-1 Study. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
952. Mac-Thiong J, Hresko M, Alzakri A, Parent S, Sucato D, **Lenke LG**, Marks M, Labelle H. Complications of the Surgical Treatment of Pediatric High-Grade Spondylolisthesis: A Prospective Multicenter Study. SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA

953. Yankey KP, Duah HO, Sackeyfio A, **Lenke LG**, Sponseller, Shah S, Erickson, Sides E, Newton P, Bumpass D, Wulff I, Gupta M, Boachie O, FOX. Complications and Health Related Quality of Life in Complex Pediatric Spine Deformities Exceeding 100 Degrees or Treated By 3CO. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
954. Boachie-Adjei O, Duah HO, Sackeyfio A, Yankey KP, **Lenke LG**, Sponseller P, Samdani A, Sucato, Sides E, Newton P, Shah, Akoto H, Gupta M, FOX. Does Implant Density Matter in the Surgical Outcomes of Severe Kyphoscoliosis Exceeding 100 Degrees or Treated by 3CO? SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
955. Gupta M, **Lenke LG**, Boachie, Bumpass D, Erickson M, Garg R, McCarthy, Newton P, Pahys, Samdani A, Shah, Shufflebarger H, Sponseller P, Sucato D, Yaszay B, Sides E, Kelly M, FOX. Intraoperative and Early Postoperative Complications after Surgery for Severe Pediatric Spinal Deformity Have a High Rate of Resolution at 2 Years but Affect Outcome Scores. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
956. Gupta M, **Lenke LG**, Boachie, Bumpass, Erickson, Garg, McCarthy C, Newton P, Pahys J, Samdani A, Shah, Shufflebarger H, Sponseller P, Sucato D, Yaszay B, Sides E, Kelly M, FOX. Surgical Treatment of Severe Pediatric Spinal Deformity Significantly Improves Pulmonary Function. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
957. Mac-Thiong J, Hresko MT, Alzakri A, Parent S, Sucato DJ, **Lenke LG**, Marks MC, Labelle H. Complications of the Surgical Treatment of Pediatric High-Grade Spondylolisthesis: A Prospective Multicenter Study. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
958. Zuckerman S, **Lenke LG**, Cerpa M, Sardar Z, Leung R, Vulapalli M, Pellise, Kebaish, Smith, Shaffrey, Matsuyama, Carreon, Qiu, Cheung, Kelly, Ames, Schwab, Boachie. Patient-Reported Outcomes After Complex Adult Spinal Deformity Surgery: 5-year Follow-Up Results of the Scolio-RISK-1 Study. SRS 55th Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
959. Cerpa M, Zuckerman, **Lenke LG**, Sardar Z, Leung R, Vulapalli M, Lombardi J, Pellise, Kebaish, Smith, Shaffrey M, Matsuyama, Carreon, Qiu, Cheung, Kelly, Ames, Schwab, Boachie. Adverse Events Occurring up to 5-years After Complex Adult Spinal Deformity Surgery: A Scolio-Risk-1 Analysis. SRS 55th Annual Meeting, September 9-12, 2020 Phoenix, Arizona, USA
960. Lee NJ, McCormick KL, Hong D, Kim JS, Lombardi JM, Roye BD, **Lenke LG**, Fields M. The Morbidity, Readmissions, and Cost for Pediatric Cerebral Palsy Patients Undergoing Primary Spinal Fusion Surgery: A National Analysis on 2,779 Patients. North American Spine Society (NASS) 35th Annual Meeting, San Diego, CA October 7 – 10, 2020.

## XII. SCIENTIFIC EXHIBITS/POSTERS

1. Kai Y, Owen J, **Lenke LG**, Bridwell KH, Oakley D. The use of sciatic/NMEPs versus spinal potentials to predict the early onset of neurological deficits when intervention is still possible. Scoliosis Research Society 25<sup>th</sup> Annual Meeting, Honolulu, HI, September 1990.
2. Owen J, Kai Y, **Lenke LG**, Bridwell KH, Oakley D. The use of antidromic sensory activity to monitor multiple nerve root functions simultaneously in animals: preliminary results. Scoliosis Research Society 25<sup>th</sup> Annual Meeting, Honolulu, HI, September 1990.
3. Marushack M<sup>‡</sup>, **Lenke LG**, Bridwell KH. The surgical treatment of lumbar hemivertebra: analysis of the technique. Scoliosis Research Society 27<sup>th</sup> Annual Meeting, Kansas City, MO, September 1992.
4. Marushack M<sup>‡</sup>, **Lenke LG**, Bridwell KH. The surgical treatment of lumbar hemivertebra: analysis of the technique. American Academy of Orthopaedic Surgeons 60<sup>th</sup> Annual Meeting, San Francisco, CA, February 1993.
5. O'Brien MF\*, **Lenke LG**, Baldus C. Degenerative “De Novo” adult scoliosis. Scoliosis Research Society 28<sup>th</sup> Annual Meeting, Dublin, Ireland, September 19-23, 1993.
6. O'Brien MF\*, **Lenke LG**, Bridwell KH, Baldus C. Degenerative “De Novo” adult scoliosis. North American Spine Society 8<sup>th</sup> Annual Meeting, San Diego, CA, October 13-15, 1993.

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>‡</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

7. Chapman MP\*, Hamill CL\*, Bridwell KH, **Lenke LG**, Blanke K, Baldus C. Can we lordose the spine with Zielke instrumentation anteriorly? Poster Exhibit 9. Scoliosis Research Society 30<sup>th</sup> Annual Meeting, Asheville, NC, September 13-17, 1995. **John H. Moe Award for Best Scientific Poster**
8. Chapman MP\*, Hamill CL\*, Bridwell KH, **Lenke LG**. Results of three treatment methods for idiopathic thoracolumbar lumbar scoliosis. Can we lordose the spine with Zielke instrumentation? North American Spine Society 10<sup>th</sup> Annual Meeting, Washington, D.C., October 18-21, 1995.
9. Chapman MP\*, Hamill CL\*, Bridwell KH, **Lenke LG**, Blanke K, Baldus C. Can we lordose the spine with Zielke instrumentation anteriorly? Poster Exhibit E44. American Academy of Orthopaedic Surgeons 62<sup>nd</sup> Annual Meeting, Atlanta, GA, February 25-28, 1996.
10. **Lenke LG**, Betz RR, Bridwell KH, Clements III DH, Harms J, Lowe TG, Shufflebarger HL. Classification of adolescent idiopathic scoliosis (AIS): A new system addressing both coronal and sagittal planes. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
11. Clements III DH, Betz RR, Harms J, **Lenke LG**, Balsara RK. Analysis of sagittal contour after correction of thoracic idiopathic scoliosis: Anterior versus posterior instrumentation. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Ontario, Canada, September 25-28, 1996.
12. Marsicano JG\*, Bridwell KH, **Lenke LG**, Gupta P\*, Blanke K, Baldus C. Operative results for degenerated segments adjacent to a spinal fusion. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
13. Gupta P\*, Bridwell KH, **Lenke LG**, Marsicano JG\*, Blanke K, Baldus C. Evaluation and treatment of flat back deformity. Scoliosis Research Society 31<sup>st</sup> Annual Meeting, Ottawa, Canada, September 25-28, 1996.
14. **Lenke L**, Vedantam R\*, Linville D\*, Blanke K, Bridwell K. Comparing the push-prone vs. side bending radiographs for predicting postoperative coronal alignment in thoracolumbar and lumbar adolescent idiopathic scoliosis. 4<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 10-13, 1997.
15. Betz RR, Harms J, **Lenke LG**, Lowe TG, Clements III DH, Jeszenszky D. Anterior rigid rod instrumentation for thoracic idiopathic scoliosis. Exhibit 6. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
16. **Lenke LG**, Engsberg JR, Kemp JS, Bridwell KH, Bassett GS. Performance measures in adolescent idiopathic scoliosis patients. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
17. Vedantam R\*, **Lenke LG**, Linville D\*, Blanke K, Bridwell KH. Comparison of the push-prone and side bending radiographs for predicting postoperative coronal alignment in thoracolumbar and lumbar adolescent idiopathic scoliosis. Exhibit 19. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
18. Vedantam R\*, Linville D\*, **Lenke LG**, Bridwell KH. Effect of variation in arm position on the sagittal spinal alignment. Exhibit 27. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
19. Linville D\*, Bridwell KH, **Lenke LG**, Vedantam R\*, Leicht P. Revision surgery in the adult spinal deformity patient using combined procedures: Do revision cases have more complications? Exhibit 53. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
20. **Lenke LG**, Engsberg JR, Olree KF, Ross SA, Blanke K, Weston J. Trunk range of motion and gait analysis following adolescent idiopathic scoliosis fusion. Exhibit 66, Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 25-27, 1997.
21. Vedantam RW\*, Linville DA\*, **Lenke LG**, Bridwell KH. Effect of variation in arm position on the sagittal spinal alignment. North American Spine Society 12<sup>th</sup> Annual Meeting, New York, NY, October 1997.

<sup>v</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

22. Betz RR, Harms J, **Lenke LG**, Lowe TG, Clements III DH, Jeszenszky D. Anterior rigid rod instrumentation for thoracic idiopathic scoliosis. Orthopaedic Association of the English Speaking World, Auckland, New Zealand, February 1998.
23. Linville D\*, Bridwell KH, **Lenke LG**, Vedantam R\*, Leicht P. Complications in the adult spinal deformity patient having combined surgery. Does revision increase the risk? American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, New Orleans, LA, March 19-23, 1998.
24. **Lenke LG**, Betz RR, Harms J, Bridwell KH, Clements III DH, Lowe TG. A new and reliable comprehensive classification system of adolescent idiopathic scoliosis. Poster Exhibit 36. 5<sup>th</sup> International Meeting on Advanced Spine Techniques, Sorrento, Italy, May 1998.
25. Betz RR, Harms J, **Lenke LG**, Clements III DH, Lowe TG. Solid rod anterior thoracic instrumentation and fusion for adolescent idiopathic scoliosis. 5<sup>th</sup> International Meeting on Advanced Spine Techniques, Sorrento, Italy, May 1998.
26. Betz RR, Harms J, **Lenke LG**, Lowe TG, Clements DH, Merola A, Haheer T, Wenger D, Newton P. Anterior rigid rod instrumentation for thoracic idiopathic scoliosis. Exhibit 5. Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
27. D'Andrea LP, Betz RR, **Lenke LG**, Harms J, Clements DH, Lowe TG. The effect of continued spinal growth on sagittal contour in patients treated by anterior instrumentation for adolescent idiopathic scoliosis. Exhibit 10, Scoliosis Research Society 33<sup>rd</sup> Annual Meeting, New York, NY, September 16-20, 1998.
28. Polly DW, Kuklo TR\*, Cunningham BW, **Lenke LG**, Oda I, Klemme WR. Biomechanical analysis of anterior thoracic scoliosis constructs: effect of rod diameter and intervertebral cages. 8<sup>th</sup> Annual Spine Surgeon Transition Program's Spine+Science+Management: Spine Fellows Conference, New Orleans, LA, November 20-21, 1998.
29. D'Andrea LP, Betz RR, **Lenke LG**, Harms J, Clements III DH, Lowe TG. The effect of continued spinal growth on sagittal contour in patients treated by anterior instrumentation for adolescent idiopathic scoliosis. Poster 252. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 4-8, 1999.
30. D'Andrea LP, Betz RR, **Lenke LG**, Clements III DH, Lowe TG, Merola AA, Haheer TR, Harms J, Huss GK, Blanke K, McGlothlen S. Do radiographic parameters correlate with clinical outcomes in adolescent idiopathic scoliosis? Poster 393. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 4-8, 1999.
31. **Lenke LG**, Betz RR, Harms J, Clements III DH, Lowe TG, Bridwell KH, Blanke K. A new and comprehensive classification system of adolescent idiopathic scoliosis. Scientific Exhibit 358. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 4-8, 1999.
32. Polly DW, Cunningham BW, Kuklo TR, **Lenke LG**, Oda I, Klemme WR. Biomechanical analysis of anterior scoliosis Constructs using intervertebral cages. 6<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, July 8-10, 1999.
33. **Lenke LG**, Betz RR, Merola AA, Clements III DH, Newton PO, Lowe TG. Curve prevalence of a new classification of adolescent idiopathic scoliosis (AIS). Can classification predict treatment? American Academy of Orthopaedic Surgeons 67<sup>th</sup> Annual Meeting, Orlando, FL, March 15-19, 2000.
34. Betz RR, **Lenke LG**, Clements III DH, Lowe TG, Newton PO. Anterior instrumentation for thoracic adolescent idiopathic scoliosis. Open and minimally invasive techniques. American Academy of Orthopaedic Surgeons 67<sup>th</sup> Annual Meeting, Orlando, FL, March 15-19, 2000.
35. **Lenke LG**. Posterior surgical management with arthrodesis in the immature spine. 7<sup>th</sup> International Meeting on Advanced Spine Techniques, Barcelona, Spain, July 2000.
36. **Lenke LG**. Selective thoracolumbar (TL) and lumbar (L) fusion in adolescent idiopathic scoliosis. 7<sup>th</sup> International Meeting on Advanced Spine Techniques, Barcelona, Spain, July 2000.

<sup>v</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

37. Betz RR, **Lenke LG**, Lowe TG, Harms J, Clements DH, Newton PO, Haheer T, Merola A, Wenger D. Proximal screw pull-out during anterior instrumentation for thoracic scoliosis: Preventive techniques. Exhibit 17. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Australia, October 18-21, 2000.
38. Betz RR, **Lenke LG**, Clements DH, Newton PO. Thoracoscopic versus open thoracotomy correction by anterior instrumentation for the treatment of thoracic adolescent idiopathic scoliosis. Exhibit 18. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Australia, October 18-21, 2000.
39. White DK, **Lenke LG**, Kemp JS, Bridwell KH, Blanke K, Engsberg JR. Prospective evaluation of maximal oxygen consumption and ventilatory efficiency during exercise in adolescents with idiopathic scoliosis (AIS). Exhibit 68. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Australia, October 18-21, 2000.
40. **Lenke L**, Betz R, Clements D, Newton P, Merola A, Lowe T, Wenger D, Crawford A. Interobserver and intraobserver reliability of choosing the stable vertebra: Comparing the traditional versus a new method. Exhibit 69. Scoliosis Research Society 35<sup>th</sup> Annual Meeting, Cairns, Australia, October 18-21, 2000.
41. Yukawa Y<sup>§</sup>, **Lenke LG**, Tenhula J, Riew KD, Bridwell KH, Blanke K. A prospective and comprehensive outcome study of surgically treated lumbar spinal stenosis with neurogenic claudication. Poster PE303. American Academy of Orthopaedic Surgeons 68<sup>th</sup> Annual Meeting, San Francisco, CA, February 28-March 4, 2001.
42. **Lenke LG**, Sweet FA\*, Blanke K, Whorton J, Bridwell KH. Prospective radiographic and clinical outcomes and complications of single solid rod instrumented anterior spinal fusion in adolescent idiopathic scoliosis. Poster PE312. American Academy of Orthopaedic Surgeons 68<sup>th</sup> Annual Meeting, San Francisco, CA, February 28-March 4, 2001.
43. Betz RR, **Lenke LG**, Lowe TG, Clements III DH. Comparison of anterior versus posterior instrumentation for correction of thoracic adolescent idiopathic scoliosis. Analysis by an objective radiographic scoring system. American Academy of Orthopaedic Surgeons 68<sup>th</sup> Annual Meeting, San Francisco, CA, February 28-March 4, 2001.
44. Kuklo TR\*, **Lenke LG**, Polly Jr. DW, Lauerma WC, Sturm PF, Hanway JF, Klemme WR, Bridwell KH. Independent surgeon assessment of clinical and radiographic features of the proximal thoracic curve and shoulder balance in adolescent idiopathic scoliosis. E-Poster 43. 8<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 12, 2001.
45. **Lenke LG**, Young S, Johnston C, Braumfield D. Biomechanical comparison of single vs. dual rod anterior long segment constructs. E-Poster 86. 8<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 12, 2001.
46. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Riew KD, O'Brien MF\*, Rhee JM\*, Hanson DS\*. CT scan accuracy of "Free Hand" thoracic pedicle screw placement in pediatric spinal deformity. Exhibit 36. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
47. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Riew KD, O'Brien MF\*, Rhee JM\*, Hanson DS\*. Free hand pedicle screw placement in the thoracic spine: is it safe? Exhibit 37. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
48. Kuklo TR\*, **Lenke LG**, Graham EJ<sup>†</sup>, Won DS<sup>‡</sup>, Sweet FA\*, Blanke K, Bridwell KH. Correlation of radiographic, clinical and patient assessment of shoulder balance following fusion versus non-fusions of the proximal thoracic curve in adolescent idiopathic scoliosis. Exhibit 39. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.
49. Merola AA, Brkaric M, Haheer TR, Kohani O, Betz RR, Clements III DH, Huss G, **Lenke LG**, Lowe TG, Newton PO, Wenger DR, Marks MC, Gilbert E. Do outcome parameters correlate with surgical complications utilizing the SRS Questionnaire in the treatment of AIS? Exhibit 49. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-22, 2001.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

50. Kuklo TR\*, **Lenke LG**, Graham EJ<sup>‡</sup>, Won DS<sup>‡</sup>, Sweet FA\*, Blanke K, Bridwell KH. Correlation of radiographic, clinical and patient assessment of shoulder balance following fusion versus non-fusion of the proximal thoracic curve in adolescent idiopathic scoliosis. 11<sup>th</sup> Annual Spine Surgeon Transition Program's Spine+Science+Management: Spine Fellows Conference, New Orleans, LA, November 11-12, 2001.
51. Kuklo TR\*, **Lenke LG**, Graham EJ<sup>‡</sup>, Won DS<sup>‡</sup>, Sweet FA\*, Blanke K, Bridwell KH. Correlation of radiographic, clinical and patient assessment of shoulder balance following fusion versus non-fusion of the proximal thoracic curve in adolescent idiopathic scoliosis. Society of Military Orthopaedic Surgeons 43<sup>rd</sup> Annual Meeting, Vail, CO, December 10-15, 2001.
52. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Riew KD, Rhee JM\*, Hanson DS\*. Free hand pedicle screw placement in the thoracic spine - is it safe? American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
53. Yukawa Y<sup>§</sup>, **Lenke LG**, Fukui N, Lou J. Optimal treatment timing to rescue normal cells from spinal cord injury via Bcl-2 gene transfer *in-vitro* and *in-vivo*. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
54. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Riew KD, Rhee JM\*, Hanson DS\*. Free hand pedicle screw placement in the thoracic spine: is it safe? American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
55. Burd T<sup>‡</sup>, **Lenke LG**, Pawelek J. Upper extremity function assessment following anterior spinal fusion via open thoracotomy for adolescent idiopathic scoliosis. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
56. Satake K<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH, Blanke K. Analysis of the lowest instrumented vertebra and subjacent disc following anterior spinal fusion of thoracolumbar/lumbar idiopathic scoliosis. Poster 42. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 23-25, 2002.
57. Kuklo TR\*, O'Brien MF\*, Lehman RA, Polly DW, **Lenke LG**. Accuracy and efficacy of thoracic pedicle screws in curves over 90 degrees. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 23-25, 2002.
58. O'Brien MF\*, Smith DAB, Lowe TG, Kuklo TR\*, **Lenke LG**, Polly DW, Eule JM, Enguidanos ST, Hashim SM. Posterior pullout failure of deformity constructs in the thoracic spine: a biomechanical evaluation of traditional hook and thoracic pedicle screw constructs. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 23-25, 2002.
59. O'Brien MF\*, Smith DAB, Eule JM, Enguidanos ST, Hashim SM, Kuklo TR\*, **Lenke LG**, Dwyer AP, Lowe TG, Polly DW. Lateral pullout failure of deformity constructs in the thoracic spine: a biomechanical evaluation of traditional hook and thoracic pedicle screw constructs. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 23-25, 2002.
60. Polly DW, Kuklo TR\*, O'Brien MF\*, Schroeder TM, Nelson L, **Lenke LG**. Reliability of radiographic parameters for scoliosis evaluation. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 23-25, 2002.
61. Kuklo TR\*, Lehman RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with ASF. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 23-25, 2002.
62. Kuklo TR\*, **Lenke LG**, O'Brien MF\*, Polly DW, Spinal Deformity Study Group. Adolescent idiopathic scoliosis measurement manual. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 23-25, 2002.

<sup>‡</sup>Student, <sup>§</sup>Resident, \*Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

63. Labelle HHL, Kuklo TR\*, **Lenke LG**, O'Brien MF\*, Polly DW, Spinal Deformity Study Group. Spondylolisthesis radiographic measurement manual. 9<sup>th</sup> International Meeting on Advanced Spine Techniques, Montreux, Switzerland, May 23-25, 2002.
64. Betz RR, **Lenke LG**, Clements DH, Newton PO, Harms J, Wenger DR, Lowe TG, Haheer TR, Merola AA. Limitations of anterior instrumentation for correction of thoracic adolescent idiopathic scoliosis in the immature (Risser 0) patient. Exhibit 7. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 18-21, 2002.
65. Newton P, Betz R, Clements D, **Lenke L**, Crawford A, Lowe T, Haheer T, Merola A, Harms J, Beele B, Wenger D, Marks M. Anterior thoracoscopic instrumentation: a matched comparison to anterior open and posterior open instrumentation. Exhibit 9. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 18-21, 2002.
66. Engsberg JR, **Lenke LG**, Hollander KW, Uhrich ML, Bridwell KH. Changes in trunk range of motion (ROM) following anterior or posterior spinal fusion in adolescent idiopathic scoliosis. Exhibit 12. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 18-21, 2002.
67. Kuklo TR\*, Lehman Jr. RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with ASF. Exhibit 18. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
68. Polly DW, Kuklo TR\*, O'Brien MF\*, Schroeder TM, Nelson L, **Lenke LG**. Reliability of radiographic parameters for scoliosis evaluation. Exhibit 20. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
69. Kuklo TR\*, **Lenke LG**, O'Brien MF\*, Polly DW, Spinal Deformity Study Group. Adolescent idiopathic scoliosis (AIS) radiographic measurement manual. E-Poster 5. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
70. Engsberg JR, **Lenke LG**, Hollander KW, Ulrich ML, Cornean PK, Bae KT. Center of gravity (COG) in scoliosis. E-Poster 6. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
71. Newton PO, **Lenke LG**, Blanke K, Marks MC. Early post-operative changes in pulmonary function following anterior thoracoscopic instrumentation versus anterior open instrumentation for scoliosis. E-Poster 9. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
72. Clements DH, Betz RR, Newton PO, **Lenke LG**, Lowe TG, Merola AA, Haheer TR, Marks M. Incidence of vascular complications associated with anterior thoracic instrumentation for adolescent idiopathic scoliosis. E-Poster 10. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
73. Betz RR, MacDonald JH, **Lenke LG**, Lowe TG, Newton PO, Clements DH, Wenger DR, Haheer TR, Merola AA, Harms J, Shufflebarger HL. Perioperative complications of spinal fusion for thoracic adolescent idiopathic scoliosis. E-Poster 11. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
74. Kuklo TR\*, **Lenke LG**, O'Brien MF\*, Lehman RA, Schroeder TM, Polly Jr. DW. Accuracy and efficacy of thoracic pedicle screws in curves over 90 degrees. E-Poster 20. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
75. Rinella AS\*, **Lenke LG**, Whitaker C<sup>‡</sup>, Whorton J. Complications related to perioperative halo traction in the treatment of severe scoliosis. E-Poster 25. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
76. D'Andrea LP, Betz RR, Newton PO, Clements DH, **Lenke LG**, Haheer TR, Merola AA, Sucato DJ. Reliability and validity of a spine deformity radiographic scoring system. E-Poster 40. Scoliosis Research Society 37<sup>th</sup> Annual Meeting, Seattle, WA, September 19-21, 2002.
77. Kuklo TR\*, Lehman RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with ASF. North American Spine Society 17<sup>th</sup> Annual Meeting, Montréal, Canada, October 29-November 1, 2002.

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



78. Lehman RA, Kuklo TR\*, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with ASF. 12<sup>th</sup> Annual Spine Surgeon Transition Program's Spine+Science+Management: Spine Fellows Conference, New Orleans, LA, November 21-22, 2002.
79. Graham EJ‡, Kuklo TR\*, **Lenke LG**, Won DS‡, Sweet FA\*, Blanke KM, Bridwell KH. Correlation of radiographic, clinical and patient assessment of shoulder balance following fusion versus non-fusion of the proximal thoracic curve in adolescent idiopathic scoliosis. 12<sup>th</sup> Annual Spine Surgeon Transition Program's Spine+Science+Management: Spine Fellows Conference, New Orleans, LA, Medtronic Sofamor Danek, November 21-22, 2002.
80. Kuklo TR\*, Lehman RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with anterior spinal fusion. Society of Military Orthopaedic Surgeons 44<sup>th</sup> Annual Meeting, San Diego, CA, December 10-15, 2002.
81. Kuklo TR\*, O'Brien MF\*, Lehman RA, Polly DW, **Lenke LG**. Accuracy and efficacy of thoracic pedicle screws in curves over 90 degrees. Society of Military Orthopaedic Surgeons 44<sup>th</sup> Annual Meeting, San Diego, CA, December 10-15, 2002.
82. Kim YJ§, **Lenke LG**, Bridwell KH, Rinella AS\*, Edwards II CC\*. Pseudarthrosis in adult idiopathic scoliosis primary fusions; correlation with dominos, crosslinks and distal fusion levels. Poster 304. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 2003.
83. Rinella AS\*, **Lenke LG**, Peelle MW‡, Edwards II CC\*, Bridwell KH, Sides B. Comparison of SRS questionnaire results submitted by both parents and patients in the operative treatment of idiopathic scoliosis. Poster 314. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 2003.
84. Cole J, Murray DJ, **Lenke LG**, Bridwell KH, Bassett GS. Use of Amicar vs. Aprotinin during pediatric spinal deformity surgery. Can they help decrease blood loss? Poster 331. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 2003.
85. Maxy P, Polly DW, O'Brien MF\*, Kuklo TR\*, **Lenke LG**, Brumfield D. Finite element analysis of thoracic pedicle screw constructs. E-Poster 220. 10<sup>th</sup> International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
86. Lehman RA, Kuklo TR\*, O'Brien MF\*, Polly DW, **Lenke LG**. Accuracy and efficacy of thoracic pedicle screws in curves over 90 degrees. Eastern Orthopaedic Association 34<sup>th</sup> Annual Meeting, Dublin, Ireland, July 30-August 3, 2003.
87. Kuklo TR\*, Lehman RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with ASF. Eastern Orthopaedic Association 34<sup>th</sup> Annual Meeting, Dublin, Ireland, July 30-August 3, 2003.
88. Lehman RA, Kuklo TR\*, O'Brien MF\*, Polly DW, **Lenke LG**. Accuracy and efficacy of thoracic pedicle screws in curves over 90 degrees. Southern Orthopaedic Association 20<sup>th</sup> Annual Meeting, Dublin, Ireland, July 30-August 3, 2003.
89. Kuklo TR\*, Lehman RA, **Lenke LG**. Preoperative and postoperative CT evaluation of structures at risk with ASF. Southern Orthopaedic Association 20<sup>th</sup> Annual Meeting, Dublin, Ireland, July 30-August 3, 2003.
90. Lee SM, Suk SI, **Lenke LG**, Bridwell KH. Comparison of rigid and semi-rigid rods with segmental pedicle screw fixation in the treatment of adolescent idiopathic scoliosis (AIS). Poster 1. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
91. O'Brien MF\*, Polly DW, Kuklo TR\*, **Lenke LG**, Richard BS, Schreiber DM, Pinteric RJ, Schroeder TM, Blanke KM, Spinal Deformity Study Group. A multicenter clinical and radiographic analysis of anterior and posterior surgical techniques for treatment of "single overhang" thoracic AIS. Poster 16. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
92. **Lenke LG**, Glattes RC\*, Orchowski J\*, Spencer U\*, Blanke K, Sides B, Bridwell KH. Comparison of single vs. dual rod instrumentation for thoracolumbar/lumbar adolescent idiopathic scoliosis. E-Poster 3. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.

‡Student, §Resident, \*Fellow, †Neurosurgical Resident, ‡Advanced Deformity Fellow, ^Domestic Visiting Surgeon, §International Research Scholar

93. Dobbs MB, **Lenke LG**, Bridwell KH. Curve prevalence of infantile and juvenile idiopathic curves using a modified Lenke classification scheme. E-Poster 57. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
94. Peelle M<sup>‡</sup>, **Lenke LG**, Bridwell K, Sides B. Iliac screw vs. Galveston rod pelvic fixation techniques in neuromuscular spinal deformity. E-Poster 59. Scoliosis Research Society 38<sup>th</sup> Annual Meeting, Québec City, Canada, September 10-13, 2003.
95. Newton PO, Faro FD, Betz RR, D'Andrea LP, Clements III DH, **Lenke LG**, Lowe TG, Merola AA, Haheer TR. Selective vs. nonselective fusion of Lenke I curves in adolescent idiopathic scoliosis (AIS). Poster 387. American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 10-14, 2004.
96. Roh M\*, **Lenke LG**, Edwards III CC\*, Rinella AS\*, Riew KD, Bridwell KH. Vertebral corpectomies reconstructed with titanium mesh cages. Is this a reliable technique for fusion and sagittal correction? Poster 424. American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 10-14, 2004.
97. Newton PO, Faro FD, Marks MC, Blanke K, **Lenke LG**. Pulmonary function is anterior scoliosis surgery: open vs. thoracoscopic approaches. Pediatric Orthopaedic Society of North America Annual Meeting, St. Louis, MO, April 28-May 1, 2004.
98. Sanders J, Polly D, Bridwell K, **Lenke L**, Newton P, Kuklo T\*, Dormans J, Drummond D, Diab M, Richards B. Validity and reliability of the spinal appearance questionnaire in patients with idiopathic scoliosis. E-Poster 3. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
99. Newton P, Parent S, Marks M, Betz R, Clements D, D'Andrea L, **Lenke L**, Lowe T, Haheer T, Merola A. Factors involved in the decision to include the thoracic spine with fusing primary thoracolumbar/lumbar (Lenke 5C and 6C) adolescent idiopathic scoliosis (AIS). E-Poster 12. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
100. Newton P, Faro F, Gollogly S, Betz R, Clements D, **Lenke L**, Lowe T, Crawford A, Haheer T. Pulmonary function in adolescent idiopathic scoliosis. E-Poster 19. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
101. Lowe T, **Lenke L**, Betz R, Newton P, Clements D, Haheer T, Merola A, Crawford A, Sucato D, Letko L, Wilson L. Distal junctional kyphosis (DJK) adolescent idiopathic thoracic curves following anterior or posterior instrumented fusion: Incidence, risk factors, and prevention. E-Poster 20. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
102. Lowe T, Betz R, **Lenke L**, Haheer T, Merola A, Newton P, Clements D, Crawford A, Sucato D, Letko L, Wilson L. Thoracic adolescent idiopathic (AIS) curves 70-80 degrees: Are there advantages of one over the other? E-Poster 21. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
103. Kim YJ<sup>§</sup>, **Lenke L**, Bridwell K, Cheh G<sup>§</sup>. Prospective pulmonary function comparison of posterior spinal instrumentation with thoracoplasty in adolescent idiopathic scoliosis: thoracic pedicle screw versus hook instrumentation. E-Poster 23. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
104. Lowe T, Betz R, **Lenke L**, Haheer T, Merola A, Newton P, Clements D, Sucato D, Letko L. Correction of left thoracic curves: A comparison of anterior versus posterior instrumentation. E-Poster 24. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
105. Kim YJ<sup>§</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Riew KD. Defining the learning curve of free hand pedicle screw placement for adolescent idiopathic scoliosis surgery. Sixty-seven consecutive cases. E-Poster 25. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

106. Kim Y<sup>§</sup>, **Lenke L**, Bridwell K, Cheh G<sup>§</sup>, Sides B. Prospective pulmonary function comparison of anterior spinal fusion in adolescent idiopathic scoliosis: Thoracotomy vs. thoracoabdominal approach. E-Poster 26. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
107. Kim YJ<sup>§</sup>, Padberg AM, **Lenke LG**, Riew KD. Reliability of in-vivo triggered EMGs thresholds in detecting medial malposition of pedicle screws: Comparison between the thoracic and lumbar spine. E-Poster 91. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
108. Lee SS\*, **Lenke LG**, Peelle MW<sup>‡</sup>, Okubadejo GO<sup>‡</sup>, Cheng I\*, Hurford Jr. RK\*, Bridwell KH. Preserving the degenerative L5-S1 segment in degenerative lumbar fusion surgery in older patients: is it possible? E-Poster 180. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
109. Aubin CE, Labelle H, **Lenke L**, Lowe T, Sucato D, Emans J, Kuklo T\*. Variability of spinal instrumentation configuration in adolescent idiopathic scoliosis (AIS). E-Poster 214. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
110. Haer T, Newton P, Betz R, Clements D, **Lenke L**, Crawford A, Lowe T, Harms J, Letko L, Sucato D, D'Andrea L. Effects of rod diameter on patient outcome (SRS-24). Standard Poster 24. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
111. Kuklo TR\*, Potter BK, **Lenke LG**. Vertebral rotation in adolescent idiopathic scoliosis. What is the best radiographic correlation of postoperative derotation? Standard Poster 31, 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
112. Kuklo TR\*, Potter BK, Polly DW, **Lenke LG**. Corrective capacity of monaxial versus multiaxial thoracic pedicle screws in adolescent idiopathic scoliosis. Standard Poster 32. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, Southampton, Bermuda, July 1-3, 2004.
113. Sucato DJ, Betz RR, Picetti III GD, **Lenke LG**, Hresko TM, Hu SS, Braun JT, Roye Jr. DP, Vitale MG. Defining the learning curve for performing a thoracoscopic anterior spinal fusion and instrumentation for AIS: a multi-center study. Poster 27. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
114. Acaroglu ER, Deviren V, Lee JK, Kuklo TR\*, **Lenke LG**, O'Brien MF\*, Polly Jr. DW, Puttlitz C. Thoracic spine construct stability is dependent upon the number and configuration of pedicle screws. Poster 41. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
115. Polly Jr. DW, Sanders J, Bridwell KH, **Lenke LG**, Newton PO, Kuklo TR\*, Dormans J, Drummond D, Diab M, Richards BS. Validity and reliability of the spinal appearance questionnaire in patients with idiopathic scoliosis. E-Poster 7. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
116. Kuklo TR\*, Potter BK, **Lenke LG**. Vertebral rotation in adolescent idiopathic scoliosis. What is the best radiographic correlation of postoperative derotation? E-Poster 8. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
117. Sucato DJ, Newton PO, Betz RR, **Lenke LG**, Crawford AH, Clements III DH, D'Andrea LP. The benefit of pleural closure following a thoracoscopic anterior spinal fusion and instrumentation for AIS. E-Poster 37. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
118. Aubin CE, Labelle HHL, **Lenke LG**, Lowe TG, Emans JB, Sucato DJ, Kuklo TR\*. Variability of spinal instrumentation configuration in adolescent idiopathic scoliosis (AIS). E-Poster 57. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Buenos Aires, Argentina, September 6-9, 2004.
119. Potter BK, Kuklo TR\*, **Lenke LG**. Radiographic outcomes of anterior spinal fusion versus posterior spinal fusion with thoracic pedicle screws for treatment of Lenke I adolescent idiopathic scoliosis curves. Eastern Orthopaedic Association 35<sup>th</sup> Annual Meeting, Rio Grande, PR, October 14, 2004.

<sup>§</sup>Student, <sup>‡</sup>Resident, \*Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

120. Satake K<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH, Blanke KM, Sides B, Steger-May K. Selection of the lowest instrumented vertebra in thoracic adolescent idiopathic scoliosis (Lenke type 1 and 2) following segmental posterior spinal fusion. Live poster presentation 1. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
121. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH. Comparative analysis of pedicle screw versus hybrid instrumentation in posterior spinal fusion of adolescent idiopathic scoliosis - A matched cohort analysis. Live poster presentation 2. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
122. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim J<sup>§</sup>, Cho KJ<sup>§</sup>. Thoracolumbar junctional analysis in patients fixed to T12 vs. L1 in adolescent idiopathic scoliosis: - is there any difference? Live poster presentation 4. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
123. Kim YJ<sup>§</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Riew KD. Evaluation of pedicle screw placement in the deformed spine using intraoperative plain radiographs: a comparison with CT scans. Live poster presentation 5. North American Spine Society 19<sup>th</sup> Annual Meeting, Chicago, IL, October 26-30, 2004.
124. Potter BK, Kuklo TR\*, **Lenke LG**. Radiographic outcomes of anterior spinal fusion vs. posterior spinal fusion with thoracic pedicle screws for treatment of Lenke I adolescent idiopathic scoliosis curves. Society of Military Orthopaedic Surgeons 46<sup>th</sup> Annual Meeting, Vail, CO, December 6-11, 2004.
125. Kuklo TR\*, Potter BK, **Lenke LG**, Nesti LJ. Thoracic vertebral rotation in adolescent idiopathic scoliosis. What is the best plain radiographic correlate of posterior derotation? Society of Military Orthopaedic Surgeons 46<sup>th</sup> Annual Meeting, Vail, CO, December 6-11, 2004.
126. Deviren V, Acaroglu E, Lee J, Hu S, **Lenke L**, Polly D, Kuklo T, O'Brien M\*, Brumfield D, Puttlitz C. The number of pedicle screws and degree on intrinsic stability determine construct stiffness in the thoracic spine. Poster 1287. Orthopaedic Research Society 51<sup>st</sup> Annual Meeting, Washington, D.C., February 20-23, 2005.
127. Dobbs MB, **Lenke LG**, Peelle M<sup>‡</sup>, Bridwell KH. Selective thoracic fusion for AIS: Comparison of hooks versus pedicle screws. Poster 293. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-27, 2005.
128. Dobbs MB, **Lenke LG**, Peelle M<sup>‡</sup>, Bridwell KH. Comparison of combined ASF/PSF versus PSF alone for the treatment of AIS curves >90°. Poster 298. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-27, 2005.
129. Kuklo TR\*, Potter B, Polly Jr. DW, **Lenke LG**. Corrective capacity of monaxial versus multiaxial thoracic pedicle screws in AIS. Poster 300. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-27, 2005.
130. Kuklo TR\*, Potter B, **Lenke LG**. Comparison of ASF versus PSF with thoracic pedicle screws for treatment of Lenke I AIS curves. Poster 301. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-27, 2005.
131. Kim YJ<sup>§</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Riew KD. Evaluation of pedicle screw placement in the deformed spine using intraoperative plain radiographs. Poster 322. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-27, 2005.
132. Crawford AH, Lowe T, Betz R, **Lenke L**, Haher T, Merola A, Clayton P, Clements D, Sucato D. Correction of left thoracic curves: A comparison of anterior versus posterior instrumentation. E-Poster 25. Pediatric Orthopaedic Society of North America Annual Meeting, Ottawa, Ontario, Canada, May 12-15, 2005.
133. Sucato DJ, O'Brien M\*, Lowe T, Richards BS, **Lenke L**. Restoration of thoracic kyphosis following operative treatment for adolescent idiopathic scoliosis: Comparison of three surgical approaches. E-Poster 43. Pediatric Orthopaedic Society of North America Annual Meeting, Ottawa, Ontario, Canada, May 12-15, 2005.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

134. Chien JT, Lowe T, Betz R, **Lenke L**, Newton P, Clements D, Crawford A, Letko L. The surgical treatment of double thoracic curves in adolescent idiopathic scoliosis – Factors involved in the decision to perform a selective fusion of the main thoracic curve versus a posterior fusion. Standard and E-Poster 1. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
135. Kishan S, Newton P, Betz R, **Lenke L**, Lowe T, Clements D, D’Andrea L, Sucato D. Thoracoscopic anterior instrumentation affects pulmonary function less than open thoracotomy at two years post-op. Standard and E-Poster 2, 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
136. Dobbs MB, **Lenke LG**, Bridwell KH. Comparison of combine anterior/posterior spinal fusion versus posterior fusion alone for the treatment of adolescent idiopathic curves greater than 90 degrees. Standard and E-Poster 4. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
137. Dobbs MB, **Lenke LG**, Bridwell KH. Selective posterior thoracic fusions for adolescent idiopathic scoliosis. Comparison of hooks versus pedicle screws. Standard and E-Poster 5. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
138. Lee SS\*, **Lenke LG**, Kuklo TR\*, Valenté L<sup>§</sup>, Bridwell KH, Sides B, Blanke K. Comparison of Scheuermann’s kyphosis correction by posterior only thoracic pedicle screw fixation vs. combined anterior/posterior fusion. Standard and E-Poster 18. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
139. Vora V, Crawford A, Babekhir N, Boachie-Adjei O, Perkins M, Charles G, **Lenke L**, Kim YJ<sup>§</sup>. A pedicle screw construct gives an enhanced posterior correction of adolescent idiopathic scoliosis when compared to other constructs - Myth or reality. E-Poster 27. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
140. Crawford A, Babekhir N, Lowe TG, Betz R, **Lenke L**, Haheer T, Merola A, Newton P, Clements D, Sucato DJ, Letko L. Correction of left thoracic curves: A comparison of anterior versus posterior instrumentation. E-Poster 30. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
141. Crawford A, Babekhir N, Lowe TG, Betz R, **Lenke L**, Haheer T, Merola A, Newton P, Clements D, Sucato DJ, Letko L, Wilson LA. PET scanning: A unique tool for vascular injuring in VATS-assisted anterior instrumentation. E-Poster 31. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
142. Newton P, Marks M, Betz R, **Lenke L**, Lowe T, Clements D, Haheer T, Merola A, D’Andrea L, Crawford A, Harms J. Ten year trends in the surgical treatment of primary right thoracic adolescent idiopathic scoliosis. E-Poster 34. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
143. Sucato DJ, Newton PO, Betz RR, **Lenke LG**, Crawford A, Clements D, Lowe T, D’Andrea L, Letko L, Marks M. Anterior release prior to a posterior spinal fusion and instrumentation. Is the thoracoscopic approach as effective as an open thoracotomy? E-Poster 46. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
144. Merola AA, Newton PO, O’Brien MF\*, Haheer TR, Lowe TG, **Lenke L**, Crawford A, Betz R, Clements D, Sucato D, Sponseller P, Lonner B, Caruso SA, Kubeck J, Shanti N, Brkaric M, Marks M. Lumbar sagittal plane alignment with respect to instrumentation type and surgical technique. E-Poster 47. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
145. Angevine PD\*, **Lenke LG**, Bridwell KH, Sides B. Is circumferential surgery for de novo adult scoliosis justified based on its outcomes and complications? E-Poster 73. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
146. Angevine PD\*, **Lenke LG**, Stobbs G, Bridwell KH. Cost-offset analysis of bone morphogenetic protein-2 (rhBMP-2) in primary surgery for adult idiopathic scoliosis. E-Poster 74. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

147. Lee SS\*, **Lenke LG**, Peelle M<sup>‡</sup>, Okubadejo O<sup>‡</sup>, Cheng I\*, Hurford R\*, Bridwell KH, Sides B, Stobbs G. Preserving the degenerated L5-S1 segment in degenerative lumbar fusion surgery in an older patient population: Is it possible? E-Poster 79. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
148. Dobbs MB, **Lenke LG**, Bridwell KH. Prevalence of infantile and juvenile idiopathic curves using a modified Lenke classification scheme. E-Poster 119. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
149. Sucato DJ, Newton PO, Betz RR, Picetti G, **Lenke LG**, Hresko T, Hu SS, Braun JT, Roye Jr. DP, Vitale MG. Defining the learning curve for performing a thoracoscopic anterior spinal fusion and instrumentation for AIS: a multi-center study. E-Poster 157, 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
150. Lonner B, Scharf C, Newton P, O'Brien M\*, Sponseller P, Betz R, **Lenke L**, Crawford A, Letko L, Lowe T. Operative management of Scheuermann's kyphosis in 78 patient radiographic outcomes, complications, and techniques. E-Poster 175. 12<sup>th</sup> International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7-9, 2005.
151. Bess RS\*, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Sides B. Comparison of thoracic pedicle screw to hook instrumentation for the treatment of adult spinal deformity. EuroSpine 14<sup>th</sup> Annual Meeting, Barcelona, Spain, September 21-24, 2005.
152. Sucato DJ, Newton PO, Betz RR, Picetti III GD, **Lenke LG**, Hresko MT, Hu SS, Braun JT, Roye Jr. DP, Vitale MG. Defining the learning curve for performing a thoracoscopic anterior spinal fusion and instrumentation for AIS: A multi-center study. Poster 19. North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
153. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>. Pseudarthrosis in long adult spinal deformity instrumentation and fusions to the sacrum: Incidence and risk factor analysis of 149 cases. Poster 101. North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
154. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Rhim SC<sup>§</sup>. An analysis of sagittal spinal alignment after adult lumbar/lumbosacral instrumentation and fusions: Can we predict optimal sagittal balance? Poster 102. North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
155. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Rhim SC<sup>§</sup>. Sagittal thoracic decompensation following adult lumbar spinal instrumentation and fusions to L5 or S1: Causes, incidence, and risk factors analysis. Poster 105. North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
156. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cho SK, Cheh G<sup>§</sup>, Yoon J<sup>§</sup>, Ramo B<sup>¶</sup>. Sagittal plane analysis following posterior segmental spinal instrumentation of adolescent idiopathic scoliosis. A comparison of three different posterior segmental instrumentation and fusion. Poster 108 North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
157. Yang JY<sup>§</sup>, **Lenke LG**, Riew KD, Lee JK<sup>§</sup>. The differences of various cytokine expression after spinal cord injury between young and adult rats. Poster 109. North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
158. Newton PO, Marks MC, Betz RR, **Lenke LG**, Lowe TG, Clements III DH, Maher TR, Merola AA, D'Andrea LP, Crawford AH, Harms J. Ten year trends in the surgical treatment of primary right thoracic adolescent idiopathic scoliosis. Poster 8. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
159. Dobbs MB, **Lenke LG**, Bridwell KH. Prevalence of infantile and juvenile idiopathic curves using a modified Lenke classification scheme. Poster 10. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
160. Cheh G<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>. Decompression alone vs. decompression and limited fusion for the treatment of degenerative lumbar scoliosis. Poster 14. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005. **Louis A. Goldstein Award for Best Clinical Poster Presentation**

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

161. Yang JY<sup>§</sup>, **Lenke LG**, Bridwell KH, Riew KD, Stobbs G. The impact of the lumbar spine modifier and thoracic sagittal profile on the main thoracic component of a Lenke type I scoliosis. Poster 26. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
162. Yang JY<sup>§</sup>, Riew KD, **Lenke LG**, Lee JK<sup>§</sup>. The differences of various cytokine expression after spinal cord injury between young and adult rats. Poster 34. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
163. Luhmann SJ\*, **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH, Schootman M. Cost analysis of circumferential fusion versus posterior fusion-only with thoracic pedicle screw constructs of 70-100 degree idiopathic thoracic curves. E-Poster 4. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
164. Ramo B<sup>¥</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Sides B, Bridwell KH. Comparative analysis of SRS Questionnaire results for pedicle screw vs. hook instrumentation in the surgical treatment of adolescent idiopathic scoliosis curves >60°. E-Poster 5. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
165. Merola AA, Newton PO, O'Brien MF\*, Haheer TR, Lowe TG, **Lenke LG**, Clements III DH, Betz RR, Crawford AH, Kubeck J, Shanti N. Lumbar sagittal plane alignment with respect to instrumentation type and surgical technique. E-Poster 6. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
166. Crawford AH, Babekhir N, Lowe TG, Betz RR, **Lenke LG**, Haheer TR, Merola AA, Newton PO, Clements III DH, Sucato DJ, Letko LJ. Correction of left thoracic curves. A comparison of anterior versus posterior instrumentation. E-Poster 9. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
167. Polly Jr. DW, **Lenke LG**, Kuklo TR\*. Vertebral number variation and potential impact for wrong level surgery. E-Poster 18. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
168. Bess RS\*, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Sides B. Comparison of thoracic pedicle screw to hook instrumentation for the treatment of adult spinal deformity. E-Poster 27. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
169. Crawford AH, Babekhir N, Lowe TG, Betz RR, **Lenke LG**, Haheer TR, Merola AA, Newton PO, Clements III DH, Sucato DJ, Letko LJ. Comparison between left and right thoracic curves in idiopathic scoliosis. E-Poster 31. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
170. Breakwell LM<sup>§</sup>, Silva FE<sup>^</sup>, **Lenke LG**. Are left thoracic curves more kyphotic and stiffer than right-sided curves? E-Poster 40. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
171. Kuklo TR\*, **Lenke LG**, Potter BK, Polly Jr. DW, Sides B, Bridwell KH. Surgical revision rate of hooks versus hybrid pedicle screw constructs for AIS. E-Poster 49. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Miami, FL, October 28-30, 2005.
172. Cheh G<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>. Decompression only vs. decompression and limited fusion for the treatment of degenerative lumbar scoliosis. Poster 211. North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
173. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>. Bilateral apical vertebral derotational pedicle screw instrumentation in the posterior spinal fusion of adolescent idiopathic scoliosis: A comparison with translational instrumentation technique. Poster 311. North American Spine Society 20<sup>th</sup> Annual Meeting, Philadelphia, PA, September 27-October 1, 2005.
174. Crawford AH, Babekhir N, Lowe TG, **Lenke LG**, Haheer TR, Merola AA, Newton PO, Clements III DH. Correction of left thoracic curves: A comparison of anterior versus posterior instrumentation. Poster 369. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
175. Cheh G<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim Y<sup>§</sup>, Stobbs G. Decompression alone vs. limited fusion for treatment of degenerative lumbar scoliosis. Poster 371. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.

<sup>¥</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

176. Kim Y<sup>§</sup>, Bridwell KH, **Lenke LG**, Cheh G<sup>§</sup>. Pseudarthrosis in long adult spinal deformity instrumentation and fusions to the sacrum. Poster 374. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
177. Dobbs MB, **Lenke LG**, Bridwell KH. Selective posterior thoracic spinal fusion-comparison of hooks versus screws. Poster 376, American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
178. Bess RS\*, Bridwell KH, Lee SS\*, **Lenke LG**. Reconstitution of posterior iliac bone graft site: Prospective evaluation of 2 backfilling techniques. Poster 380. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
179. Angevine PD\*, **Lenke LG**, Stobbs G, Bridwell KH. Cost-offset analysis of bone morphogenetic protein-2 in primary adult idiopathic scoliosis surgery. Poster 381. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
180. Angevine PD\*, **Lenke LG**, Bridwell KH. Adult degenerative de novo circumferential scoliosis surgery outcomes and complications of. Poster 392. American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
181. Buchowski JM\*, **Lenke LG**, Bridwell KH, Seshadri V<sup>‡</sup>. Infections following spinal deformity surgery: a twenty-year assessment of 2876 patients. American Orthopaedic Association 120<sup>th</sup> Annual Meeting, Asheville, NC, June 13-16, 2006.
182. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim S<sup>§</sup>, Kim YW<sup>§</sup>. Is the T9, T11, or L1 proximal level the more stable following lumbar/lumbosacral fusions from the thoracolumbar junction to L5-S1? E-Poster 12. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
183. Daubs MD<sup>^</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Stobbs G, Bridwell KH. Adult spinal deformity surgery. Complications and outcomes in patients over age 60. Standard & E-Poster 14. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
184. Buchowski JM\*, Bridwell KH, **Lenke LG**, Lehman Jr. RA\*, Kuhns CA\*, Kim YJ<sup>§</sup>. Neurologic complications of pedicle subtraction osteotomy: a ten-year assessment. Standard & E-Poster 17. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
185. Kuhns CA\*, Bridwell KH, **Lenke LG**, Amor CJ<sup>‡</sup>, Lehman RA\*, Buchowski JM\*, Edward CC\*. Thoracolumbar deformity arthrodesis stopping at L5. Fate of the L5-S1 disc with a minimum 5-year follow-up. Standard & E-Poster 20. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
186. Buchowski JM\*, **Lenke LG**, Lehman Jr. RA\*, Kuhns CA\*, Bridwell KH. Infections following spinal deformity surgery: a twenty-year assessment of 2876 patients. Standard & E-Poster 21. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
187. Kim YB<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Kim YW<sup>§</sup>, Bridwell KH, Stobbs G. Surgical treatment of adult lumbar scoliosis - Is anterior apical release and fusion necessary? Standard & E-Poster 24, 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
188. Lehman Jr. RA\*, **Lenke LG**, Keeler K<sup>‡</sup>, Kim YJ<sup>§</sup>, Bridwell KH, Buchowski JM\*, Kuhns CA\*. Treatment of adolescent idiopathic scoliosis with pedicle screw-only constructs: minimum 3-year follow-up of 103 consecutive cases. Standard & E-Poster 28. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
189. Cheh G<sup>§</sup>, Lehman Jr. RA\*, **Lenke LG**, Kim YJ<sup>§</sup>, Keeler K<sup>‡</sup>, Bridwell KH. The reliability of preoperative supine radiographs to predict the amount of curve flexibility in adolescent idiopathic scoliosis. Standard & E-Poster 31. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



190. Lehman Jr. RA\*, Kim YJ<sup>§</sup>, **Lenke LG**, Cheh G<sup>§</sup>, Keeler K<sup>‡</sup>. Computed tomography (CT) evaluation of pedicle screws placed into deformed spines over an 8 year period. Standard & E-Poster 32. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
191. Kim YW<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Bridwell KH, Kim YB<sup>§</sup>. Free hand pedicle screw placement during revision spinal surgery: analysis of 552 screws. Standard & E-Poster 37. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
192. Cheh G<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Daubs MD<sup>^</sup>, Padberg AM, Stobbs G, Hensley M. Loss of spinal cord monitoring signals in children during thoracic kyphosis correction with spinal osteotomy: Why does it occur and what should you do? Standard & E-Poster 46. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
193. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Cheh G<sup>§</sup>, Baldus C. Results of lumbar pedicle subtraction osteotomies for fixed sagittal imbalance. a minimum 5 years follow-up study. E-Poster 15. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
194. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Rhim S<sup>§</sup>, Cheh G<sup>§</sup>. Proximal junctional kyphosis following adult spinal deformity long posterior segmental instrumentation and fusion: minimum 5 years follow-up. E-Poster 18. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
195. Cheh G<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim YJ<sup>§</sup>, Daubs MD<sup>^</sup>, Baldus C. Risk factors for adjacent segment degeneration following lumbar/thoracolumbar fusion with pedicle screw instrumentation: a minimum 5 year follow-up. E-Poster 38. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
196. Clements DH, Marks MC, Newton PO, Betz RR, **Lenke LG**, O'Brien MF\*, Lowe TG, Harms Study Group. Analysis of adherence to Lenke classification treatment algorithm recommendations. E-Poster 106. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
197. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Cheh G<sup>§</sup>, Kim YB<sup>§</sup>, Sides B. Adverse impact of resection thoracoplasty following posterior segmental spinal instrumentation of adolescent idiopathic scoliosis. E-Poster 110. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
198. Angevine PD\*, **Lenke LG**, Stobbs G, Bridwell KH. Cost-offset analysis of bone morphogenetic protein-2 (rhBMP-2) in primary surgery for adult idiopathic scoliosis: is it worth it? E-Poster 116. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
199. Daubs MD<sup>^</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Cheh G<sup>§</sup>, Stobbs G, Bridwell KH. Does correction of preoperative coronal imbalance make a difference in outcomes of adult deformity patients? E-Poster 118. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
200. Watanabe K<sup>§</sup>, **Lenke LG**, Daubs MD<sup>^</sup>, Bridwell KH, Stobbs G, Hensley M. Avoiding screw fixation failure during osteotomy closure with the use of a central hook/rod construct. E-Poster 144. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
201. Kuhns CA\*, **Lenke LG**, Buchowski JM\*, Lehman RA\*, Rajan S<sup>¥</sup>, Amor CJ<sup>¥</sup>, Lee SS\*, Kuklo TR\*, Bridwell KH. Prediction of kyphosis correction based on the hyperextension lateral radiograph. E-Poster 153. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
202. **Lenke LG**, Kuklo TR\*, Sucato DJ, Richards BS, Emans JB, Sides B. Comparison of the lower-end vertebra (LEV) to the lowest instrumented vertebra (LIV) in adolescent idiopathic scoliosis. A role for the addition of an LEV modifier to the Lenke classification system. E-Poster 178. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
203. Sarwark JF, Emans JB, **Lenke LG**, Richards BS, Royce Jr. DP, Sucato DJ, McCarthy RE, Diab M, Dormans JP, Eller E. Current trends in surgery for adolescent idiopathic scoliosis. E-Poster 219. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.

<sup>¥</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

204. Sucato DJ, Kuklo TR\*, Lubicky JP, Richards BS, **Lenke LG**, Johnston CE, Emans JB. Factors predicting surgeon fusion of the proximal thoracic curve in Lenke 2 curve patterns. E-Poster 224. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
205. Emans JB, **Lenke LG**, Sarwark JF, Erickson MA, Roye Jr. DP, Lubicky JP. Changing trends in the operative treatment of 'single overhang' (Lenke 1A, 1B, 3A, 3B and 5C) AIS curves: a 1998 to 2004 comparison. E-Poster 241. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
206. **Lenke LG**, Betz RR, Newton PO, Clements DH, Lonner BS, Lowe TG, Crawford AH, Sponseller PD, Blanke KM. Surgeon-rationale for NOT performing selective thoracic fusion in Lenke 1C adolescent idiopathic scoliosis curves. E-Poster 242. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
207. Cheh G<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Lehman Jr. RA\*, Daubs MD<sup>^</sup>, Nunley R<sup>‡</sup>, Steger-May K. Use of preoperative supine radiographs to accurately predict non-structural curves by the Lenke classification system of operative adolescent idiopathic scoliosis. E-Poster 244, 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
208. Watanabe K<sup>§</sup>, **Lenke LG**, Bridwell KH, Hasegawa K, Hirano T, Endo N, Cheh G<sup>§</sup>, Kim YJ<sup>§</sup>, Stobbs G, Hensley M. Cross-cultural comparison of the SRS Outcomes Instrument between American and Japanese scoliosis patients: are there differences? E-Poster 248. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
209. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Dobbs MB, Cheh G<sup>§</sup>, Sides B. Pulmonary function change following operative treatment of adolescent idiopathic scoliosis with moderate or severe impairment of preoperative pulmonary function. How can we get better pulmonary function? E-Poster 251. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
210. Lehman Jr. RA\*, Bridwell KH, Cheh G<sup>§</sup>, Keeler K<sup>‡</sup>, Buchowski JM\*, **Lenke LG**. Proximal junctional kyphosis in adult spinal deformity: comparison of hook versus pedicle screw constructs. E-Poster 257. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
211. Angevine PD\*, **Lenke LG**, Bridwell KH, Sides B. Is circumferential surgery for de novo adult degenerative scoliosis justified based on its outcomes and complications? E-Poster 259. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
212. Kim YB<sup>§</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Kim YW<sup>§</sup>, Blanke KM, Stobbs G, Bridwell KH. The morbidity of an anterior thoracolumbar approach in adult patients with greater than five-year follow-up. E-Poster 272. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
213. Watanabe K<sup>§</sup>, **Lenke LG**, Daubs MD<sup>^</sup>, Kim YJ<sup>§</sup>, Hensley M, Stobbs G. A novel description of osseous pedicle morphology. How many thoracic scoliotic pedicles have cancellous channels? E-Poster 348. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
214. Watanabe K<sup>§</sup>, **Lenke LG**, Daubs MD<sup>^</sup>, Kim YJ<sup>§</sup>, Hensley M, Stobbs G. Can preoperative radiographs predict pedicle morphology in thoracic scoliosis? E-Poster 349. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
215. Dobbs MB, **Lenke LG**, Bridwell KH. Prevalence of infantile and juvenile idiopathic curves using a modified Lenke classification scheme. E-Poster 350. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
216. Silva FE<sup>^</sup>, **Lenke LG**, Breakwell LM<sup>§</sup>. Comparison of infections/wound complications in patients with neuromuscular scoliosis following surgery with and without perioperative total parenteral nutrition. E-Poster 363. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
217. Black M<sup>‡</sup>, **Lenke LG**, Hensley M, Przybylski T, Boyer C, Bridwell KH, Kim YJ<sup>§</sup>. Halo-gravity traction improved radiographs and pulmonary function in severe scoliosis. E-Poster 414. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.

<sup>§</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>^</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

218. Watanabe K<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Watanabe K<sup>§</sup>, Hensley M, Stobbs G. Comparison of radiographic outcomes for scoliosis curves  $\geq 100$  degrees: wires vs. hooks vs. screws. E-Poster 420. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
219. Watanabe K<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Watanabe K<sup>§</sup>, Stobbs G, Hensley M. Efficacy and safety of free hand concave apical pedicle screw placement in severe scoliosis curves greater than 100 degrees. E-Poster 421. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
220. Watanabe K<sup>§</sup>, **Lenke LG**, Daubs MD<sup>^</sup>, Watanabe K<sup>§</sup>, Bridwell KH, Stobbs G, Hensley M. Is spinal deformity surgery in patients with cerebral palsy truly beneficial? A patient/parent evaluation. E-Poster 518. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
221. Ferguson J<sup>§</sup>, **Lenke LG**, Daubs MD<sup>^</sup>, Cheh G<sup>§</sup>, Kim YB<sup>§</sup>, Kim YW<sup>§</sup>, Watanabe K<sup>§</sup>, Watanabe K<sup>§</sup>. The ventral lamina and its relationship to the superior facet. A key to avoiding canal penetration during pedicle probing. E-Poster 538. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, Athens, Greece, July 12-15, 2006.
222. Sanders JO, Harrast J, Polly Jr. DW, Bridwell KH, **Lenke LG**, Newton PO, Kuklo TR\*, Diab M, Richards BS, Johnston II CE, Sucato DJ. Responsiveness of the spinal appearance questionnaire (SAQ) compared to the SRS Instrument in adolescent idiopathic scoliosis. Poster 5. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 14-16, 2006.
223. Daubs MD<sup>^</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Cheh G<sup>§</sup>, Stobbs G, Bridwell KH. Does correction of preoperative coronal imbalance make a difference in outcomes of adult deformity patients? Poster 16. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 14-16, 2006.
224. Luhmann SJ\*, **Lenke LG**, Bridwell KH. Revision surgery after primary spine fusion for idiopathic scoliosis: results from a different institution. Poster 21. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 14-16, 2006.
225. Luhmann SJ\*, **Lenke LG**. Multicenter outcome and cost analysis of circumferential vs. posterior-only fusions with thoracic pedicle screw constructs for main thoracic idiopathic curves between 70-100 degrees. Poster 22. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 14-16, 2006.
226. Luhmann SJ\*, Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH. The impact of curve characteristics and spine fusion on pulmonary function in adolescent idiopathic scoliosis. Poster 23. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 14-16, 2006.
227. Richards III BS, Sucato DJ, Johnston II CE, **Lenke LG**, Kuklo TR\*, Polly Jr. DW, Sanders JO. Spinal balance in Lenke 1A-C curves. Poster 29. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 14-16, 2006.
228. **Lenke LG**, Watanabe K<sup>§</sup>, Daubs MD<sup>^</sup>, Bridwell KH, Stobbs G, Hensley M. Avoiding screw fixation failure during osteotomy closure with the use of a central hook/rod construct. Poster 31. Scoliosis Research Society 41<sup>st</sup> Annual Meeting, Monterey, CA, September 14-16, 2006.
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<sup>§</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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234. Angevine P\*, Bridwell K, Hurford Jr. R\*, **Lenke L**, Baldus C. Enhancement and maintenance of lordosis with anterior titanium cages in the distal spine of adult lumbar deformity patients. Poster 104. North American Spine Society 21<sup>st</sup> Annual Meeting, Seattle, WA, September 26-30, 2006.
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245. Cheh G<sup>§</sup>, Bridwell KH, **Lenke LG**, Buchowski J\*, Daubs MD<sup>^</sup>, Kim YJ<sup>§</sup>, Baldus C. Risk factors for adjacent segment degeneration following lumbar fusion with pedicle screws. Poster 391. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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250. Watanabe K<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Koester L, Hensley M. Comparison of radiographic outcomes between anterior/posterior combined fusion and posterior fusion alone for scoliosis curves >100°: is anterior release necessary? E-Poster 234. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
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253. Watanabe K<sup>§</sup>, **Lenke LG**, Bridwell KH, Kim YJ<sup>§</sup>, Yamazaki A, Koester L, Hensley M. Proximal junctional vertebral fracture after spinal deformity surgery using pedicle screw constructs. E-Poster 349. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
254. **Lenke LG**, Kuklo TR\*, Sucato DJ, Richards BS, Emans JB, Bridwell KH, Johnston C, Sides B. Comparison of the lower-end vertebra (LEV) to the lowest instrumented vertebra (LIV) in adolescent idiopathic scoliosis: a role for the addition of an LEV modifier to the Lenke classification system. E-Poster 381. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
255. Schwend RM<sup>^</sup>, **Lenke LG**, Roth M, Bridwell KH, Cronen GA\*, Rose PS\*, Mulconrey SD\*, Shah M, Sides B. Spinal cord monitoring (SCM) reliability during spinal deformity surgery for patients with syringomyelia divided into simple & complex types. E-Poster 393. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
256. Sucato DJ, Betz RR, Clements DH, Newton PO, Crawford AH, **Lenke LG**, Lowe TG, Harms Study Group. Large thoracic AIS curves greater than 70°: Do they need an anterior release? E-Poster 396. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
257. Sucato DJ, Newton PO, Lonner BS, Betz RR, D'Andrea LP, Crawford AH, **Lenke LG**, Milbrandt TA, Talwalker VR, McClung A. Defining the incidence of complications with the use of single lung ventilation for thoracoscopic surgery in pediatric spinal deformity. E-Poster 409. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.

<sup>^</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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260. **Lenke LG**, Lehman Jr. RA\*, Dmitriev AE. Use of a dynamic stabilization system on distal adjacent kinematics for anterior spinal fusion. E-Poster 436. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
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263. Johnston CE, Sucato DJ, Richards BS, Bridwell KH, **Lenke LG**, Erickson MA, Spinal Deformity Study Group. Preoperative correlation of sagittal, coronal, and axial deformity with pulmonary function in AIS. E-Poster 464. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
264. Mulconrey DS\*, Kuklo TR\*, **Lenke LG**, Bridwell KH, Cronen GA\*, Rose PS\*. Correction of thoracic rotation and chest wall malalignment: A comparison of hybrid versus pedicle screw constructs. E-Poster 472. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
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266. Cardoso M, Lehman Jr. RA\*, Rosner MK, Gill NW, **Lenke LG**. Structures at risk from pedicle screws in the proximal thoracic spine. A computed tomography (CT) with magnetic resonance image (MRI) correlation. E-Poster 501. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
267. Harimaya K§, **Lenke LG**, Bridwell KH, Koester L, Sides B. Increasing lumbar lordosis of adult spinal deformity patients via intraoperative prone positioning. E-Poster 512. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
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269. Harimaya K§, **Lenke LG**, Bridwell KH, Koester L, Sides B. Transforaminal lumbar interbody fusion (TLIF) in the treatment of pediatric and adult spinal deformity. E-Poster 612. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.

‡Student, \*Resident, \*Fellow, †Neurosurgical Resident, †Advanced Deformity Fellow, ^Domestic Visiting Surgeon, §International Research Scholar

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275. Upasani VV, Caltoun C, Petcharaporn M, Bastrom T, Pawelek J, Marks MC, Betz RR, **Lenke LG**, Newton PO. Does body mass affect surgical outcomes in adolescent idiopathic scoliosis? E-Poster 39. Scoliosis Research Society 42<sup>nd</sup> Annual Meeting, Edinburgh, Scotland, September 4-8, 2007.
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280. Okubadejo G<sup>‡</sup>, **Lenke LG**, Bridwell KH, Keeler KA<sup>‡\*</sup>, Davis B. Effects of rhbmp-2 on thoracic and lumbar arthrodesis: Comparison of smokers and nonsmokers. Poster 351. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, CA, March 5-8, 2008.
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283. O'Leary PT\*, Bridwell KH, Good CR\*, **Lenke LG**, Buchowski JM\*, Kim YJ<sup>§</sup>, Flynn J. Risk factors and outcomes for catastrophic failures at the top to long pedicle screw constructs (FPSC): a matched cohort analysis performed at a single center. E-Poster 207. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.

<sup>§</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>^</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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285. Keeler KA<sup>†\*</sup>, Bridwell KH, **Lenke LG**, Flynn J. Subjacent disc wedging after anterior spinal fusion for adolescent idiopathic scoliosis: the fate of the “jacked” lumbar disc. E-Poster 218. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
286. Harimaya K<sup>§</sup>, **Lenke LG**, Bridwell KH, Koester L, Sides B. Etiology and revision surgical strategies in failed lumbosacral fixation of adult spinal deformity constructs. E-Poster 252. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
287. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Boachie-Adjei O, Hamill C\*, Kim YB<sup>§</sup>. Sagittal spinopelvic alignment change after lumbar pedicle subtraction osteotomy: a multi-center analysis of 113 patients with a minimum 2 years follow-up. E-Poster 261. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
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289. Upasani VV, Newton PO, Pawelek JB, Bastrom TP, **Lenke LG**, Lowe T, Clements DH, Lonner B, Betz RR, Harms Study Group. Increase patient satisfaction after fusion for adolescent idiopathic scoliosis by minimizing the deformity-flexibility quotient. E-Poster 268. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
290. Schlechter J, Newton PO, Upasani VV, Yaszay B, **Lenke LG**, Betz RR, Lowe T, Harms Study Group. Risk factors for distal adding-on identified: what to watch out for. E-Poster 274. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
291. Kuklo TR\*, Keeler KA<sup>†\*</sup>, Meyer LA, Luhmann SJ\*, Bridwell KH, **Lenke LG**. Is extended pre-operative halo traction safe and effective for severe pediatric spinal deformity? Critical review of 62 pediatric patients. E-Poster 275. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
292. Sangole AP, Aubin CE, Labelle H, **Lenke LG**, Stokes IA, Newton PO, Jackson RP. 3D sub-classification of Lenke 1 curves. E-Poster 278. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
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294. Sanders JO, Diab M, Richards BS, **Lenke LG**, Johnston CE, Emans JB, Sucato DJ, Erickson MA, Bridwell KH, McCarthy RE, Sarwark JF, Dormans JP, Kuklo TR\*, Shainline M, Spinal Deformity Study Group. Fixation points within the main thoracic curve: Does more instrumentation produce greater curve correction? E-Poster 284. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
295. Diab M, Kuklo TR\*, Sanders JO, **Lenke LG**, Sucato DJ. Impact of idiopathic scoliosis and its surgical treatment on appearance in children. E-Poster 285, 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
296. Daubs MD<sup>^</sup>, **Lenke LG**, Kim YJ<sup>§</sup>, Cheh G<sup>§</sup>, Bridwell KH. Does correction of preoperative coronal imbalance make a difference in outcomes of adult deformity patients? E-Poster 290. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, July 8-11, 2008.
297. **Lenke LG**, O’Leary PT\*, Sides BA, Koester L, Hensley M, Bridwell KH. Posterior vertebral column resection (VCR) for severe pediatric deformity: minimum 2-year follow-up on 29 consecutive patients. E-Poster 291. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.

<sup>§</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



298. Harimaya K<sup>§</sup>, Mishiro T<sup>§</sup>, **Lenke LG**, Bridwell KH, Koester L, Sides BA. Increasing lumbar lordosis of adult spinal deformity patients via intraoperative prone positioning. E-Poster 295. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
299. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Hosogane N, Kim YB<sup>§</sup>. Significance of intraoperative thoracic kyphosis increase to prevent the proximal junctional kyphosis in adolescent idiopathic scoliosis following posterior segmental spinal instrumentation and fusion: a multicenter analysis of 518 cases. E-Poster 297. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
300. Hayashi K, Newton PO, Pawelek JB, Upasani VV, Aubin CE, Labelle H, **Lenke LG**, Jackson RP, Stokes IA, SRS 3D Classification Committee. The standard lateral radiograph does not represent reality at the thoracic apex in adolescent idiopathic scoliosis: A 3-dimensional analysis confirms lordosis. E-Poster 302. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
301. Schlechter J, Newton PO, Upasani VV, Pawelek JB, Betz RR, **Lenke LG**, Lonner B, Crawford A, Harms Study Group. Should postoperative pulmonary function be a criterion that affects upper instrumented vertebral body selection in AIS surgery? E-Poster 315. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
302. Diab M, Kawakami N, **Lenke LG**, Kuklo TR\*, Spinal Deformity Study Group. Ethnic variations in function and outcome after surgical treatment of adolescent idiopathic scoliosis. E-Poster 320. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
303. Kuklo TR\*, Diab M, Richards BS, Sucato DJ, **Lenke LG**, Spinal Deformity Study Group. Are there SRS preoperative questionnaire differences between kyphosis and scoliosis patients? E-Poster 328. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
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305. Thuet ED, Winscher JC, Padberg AM, Bridwell KH, **Lenke LG**, Kuklo TR\*, Dobbs MB, Schootman M, Luhmann SJ\*. A 22-year perspective of electrophysiologic monitoring for pediatric spinal deformity surgery: is there value to monitoring ALL pediatric spine cases? E-Poster 354. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
306. Harimaya K<sup>§</sup>, Mishiro T<sup>§</sup>, O'Leary PT\*, **Lenke LG**, Bridwell KH, Koester L, Sides BA. Transforaminal lumbar interbody fusion (TLIF) in the treatment of pediatric and adult spinal deformity. E-Poster 389, 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
307. Richards BS, Sucato DJ, Johnston CE, **Lenke LG**, Kuklo TR\*, Diab M, Spinal Deformity Study Group. Thoracoplasty in idiopathic scoliosis: should we keep doing it? E-Poster 394. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
308. Diab M, Oswald TS, **Lenke LG**, Kuklo TR\*, Erickson MA. Pain before and after surgical treatment of adolescent idiopathic scoliosis. E-Poster 396. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
309. Watanabe K<sup>§</sup>, **Lenke LG**, Matsumoto M, Toyama Y, Chiba K. Morphological evaluation of a new pedicle channel classification using CT scans. E-Poster 399, 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
310. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Kim YB<sup>§</sup>, Hosogane N. Comparative analysis of sagittal plane measures following posterior segmental spinal instrumented fusion of adolescent idiopathic scoliosis: hooks only vs. sublaminar wiring vs. thoracic pedicle screw instrumentation. E-Poster 405. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.

<sup>§</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

311. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim YB<sup>§</sup>, Ahn YJ. Comparative radiographic analysis of the sagittal spinopelvic alignment between 100 asymptomatic adults and 100 sagittal imbalanced patients: what are the critical radiographic parameters? E-Poster 419. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
312. Kuklo TR\*, Diab M, Sucato DJ, Richards BS, Emans JB, **Lenke LG**, Spinal Deformity Study Group. Factors associated with pedicle screw removal secondary to EMG pedicle stimulation criteria in AIS surgery. E-Poster 451. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
313. Jones CF, Itshayek E, Zhu Q, Schwab TD, Larson CR, **Lenke LG**, Cipton PA. Evaluation of tissue loading in response to 1- and 2-level Maverick total disc replacement adjacent to a long spinal fusion. E-Poster 506. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
314. Lehman RA\*, **Lenke LG**, Richards BS, Kuklo TR\*, Bridwell KH, Spinal Deformity Study Group. Comparative analysis between Lenke type 1A-, B-, and C- curve patterns: Pedicle screw vs. hybrid constructs. Which maintains correction better? E-Poster 513. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
315. Sucato DJ, Richards BS, Johnston CE, **Lenke LG**, Kuklo TR\*, Sanders JO, Spinal Deformity Study Group. Patient/parent perceptions of shoulder imbalance following surgery correction for AIS. E-Poster 516. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
316. Richards BS, Sucato DJ, Johnston CE, **Lenke LG**, Kuklo TR\*, Polly DW, Sanders JO, Spinal Deformity Study Group. Spinal balance in idiopathic scoliosis: do radiographs really reflect the clinical picture? E-Poster 525. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
317. Freedman BA, Kuklo TR\*, **Lenke LG**, Richards BS, Sucato DJ, Polly DW. Variation in vertebral numbering: not everyone with AIS has 12 thoracic and 5 lumbar. E-Poster 528. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
318. Cronen GA\*, **Lenke LG**, Zebala LP<sup>‡</sup>, Mulconrey DS\*, Rose PS\*, Bridwell KH. The influence of gender on adult spinal deformity surgery: A comparison of radiographic outcomes and complication rates. E-Poster 530. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
319. **Lenke LG**, Sucato DJ, Richards BS, Bridwell KH, Kuklo TR\*, Emans JB, O'Brien MF\*, Sides BA, Spinal Deformity Study Group. The diminishing role of anterior alone surgery in main thoracic Lenke 1A and 1B adolescent idiopathic scoliosis: a multicenter analysis over the past 15 years. E-Poster 565. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
320. **Lenke LG**, Kuklo TR\*, Sucato DJ, Richards BS, Emans JB, Bridwell KH, Spinal Deformity Study Group. What radiographic and clinical factors appear crucial for the decision to perform a selective thoracic fusion in Lenke 1C/King II adolescent idiopathic scoliosis curves? E-Poster 566. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
321. Roth MD, Padberg AM, Bridwell KH, **Lenke LG**, Kuklo TR\*. The effect of bone mineral density on pedicle screw triggered EMG threshold: a comparative study. E-Poster 572. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
322. **Lenke LG**, Kuklo TR\*, Sucato DJ, Richards BS, Emans JB, Bridwell KH, Johnston CE, Sides BA. Comparison of the lower end vertebra (LEV) to the lowest instrumented vertebra (LIV) in adolescent idiopathic scoliosis: a role for the addition of an LEV modifier to the Lenke classification system. E-Poster 573. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
323. Ohno S, Glassman SD, Bridwell KH, Horton W, **Lenke LG**, Berven S, Hu SS, Carreon LY. Outcomes after surgical correction of spinal deformity in adults with concomitant hip osteoarthritis. E-Poster 580. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.

<sup>§</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

324. Keeler KA<sup>‡\*</sup>, Lehman RA\*, **Lenke LG**, Bridwell KH, Sides BA. Minimum 5-year follow-up of posterior pedicle screw-only constructs in the operative treatment of adolescent idiopathic scoliosis. E-Poster 593. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
325. Lehman RA\*, **Lenke LG**, Keeler KA<sup>‡\*</sup>, Helgeson MD. Accuracy of intraoperative scoliosis radiograph to determine ultimate correction and balance after deformity correction: should it be mandatory? E-Poster 595. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
326. **Lenke LG**, Kuklo TR\*, Sucato DJ, Erickson MA, Emans JB, Richards BS, Johnston CE, Bridwell KH, Spinal Deformity Study Group. Pedicle screw constructs optimize thoracic and lumbar clinical appearance by scoliometer assessment versus hook and hybrid constructs following adolescent idiopathic scoliosis surgery. E-Poster 601. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
327. Diab M, Geula D, Sides BA **Lenke LG**. Factors that influence retention in a prospective pediatric scoliosis surgery study. E-Poster 608. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
328. Zhu Q, Itshayek E, Jones CF, Schwab FD, Larson CR, **Lenke LG**, Cripston PA. Kinematic evaluation of 1- and 2-level Maverick total disc replacement adjacent to a long spinal fusion. E-Poster 643. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
329. Lehman RA\*, **Lenke LG**, Kuklo TR\*, Richards BS, Bridwell KH, Spinal Deformity Study Group. Change in time of radiographic and balance parameters for the operative treatment of adolescent idiopathic scoliosis: posterior pedicle screw-only vs. hybrid constructs. E-Poster 682. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
330. **Lenke LG**, Kuklo TR\*, Richards BS, Sucato DJ, Bridwell KH, Spinal Deformity Study Group. Does preoperative brace-wear influence radiographic and clinical outcomes of adolescent idiopathic scoliosis surgery? E-Poster 715. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
331. Yang JY<sup>§</sup>, Lee JK, **Lenke LG**, Song HS, Hong EP. The impact of the lumbar spine modifier and thoracic sagittal profile on the main thoracic curve of Lenke type 1 scoliosis. E-Poster 720. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
332. Mishiro T<sup>§</sup>, **Lenke LG**, Koester L, Dobbs MB, Luhmann SJ\*, Bridwell KH. Modified Lenke classification system for infantile and juvenile idiopathic scoliosis. E-Poster 740. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
333. Mulconrey DS\*, Zebala LP<sup>‡</sup>, **Lenke LG**, Bridwell KH. Posterior correction of adolescent idiopathic scoliosis: Which preoperative flexibility radiograph best predicts the 2-year result? E-Poster 762. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
334. Garg S<sup>‡</sup>, Brant JA<sup>¥</sup>, **Lenke LG**, Bridwell KH, Sides BA, Keeler KA<sup>‡\*</sup>. Hemivertebra excision: comparison of circumferential vs. posterior-only approaches. E-Poster 803. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, Hong Kong, China, July 8-11, 2008.
335. Hayashi K, Newton PO, Pawelek JB, Upasani VV, Aubin CE, Labelle H, **Lenke LG**, Jackson RP, Stokes IA, SRS 3-D Classification Committee. The standard lateral radiograph does not represent reality at the thoracic apex in adolescent idiopathic scoliosis: A 3-dimensional analysis confirms lordosis. Poster 9. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
336. Geck M, Rinella AS\*, Hawthorne D, Macagno A, Sides BA, Koester L, **Lenke LG**, O'Brien MF\*, Bridwell KH, Shufflebarger HL. Anterior dual rod versus posterior pedicle fixation surgery for the surgical treatment in Lenke 5C adolescent idiopathic scoliosis: A multicenter matched case analysis. Poster 13. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

337. Richards III BS, Sucato DJ, Johnston CE, **Lenke LG**, Kuklo TR\*, Diab M, Spinal Deformity Study Group. Thoracoplasty in idiopathic scoliosis – should we keep doing it? Poster 22. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
338. Sucato DJ, Kuklo TR\*, Diab M, Richards III BS, Johnston CE, **Lenke LG**, Spinal Deformity Study Group. Risk factors for critical intraoperative neuromonitoring changes during AIS surgery. E-Poster 5. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008. **Louis A. Goldstein Award for Best Clinical Poster**
339. Garg S<sup>‡</sup>, Brant JA<sup>¥</sup>, **Lenke LG**, Bridwell KH, Sides BA, Keeler KA<sup>‡\*</sup>. Hemivertebra excision: Comparison of circumferential vs. posterior-only approaches. E-Poster 9. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
340. Aubin CE, Labelle H, **Lenke LG**, Jackson RP, Newton PO, Stokes IA. Proposal for reference axis as a basis for 3D classification of idiopathic scoliosis. E-Poster 10. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
341. Harimaya K<sup>§</sup>, Son-Hing JP<sup>^</sup>, **Lenke LG**, Bridwell KH, Schwend RM<sup>^</sup>, Koester L, Sides BA. Safety and accuracy of pedicle screws placed in pediatric patients less than 10 years of age. E-Poster 15. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
342. Kuklo TR\*, Diab M, Richards III BS, Sucato DJ, **Lenke LG**, Spinal Deformity Study Group. Are there SRS preoperative questionnaire differences between kyphosis and scoliosis patients? E-Poster 24. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
343. Harimaya K<sup>§</sup>, Mishiro T<sup>§</sup>, O’Leary PT\*, **Lenke LG**, Bridwell KH, Koester L, Sides BA. Transforaminal lumbar interbody fusion (TLIF) in the treatment of pediatric and adult spinal deformity. E-Poster 50. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
344. Keeler KA\*, Lehman Jr. RA\*, **Lenke LG**, Bridwell KH, Sides BA. Direct vertebral rotation (DVR) in the treatment of thoracolumbar/lumbar adolescent idiopathic scoliosis (AIS): Can it optimize correction when fusing to L3? Poster 26. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
345. Bedigrew KM<sup>¥</sup>, Kuklo TR\*, Luhmann SJ\*, Meyer LA, **Lenke LG**, Bridwell KH. Is Aprotinin safe for pediatric spinal deformity surgery? Poster 27. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
346. Ferguson J<sup>§</sup>, Lehman Jr. RA\*, **Lenke LG**, Cheh G<sup>§</sup>, Watanabe K<sup>§</sup>, Kim YB<sup>§</sup>, Kim YW<sup>§</sup>, Daubs MD<sup>^</sup>. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws confirmed by anatomic dissection of 102 thoracic pedicles. Poster 33. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
347. Schlechter J, Newton PO, Upasani VV, Pawelek JB, Betz RR, **Lenke LG**, Lonner BS, Crawford AH, Harms Study Group. Should post-operative function be a criterion that affects upper instrumented vertebral body selection in AIS surgery? Poster 41. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
348. O’Leary PT\*, **Lenke LG**, Good CR\*, Pichelmann M\*, Keeler KA<sup>‡\*</sup>, Bridwell KH, Sides BA. TLIF as an alternative to formal anterior interbody fusion at the caudal end of long spinal deformity constructs: Does it work? Poster 47. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
349. Mulconrey DS\*, Keeler KA<sup>‡\*</sup>, **Lenke LG**, Bridwell KH, Good CR\*, O’Leary PT\*, Pichelmann M\*, Sides BA. Safety and efficacy of bone morphogenetic protein (rhBMP-2) in complex pediatric spinal deformity at a minimum two year follow-up. Poster 48. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
350. Cardoso MJ, Lehman Jr. RA\*, Rosner M, Moser III RP, Gill N, Helgeson MD, **Lenke LG**. Structures at risk from pedicle screws in the proximal thoracic spine: Computed tomographic evaluation with magnetic resonance imaging correlation. Poster 52. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.

<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>^</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

351. Kuklo TR\*, Diab M, Sucato DJ, Richards III BS, Emans JB, **Lenke LG**, Spinal Deformity Study Group. Factors associated with pedicle screw removal secondary to EMG pedicle stimulation criteria in AIS surgery. Poster 57. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
352. Blanke K, Kuklo TR\*, **Lenke LG**, Cowgill I, McCutcheon B, Spinal Deformity Study Group. Quality analysis of digital radiographic software measures: Evaluation of 29,122 specific data points. Poster 59. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
353. Buchowski JM\*, Good C\*, **Lenke LG**, Bridwell KH. Epidural spinal cord compression with neurologic deficit associated with intrapedicular application of FloSeal during pedicle screw insertion. Poster 39. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
354. Cardoso MJ, Lehman Jr. RA\*, Dmitriev AE, Moser III R, Gill NW, Helgeson MD, Rosner MK, **Lenke LG**. Structures at risk from pedicle screws in the proximal thoracic spine: computed tomographic (CT) evaluation with magnetic resonance imaging (MRI) correlation. Poster 70. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
355. Good C\*, **Lenke LG**, O'Leary PT\*, Pichelmann M\*, Keeler K<sup>‡\*</sup>, Bridwell KH, Baldus C, Koester L. Can posterior only surgery replace combined anterior (thoracotomy/thoracoabdominal)/posterior approaches for adult scoliosis? Poster 98. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
356. Lehman Jr. RA\*, **Lenke LG**, Kuklo TR\*, Richards BS, Bridwell KH. Comparative analysis between Lenke type 1A-, B- and C-curve patterns: Pedicle screw vs. hybrid constructs: Which maintains correction better? Poster 127. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
357. Schlechter J, Newton PO, Upasani V, Yaszay B, **Lenke LG**, Betz RR, Lowe T, Harms Study Group. Risk factors for distal adding-on identified: What to watch out for. Poster 130. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
358. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Gupta MC, Marawar S. Significance of intraoperative thoracic kyphosis increase to prevent the proximal junctional kyphosis in AIS following posterior segmental spinal instrumentation and fusion. Poster 151. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
359. O'Leary PT\*, **Lenke LG**, Good C\*, Pichelmann M\*, Keeler K<sup>‡\*</sup>, Bridwell KH, Sides B. TLIF as an alternative to formal anterior interbody fusion at the caudal end of long spinal deformity constructs: Does it work? Poster 163. North American Spine Society 23<sup>rd</sup> Annual Meeting, Toronto, Ontario, Canada, October 14-18, 2008.
360. Kawakami N, Tsuji T, Imagama S, **Lenke L**, King A, Puno R, Kuklo T\*, McCarthy R, Lubicky J, Johnston C, Spinal Deformity Study Group. Three-dimensional analysis of congenital spinal deformity: Evaluation of inter-observer reliability. 2<sup>nd</sup> International Congress on Early Onset Scoliosis & Growing Spine, Montréal, Québec, Canada, November 7-8, 2008.
361. Zebala LP<sup>‡</sup>, Cronen G\*, Buchowski J\*, Kuklo T\*, **Lenke LG**, Bridwell KH, Riew KD. Sexual relations after spine surgery: Do patients have questions that are not being addressed? Poster 54. Cervical Spine Research Society 36<sup>th</sup> Annual Meeting, Austin, TX, December 4-6, 2008.
362. Lehman R\*, **Lenke LG**, Helgeson MD, Keeler KA<sup>‡\*</sup>. Accuracy/benefit of intraoperative scoliosis radiograph to determine ultimate correction and balance. Poster 250. American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas, NV, February 25-28, 2009.
363. Good C\*, **Lenke LG**, O'Leary PT\*, Pichelmann MA\*, Keeler KA\*, Bridwell KH, Baldus C. Can posterior only surgery replace combined anterior (thoracotomy/thoracoabdominal)/posterior approaches for adult scoliosis? Poster 357. American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas, NV, February 25-28, 2009.

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

364. O'Leary PT\*, Bridwell KH, Good C\*, Pichellmann MA\*, **Lenke LG**, Kuklo TR\*, Buchowski J\*, Kim YJ<sup>§</sup>, Flynn J. Acute fractures above spinal deformity pedicle screw constructs (FPSC): Risk factors and outcomes. Poster 404. American Academy of Orthopaedic Surgeons 76<sup>th</sup> Annual Meeting, Las Vegas, NV, February 25-28, 2009.
365. Jones CF, Zhu QA, Schwab TN, Larson CR, Itshayek E, **Lenke LG**, Cipton PA. Vertebral body and facet joint loading with multilevel Maverick total disc replacement adjacent to a long spinal fusion. Poster 148. Canadian Orthopaedic Association 64<sup>th</sup> Annual Meeting, Whistler, British Columbia, July 3-6, 2009.
366. Mishiro T<sup>§</sup>, **Lenke LG**, Koester LA, Bridwell K, Luhmann SJ\*. Modified Lenke classification system for infantile and juvenile idiopathic scoliosis. Poster 232. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
367. Sucato DJ, **Lenke LG**, Richards BS, Johnston CE, Kuklo TR\*, Emans J, Erickson MA, Spinal Deformity Study Group. Do patients requiring revision surgery for AIS have worse radiographic or clinical outcomes? Poster 286. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
368. **Lenke LG**, Kuklo TR\*, Sucato DJ, Richards BS, Emans JB, Bridwell KH, Johnston CE, Sides BA. Comparison of the lower end vertebra (LEV) to the lowest instrumented vertebra (LIV) in adolescent idiopathic scoliosis: A role for the addition of an LEV modifier to the Lenke classification system. Poster 299. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
369. **Lenke LG**, Sucato DJ, Richards BS, Bridwell KH, Kuklo TR\*, Emans JB, O'Brien MF\*, Sides BA, Spinal Deformity Study Group. The rate of posterior-only surgery in adolescent idiopathic scoliosis has dramatically increased over the past 15 years with less complications: A multicenter analysis. Poster 303. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
370. Richards BS, Sucato DJ, Johnston CE, **Lenke LG**, Kuklo TR\*, Diab M, Spinal Deformity Study Group. Thoracoplasty in adolescent idiopathic scoliosis? It doesn't make a difference! Poster 313. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
371. Kim Y<sup>§</sup>, **Lenke LG**, Bridwell K, Cho SK, Cha TD. Thoracolumbar junctional analysis in patients fixed to T12 vs. L1 in adolescent idiopathic scoliosis: Is there any difference? Poster 318. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
372. Kim Y<sup>§</sup>, Bridwell K, **Lenke LG**, Kim YB<sup>§</sup>, Kim PD. Comparative radiographic analysis of the sagittal spinopelvic alignment between 100 asymptomatic adults and 100 sagittally imbalanced patients: What are the critical radiographic parameters? Poster 320. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
373. Kawakami N, Tsuji T, Ohara T, Imagama S, Watanabe K<sup>§</sup>, Yonezawa I, **Lenke LG**, Kuklo TR\*, Johnston CE, Richards BS, Lubicky JP, King AG, Puno RM, Roye DP, Emans JB. Inter-observer evaluation errors in congenital spinal deformity: Toward a proposal for common rules in the study of vertebral anomalies. Poster 320. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
374. Kuklo TR\*, O'Shaughnessy BA\*, Nabb C, Scott MT, **Lenke LG**. Can minimally invasive surgery obtain similar clinical and radiographic outcomes as an open technique for TLIFs? Poster 413. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
375. Cheung WY<sup>§</sup>, **Lenke LG**, Luk KD. Prediction of scoliosis correction with thoracic segmental pedicle screw constructs using fulcrum bending radiographs. Poster 429. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
376. **Lenke LG**, Sucato DJ, Richards BS, Erickson MA, Diab M, Kuklo TR\*, Sides BA, Spinal Deformity Study Group. Are there differences in the radiographic and clinical outcomes of moderate (<70°) versus severe (≥70°) adolescent idiopathic scoliosis undergoing posterior surgical treatment? Poster 444. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

377. Sarwark J, Richards BS, Sucato DJ, **Lenke LG**, Sanders JO, Emans JB, Parent S, Savage J, Roberts D, Schwartz D, Carreon LY, Spinal Deformity Study Group. Female-male differences in SRS-22 scores in adolescent idiopathic scoliosis. Poster 491. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
378. Chang MS\*, **Lenke LG**, Bridwell K, Cho W<sup>§</sup>, Chang YH<sup>§</sup>, Koester LA, Auerbach JD\*, Crawford CH\*, O'Shaughnessy BA\*. Combined anterior-posterior vs. posterior only fusion for severe non-spastic neuromuscular deformity. Poster 533. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
379. Lehman RA\*, Helgeson MD, Dmitriev A, **Lenke LG**. Caudal pedicle screw compression optimized thoracic kyphosis correction: A MicroCT and biomechanical analysis of pedicle morphology and screw failure. Poster 546. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Vienna, Austria, July 15-18, 2009.
380. Mishiro T<sup>§</sup>, **Lenke LG**, Koester LA, Bridwell K, Luhmann SJ\*. Modified Lenke classification system for infantile and juvenile idiopathic scoliosis. Poster 4, Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
381. Roth MD, Padberg AM, Bridwell KH, **Lenke LG**. The effect of bone mineral density on pedicle screw triggered EMG threshold: A comparative study. E-Poster 4. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
382. Zebala LP<sup>‡</sup>, **Lenke LG**, Luhmann SJ\*, Auerbach JD\*, Bridwell KH. Dual growing rod instrumentation with pedicle screw foundation at a single institution: Assessment of outcomes and complications. E-Poster 23. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
383. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Kim YB<sup>§</sup>, Kim P. Comparative radiographic analysis of the sagittal spinopelvic alignment between 100 asymptomatic adults and 100 sagittal imbalanced patients: What are the critical radiographic parameters? E-Poster 35. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
384. Cho W<sup>§</sup>, **Lenke LG**, Koester LA, Sides B, Baldus C. How much kyphosis correction can be obtained with posterior vertebral column resection (VCR)? E-Poster 52. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
385. Richards BS, Sucato DJ, Johnston CE, **Lenke LG**, Kuklo TR\*, Diab M, Spinal Deformity Study Group. Thoracoplasty in adolescent idiopathic scoliosis – It doesn't make a difference! E-Poster 75. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
386. **Lenke LG**, Sucato DJ, Richards BS, Bridwell KH, Emans JB, O'Brien MF\*, Sides B, Spinal Deformity Study Group. The rate of posterior-only surgery in adolescent idiopathic scoliosis has dramatically increased over the past 15 years with less complications: A multicenter analysis. E-Poster 76. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
387. Zebala L<sup>‡</sup>, Cronen G\*, Buchowski J\*, **Lenke L**, Bridwell K, Ondra S, Koski T, Venhaus L, Riew KD. Sexual relations after spine surgery: Do patients have questions that are not being addressed? Poster 63. North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 10-14, 2009.
388. Kim Y<sup>§</sup>, **Lenke L**, Bridwell K, Boachie-Adjei O, Clement JL, Kim Y<sup>§</sup>, Cho S, Cha T. Sagittal Plane changes according to the thoracic kyphosis change following posterior segmental spinal instrumented fusion of adolescent idiopathic scoliosis. Poster 173. North American Spine Society 24<sup>th</sup> Annual Meeting, San Francisco, CA, November 11-13, 2009.
389. Kuhn M\*, Luhmann SJ\*, **Lenke LG**, Kuklo TR\*, Bridwell KH. The utility of erythrocyte sedimentation rate values and white blood cell counts after spinal deformity surgery in the early ( $\leq 3$  month) postoperative period. E-Poster 51. Pediatric Orthopaedic Society of North America Annual Meeting/Joint Meeting with Asia Pacific Orthopaedic Association, Waikoloa, Hawaii, May 4-7, 2010.
390. Kim YJ<sup>§</sup>, **Lenke LG**, Bridwell KH, Boachie-Adjei O, Clement JL, Kim YB<sup>§</sup>, Cho SK. Distal stop at T12 vs. L1 for posterior spinal instrumented fusion in adolescent idiopathic scoliosis. E-Poster 207. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>‡</sup>Fellow, <sup>§</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

391. Kim YJ<sup>§</sup>, Lenke LG, Bridwell KH, Gupta MC, Boachie-Adjei O, Clement JL, Cho SK\*, Cha TD, Fischer CR. Stable vertebra for surgical management of thoracic adolescent idiopathic scoliosis (Lenke type 1 and 2): How much stable is enough? E-Poster 209. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
392. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Dorward IG<sup>‡</sup>, Zebala LP<sup>‡\*</sup>, Pahys JM\*, Cho SK\*, Kang MM\*, Koester L. Anterior lengthening does occur in pedicle subtraction osteotomy (PSO) at the osteotomized body as well as the discs above and below geometric analysis. E-Poster 256. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
393. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Dorward IG<sup>‡</sup>, Zebala LP<sup>‡\*</sup>, Pahys JM\*, Cho SK\*, Kang MM\*, Koester L. The effect of posterior shortening and anterior lengthening using Smith-Petersen osteotomy (SPO) for kyphosis correction. E-Poster 285. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
394. Dorward IG<sup>‡</sup>, **Lenke LG**, Bridwell KH, Cho W<sup>§</sup>, Yi JS<sup>§</sup>, Kang MM\*, Koester L, Sides B. Radiographic outcomes of Smith-Petersen osteotomies in the treatment of spinal deformity. E-Poster 288. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
395. Wang Y<sup>§</sup>, **Lenke LG**. Vertebral column decancellation (VCD) for the management of sharp angular spinal deformity. E-Poster 289. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
396. Dorward IG<sup>‡</sup>, **Lenke LG**, Cho W<sup>§</sup>, Kang MM\*, Koester L, Sides B. Coronal-plane correction following intraoperative prone positioning in adult spinal deformity. E-Poster 290. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
397. Sponseller PD, Newton PO, Jain A, Shah SA, Emans JB, **Lenke LG**, Sucato DJ, Shufflebarger HL, Blanke K. Vertebral column resection in children with neuromuscular spine deformity. E-Poster 311. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
398. Sucato DJ, **Lenke LG**, Richards BS, Johnston CE, Emans JB, Sanders JO, Erickson MA, Lubicky JP, Diab M. The role of spine MRI in patients with Scheuermann's kyphosis: Is it useful or necessary? E-Poster 325. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
399. Kim YJ<sup>§</sup>, Bridwell KH, **Lenke LG**, Boachie-Adjei O, Kim YB<sup>§</sup>, Lee JK. Sagittal plane analysis following posterior lumbar spinal instrumented fusion of adult lumbar spinal deformity with or without sagittal imbalance. E-Poster 337, 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
400. Sucato DJ, **Lenke LG**, Richards BS, Johnston CE, Emans JB, Sanders JO, Erickson MA, Vitale MG, Bridwell KH. Saving lumbar motion segments with selective thoracic fusion for Lenke 1C curves provides good radiographic outcomes but no added functional benefit at two years when compared to non-selective fusion. E-Poster 369. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
401. Kim YJ<sup>§</sup>, Boachie-Adjei O, Bridwell KH, **Lenke LG**, Lee JK. Selection of proximal fusion level in adult lumbar segmental instrumented fusion to L5 or S1 for degenerative lumbar scoliosis. Is T9 or T10 more reliable? E-Poster 423. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
402. Kang MM\*, **Lenke LG**, Bridwell KH, Pahys JM\*, Zebala LP<sup>‡\*</sup>, Cho SK\*, Cho W<sup>§</sup>, Hawasli A<sup>¥</sup>, Dorward IG<sup>‡</sup>, Sides B. Low to moderate de novo adult degenerative lumbar scoliosis – Analysis of and radiographic outcomes of surgical treatment. E-Poster 451. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
403. Terai T, Kapour A, Goel VK, Sairyo K, **Lenke LG**, Mishiro T<sup>§</sup>. Biomechanical significance of iliac screws in lumbosacral fusions – A 3D finite element (FE) study. E-Poster 493. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.

<sup>¥</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



404. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Hu G<sup>§</sup>, Buchowski JM\*, Dorward IG<sup>†</sup>, Pahys JM\*, Cho SK\*, Kang MM\*, Zebala LP<sup>‡\*</sup>, Koester L. The prevalence of abnormal preoperative neurologic exam in Scheuermann's kyphosis: correlation with x-ray, MRI, and surgical outcome. E-Poster 523. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
405. Silva FE<sup>^</sup>, **Lenke LG**. What percent of adult idiopathic scoliotic pedicles have cancellous channels? E-Poster 599. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Toronto, Ontario, Canada, July 21-24, 2010.
406. Morse LJ, Kawakami N, **Lenke LG**, Sucato DJ, Sander JO, Diab M. Cross-ethnicity comparisons of the Scoliosis Research Society Outcomes Instrument in adolescent idiopathic scoliosis. E-Poster 210. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
407. Cho SK\*, **Lenke LG**, Bolon S, Pahys JM\*, Cho W<sup>§</sup>, Kang MM\*, Zebala LP<sup>‡\*</sup>, Koester L. Can intraoperative spinal cord monitoring reliably help prevent paraplegia during posterior VCR surgery? E-Poster 229. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
408. Crawford CH\*, **Lenke LG**, Sucato DJ, Richards BS, Emans JB, Vitale MG, Erickson MA, Sanders JO, Bridwell KH. Selective thoracic fusion in Lenke 1C curves: Prevalence and criteria. E-Poster 236. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
409. Luhmann SJ\*, **Lenke LG**, Erickson MA, Bridwell KH, Richards BS. Correction of moderate (<70-degree) Lenke 1A and 2A curve patterns: Comparison of hook, hybrid, and all-pedicle screw systems at 2-year follow-up. E-Poster 239. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
410. Cho W<sup>§</sup>, **Lenke LG**, Bridwell K, Dorward I<sup>†</sup>, Zebala L<sup>‡\*</sup>, Pahys J\*, Cho S\*, Kang M\*, Koester L. Anterior lengthening does occur in pedicle subtraction osteotomy (PSO) at the osteotomized body as well as the discs above and below: Geometric analysis. E-Poster 240. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
411. Sucato DJ, Richards BS, **Lenke LG**, Johnston CE, Sanders JO, Emans JB, Erickson MA, Carreon LY, Spinal Deformity Study Group. Revision surgery for AIS results in SRS scores comparable to primary surgery patients. E-Poster 245. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
412. Sucato DJ, **Lenke LG**, Richards BS, Johnston CE, Emans JB, Sanders JO, Erickson MA, Vitale MG, Bridwell KH. Saving lumbar motion segments with selective thoracic fusion for Lenke 1C curves provides good radiographic outcomes but no added functional benefit at 2 years when compared to nonselective fusions. E-Poster 246. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
413. Dorward IG<sup>†</sup>, **Lenke LG**, Bridwell KH, Cho W<sup>§</sup>, Yi JS<sup>§</sup>, Kang MM\*, Koester L, Sides B. Radiographic outcomes of Smith-Petersen osteotomies in the treatment of spinal deformity. E-Poster 253. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
414. Vitale MG, Miller DJ, Sucato DJ, Emans JB, Erickson MA, Sanders JO, **Lenke LG**, Richards BS. Factors predicting coronal decompensation of Lenke 1 curves following selective fusion. E-Poster 255. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
415. Kang MM\*, Bridwell KH, **Lenke LG**, Zebala LP<sup>‡\*</sup>, Pahys JM\*, Cho SK\*, Cho W<sup>§</sup>, Dorward IG<sup>†</sup>, Baldus C. Proximal junctional kyphosis in primary adult deformity surgery – PJK of 20 degrees as a critical angle. E-Poster 314. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 20-25, 2010.
416. Kang MM\*, **Lenke L**, Bridwell K, Dorward IG<sup>†</sup>, Cho S\*, Pahys JM\*, Zebala L<sup>‡\*</sup>, Cho W<sup>§</sup>, Baldus C. Low to moderate de novo adult degenerative lumbar scoliosis: analysis of and radiographic outcomes of surgical treatment. E-Poster 1211. Congress of Neurological Surgeons 60<sup>th</sup> Annual Meeting, San Francisco, CA, October 16-21, 2010.
417. Kang MM\*, Bridwell K, **Lenke L**, Dorward IG<sup>†</sup>, Zebala L<sup>‡\*</sup>, Pahys JM\*, Cho S\*, Cho W<sup>§</sup>, Sides B. Proximal junctional kyphosis in primary adult deformity surgery: PJK of 20 degrees as a critical angle. E-Poster 1212. Congress of Neurological Surgeons 60<sup>th</sup> Annual Meeting, San Francisco, CA, October 16-21, 2010.

<sup>§</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

418. Crawford III CH\*, **Lenke LG**, Sucato DJ, Richards III BS, Emans JB, Vitale MG, Erickson MA, Sanders JO, Bridwell KH. Selective thoracic fusion in Lenke 1C curves: Prevalence and criteria. Poster 382. American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 15-19, 2011.
419. Pahys J\*, Bridwell KH, **Lenke LG**, Zebala LP<sup>‡</sup>\*, Cho SKW\*, Kang MM\*, Cho W<sup>§</sup>, Baldus C. Prevalence and outcomes of coronal decompensation in multilevel spinal fusion for adult deformity. Poster 392. American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 15-19, 2011.
420. Foley KT, Toth JM, **Lenke L**, Wang M, Seim III HB, Turner AS. Is facet fusion biomechanically equivalent to posterolateral only fusion? Poster 342. 27<sup>th</sup> Annual Meeting of the AANS/CNS Section of Disorders of the Spine and Peripheral Nerves, Evidence-Based Spine Surgery in the Real World, Phoenix, AZ, March 9-12, 2011
421. Rahman RK\*, **Lenke LG**, Bridwell KH, Luhmann SJ\*, Sides BA. High dose Tranexamic Acid (TXA) reduces blood loss in complex pediatric deformity spine surgery. 9<sup>th</sup> Annual AOSpine North America Fellows Forum, Banff Springs, Alberta, Canada, March 31-April 3, 2011.
422. Vitale MG, Jameel OF, Sucato DJ, Richards BS, Emans JB, Erickson MA, Sanders JO, **Lenke LG**. How much is too much? Higher degrees of curve correction correlate with worsened sagittal balance. Poster 4. Pediatric Orthopaedic Society of North America Annual Meeting, Montreal, Quebec, Canada, May 11-14, 2011.
423. Matsumoto H, Roye D, Vitale MG, Miller D, **Lenke LG**, Sucato DJ, Emans J, Richards BS. Factors predicting coronal decompensation in Lenke 1 curves following selective fusion. Poster 8. Pediatric Orthopaedic Society of North America, Montreal, Canada, May 11-14, 2011.
424. Vitale M, Miller D, Sucato D, Emans J, Erickson M, Sanders J, **Lenke L**, Richards B. Factors predicting coronal decompensation of Lenke 1 curves following selective fusion. Poster 1. American Orthopaedic Association 124<sup>th</sup> Annual Meeting, Boston, MA, June 22-25, 2011.
425. Kim YJ, Fischer C, **Lenke L**, Bridwell K, Boachie-Adjei O, Clements JL, Cho S\*, Cha T. Optimal lowest instrumented vertebra to avoid adding on or distal junctional kyphosis for thoracic adolescent idiopathic scoliosis. Poster 37. American Orthopaedic Association 124<sup>th</sup> Annual Meeting, Boston, MA, June 22-25, 2011.
426. Parent S, Aubin CE, Newton PO, **Lenke LG**, Jackson RP, Jodoin-Fontaine X, Thériault J, Labelle H. Normal values for the 3D representation of the planes of maximum curvatures (da Vinci representation) in asymptomatic adolescents. E-Poster 259. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
427. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws. E-Poster 263. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
428. Nakamura Y<sup>§</sup>, **Lenke LG**, Bridwell KH, Ning Y<sup>§</sup>, Hu G<sup>§</sup>, Min WK<sup>§</sup>, Koester LA. Comparison between posterior-only correction and combined anterior/posterior fusion for severe Scheuermann's kyphosis. E-Poster 267. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
429. Hu G<sup>§</sup>, **Lenke LG**, Bridwell KH, Koester L. Comparison of Scheuermann's kyphosis correction by posterior-only pedicle screw fixation with or without Ponte osteotomy. E-Poster 268. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
430. Min WK<sup>§</sup>, **Lenke LG**, Bridwell KH, Lee DH<sup>§</sup>, Nakamura Y<sup>§</sup>, Park MS<sup>§</sup>, Koester L. Radiographic and clinical outcomes following scoliosis surgery in adolescent patients with Marfan syndrome – Are they different from adolescent idiopathic scoliosis? E-Poster 275. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
431. Lehman RA\*, **Lenke LG**, Blanke K, Transfeldt EE, Labelle H, Parent S, Mac-Thiong JM. Incidence/association of spondylolisthesis and adolescent idiopathic scoliosis (AIS). E-Poster 296. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.

<sup>§</sup>Student, <sup>‡</sup>Resident, \*Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

432. Dorward IG<sup>‡</sup>, **Lenke LG**, Bridwell KH, Cho W<sup>§</sup>, Koester L, Sides BA. Radiographic and clinical outcomes of posterior column osteotomies in spinal deformity correction: Analysis of 128 patients. E-Poster 316. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
433. Rahman RK\*, **Lenke LG**, Bridwell KH, Luhmann SJ\*, Sides BA. High dose Tranexamic Acid (TXA) reduces blood loss in complex pediatric deformity spine surgery. E-Poster 342. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
434. Stallbaumer JJ\*, **Lenke LG**, Bridwell KH, Zheng J<sup>§</sup>, Koester LA. Pulmonary function comparison following adult spinal deformity surgery: minimum 2-year follow-up. E-Poster 348. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
435. Lehman RA\*, **Lenke LG**, Sucato DJ, Richards BS, Bridwell KH. Lack of agreement on performing selective thoracic fusions for Lenke 1C AIS curve patterns: evaluation of 57 SRS members. E-Poster 366. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
436. Crawford CH\*, **Lenke LG**, Sucato DJ, Richards BS, Carreon LY. Does iliac crest harvesting affect outcomes following posterior fusions for adolescent idiopathic scoliosis. E-Poster 406. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
437. Glassman SD, Carreon LY, **Lenke LG**, Sanders JO, Vitale MG, Sucato DJ. The relevance of thoracic lordosis in adolescent idiopathic scoliosis. E-Poster 427. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
438. Sucato DJ, **Lenke LG**, Blanke K, McClung A. Response to critical intraoperative neuromonitoring changes in spinal deformity surgery: A poll of spinal deformity surgeons reviewing pediatric/adolescent cases. E-Poster 446. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
439. Lehman RA\*, Kang D, **Lenke LG**, Sucato DJ. Return to sports after surgery to correct adolescent idiopathic scoliosis. E-Poster 496. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
440. **Lenke LG**, Silva FE<sup>^</sup>. What percent of adult deformity patients have cancellous pedicle channels? E-Poster 503. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
441. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Hu G<sup>§</sup>, Buchowski JM\*, Dorward IG<sup>‡</sup>, Pahys JM\*, Cho SK\*, Kang MM\*, Zebala LP<sup>†\*</sup>, Koester LA. The prevalence of abnormal preoperative neurologic exam in Scheuermann's kyphosis: Correlation with x-ray, MRI, and surgical outcomes. E-Poster 541. 18<sup>th</sup> Annual International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
442. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Dorward IG<sup>‡</sup>, Zebala LP<sup>†\*</sup>, Pahys JM\*, Cho SK\*, Kang MM\*, Koester LA. Anterior lengthening does occur in pedicle subtraction osteotomy (PSO) at the osteotomized body as well as at the discs above and below: Geometric analysis. E-Poster 613. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Copenhagen, Denmark, July 13-16, 2011.
443. Vitale MG, Mackenzie WGS, Matsumoto H, Colacchio ND, Sucato DJ, Richards BS, Erickson MA, Sanders JO, **Lenke LG**, Roye DP, Williams BA. Frontal or sagittal spinal imbalance does not affect quality of life two years after posterior spinal instrumentation and fusion for adolescent idiopathic scoliosis. E-Poster 207. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
444. Lehman RA\*, **Lenke LG**, Blanke K, Transfeldt EE, Labelle H, Parent S, Mac-Thiong JM. Incidence/association of spondylolisthesis and adolescent idiopathic scoliosis (AIS). E-Poster 229. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

445. Dickson D\*, **Lenke LG**, Bridwell KH, Sides BA. Prevalence and risk factors for pseudarthrosis after lumbar pedicle subtraction osteotomy (PSO) in adult spinal deformity. E-Poster 230. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
446. Stoker GE<sup>‡</sup>, Buchowski JM\*, Bridwell KH, **Lenke LG**, Riew KD, Zebala LP<sup>‡\*</sup>. Preoperative vitamin D status in adults undergoing spinal fusion surgery. E-Poster 240. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
447. Bumpass D<sup>‡</sup>, **Lenke LG**, Bridwell KH, Stallbaumer J\*, Kim YJ<sup>§</sup>, Wallendorf M, Min WK<sup>§</sup>, Sides BA. Pulmonary function changes following posterior vertebral column resection in pediatric and adult spinal deformity patients. E-Poster 242. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
448. **Lenke LG**, Stallbaumer JJ\*, Bridwell KH, Zheng J<sup>§</sup>, Koester L. Pulmonary function comparison following adult spinal deformity surgery: minimum two-year follow-up. E-Poster 248. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
449. Nakamura Y, **Lenke LG**, Bridwell KH, Ning Y<sup>§</sup>, Hu G<sup>§</sup>, Min WK<sup>§</sup>, Koester L. Comparison between posterior-only correction and combined anterior/posterior fusion for severe Scheuermann's kyphosis. E-Poster 249. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
450. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Hu G<sup>§</sup>, Buchowski JM\*, Dorward IG<sup>‡</sup>, Pahys JM\*, Cho SK\*, Kang MM\*, Zebala LP<sup>‡\*</sup>, Koester L. The prevalence of abnormal preoperative neurologic exam in Scheuermann's kyphosis: Correlation with x-ray, MRI, and surgical outcome. E-Poster 250. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
451. Bogunovic L<sup>‡</sup>, **Lenke LG**, Bridwell KH, Luhmann SJ\*. Preoperative halo-gravity traction for severe pediatric spinal deformity: Complications, radiographic correction and changes in pulmonary function. Poster 313. Scoliosis Research Society 46<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
452. Dorward IG<sup>‡</sup>, **Lenke L**, Cho W<sup>§</sup>, Koester LA, Sides BA. Radiographic and clinical outcomes of posterior column osteotomies in spinal deformity correction: Analysis of 128 patients. Poster 62. Congress of Neurological Surgeons 61<sup>st</sup> Annual Meeting, Washington, D.C., October 1-6, 2011.
453. Lehman RA\*, Kang DG, **Lenke L**, Sucato D. Return to sports after surgery to correct adolescent idiopathic scoliosis. Poster 152. Congress of Neurological Surgeons 61<sup>st</sup> Annual Meeting, Washington, D.C., October 1-6, 2011.
454. Kang DG, Lehman RA\*, **Lenke L**, Gaume R, Paik H. The ventral lamina and superior facet rule: the key to accurate placement for thoracic pedicle screws. Poster 104. Congress of Neurological Surgeons 61<sup>st</sup> Annual Meeting, Washington, D.C., October 1-6, 2011.
455. Lehman R\*, **Lenke L**, Blanke K, Transfeldt E, Parent S, Labelle H, Mac-Thiong JM. Incidence/association of spondylolisthesis and adolescent idiopathic scoliosis (AIS). Poster 84. North American Spine Society 26<sup>th</sup> Annual Meeting, Chicago, IL, November 2-5, 2011.
456. Gomez JA, Matsumoto H, Colacchio ND, Sucato DJ, Richards II BS, Emans JB, Roye Jr. DP, Vitale MG, **Lenke LG**. Risk factors for coronal decompensation following spinal fusion for adolescent idiopathic scoliosis. Poster 249. American Academy of Orthopaedic Surgeons 79<sup>th</sup> Annual Meeting, San Francisco, CA, February 7-11, 2012.
457. Lehman RA\*, Kang D, **Lenke LG**, Gaume RE, Paik H, Bevevino A. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws. Poster 349. American Academy of Orthopaedic Surgeons 79<sup>th</sup> Annual Meeting, San Francisco, CA, February 7-11, 2012.
458. Stoker GE<sup>‡</sup>, Buchowski JM\*, Bridwell KH, **Lenke LG**, Riew KD, Zebala LP<sup>‡\*</sup>. Preoperative Vitamin D status of adults undergoing spinal fusion surgery. Poster 371. American Academy of Orthopaedic Surgeons 79<sup>th</sup> Annual Meeting, San Francisco, CA, February 7-11, 2012.

<sup>‡</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

459. Cho W<sup>§</sup>, **Lenke LG**, Bridwell KH, Hu G<sup>§</sup>, Buchowski JM\*, Pahys J\*, Cho SKW\*, Kang MM\*, Zebala LP<sup>‡\*</sup>, Koester LA. The prevalence of abnormal preoperative neurologic exam in Scheuermann's kyphosis. Poster 377. American Academy of Orthopaedic Surgeons 79<sup>th</sup> Annual Meeting, San Francisco, CA, February 7-11, 2012.
460. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Does curve magnitude/deformity correction correlate with pulmonary function after adult deformity surgery? 8<sup>th</sup> Annual Evidence and Technology Spine Summit, Park City, UT, February 23-25, 2012.
461. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. 8<sup>th</sup> Annual Evidence and Technology Spine Summit, Park City, UT, February 23-25, 2012.
462. Lehman RA\*, **Lenke LG**, Blanke KM, Kang DG, Transfeldt EE, Labelle H, Parent S, Mac-Thiong JM, Spinal Deformity Study Group. Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis: A matched cohort analysis. 8<sup>th</sup> Annual Evidence and Technology Spine Summit, Park City, UT, February 23-25, 2012.
463. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Pulmonary function following adult spinal deformity surgery: Minimum two-year follow-up. 8<sup>th</sup> Annual Evidence and Technology Spine Summit, Park City, UT, February 23-25, 2012.
464. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ. Return to sports after surgery to correct adolescent idiopathic scoliosis. 8<sup>th</sup> Annual Evidence and Technology Spine Summit, Park City, UT, February 23-25, 2012.
465. Dorward IG<sup>‡</sup>, **Lenke L**, Stoker GE<sup>‡\*</sup>, Cho W<sup>§</sup>, Koester LA, Sides BA. Radiographic and clinical outcomes of posterior column osteotomies in spinal deformity correction: Analysis of 128 patients. Oral Poster Presentations II 201. 28<sup>th</sup> Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Spine and Nerve Surgery in the Era of Excellence: Will You Measure Up? Orlando, FL, March 7-10, 2012.
466. Smith JS, Saulle D, Ames CP, **Lenke L**, Glassman SD, Broadstone PA, Polly Jr. DW, Shaffrey CI. Rates and causes or mortality associated with spine surgery based on 108,419 procedures: A review of the Scoliosis Research Society Morbidity and Mortality database. Oral Poster Presentations II 216. 28<sup>th</sup> Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Spine and Nerve Surgery in the Era of Excellence: Will You Measure Up? Orlando, FL, March 7-10, 2012.
467. Kasliwal MK, Smith JS, Shaffrey CI, Saulle D, **Lenke L**, Polly Jr. DW, Ames CP, Perra J. Short-term complications associated with surgery for high-grade spondylolisthesis in adults and pediatric patients: A report from the Scoliosis Research Society Morbidity and Mortality database. Oral Poster Presentations IV 204. 28<sup>th</sup> Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, Spine and Nerve Surgery in the Era of Excellence: Will You Measure Up? Orlando, FL, March 7-10, 2012.
468. Dmitriev AE, Lehman RA\*, Kang DG, Bevevino AJ, Gaume R, Paik H, **Lenke LG**. Biomechanical effects of pedicle screw "Hubbing" in the immature thoracic spine: A calf spine study. International Society for the Advancement of Spine Surgery Annual Meeting, Barcelona, Spain, March 20-23, 2012.
469. Bevevino AJ, Lehman RA\*, Kang DG, Dmitriev A, Helgeson M, Gaume R, **Lenke L**. Caudal pedicle screw compression optimizes thoracic kyphosis correction: A MicroCT and biomechanical analysis of pedicle morphology and screw failure. Poster 429. International Society for the Advancement of Spine Surgery, Barcelona, Spain, March 20-23, 2012.
470. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ, Bevevino AJ, Spinal Deformity Study Group. Return to sports after surgery to correct adolescent idiopathic scoliosis. American Association of Neurological Surgeons 80<sup>th</sup> Annual Meeting, Miami, FL, April 14-18, 2012.
471. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H, Bevevino AJ. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws. American Association of Neurological Surgeons 80<sup>th</sup> Annual Meeting, Miami, FL, April 14-18, 2012.

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

472. Lehman RA\*, Helgeson MD, Dmitriev AE, Paik H, Bevevino AJ, Gaume RE, Kang DG, **Lenke LG**. Caudal pedicle screw compression optimizes thoracic kyphosis correction: A microCT and biomechanical analysis of pedicle morphology and screw failure. American Association of Neurological Surgeons 80<sup>th</sup> Annual Meeting, Miami, FL, April 14-18, 2012.
473. Kang DG, Lehman RA\*, Dmitriev AE, Bevevino AJ, Gaume R, Paik H, **Lenke LG**. Biomechanical effects of pedicle screw “Hubbing” in the immature thoracic calf spine. Maryland Orthopaedic Association 71<sup>st</sup> Annual Meeting, Baltimore, MD, April 21, 2012.
474. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: A morphometric analysis for ideal thoracic pedicle screw start point. Lumbar Spine Research Society 5<sup>th</sup> Annual Meeting, Chicago, IL April 26-27, 2012.
475. Kang DG, Lehman RA\*, Dmitriev AE, Bevevino AJ, Gaume R, Paik H, **Lenke LG**. Biomechanical effects of pedicle screw “Hubbing” in the immature thoracic spine: A calf spine study. Virginia Orthopaedic Society Annual Meeting, Williamsburg, VA, May 4-6, 2012.
476. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: A morphometric analysis for ideal thoracic pedicle screw start point. Virginia Orthopaedic Society Annual Meeting, Williamsburg, VA, May 4-6, 2012.
477. Lehman RA\*, **Lenke LG**, Sucato SJ, Kang DG, Richards BS, Bridwell KH. Surgeon variability for treatment of Lenke 1C curve patterns with selective thoracic fusions. Virginia Orthopaedic Society Annual Meeting, Williamsburg, VA, May 4-6, 2012.
478. Kang DG, Lehman RA\*, Dmitriev AE, Bevevino AJ, Gaume RE, Paik H, **Lenke LG**. Biomechanical effects of pedicle screw Hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography analysis. Uniformed Services University Annual 2012 Research Days Poster Competition, Bethesda, MD, May 14, 2012.
479. Lehman RA\*, **Lenke LG**, Kang DG, Blanke KM, Transfeldt EE, Labelle H, Parent S, Mac-Thiong JM, Spinal Deformity Study Group. Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis. Spine Week 2012, Amsterdam, The Netherlands, May 28-June 1, 2012.
480. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: A morphometric analysis for ideal thoracic pedicle screw start point. Spine Week 2012, Amsterdam, The Netherlands, May 28-June 1, 2012.
481. Bevevino A, Lehman Jr. RA\*, Kang DG, Dmitriev AE, Helgeson MD, **Lenke LG**. Caudal pedicle screw compression optimizes thoracic kyphosis correction: A micro-CT and biomechanical analysis of pedicle morphology and screw failure. Poster 2. Western Orthopaedic Association 76<sup>th</sup> Annual Meeting, Portland, OR, June 13-16, 2012.
482. Kang DG, Lehman Jr. RA\*, **Lenke LG**, Blanke K. Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis. Poster 15. Western Orthopaedic Association 76<sup>th</sup> Annual Meeting, Portland, OR, June 13-16, 2012.
483. Bevevino A, Lehman Jr. RA\*, Dmitriev AE, Lang DG, Helgeson MD, **Lenke LG**. Caudal pedicle screw compression optimizes thoracic kyphosis correction: a microCT and biomechanical analysis of pedicle morphology and screw failure. Poster 2. Southern Orthopaedic Association 29<sup>th</sup> Annual Meeting, White Sulphur Springs, WV, July 18-21, 2012.
484. Kang DG, Lehman Jr. RA\*, Dmitriev AE, Bevevino A, Gaume RE, **Lenke LG**. Biomechanical effects of pedicle screw “Hubbing” in the immature thoracic calf spine. Poster 20. Southern Orthopaedic Association 29<sup>th</sup> Annual Meeting, White Sulphur Springs, WV, July 18-21, 2012.
485. Kang DG, Lehman Jr. RA\*, **Lenke LG**, Blanke KM. Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis. Poster 21. Southern Orthopaedic Association 29<sup>th</sup> Annual Meeting, White Sulphur Springs, WV, July 18-21, 2012.

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

486. Lehman RA\*, Kang DG, **Lenke LG**, Sucato DJ, Spinal Deformity Study Group. Return to sports after surgery to correct adolescent idiopathic scoliosis: A survey of the spinal deformity study group. E-Poster 218. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
487. Larson NA, Aubin CE, Polly DW, Ledonio CGT, Lonner BS, Shah SA, Sucato DJ, **Lenke LG**, Richards BS, Erickson MA, Emans JB, Weinstein SL, Minimize Implants Maximize Outcomes Study Group. Are more screws better? A systematic review of the implant density and curve correction in AIS. E-Poster 226. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
488. Xu Y<sup>§</sup>, **Lenke LG**, Kelly MP\*<sup>†</sup>, Koester L, Sides BA. Amount of coronal correction in AIS patients following posterior column osteotomies: An intraoperative radiographic study. E-Poster 245. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
489. Min WK<sup>§</sup>, **Lenke LG**, Kelly MP\*<sup>†</sup>, Kim HJ\*, Nakamura Y<sup>§</sup>, Lee DH<sup>§</sup>, Park MS<sup>§</sup>, Sides BA. Are clinical outcomes favorable following posterior vertebral column resection (PVCR) for severe adult spinal deformity? E-Poster 331. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
490. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Do preoperative curve magnitude and major thoracic deformity correction correlate with pulmonary function following adult deformity surgery? E-Poster 336. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
491. Dorward IG<sup>‡</sup>, **Lenke LG**, Bridwell KH, Cho W<sup>§</sup>, Koester L, Sides BA. Radiographic and clinical outcomes of posterior column osteotomies in adult spinal deformity correction: Analysis of 128 patients. E-Poster 361. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
492. Silva F<sup>^</sup>, **Lenke LG**. What percentage of adult deformity patients have cancellous pedicle channels? E-Poster 384. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
493. Lehman RA\*, Dmitriev AE, Bevevino AJ, Kang DG, Helgeson M, Paik H, Gaume RE, **Lenke LG**. Caudal pedicle screw compression optimizes thoracic kyphosis correction: A micro CT and biomechanical analysis of pedicle morphology and screw failure. E-Poster 415. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
494. Kim HJ\*, **Lenke LG**, Mesfin A\*, Hershman S\*, Fogelson JL\*, Sides BA. Can long fusion crossing the cervicothoracic junction have good outcomes at a minimum two years follow-up? E-Poster 451. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Istanbul, Turkey, July 18-21, 2012.
495. Kang DG, Lehman RA\*, Dmitriev AE, Bevevino AJ, Gaume R, Paik H, **Lenke LG**. Biomechanical effects of pedicle screw “Hubbing” in the immature thoracic calf spine. North American Spine Society Spine Across the Sea, Kauai, HI, July 29-August 2, 2012.
496. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H. The ventral lamina and superior facet rule: A morphometric analysis for ideal thoracic pedicle screw start point. Poster 215. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012. **John H. Moe Best Basic Science Poster Award**
497. Dorward IG<sup>‡</sup>, **Lenke LG**, Bridwell KH, Cho W<sup>§</sup>, Koester L, Sides BA. Radiographic and clinical outcomes of posterior column osteotomies in adult spinal deformity correction: Analysis of 128 patients. E-Poster 240. Scoliosis Research Society 47<sup>th</sup> Annual Meeting, Chicago, IL, September 5-8, 2012.
961. Lehman RA\*, Kang DG, **Lenke L**, Stallbaumer J\*, Sides BA. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Poster 1475. Congress of Neurological Surgeons 2012 Annual Meeting, Chicago, IL, October 6-10, 2012.
962. Lehman RA\*, Kang DG, **Lenke L**, Sides BA, Stallbaumer J\*. Do preoperative curve magnitude and major thoracic deformity correction correlate with pulmonary function following adult deformity surgery? Poster 1479. Congress of Neurological Surgeons 2012 Annual Meeting, Chicago, IL, October 6-10, 2012.

<sup>§</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

963. Kang DG, Lehman RA\*, Dmitriev AE, Gaume R, Bevevino AJ, Paik H, **Lenke L**. Pedicle screw hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography evaluation. Congress of Neurological Surgeons 2012 Annual Meeting, Chicago, IL, October 6-10, 2012.
964. Lehman RA\*, **Lenke L**, Kang DG, Blanke K, Transfeldt EE, Labelle H, Parent S, Mac-Thiong JM, Spinal Deformity Study Group (SDSG). Prevalence of spondylolisthesis and concomitant adolescent idiopathic scoliosis. Poster 1451. Congress of Neurological Surgeons 2012 Annual Meeting, Chicago, IL, October 6-10, 2012.
498. Kang DG, Lehman Jr. RA\*, Dmitriev AE, Bevevino A, Gaume RE, Paik H, **Lenke LG**. Pedicle screw hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography evaluation. Poster 78. North American Spine Society 27<sup>th</sup> Annual Meeting, Dallas, TX, October 24-27, 2012.
499. Kim HJ\*, **Lenke LG**, Riew KD, Oshima Y<sup>§</sup>, Mesfin A\*, Hershman S\*, Fogelson J\*, Sides B. Occipital incidence – A novel morphometric parameter for understanding occipitocervical spinal alignment. Poster 332. Cervical Spine Research Society 40<sup>th</sup> Annual Meeting, Chicago, IL, December 5-8, 2012.
500. Xu J<sup>§</sup>, Buchowski JM\*, Bridwell KH, **Lenke LG**, Mesfin A\*, Koester L, Xu Y<sup>§</sup>, Riew KD. Surgical management of cervical facet fracture/dislocation: Analysis of sixty-one cases with minimum two-year follow-up. Poster 293. Cervical Spine Research Society 40<sup>th</sup> Annual Meeting, Chicago, IL, December 5-8, 2012.
501. Lehman RA\*, Kang DG, **Lenke LG**, Gaume RE, Paik H, Bevevino AJ. The ventral lamina and superior facet rule: The key to accurate placement for thoracic pedicle screws. Society of Military Orthopaedic Surgeons 53<sup>rd</sup> Annual Conference, San Diego, CA, December 12-16, 2012.
502. Smith JS, Ames C, **Lenke LG**, Polly Jr. DW, Kasliwal MK, Broadstone PA, Glassman SD, Vaccaro A, Shaffrey CI. Scoliosis Research Society: Rates and causes or mortality associated with spine surgery based on 108,419 procedures. Poster 59. American Academy of Orthopaedic Surgery 80<sup>th</sup> Annual Meeting, Chicago, IL, March 19-23, 2013.
503. Cidambi KR, Bastrom T, Bartley C, Clements III DH, Betz RR, **Lenke LG**, Newton PO. Surgical treatment of adolescent idiopathic scoliosis: A prospective ten-year follow-up study. Poster 395. American Academy of Orthopaedic Surgery 80<sup>th</sup> Annual Meeting, Chicago, IL, March 19-23, 2013.
504. Kang DG, Lehman RA\*, Dmitriev AE, Bevevino AJ, Gaume R, Paik H, **Lenke LG**. Pedicle screw hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography evaluation. International Society for the Advancement of Spine Surgery, Vancouver, British Columbia, Canada, April 3-5, 2013.
505. Lehman RA\*, Kang DG, **Lenke LG**, Tracey RW, Cody JP, Sides BA, Stallbaumer JJ\*. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Virginia Orthopaedic Society 66<sup>th</sup> Annual Meeting, Washington, DC, May 3-5, 2013.
506. Lehman RA\*, Kang DG, **Lenke LG**, Tracey RW, Cody JP, Sides BA, Stallbaumer JJ\*. Does curve magnitude/deformity correction correlate with pulmonary function after adult deformity surgery? Virginia Orthopaedic Society 66<sup>th</sup> Annual Meeting, Washington, DC, May 3-5, 2013.
507. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA, Cody J. Pulmonary function following adult spinal deformity surgery: Minimum two year follow-up. Oral Poster 242. International Society for the Advancement of Spine Surgery Annual Meeting, Vancouver, British Columbia, Canada, April 3-5, 2013.
508. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Poster 243. International Society for the Advancement of Spine Surgery Annual Meeting, Vancouver, British Columbia, Canada, April 3-5, 2013.
509. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Do preoperative curve magnitude and major thoracic deformity correction correlate with pulmonary function following adult deformity surgery? Poster 244. International Society for the Advancement of Spine Surgery Annual Meeting, Vancouver, British Columbia, Canada, April 3-5, 2013.

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



510. Tracey RW, Kang DG, Lehman RA\*, Bevevino AJ, Gaume R, Paik H, Dmitriev AE, **Lenke LG**. Pedicle screw hubbing in the adult and immature thoracic spine: A biomechanical and micro-computed tomography evaluation. Poster 245. International Society for the Advancement of Spine Surgery Annual Meeting, Vancouver, British Columbia, Canada, April 3-5, 2013.
511. Tracey RW, Kang D, Lehman R\*, Cody J, **Lenke LG**, Stallbaumer J\*, Sides B. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. American Association of Neurologic Surgeons 81<sup>st</sup> Annual Scientific Meeting, New Orleans, LA, April 27-May 1, 2013.
512. Tracey RW, Lehman R\*, Kang D, Cody J, **Lenke L**, Stallbaumer JJ\*, Sides BA. Does curve magnitude/deformity correction correlate with pulmonary function after adult deformity surgery? American Association of Neurologic Surgeons 81<sup>st</sup> Annual Scientific Meeting, New Orleans, LA, April 27-May 1, 2013.
513. Tracey RW, Lehman RA\*, Kang DG, Cody JP, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Poster 226. International Society for the Study of the Lumbar Spine 40<sup>th</sup> Annual Meeting, Scottsdale, AZ, May 13-17, 2013.
514. Tracey RW, Lehman RA\*, Kang DG, Cody JP, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Return to sports after surgery to correct adolescent idiopathic scoliosis. Poster 227. International Society for the Study of the Lumbar Spine 40<sup>th</sup> Annual Meeting, Scottsdale, AZ, May 13-17, 2013.
515. Dorward IG<sup>f</sup>\*, Bridwell KH, **Lenke LG**, Neuman BJ\*, O'Neill KR\*, Holekamp TF<sup>l</sup>, Ahmad A, Baldus C. Outcomes in surgery for adolescent idiopathic scoliosis: Drivers of satisfaction and durability of results. Poster 201. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 13-16, 2013.
516. Celestre PC, Carreon LY, **Lenke LG**, Sucato DJ, Glassman SD. Sagittal alignment two years after selective and nonselective thoracic fusion for Lenke 1C adolescent idiopathic scoliosis. Poster 209. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 13-16, 2013.
517. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Does curve magnitude/deformity correction correlate with pulmonary function after adult deformity surgery? Poster 216. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 13-16, 2013.
518. Min WK<sup>§</sup>, **Lenke LG**, Kelly MP\*<sup>†</sup>, Kim HJ\*, Nakamura Y, Lee DH<sup>§</sup>, Park MS<sup>§</sup>, Sides BA. Are clinical outcomes favorable following of posterior vertebral column resection (PVCR) for severe adult spinal deformity? Poster 233. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 13-16, 2013.
519. Glaser DA, Doan J, Reighard FG, Newton PO, **Lenke LG**. Differences in 3D upright slot-scanner versus supine CT in AIS patients. Poster 277. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Vancouver, British Columbia, Canada, July 13-16, 2013.
520. Tracey RW, Kang DG, Lehman RA\*, Cody JP, **Lenke L**. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Poster 32. Southern Orthopaedic Association 30<sup>th</sup> Annual Meeting, Palm Beach, FL, July 17-20, 2013.
521. Tracey RW, Kang DG, Lehman RA\*, Cody JP, **Lenke L**. Does curve magnitude/deformity correction correlate with pulmonary function after adult deformity surgery? Poster 33. Southern Orthopaedic Association 30<sup>th</sup> Annual Meeting, Palm Beach, FL, July 17-20, 2013.
522. Xu Y<sup>§</sup>, **Lenke LG**, Kelly MP\*<sup>†</sup>, Koester L, Sides BA. Amount of coronal correction in AIS patients following posterior column osteotomies: An intraoperative radiographic study. Poster 208. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
523. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Poster 217. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013. **Goldstein Award Nominee for Best Clinical E-Poster**

<sup>§</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>l</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

524. Lehman RA\*, Kang DG, **Lenke LG**, Stallbaumer JJ\*, Sides BA. Does curve magnitude/deformity correction correlate with pulmonary function after adult deformity surgery. Poster 238. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
525. Celestre PC, Carreon LY, **Lenke LG**, Sucato DJ, Glassman SD. Sagittal alignment two years after selective and nonselective thoracic fusion for Lenke 1C adolescent idiopathic scoliosis. Poster 260. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
526. Dorward IG<sup>f</sup>\*, Bridwell KH, **Lenke LG**, Neuman BJ\*, O'Neill KR\*, Holekamp TF<sup>f</sup>, Ahmad A, Baldus C. Outcomes in surgery for adolescent idiopathic scoliosis: Drives of satisfaction and durability of results. Poster 274. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
527. Min WK<sup>s</sup>, **Lenke LG**, Kelly MP\*<sup>†</sup>, Kim HJ\*, Nakamura Y, Lee DH<sup>s</sup>, Park MS<sup>s</sup>, Sides BA. Are clinical outcomes favorable following of posterior vertebral column resection (PVCr) for severe adult spinal deformity? Poster 281. Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 18-21, 2013.
528. Celestre PC, Carreon LY, **Lenke LG**, Sucato DJ, Glassman SD. Sagittal alignment two years after selective and nonselective thoracic fusion for Lenke 1C adolescent idiopathic scoliosis. Poster 1. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
529. Cho SK\*, Lu Y, Skovrlj B, Caridi JM, **Lenke LG**. The effect of increasing pedicle screw diameter on thoracic spinal canal dimensions: An anatomic study. Poster 43. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
530. Cho SK\*, **Lenke LG**, Bridwell KH, Kim YJ<sup>s</sup>. Recent trends in surgical management of adolescent idiopathic scoliosis: A review of 17,412 cases from the Scoliosis Research Society database 2001-2008. Poster 45. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
531. Cho SK\*, Egorova NN, Bridwell KH, **Lenke LG**, Caridi JM, Kim YJ<sup>s</sup>. Comparative analysis of osteotomies during adult spinal fusions: A retrospective review of 3,990 cases from the Scoliosis Research Society Morbidity and Mortality database. Poster 46. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
532. Lehman RA\*, Kang DG, **Lenke LG**, Sides BA. Pulmonary function following adult spinal deformity surgery: Minimum two-year follow-up. Poster 122. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
533. Lehman RA\*, Kang DG, **Lenke LG**, Sides BA. Comparison of pulmonary function in adults younger and older than age 60 undergoing spinal deformity surgery. Poster 123. North American Spine Society 28<sup>th</sup> Annual Meeting, New Orleans, LA, October 9-12, 2013.
534. Dorward IG<sup>f</sup>\*, **Lenke L**, Bridwell K, McCoy K, Holekamp TF<sup>f</sup>, Neuman BJ\*, O'Neill K\*, Ray WZ, Sides BA, Koester LA. Surgery for idiopathic scoliosis in adolescent versus young adults: A matched cohort analysis. Poster 367. Congress of Neurosurgical Surgeons Annual Meeting, San Francisco, CA, October 2013.
535. Dorward IG<sup>f</sup>\*, Bridwell K, **Lenke L**, O'Neill K\*, Neuman BJ\*, Holekamp TF<sup>f</sup>, Ahmad AS, Baldus CR. Outcomes in surgery for adolescent idiopathic scoliosis: Drives of satisfaction and durability of results. Poster 1022. Congress of Neurosurgical Surgeons Annual Meeting, San Francisco, CA, October 2013.
536. Silva F<sup>^</sup>, **Lenke LG**, Bridwell KH, Koester LA. Clinical and radiographic outcomes of Lenke-Silva treatment levels 2 and 3. Poster 427. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves 30<sup>th</sup> Annual Meeting, Orlando, FL, March 5-8, 2014.
537. Cho SK\*, **Lenke LG**, Bridwell KH, Kim YJ<sup>s</sup>. Comparative analysis of four osteotomies performed during pediatric spinal fusion surgery. Poster 253. American Academy of Orthopaedic Surgery 81<sup>st</sup> Annual Meeting, New Orleans, LA, March 11-15, 2014.

<sup>v</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>f</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>s</sup>International Research Scholar

538. Gum J\*, Crawford III CH\*, **Lenke LG**, Buchowski JM\*, Edwards CC\*, Glassman SD, Carreon LY. Culture profile of surgical site infections after topical vancomycin instrumented spine fusions. Poster 348. American Academy of Orthopaedic Surgeons 81<sup>st</sup> Annual Meeting, New Orleans, LA, March 11-15, 2014.
539. Glaser DA, **Lenke L**. 3D upright slot-scanner EOS vs supine CT: A clinical examination. Poster 683. Orthopaedic Research Society 60<sup>th</sup> Annual Meeting, New Orleans, LA, March 15-18, 2014.
540. Kang DG, Lehman RA\*, **Lenke LG**. Sacral screw strain in a long posterior spinal fusion construct with sacral alar-iliac (S2A1) versus iliac fixation. Maryland Orthopaedic Association 73<sup>rd</sup> Annual Meeting, Baltimore, MD, April 20, 2014.
541. Wagner S, Lehman RA\*, **Lenke LG**. A finite-element model to accurately predict biomechanical behavior of the human lumbosacral spine. Maryland Orthopaedic Association 73<sup>rd</sup> Annual Meeting, Baltimore, MD, April 20, 2014.
542. Asghar J, Shah SA, Lehman RA\*<sup>†</sup>, **Lenke LG**, Newton PO, Pahys JM\*, Yaszay, Miyanji F, Samdani AF, Shufflebarger HL. The use of Ponte osteotomies (PO) in AIS: Are they safe? Poster 211. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
543. Kim YC<sup>§</sup>, **Lenke LG**, Bridwell KH, Zebala LP<sup>‡\*</sup>, Gum JL\*, Li Q<sup>§</sup>, Kim YW<sup>§</sup>, Koester L, Blanke K. How does surgical correction of spinal deformity affect total body sagittal alignment? E-Poster 233. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
544. Kim YC<sup>§</sup>, **Lenke LG**, Bridwell KH, Gum JL\*, Tauchi R<sup>§</sup>, Li Q<sup>§</sup>, Kim YW<sup>§</sup>, Kim SW<sup>§</sup>, Koester L, Blanke K. Novel radiographic parameters for the assessment of total body sagittal alignment. E-Poster 234. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
545. Kim YC<sup>§</sup>, **Lenke LG**, Bridwell KH, Hyun SJ<sup>§</sup>, Tauchi R<sup>§</sup>, Chang HG, Koester L, Blanke K. Results of revision surgery for pseudarthrosis following pedicle subtraction osteotomy for fixed sagittal imbalance: Minimum 5-years post revision. E-Poster 245. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
546. Kim YC<sup>§</sup>, **Lenke LG**, Bridwell KH, Kelly MP\*<sup>†</sup>, Chang HG, Kim YW<sup>§</sup>, Koester L, Blanke K. Results of revision surgery for proximal junctional kyphosis following posterior instrumentation – Minimum two-years post revision. E-Poster 248. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
547. Gum JL\*, **Lenke LG**, Bridwell KH, Sides BA, Salehi A, Bumpass DB<sup>‡\*</sup>, Sugrue PA\*, Karikari I\*, Kelly MP\*<sup>†</sup>. What is the fate of adult and pediatric spinal deformity reconstruction after prior deep wound infection? E-Poster 252. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16-19, 2014.
548. Sugrue PA\*, Bridwell KH, **Lenke LG**, Ahmad A, Gum JL\*, Bumpass DB<sup>‡\*</sup>, Karikari I\*, O'Neill KR\*, Kim SD\*, Carreon LY. Major revision surgery as a result of pseudarthrosis or proximal junctional kyphosis is the most likely complication to negatively impact patient reported outcome scores in adult spinal deformity. E-Poster 221. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
549. Karikari I\*, Bridwell KH, **Lenke LG**, Sugrue PA\*, Bumpass DB<sup>‡\*</sup>, Ahmad A, Gum JL\*. Decompression in adult lumbar deformity surgery is associated with increased perioperative complications but favorable long term outcomes. E-Poster 224. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
550. Gum JL\*, Bridwell KH, **Lenke LG**, Bumpass DB<sup>‡\*</sup>, Sugrue PA\*, Karikari I\*, Kim SD\*, O'Neill KR\*, Carreon LY. SRS appearance domain correlates the most with patient satisfaction after adult deformity surgery to the sacrum at 5 year follow-up. E-Poster 230. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
551. Rahman RK\*<sup>†</sup>, **Lenke LG**, Gum JL\*, Raja-Rahman N. Posterior vertebral column resection: Complications and clinical outcomes with minimum 5-year follow-up. E-Poster 243. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
552. Mohapatra A, Zebala LP<sup>‡\*</sup>, **Lenke LG**, Wilson RZ, Kelly MP\*<sup>†</sup>. The influence of topical vancomycin on surgical site infection rates following instrumented thoracolumbar surgery. E-Poster 244. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.

<sup>§</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

553. Vitale MG, Pace GI, Wright ML, Matsumoto H, Erickson MA, Flynn JM, Glotzbecker M, Ibrahim KN, Lewis SJ\*, Luhmann SJ\*, Richards BS, Sanders JO, Shah SA, Skaggs DL, Smith JT, Song K, Sponseller PD, Sucato DJ, Roye DP, **Lenke LG**. Creation of a consensus-based checklist for the response to intraoperative neuromonitoring changes in spine deformity surgery. E-Poster 252. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
554. **Lenke LG**, Boachie-Adjei O, Sucato DJ, Newton PO, Shufflebarger HL, Sponseller PD, Emans JB, Shah SA, Lonner BS, Samdani AF, Kelly MP\*<sup>†</sup>, Sides BA. The deformity angular ratio accurately predicts risk of intraoperative spinal cord monitoring alerts during surgery for severe pediatric spinal deformity. E-Poster 271. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Anchorage, AK, September 11-13, 2014.
555. Cheung K, Bow C, Samartzis D, Dekutoski M, Schwab F, Boachie-Adjei O, Kebaish K, Ames C, Qiu Y, Matsuyama Y, Dahl B, Mehdian H, Pellise-Urquiza F, Carreon L, Shaffrey C, Fehlings M, **Lenke L**. Risk factors for non-neurological complications in adult spinal deformity surgery: An international, prospective, multi-center study of 269 cases. Hong Kong Orthopaedic Association 34<sup>th</sup> Annual Congress, Hong Kong, China, November 15-16, 2014.
556. Lehman Jr. RA\*<sup>†</sup>, Kang D, **Lenke LG**, Wagner S, Sides B. Pulmonary function following adult spinal deformity surgery: Minimum two-year follow up. Poster 367. American Academy of Orthopaedic Surgeons 82<sup>nd</sup> Annual Meeting, Las Vegas, NV, March 24-28, 2015.
557. Gum J\*, Carreon LY, Buchowski JM\*, **Lenke LG**, Glassman SD. Utilization trends of PSOs compared to PSFs for deformity: A national database analysis, 2008-2011. Poster 382. American Academy of Orthopaedic Surgeons 82<sup>nd</sup> Annual Meeting, Las Vegas, NV, March 24-28, 2015.
558. **Lenke LG**, Samdani AF, Yaszay B, Lonner BS, Sponseller PD, Erickson MA, Garg S<sup>‡</sup>, Kelly MP\*<sup>†</sup>, Pahys JM\*, Jain VV, Cahill PJ, Yan Y, Sides BA, Fox Pediatric Spinal Deformity Study Group. Interobserver and intraobserver reliability of determining the deformity angular ratio in severe pediatric deformity curves. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
559. Wu J, Parent S, Aubin CE, Kadoury S, Newton PO, **Lenke LG**, Lafage V, Labelle H. Towards a new 3D classification for adolescent idiopathic scoliosis (AIS): 3D subgroups derived from a consensus approach from members of the SRS 3D taskforce. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
560. Chapman TM\*, **Lenke LG**, Kang DG\*, McClendon J\*, Metz LN\*, Sides BA, Blanke KM. Can radiography be minimized in pediatric spinal deformity using surface topography? Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
561. Kang DG\*, Lenke LG, Gum JL\*, Lehman RA\*<sup>†</sup>, Kelly MP\*<sup>†</sup>, Blanke KM, Koester L, Bumpass DB<sup>‡</sup>\*<sup>†</sup>, Hwang CJ<sup>§</sup>, Metz LN\*, Chapman TM\*, McClendon J\*, Wagner SC. Reliability of shoulder height assessment in adolescent idiopathic scoliosis. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
562. Kang DG\*, Buchowski JM\*, **Lenke LG**, Lehman RA\*<sup>†</sup>, Luksanaprukpa P<sup>§</sup>, McClendon J\*, Chapman TM\*, Metz LN\*. Can S2-alar-iliac (S2AI) screws be placed accurately without fluoroscopy? Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
563. Kang DG\*, Lehman RA\*<sup>†</sup>, **Lenke LG**, Luksanaprukpa P<sup>§</sup>, Abraamyan T, Koester L, Metz LN\*, McClendon J\*, Chapman M\*. Does single- versus two-stage pedicle subtraction osteotomy in spinal deformity surgery influence perioperative complications? Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
564. Metz LN\*, **Lenke LG**, Sides BA, Kim YC<sup>§</sup>, Kim HJ\*, Kelly MP\*<sup>†</sup>, Lehman RA\*<sup>†</sup>, Kang DG\*, McClendon J\*, Chapman TM\*, Blanke KM. Age affects total body sagittal alignment in asymptomatic adults. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.

<sup>‡</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

565. Knott PT, Sturm PF, Lonner BS, Betz RR, Cahill PJ, Betsch M, McCarthy RE, Kelly MP\*<sup>†</sup>, **Lenke LG**. Can radiography be minimized in pediatric spinal deformity using surface topography? Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
566. **Lenke LG**, Newton PO, Lehman Jr. RA\*<sup>†</sup>, Kelly MP\*<sup>†</sup>, Clements III DH, Errico TJ, Betz RR, Samdani AF, Blanke KM, Harms Study Group. Radiographic results of selecting the touched vertebra as the lowest instrumented vertebra in Lenke type 1 (main thoracic) and type 2 (double thoracic) curves at a minimum 5-year follow-up. Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.
567. Jain A, Kebaish FN, **Lenke LG**, Qiu Y, Matsuyama Y, Ames C, Fehlings M, Dahl B, Mehdian H, Cheung K, Schwab F, Pellisé F, Carreon L, Shaffrey C, Kebaish K. Incidence of Proximal Junctional Kyphosis in Patients with Adult Spinal Deformity Fused to the Pelvis: A ScolioRisk-1 Sub-analysis. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
568. Jain A, Kebaish FN, **Lenke LG**, Dahl B, Cheung K, Pellisé F, Qiu Y, Fehlings M, Ames C, Matsuyama Y, Mehdian H, Schwab F, Carreon L, Shaffrey C, Kebaish. Geographical Variations in Practice Patterns and Outcomes in Surgically Treated Adult Spinal Deformity Patients: A ScolioRisk-1 Sub-analysis. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
569. Jain A, Kebaish FN, **Lenke LG**, Dahl B, Cheung K, Pellisé F, Qiu Y, Fehlings M, Ames C, Matsuyama Y, Mehdian H, Schwab F, Carreon L, Shaffrey C, Kebaish. Early Postoperative Surgical Site Infections in the Scolio-Risk 1 Cohort of Complex Spinal Deformity Patients Still Allowed For Improved Health Related Quality of Life Outcomes at 2 Year Follow-Up. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
570. Carreon L, Glassman S, Shaffrey C, Fehlings M, Dahl B, Ames C, Matsuyama Y, Qiu Y, Mehdian H, Cheung K, Schwab F, Pellisé F, Kebaish, **Lenke LG**. Predictors of Health-related Quality-of-Life After Complex Adult Spinal Deformity Surgery: A Scolio-RISK-1 Secondary Analysis. 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
571. Kim YC, **Lenke LG**, Kim TH, Jang C, Kim YW, Chang HG, Gum J, Wilartatsami S, Blanke K. Does Coronal or Sagittal Correction for Adult Spinal Deformity More Significantly Affect Acetabular Coverage? 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
572. Jain A, Kelly M, Samdani A, **Lenke LG**, Lonner B, Shah S, Newton P, Marks M, Sponseller P. Are Health Related Quality of Life Outcomes Stably Maintained Between 1-Year and 5-Year Follow-up in Surgically Treated Patients with Adolescent Idiopathic Scoliosis? 51st SRS Annual Meeting & Course, Prague, Czech Republic, September 21 - 24, 2016
573. Cazzulino A, Holekamp T, Riew KD, **Lenke LG**, Seetharaman M, Lehman RA. Bone Density Decreases from the Cervical Spine to the Sacrum: Correlation of DXA and Hounsfield Units using Computed Tomography (CT). American Academy of Orthopaedic Surgeons 2017 Annual Meeting, San Diego, California, March 14-17, 2017
574. Jain A, Kebaish J, **Lenke LG**, Carreon L, Ames C, Shaffrey C, Fehlings M, Dahl B, Schwab F, Kebaish K. Impact of Depression on Health Related Quality of Life Outcomes in Surgically Treated Adult Spinal Deformity Patients. American Academy of Orthopaedic Surgeons 2017 Annual Meeting, San Diego, California, March 14-17, 2017
575. Planned staged surgery for severe pediatric spinal deformity does not reduce complications within 90 days of surgery: A prospective matched cohort study. SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
576. Comprehensive Complication Classification for Adult Spinal Deformity: Impact on Patient Outcomes. SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
577. Who Gets Staged Surgery in Severe Pediatric Spinal Deformity? SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017

<sup>‡</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

578. Pre-operative Halo-Gravity Traction: Can it Replace a Vertebral Column Resection? SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
579. Gupta MC, **Lenke LG**, Boachie-Adjei O, Cahill PJ, Garg S, Samdani AF, Shufflebarger HL, Sides BA, Sponseller PD, Kelly MP. High Rate of Intraoperative Monitoring (IOM) Alerts in 176 Severe Pediatric Deformity Patients and its Relationship to the Deformity Angularity Ratio (DAR). SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
580. Marked Increase in Long Fusion Constructs throughout the United States over a Recent Decade. SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
581. The Role of Pelvic Parameters on S2 Alar-Iliac (S2AI) Screw Trajectory. SRS 52nd Annual Meeting & Course, Philadelphia, Pennsylvania, September 6-9, 2017
582. Laratta JL, Shillingford JN, Saifi C, Lombardi JM, Lehman RA, **Lenke LG**. The Rise and Fall of Bone Morphogenetic Protein. North American Spine Society (NASS) Annual Meeting, Orlando, Florida, October 25th -28<sup>th</sup>
583. Laratta JL, Shillingford JN, Saifi C, Lombardi JM, Lehman RA, **Lenke LG**. The Unprecedented Increase in Neuromonitoring Utilization over a Recent Decade. North American Spine Society (NASS) Annual Meeting, 2017, Orlando, Florida, October 25th -28th
584. Laratta JL, Kaushal NK, Shillingford JN, Lombardi JM, Saifi C, Lehman RA, **Lenke LG**. Pediatric Spinal Fusion Procedures have Massively Increased Throughout the United States over a Recent Decade. North American Spine Society (NASS) Annual Meeting, 2017, Orlando, Florida, October 25th -28th
585. Laratta JL, Shillingford JN, Saifi C, Lombardi JM, **Lenke LG**, Lehman RA. Vertebroplasty and Kyphoplasty Utilization Trends throughout the United States. North American Spine Society (NASS) Annual Meeting, 2017, Orlando, Florida, October 25th -28th
586. Laratta JL, Shillingford JN, Saifi C, Lombardi JM, **Lenke LG**, Lehman RA. Outpatient Spinal Fusion: The New Frontier. North American Spine Society (NASS) Annual Meeting, 2017. Orlando, Florida, October 25th -28th
587. Laratta JL, Shillingford JN, Lombardi JM, **Lenke LG**, Lehman RA. Hospital Readmission following Spinal Fusion throughout the United States. North American Spine Society (NASS) Annual Meeting, 2017, Orlando, Florida, October 25th -28th
588. Laratta JL, Shillingford JN, Lombardi JM, Saifi C, Lehman RA, **Lenke LG**, Riew KD. Tobramycin Powder Eradicates Spinal Wound Contamination: An in Vivo Rabbit Model. North American Spine Society (NASS) Annual Meeting, 2017, Orlando, Florida, October 25th -28<sup>th</sup>
589. Osorio JA, Lin JD, Cerpa M, Morr S, Baum GR, **Lenke LG**. Can We Predict Postoperative Sagittal Lumbar Alignment from Intraoperative Prone-Positioned Radiographs? 26th International Meeting on Advanced Spine Techniques (IMAST), July 17-20, 2019, Amsterdam, the Netherlands.
590. Lin JD, Menger RP, Cerpa M, Baum GR, Morr S, **Lenke LG**. Avoiding Challenging and Potentially Dangerous Pedicle Screws: Leaving out the Proximal Thoracic Concave Apical Screw(s) in Adolescent Idiopathic Scoliosis (AIS). 26th International Meeting on Advanced Spine Techniques (IMAST), July 17-20, 2019, Amsterdam, the Netherlands.
591. Osorio JA, Lin JD, Menger RP, Cerpa M, Baum GR, Morr S, **Lenke LG**. Leaving Screw Out In PT Curve In AIS. 26th International Meeting on Advanced Spine Techniques (IMAST), July 17-20, 2019, Amsterdam, the Netherlands.
592. Makhni MC, Park PJ, Cerpa M, Lin J, **Lenke LG**. The Novel “Kickstand Rod” Technique for Correction of Coronal Imbalance in Pediatric and Adult Spinal Deformity Patients. 26th International Meeting on Advanced Spine Techniques (IMAST), July 17-20, 2019, Amsterdam, the Netherlands.

593. Lee NJ, Joshua Li X, Cerpa M, Leung E, Sardar ZM, , Lehman RA, **Lenke LG**. Development of a Surgeon Specific Risk Stratification Model for Complex Adult Spinal Deformity Surgery. SRS 54th Annual Meeting September 18-21, 2019, Montréal, Canada.
594. Ha A, Blake R, Levitsky M, Konigsberg, Boddapati V, Cerpa M, **Lenke LG**. The Varus Knee Phenomenon in Spine Deformity Patients. North American Spine Society 34th Annual Meeting, September 25-28, 2019, Chicago, IL
595. Ha A, Tuchman A, Mathew J, Lee NJ, Cerpa M, Benkli B, Lombardi J, **Lenke LG**. Novel Intraoperative Coronal Radiographic Parameter for Adult Spinal Deformity & The Varus Knee Phenomenon in Spine Deformity Patients. The 27th International Meeting on Advanced Spine Techniques April 1-4, 2020, Athens, Greece
596. Park P, Beauchamp EC, Cerpa M, Makhni M, Sielatycki, Lee NJ, Lehman RA, **Lenke LG**. Can Ketamine Decrease Postoperative Opioid Use following Adult Spinal Deformity Surgery. The 27th International Meeting on Advanced Spine Techniques April 1-4, 2020, Athens, Greece
597. Beauchamp E, Sielatycki A, Lombardi J, Shimizu T, Zhou R, Liu X, Cerpa M, **Lenke LG**, Harm Study Group. Can Surgeons Agree on Radiographic and Clinical Shoulder Balance in Adolescent Idiopathic Scoliosis Patients? The 27th International Meeting on Advanced Spine Techniques April 1-4, 2020, Athens, Greece
598. A National Perspective on the Morbidity and 90-Day Readmission Risk for Patients with Ossification of the Posterior Longitudinal Ligament Undergoing Cervical Spine Surgery. 27th International Meeting on Advanced Spine Techniques April 1-4, 2020, Athens, Greece
599. Lee NJ, McCormick KL, Hong D, Kim JS, Lombardi JM, Royce BD, **Lenke LG**, Fields M. The Morbidity, Readmissions, and Cost for Pediatric Cerebral Palsy Patients Undergoing Primary Spinal Fusion Surgery: A National Analysis on 2,779 Patients. 27th International Meeting on Advanced Spine Techniques April 1-4, 2020, Athens, Greece
600. Spinal Deformity Surgery for Pediatric Patients with Marfan Syndrome: A Nationwide Assessment on Short-term Outcomes and Readmission Risk. 27th International Meeting on Advanced Spine Techniques April 1-4, 2020, Athens, Greece
601. Ha A, Sardar Z, Barum G, Cerpa M, Lombardi J, **Lenke LG**. Can a Partial Intraoperative GAP Score Predict Postoperative Mechanical Failure and Serve as a Target During Surgery? Global Spine Congress (GSC) May 20-23, 2020, Rio de Janeiro, Brazil
602. Morr S, Cerpa M, Osorio J, Lin J, Baum G, Sardar Z, Menger R, Lehman RA, **Lawrence LG**. C2-SVA: When Angles are too Complicated and the X-Ray is too Small. Global Spine Congress (GSC) May 20-23, 2020, Rio de Janeiro, Brazil
603. Menger R, Park P, Konigsberg M, **Lenke LG**, Vitale M. Choice of Lowest Instrumented Vertebra in Adolescent Idiopathic Scoliosis: Discordance in Stable Sagittal Vertebra and Coronal Last Touched Vertebra. Global Spine Congress (GSC) May 20-23, 2020, Rio de Janeiro, Brazil
604. Baum G, Cerpa M, Lin J, Menger R, Morr S, Osorio J, Fernandes F, Kang KC, Kim H, Lin W, Liu X, Shah S, Tang S, Lie Z, Lehman RA, **Lenke LG**. Left or Right, I Just Don't Know!: Weak Agreement Between Preoperative Clinical Pictures and X-Rays for Determination of Shoulder Balance and UIV Selection in Adult Idiopathic Scoliosis. Global Spine Congress (GSC) May 20-23, 2020, Rio de Janeiro, Brazil
605. Baum G, Ha A, Cerpa M, Lin J, Osorio J, Menger R, Morr S, Leung E, Lehman RA, Zeeshan S, **Lenke LG**. Does the Global Alignment and Proportion Score Overestimate Mechanical Complications After Adult Spinal Deformity Correction? Global Spine Congress (GSC) May 20-23, 2020, Rio de Janeiro, Brazil
606. Ha A, MD. Lee N, Blake R, Matthew J, Cerpa M, **Lenke LG**. Can Spinal Deformity Patients Maintain Proper Arm Position in Full Length Standing Films? Global Spine Congress (GSC) May 20-23, 2020, Rio de Janeiro, Brazil
607. Gelfand, Lin J, De la Garza Ramos R, Osorio J, Baum G, Morr S, **Lenke LG**. Predictors of 30-day Complications in Deformity Surgery Patients: a National Database Study. Global Spine Congress (GSC) May 20-23, 2020, Rio de Janeiro, Brazil

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

608. Comparing 30-day Complications for Deformity Correction Surgery in Patients Older and Younger than 55. Global Spine Congress (GSC) May 20-23, 2020, Rio de Janeiro, Brazil
609. Park PJ, Morrisette C, Lee NJ, Cerpa M, Kim HJ, **Lenke LG**. The Posterior Cranial Vertical Line (PCVL): A Novel Classification System for Defining Global Sagittal Alignment. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
610. Lombardi J, Lee J, Vivas A, Kim J, Riedler J, Cerpa M, Lehman R, **Lenke LG**. Worse Preoperative Health-Related Quality of Life Scores (HRQOL) are Predictive of Achieving Minimum Clinically Important Differences (MCID) in Oswestry Disability Index (ODI) at 1- and 2- Years After Complex Adult Spinal Deformity (ASD) Surgery. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
611. **Lenke LG**. Building and Advocating Dedicated Spine Teams: Anesthesia and OR. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
612. Lewis S, Qiu Y, **Lenke LG**, Kelly MP, De Kleuver M, Dahl B, Shaffrey C, Spruit M, Pellisé F, Cheung K, Alanay A, Polly D, Sembrano J, Matsuyama Y, Berven SH. SRS-22r Score of a Prospective Evaluation of Elderly Deformity Surgery: A Prospective Observational, Multicenter Study. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
613. Mitchell B, Skaggs D, **Lenke LG**, Bastrom T, Bartley C, Newton P. Preoperative LIV Translation and LIV Tilt are Risk Factors for Adding-On in Lenke 1/2AR Curves. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
614. Smith J, Kelly M, Yanik E, Baldus, Buell T, Lurie J, Edwards C, Glassman, **Lenke LG**, Boachie-Adjei, Buchowski, Carreon, Crawford III C, Lewis S, Koski T, Parent S, Lafage V, Gupta M, Kim HJ, Ames C, Bess S, Schwab F, Shaffrey C, Bridwell K. Operative Versus Nonoperative Treatment for Adult Symptomatic Lumbar Scoliosis at 5-6 Year Follow-Up: Outcomes and Impact of Related Serious Adverse Events. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
615. Gupta M, **Lenke LG**, Boachie O, Bumpass D, Erickson, Garg S, McCarthy, Newton P, Pahys J, Samdani A, Shah, Shuffelbarger J, Sponseller P, Sucato D, Yaszay B, Sides E, Kelly M, FOX. Surgery for Severe Pediatric Spinal Deformity Results in Improved Spinal Appearance Questionnaire Scores at 2 Years. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
616. Lewis S, Qiu Y, **Lenke LG**, Kelly MP, De Kleuver M, Dahl B, Shaffrey C, Spruit M, Pellisé F, Cheung K, Alanay A, Polly D, Sembrano J, Matsuyama Y, Berven SH. Change in Oswestry Disability Index at 24 months following Multilevel Spinal Deformity Surgery in Patients over 60 years of age: A Multicenter International Prospective Study. SRS 55th Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
617. Kim JS, Arvind V, Schwartz JT, Valliani A, Geng E, Lee NJ, Lombardi JM, Vivas AC, Reidler JS, Zuckerman JD, Cho B, Vulapalli M, Cho SK, Lehman RA, **Lenke LG**, Riew KD. Natural language processing of operative note dictations to automatically generate CPT codes for billing. North American Spine Society 35th Annual Meeting, October 7-10, 2020, San Diego, CA.
618. Kim JS, Lee NJ, Lombardi JM, Vivas A, Zuckerman JD, Reidler JS, MD, Cerpa M, Leung E, Lehman RA, **Lenke LG**. Extended length of stay after complex adult spinal deformity surgery: predictors and impact on clinical and patient-reported outcomes. North American Spine Society 35th Annual Meeting, October 7-10, 2020, San Diego, CA.
619. Ball JR, Konigsberg MW, Plachta S, Fields MW, Matsumoto H, Royce BD, Arora S, Royce DP, **Lenke LG**, Skaggs DL, Vitale MG. Variability in Stable Sagittal Vertebra (SSV) During Full-Length Biplanar X-rays can Affect the Choice of Fusion Levels in Patients with Adolescent Idiopathic Scoliosis. American Academy of Orthopaedic Surgeons 2021 Annual Meeting, March 9 - 13 in San Diego, CA

### XIII. MEETING/COURSE FACULTY/GUEST LECTURER/INVITED SPEAKER

1. Low Back and Sciatica Pain Symposium, St. Louis, MO, May 18, 1990.  
History and physical examination of the patient with low back pain and sciatica

<sup>v</sup>Student, <sup>\*r</sup>Resident, <sup>\*f</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>\$</sup>International Research Scholar



2. Low Back and Sciatica Pain Symposium, St. Louis, MO, May 17, 1991.  
History and physical examination of the patient with low back pain and sciatica
3. 2<sup>nd</sup> Annual Practical Anatomy Workshop: Spinal Surgery Fracture Fixation Course, St. Louis, MO, April 1992.
  - Cotrel-Dubousset instrumentation for thoracolumbar fractures
4. National Association of Orthopaedic Nurses, St. Louis Branch, St. Louis, MO, May 1992.
5. The surgical treatment of thoracolumbar burst fractures
6. 2<sup>nd</sup> Annual Spine Surgeon Transition Program's Spine+Science+Management, Sofamor-Danek Group, New Orleans, LA, November 1992.
7. Lumbar hemivertebra excision. Analysis of the technique Techniques in Spinal Instrumentation 1<sup>st</sup> Annual Meeting, New York, NY, December 1992.
  - Recognition and treatment of double thoracic idiopathic scoliosis
8. 3<sup>rd</sup> Annual Practical Anatomy Workshop: Spinal Fracture Fixation, St. Louis, MO, March 15-20, 1993.
  - Part I: Cervical Spine Trauma: 3-D Video Demonstration – Hands-on Laboratory
    - Occipitocervical fusion techniques
    - Posterior C1-C1 wiring techniques: Gallie, Brooks, Songer cables
    - Posterior subaxial wiring techniques: Roger's wiring, Bohlman's triple wiring, facet wiring
  - Part II: Thoracolumbar Spine Trauma: 3-D Video Demonstration – Hands-on Laboratory
    - Posterior thoracolumbar segmental spinal fixation
    - Cotrel-Dubousset pedicle screws, rods and hooks
    - Texas Scottish Rite pedicle screws, rods and hooks
    - VSP plating techniques
    - Posterolateral decompression techniques
9. Treatment of Surgical Spine Disease Symposium, St. Louis, MO, March 1993.
  - Surgical treatment of spinal stenosis
  - Panelist - Pediatric Scoliosis
 Panelist - Degenerative Spine
10. Clinical Conference of the Southwest Clinical Society 71<sup>st</sup> Fall Meeting, Kansas City, MO, November 1993.  
Evaluation and management of low back pain and sciatica
11. National Association of Orthopaedic Nurses Annual Meeting, St. Louis, MO, November 1993.
  - Treatment of thoracolumbar burst fractures
12. 4<sup>th</sup> Annual Practical Anatomy Workshop: Cervical, Thoracic, and Lumbar Fracture Fixation, St. Louis, MO, May 1994.  
C1-C2 instrumentation: sacral screw fixation
13. 5<sup>th</sup> Annual Practical Anatomy Workshop: Spinal Fracture Fixation, St. Louis, MO, May 1-5, 1995.
  - Anterior transthoracic approach to the spine
  - Thoracic and thoracolumbar fracture pattern analysis and treatment
 Endoscopic principles and techniques
14. Anterior Scoliosis Study Group Meeting, Biedermann MOTECH, New York, NY, July 21-22, 1995.  
Presentation of best case examples
15. National Marfan Foundation 10<sup>th</sup> Annual Meeting, St. Louis, MO, August 1995.  
Orthopaedic spinal aspects of Marfan syndrome
16. Group International Cotrel-Dubousset XI Annual Meeting, Asheville, NC, September 1995.  
Fixed pelvic extension with lumbar hyperlordosis in a spastic cerebral palsy patient. A case report
17. Scoliosis Research Society 39<sup>th</sup> Annual Meeting, Asheville, NC, September 1995.  
Travelling fellow report to the SRS

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>†</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>§</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

18. Critical Care Conference Program 2<sup>nd</sup> Annual Meeting, Bonne Terre, MO, September 1995.  
The clinical management of spinal cord injury
19. Illinois Academy of Family Practitioners, Mattoon, IL, November 1995.  
Evaluation and management of adult low back pain
20. Practical Anatomy Workshop: Nursing and Paramedical Course, St. Louis, MO, November 1995.
  - Thoracolumbar spinal anatomy and pathology
 Cervical spine anatomy and pathology
21. Anterior Scoliosis Study Group Meeting, Sofamor-Danek, Beaver Creek, CO, January 18-20, 1996.  
Intra and interobserver reliability of using the King classification for idiopathic thoracic scoliosis
22. American Academy of Orthopaedic Surgeons 62<sup>nd</sup> Annual Meeting, Atlanta, GA, February 22-26, 1996.
  - ICL 218: Adult Spinal Deformity
    - Scoliosis (idiopathic and degenerative)
    - Kyphosis and revision surgery
23. Evolution of CD-Improvements and Methods in Instrumentation, Sofamor-Danek, New York, NY, March 1996.  
CD-Horizon. Early experiences with complex adolescent scoliosis
24. Management of Chronic Pain Seminar, Washington University School of Medicine, St. Louis, MO, April 26, 1996.
  - Spine history and examination and treatment of lower back pain (LBP)
25. 6<sup>th</sup> Annual Practical Anatomy Workshop: Spinal Trauma, St. Louis, MO, September 9-12, 1996.
  - Thoracolumbar and lumbar spinal fracture patterns
  - Anterior vertebrectomy and spinal canal decompression
 Anterior retroperitoneal approach to the mid-lumbar spine
26. Update on CD-Horizon Instrumentation, Sofamor-Danek, Ottawa, Canada, September 1996.  
The surgical treatment of lumbar scoliosis with and without pelvic obliquity
27. Fingers-to-Toes Comprehensive Orthopaedic Review Course 1<sup>st</sup> Annual Meeting, St. Louis, MO, November 1996.
  - Evaluation and treatment of thoracic and lumbar back pain
 Spondylolisthesis and kyphosis
28. 6<sup>th</sup> Annual Spine Surgeon Transition Program's Spine+Science+Management, Sofamor-Danek, New Orleans, LA, November 1996.
  - Academic spinal surgery
 Panelist - Complex Spine Case Presentations
29. Ski with the Spine Center 9<sup>th</sup> Annual Meeting, Whistler, British Columbia, Canada, January 1997.
  - Update on spinal cord monitoring
 CD Horizon update and demonstration
30. Anterior Scoliosis Study Group, Sofamor-Danek, Beaver Creek, CO, January 23-25, 1997.
  - A new classification system for adolescent idiopathic scoliosis
  - Lumbar curve response to selective anterior vs. posterior spinal fusion in thoracic adolescent idiopathic scoliosis
  - Performance measures in adolescent idiopathic scoliosis undergoing ASF vs. PSF: A prospective evaluation
 A radiographic grading system for surgical treatment of adolescent idiopathic scoliosis

31. American Academy of Orthopaedic Surgeons 64<sup>th</sup> Annual Meeting, San Francisco, CA, February 13-17, 1997.
  - ICL 107: Deformity of the Cervical Spine (4 mm Moss-Miami Product Introduction)
    - Results of adolescent idiopathic thoracic scoliosis treated with an anterior rigid rod
  - ICL 125: Spondylolysis and Spondylolisthesis
    - Treatment of high-grade spondylolisthesis
  - ICL 305: Adult Spinal Deformity: Scoliosis (Idiopathic and Degenerative and Kyphosis)
    - Conservative treatment and indications for surgical management in adult idiopathic scoliosis, degenerative scoliosis and kyphosis
  - ICL 405: Adult Spinal Deformity: Complications and Revision Surgery
    - Complications of adult spinal deformity surgery
32. Federation of Spine Associations 12<sup>th</sup> Annual Meeting, Scoliosis Research Society, San Francisco, CA, February 16, 1997.
  - Controversies in Adolescent Idiopathic Scoliosis Symposium
    - The crankshaft phenomenon: Who is really at risk?
33. Update on CD-Horizon Instrumentation, Sofamor-Danek, Miami, FL, April 1997.  
Complex pediatric lumbar scoliosis with and without pelvic obliquity
34. Controversies in the Management of Pediatric and Adult Trauma, Deformity, and Spondylolisthesis, GICD, St. Louis, MO, May 8-10, 1997.
  - The pathology of spinal cord injury: Results of pharmacologic manipulation
  - Management of a “typical” adult spondylolisthesis
    - PRO-We can only help back pain by arthrodesis if it is associated with deformity (scoliosis, spondylolisthesis). We cannot help back pain caused by DDD without deformity
35. 4<sup>th</sup> International Meeting on Advance Spine Techniques, Scoliosis Research Society, Southampton, Bermuda, July 10-13, 1997.
  - Faculty - Round Table: Advanced Scoliosis Construct Strategies
  - Breakout Session 4 - Anterior instrumentation for thoracic idiopathic scoliosis with the 4- and 5-mm Moss-Miami System  
Breakout Session 5 - Sacroiliac fixation techniques including intrasacral technique, S1 and S2 screws and Galveston screw technique
36. 7<sup>th</sup> Annual Practical Anatomy Workshop: Spine Fracture Fixation Course, St. Louis, MO, September 10-13, 1997.
  - Anterior corpectomy and spinal canal decompression  
Anterior retroperitoneal approach to the mid-lumbar spine
37. Scoliosis Research Society 32<sup>nd</sup> Annual Meeting, St. Louis, MO, September 24, 1997.
  - New comprehensive 3-dimensional classification system of adolescent idiopathic scoliosis
  - Moderator - Techniques of Surgery
    - What progress have we made in treating spinal deformity in the last ten years?
38. Making Sense of Spinal Instrumentation, Spinal Science Advancement Foundation, Sofamor-Danek, Memphis, TN, October 18, 1997.
  - Spinal anatomy and surgical anatomy. Evolution of spinal instrumentation: From Harrington rods to the future
  - Hands-on Workshop - Anterior cervical trauma construct
  - Hands-on Workshop - Anterior thoracolumbar construct
  - Hands-on Workshop - Deformity construct
    - Hands-on Workshop - Degenerative construct
39. Fingers-to-Toes Comprehensive Orthopaedic Review Course for Primary Care Physicians 2<sup>nd</sup> Annual Meeting, St. Louis, MO, November 1997.  
Office evaluation and treatment of low back pain

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

40. Harms International Scoliosis Study Group, Beaver Creek, CO, January 1998.
  - Anterior instrumentation. Update of functional analysis
  - Classification and treatment algorithms: New classification system updateClassification and treatment algorithms: Radiographic grading system
41. The 4<sup>th</sup> Annual International Course on Total Spine: Advanced Concepts and Constructs, Spinal Science Advancement Foundation, Sofamor-Danek, Cancun, Mexico, January 30-February 1, 1998.
  - Sacro-pelvic fixation: advanced techniques
  - Workshop - Sacro-pelvic fixationScoliosis correction techniques: posterior
42. American Academy of Orthopaedic Surgeons 65<sup>th</sup> Annual Meeting, New Orleans, LA, March 1998.
  - Annual Review and Update Course
    - Pediatric spinal deformities
  - ICL 141: An Eclectic Approach to Adolescent Scoliosis. A Comprehensive Approach to Adolescent Idiopathic Scoliosis Surgery
    - Curve classification and an overview of surgical management
    - Posterior instrumentation: The rod or screws
  - ICL 308: Spondylolysis and Spondylolisthesis
    - Treatment of high-grade spondylolisthesis
43. Advanced Scoliosis Constructs Course, DePuy AcroMed, New Orleans, LA, March 1998.  
Results and outcome in anterior thoracic scoliosis correction
44. Japanese Traveling Fellowship Day, St. Louis, MO, March 1998.  
Spontaneous lumbar curve correction in anterior vs. posterior selective thoracic fusion in adolescent idiopathic scoliosis
45. Spinal Surgery in Children and Adolescents, Miami Beach, FL, April 4, 1998.
  - Classifying adolescent idiopathic scoliosis: King vs. alternatives
  - Indications for perioperative halo traction in severe pediatric spinal deformity
  - Perspective: Anterior or posterior in adolescent idiopathic spinal deformity surgery?
  - Indications and justification for pedicle screws in adolescent idiopathic deformityModerator - Congenital Scoliosis and Spondylolisthesis Sessions
46. 5<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Sorrento, Italy, May 1998.
  - Anterior thoracic instrumentation in adolescent idiopathic scoliosisDemonstration and Round Table Discussion. Sacropelvic fixation: Advance techniques of 4-point fixation
47. Global Spine: Surgical Principles and the Latest Techniques, Spinal Science Advancement Foundation, Sofamor-Danek, Kamuela, HI, June 5-7, 1998.
  - Long fusions to the pelvis: Indications, techniques, and contraindication
  - Cantilever correction of scoliosis: Anterior vs. posterior techniquesSacropelvic fixation: Advance techniques of four-point fixation
48. Making Sense of Spinal Instrumentation, Spinal Science Advancement Foundation, Sofamor-Danek, Memphis, TN, October 1998.  
Spinal anatomy and surgical anatomy. Evolution of spinal instrumentation: From Harrington rods to the future
49. North American Spine Society 13<sup>th</sup> Annual Meeting, San Francisco, CA, October 1998.  
Moderator - Scoliosis Session
50. Fingers-to-Toes Comprehensive Orthopaedic Review Course for Primary Care Physicians 3<sup>rd</sup> Annual Meeting, St. Louis, MO, October 1998.  
Nonoperative treatment of back pain

<sup>v</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

51. Annual Review and Update Course, American Academy of Orthopaedic Surgeons, Philadelphia, PA, November 1998.
  - ICL: Review and Update for Practicing Orthopaedic Surgeons
 Pediatric spinal deformities
52. 9<sup>th</sup> Annual Practical Anatomy Workshop: Spinal Fraction Fixation, St. Louis, MO, January 21-24, 1999.
  - Anterior corpectomy and spinal canal decompression
 Anterior retroperitoneal approach to the mid and lower lumbar spine
53. American Academy of Orthopaedic Surgeons 66<sup>th</sup> Annual Meeting, Anaheim, CA, February 4-8, 1999.
  - ICL 422: A Comprehensive Approach to Adolescent Idiopathic Scoliosis Surgery
    - A new surgical classification: Predicting and assessing treatment
54. The Spine: Skull to Sacrum/Birth to Old Age, St. Louis, MO, February 1999.
  - Congenital anomalies and syndrome scoliosis
 Lumbar stenosis
55. Ski with Big Time Spine, Snowbird, UT, March 7-9, 1999.
  - Treatment algorithms as applied to the new comprehensive classification system of AIS
  - Prevalence of curves with the new and comprehensive classification of AI
  - Long fusions to the sacrum
 Moderator - Adolescent Idiopathic Scoliosis Case Review
56. Practical Anatomy Workshop: TLIF Course, St. Louis, MO, June 1999.
 L5 resection for spondyloptosis
57. 6<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Vancouver, British Columbia, Canada, July 8-10, 1999.
  - Anterior scoliosis correction strategies, including thoracoscopic, 2B
  - Saving distal fusion levels – Anterior screws in adolescent idiopathic scoliosis
  - Pedicle screw fixation in adolescent idiopathic scoliosis: Is there an anatomically viable and safe technique?
  - A new surgical classification of idiopathic scoliosis: Assessing and predicting treatment
 Panelist - Spondylolisthesis: A. High-grade isthmic in children, B. Low-grade in the adult, RT
58. Practical Anatomy Workshop: Advanced Techniques in Cervical Spine Decompression & Stabilization, St. Louis, MO, August 20-22, 1999.
 Anterior cervical surgery
59. CME Course, Scoliosis Research Society, San Diego, CA, September 22, 1999.
 Moderator - Session III: Late Complications (Deformity – Pediatric) – Patient Selection
60. Complications in management of spinal disorders: How to avoid and how to improve the outcome
 Tutorial - Anterior treatment of scoliosis, role of sagittal plane analysis and treatment, biomechanical rationale and data
61. American College of Surgeons Annual Meeting, October 1999.
 Symposium - Anterior approaches to the spine – approaches for thoracic deformity
62. International Scoliosis Think Tank, Sofamor-Danek, Naples, FL, November 1999.
 Tutorial - Sagittal analysis in the anterior treatment of idiopathic scoliosis, and sagittal spinal imbalance, causes and remedies

63. Big Time Spine, Ocean Reef, FL, November 17-20, 1999.
- Long fusions to the sacrum
  - Sagittal spinal alignment and balance
  - Selective thoracolumbar scoliosis
  - Prospective comparison of radiographs in idiopathic scoliosis...What is the best indicator of correction?
  - Tutorial - A Comprehensive Approach to Adolescent Idiopathic Scoliosis Surgery
    - Curve classification in idiopathic scoliosis: Impact on decision making
  - Moderator - Round Table Discussion: Scoliosis Classification
  - Panelist - Round Table Discussion: Problems in Scoliosis
- Moderator - Session III: Scoliosis
64. VII Annual Symposium Critical Issues in Surgery: Avoiding Complications and Improving Outcomes in Orthopaedic Surgery, St. Thomas, Virgin Islands, December 9-11, 1999.
- Management of the severely traumatized spine patient: Critical issues in surgery
65. Total Spine: Advanced Concepts and Constructs 6<sup>th</sup> Annual International Course, Cancun, Mexico, February 17-20, 2000.
- Complications in lumbo-sacral fixation: Symptoms, science, and solutions. Pseudarthrosis
  - Complex open anterior correction of scoliosis
  - Sacro-pelvic fixation: Techniques
- Moderator - Pediatric and Adult Deformity
66. American Academy of Orthopaedic Surgeons 67<sup>th</sup> Annual Meeting, Orlando, FL, March 15-19, 2000.
- ICL 209: A Comprehensive Approach to Adolescent Idiopathic Scoliosis
    - Posterior instrumentation: The role of screws
    - Classification of adolescent idiopathic scoliosis: Predicting and assessing treatment; pedicle screws in idiopathic scoliosis. (Surgical approach to adolescent idiopathic scoliosis)
  - ICL: Spondylolysis and Spondylolisthesis
    - The treatment of high-grade spondylolisthesis
67. Spine Think Tank 2, Orthovita, Philadelphia, PA, April 2000.
- Preservation of sagittal plane. Biomechanical rationale and data
68. St. Louis University: Spinal Fraction Fixation Course, St. Louis, MO, May 3-7, 2000.
- Management of the severely traumatized spine patient: Anterior thoracolumbar spine; anterior vertebral and spinal canal decompression
69. Failures in Spinal Surgery: A Tribute, Baltimore, MD, May 12-14, 2000.
- The posterior tension band
  - Flat-back syndrome
- Degenerative scoliosis. Evaluation and treatment options
70. Spinal Deformity: Challenges and Solutions of Surgical Treatment, Fajardo, Puerto Rico, May 2000.
- Classification of spinal deformity
71. Spine and Peripheral Nerve Workshop 12<sup>th</sup> Annual International Meeting, USUHS, Bethesda, MD, June 2000.
- Spinal osteotomy and sacro-pelvic fixation techniques
72. Surgical and Nonsurgical Management of Neck and Low Back Pain Symposium, St. Louis, MO, June 2000.
- Surgical management of degenerative lumbar deformity and scoliosis
73. Current Thinking in the Surgical Management of Spinal Deformity in the Young Child, GICD, Barcelona, Spain, July 5, 2000.
- Posterior surgical management with arthrodesis in the immature spine

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74. 7<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Barcelona, Spain, July 5-8, 2000.
  - Co-Leader - Round Table Case Discussion 1.4: Deformity
  - Faculty - Instructional Course Lecture 2C: Anterior Scoliosis Correction Strategies, Including Thoracoscopic
  - Moderator - Didactic Session 2B: Deformity: Selective Anterior Instrumentation of Thoracolumbar/Lumbar AIS
  - Moderator - Didactic Session 4B: Lumbar Degenerative, Infection, Tumor
75. Big Time Spine, Chicago, IL, September 9, 2000.
  - ICL: Advanced Spinal Treatment
    - A new surgical classification of idiopathic scoliosis...curve prevalence
  - Spinal osteotomy for sagittal and coronal imbalance
  - Thoracic screw placement in deformity
  - In-situ fusion for high grade spondylolisthesis in children and adults
76. Pedicle Fixation in the Thoracic Spine, Medtronic Sofamor Danek, Memphis, TN, September 22, 2000.
  - Correction and fusion of idiopathic scoliosis – thoracic pedicle screw vs. anterior screw instrumentation
  - Free-hand placement of thoracic screws for spinal deformity
77. Spine Education Summit, DePuy AcroMed, Miami, FL, November 17-19, 2000.
  - Selective anterior treatment of thoracic, thoracolumbar, and lumbar in adolescent idiopathic scoliosis
  - Results of pedicle subtraction osteotomy (PSO) for fixed sagittal imbalance
  - Thoracic pedicle screws in spinal deformity
  - AIS anterior open treatment selective thoracic/TL/lumbar fusions
  - AIS classification trial
  - Results of pedicle subtraction osteotomy (PSO) for fixed sagittal imbalance
  - Moderator - A New Classification of Adolescent Idiopathic Scoliosis
  - Workshop Instructor - Problems in Spinal Reconstruction
  - Workshop - Classification of Idiopathic Scoliosis
  - AIS - A new classification
78. Fingers-to-Toes Comprehensive Orthopaedic Review Course for Primary Care Physicians 5<sup>th</sup> Annual Meeting, St. Louis, MO, December 2, 2000.
  - Evaluation of idiopathic scoliosis and other coronal plane spinal deformities
79. Classic and Contemporary Insights into Spinal Surgery, GICD, New York, NY, December 8-9, 2000.
  - Adolescent Idiopathic Scoliosis: Anterior Open Treatment
    - Selective thoracic/TL/lumbar fusions
  - A new surgical classification of adolescent idiopathic scoliosis
  - Free hand placement of thoracic screws in spinal deformity
80. Big Time Spine, Vail, CO, February 2001.
  - Decision Making In the Adult with Fixed Coronal or Sagittal Imbalance
    - Spinal osteotomy in the patient with fixed coronal and/or sagittal imbalance
  - Thoracic pedicle screws in spinal deformity: Techniques and justification
  - Moderator - A New Classification of Adolescent Idiopathic Scoliosis
    - Classification of adolescent idiopathic scoliosis: Treatment based
81. American Academy of Orthopedic Surgeons 68<sup>th</sup> Annual Meeting, San Francisco, CA, February 28-March 4, 2001.
  - ICL 105: Metastatic Bone Disease: Surgical and Non-Surgical Management
    - Spinal metastases
  - ICL 153: A Comprehensive Approach to Adolescent Idiopathic Scoliosis Surgery
    - A new surgical classification: Predicting and assessing treatment
    - Posterior instrumentation: The role of screws
  - ICL 404: Spondylolysis and Spondylolisthesis
    - Treatment of high grade (>50%) spondylolisthesis

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82. International Spine Symposium, Perth, Australia, April 30-May 2, 2001.
- Thoracic “Free Hand” pedicle screw placement in spinal deformity: Technique, pitfalls, complications and results
  - Classification of adolescent idiopathic scoliosis: Past, present and future
  - Anterior single vs. dual rod instrumentation for idiopathic scoliosis
  - Degenerative scoliosis: evaluation and treatment options
  - TLIF-Indications and outcomes
  - Circumferential treatment of thoracolumbar burst fractures
- Moderator - AIS Classification and Case Presentations
83. Topics on Spinal Deformity: Surgical Challenges and Solutions, Amelia Island, FL, May 11-12, 2001.
- Update on the Lenke et al. surgical classification of adolescent idiopathic scoliosis
  - Free hand placement of thoracic pedicle screws: Techniques and nerve surveillance
  - Moderator - Spondylolisthesis Breakout Session
  - Moderator - Idiopathic Scoliosis Roundtable
- Moderator - Case Classification Session
84. 5<sup>th</sup> Annual International Course on Global Spine, BroadWater, Maui, HI, June 14-17, 2001.
- Anterior open single vs. dual rod instrumentation for idiopathic scoliosis
  - Flatback syndrome/osteotomies
  - Surgical treatment of high grade pediatric spondylolisthesis
- Moderator - Pedicle Screw Instrumentation
85. Surgical Management of Adult Spinal Deformity with Degeneration, GICD, Pre-IMAST Course, Paradise Island, Bahamas, July 11, 2001.
- Long segment fixation to the sacrum: “Must go front and back”
86. 8<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Paradise Island, Bahamas, July 13, 2001.
- Spinal instrumentation in the highly skeletally immature patient
  - Thoracic pedicle screws: Free hand placement technique and instrumentation principles
- A new surgical classification of adolescent idiopathic scoliosis and 2-year follow-up results of The Harms Study Group
87. Minimally Invasive Scoliosis Tutorial, DePuy AcroMed, Children’s Pediatric Orthopedic and Scoliosis Center, San Diego, CA, July 16-17, 2001.
- Learning Curve – Pitfalls and Tips for Success
    - Thoracoscopic spinal surgery: Endoscopic spinal surgery
88. 4<sup>th</sup> Annual International Pediatric Orthopaedic Symposium, Lake Buena Vista, FL, August 29-September 2, 2001.
- Idiopathic scoliosis: Classification and surgical management
    - Pedicle screws for idiopathic scoliosis surgery
89. Scoliosis Research Society 36<sup>th</sup> Annual Meeting, Cleveland, OH, September 19-21, 2001.
- ICL: Fundamentals of Spinal Deformity
    - Spinal cord monitoring
- Moderator - Spinal Cord Research Session
90. Pedicle Fixation in the Thoracic Spine Tutorial, Medtronic Sofamor Danek, Half Moon Bay, CA, October 12-13, 2001.
- Endoscopic spinal surgery
- Free hand placement of thoracic pedicle screws and results in scoliosis surgery
91. Japanese Scoliosis Society 35<sup>th</sup> Annual Meeting, Yamada Inoue Memorial, Nagoya, Japan, November 16-21, 2001.
- Single vs. dual rod instrumentation for scoliosis
  - The evaluation and treatment of degenerative lumbar scoliosis
  - Panelist - Complex Spinal Deformity Case Presentations
- Pros and cons of pedicle screws in the treatment of scoliosis and other spinal deformities

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92. Spinal Sagittal Balance, GICD-USA, Chicago, IL, December 6-9, 2001.
- Treating Segmental, Reconstruction and Global Malalignment
    - Classification of scoliosis: The importance of the sagittal plane
    - Global sagittal imbalance – who is an operative candidate? How to decide?
  - Endoscopic/minimally invasive subgroup – why is this needed?
- Prospective evaluation of infantile and juvenile idiopathic scoliosis
93. The Surgical Management of Spinal Disorders 11<sup>th</sup> Annual Course, GICD-USA, Medtronic Sofamor Danek, Beaver Creek, CO, January 19-22, 2002.
- Anterior open single vs. dual rod instrumentation for idiopathic scoliosis
  - Operative technique for anterior thoracolumbar fusion using CD Horizon Legacy Spinal System
  - Thoracic pedicle screws: Techniques & results
- Moderator - AIS Complex Case Discussion
94. American Academy of Orthopaedic Surgeons 69<sup>th</sup> Annual Meeting, Dallas, TX, February 13-17, 2002.
- Moderator - ICL 112: Spondylolysis and Spondylolisthesis
    - Treatment of high grade (>50%) spondylolisthesis
  - Moderator - ICL 169: Adolescent Idiopathic Scoliosis: State of the Art
    - Anterior treatment of AIS
    - Anterior open single vs. dual rod instrumentation for idiopathic scoliosis
  - Moderator - ICL 372: Kyphosis of the Thoracic and Thoracolumbar Spine in the Pediatric Patient
    - Surgical complications: Prevention & treatment
95. Thoracic Pedicle Screw Course, Medtronic Sofamor Danek, Columbia, MO, February 21, 2002.
- Free hand placement of thoracic pedicle screws: Results in scoliosis surgery
96. Total Spine: Advances in Theory, Techniques, and Technology 8<sup>th</sup> Annual Meeting, Spinal Science Advancement Foundation, Medtronic Sofamor Danek, Cancun, Mexico, March 15-18, 2002.
- Thoracic pedicle screws: Techniques and results
  - Skeletally immature patients: Indications, techniques, and results
  - Case presentations
  - Moderator - Complex Spinal Deformity Case Discussions
- Demonstration: Placement of Thoracic Pedicle Screws
97. Spinal Deformity Study Group: Advanced Deformity Seminar, Medtronic Sofamor Danek, Scottsdale, AZ, April 16-20, 2002.
- Deformity techniques – 2002
  - How to treat deformity patients: Anterior vs. posterior vs. both
  - Instrumentation of the young child
  - Patient photography in spinal deformity
  - Spinal osteotomy for fixed sagittal & coronal imbalance
  - The use of pedicle screws in the treatment spinal deformities
- Anterior treatment of scoliosis: State of the art
98. Pedicle Fixation in the Thoracic Spine, Medtronic Sofamor Danek, Bethesda, MD, April 26-28, 2002.
- Free hand placement of thoracic pedicle screws

99. Pre IMAST Debate, Scoliosis Research Society, Montreux, Switzerland, May 22, 2002.
  - Moderator - AIS
    - Segmental pedicle screw fixation is superior to conventional posterior fusion
  - Scheuermann's kyphosis
    - PRO: Posterior only is superior to circumferential technique
  - Surgical Challenges in Spinal Deformity
    - CON: Congenital hemivertebra excision: Posterior transpedicular technique is superior to circumferential A/P technique
100. Practical Strategies in Spine Surgery, American Academy of Orthopaedic Surgeons, Chicago, IL, June 28-30, 2002.  
Flatback deformity/osteotomies
101. 6<sup>th</sup> Annual International Course on Global Spine, BroadWater, Maui, HI, July 13, 2002.
  - Open anterior scoliosis correction: Indications, techniques, results
  - Thoracic pedicle screws for scoliosis correction: Indications, techniques, results
102. AANS Innovations in Spinal Fixations: An Advanced Course, Medtronic Sofamor Danek, Memphis, TN, July 26, 2002.
  - Free-hand thoracic screw placement
  - Sacro-pelvic fixation: Rationale and techniques
103. SIRCOT/SIROT XXII World Congress, San Diego, CA, August 28-29, 2002.
  - Free hand thoracic screw placement: techniques and results
104. 6<sup>th</sup> International Congress on Spinal Surgery, Ankara, Turkey, September 4-7, 2002.
  - An overview of adult spinal deformity
  - New classification system in AIS: Impact on surgery
  - Moderator - Deformity Free Podium presentations
105. Emerging Technologies – SPINE Workshop, Boston, MA, September 27-29, 2002.
  - Free-hand thoracic screw placement
106. Spinal Deformity Study Group Meeting, Medtronic Sofamor Danek, Auckland, New Zealand, October 9-20, 2002.
  - Neuromuscular spinal deformity
  - Spinal osteotomy for the treatment of spinal imbalance
  - Free-hand thoracic screw placement
  - Case presentations
107. Global Spine: Surgical Principles and the Latest Techniques, Spinal Science Advancement Foundation, Medtronic Sofamor Danek, Dana Point, CA, October 2002.
  - Open anterior scoliosis correction: Indications, techniques, results
  - Thoracic pedicle screws: Techniques and results in deformity surgery
  - Moderator - Degenerative Scoliosis Panel Discussion
108. Australian Orthopaedic Association 67<sup>th</sup> Annual Scientific Meeting, Melbourne, Australia, October 12, 2002.
  - New classification system in AIS: Where to start and where to stop
  - Use of thoracic pedicle screws in pediatric and adult spinal deformity
  - TLIF-transforaminal lumbar interbody fusion: Indications & results
  - Evaluation and surgical treatment of degenerative lumbar scoliosis
109. XII Argentine Congress of the Argentine Society of Spine Pathology, Medtronic Sofamor Danek, Córdoba City, Argentina, October 24-26, 2002.
  - Classification and treatment of AIS
  - The use of pedicle screws for the correction of pediatric and adult spinal deformity
  - Spinal osteotomy for the correction of fixed sagittal and/or coronal imbalance to the spine
  - Surgical treatment of degenerative de novo lumbar scoliosis

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

110. Advanced Concepts in Anterior Scoliosis Treatment, Medtronic Sofamor Danek, St. Louis, MO, November 2002.
- Anterior surgery – Indications for open and endoscopic approaches
  - Open anterior treatment of scoliosis: Single vs. dual rods
  - The use of pedicle screws for the correction of pediatric and adult spinal deformity
- Case presentations
111. Advanced Thoracic Pedicle Screw Course, Medtronic Sofamor Danek, St. Louis, MO, November 2002.
- Free hand placement of thoracic pedicle screws and use in scoliosis surgery
112. 5<sup>th</sup> Annual International Pediatric Orthopedic Symposium, American Academy of Orthopaedic Surgeons, Orlando, FL, December 7-8, 2002.
- Classification and operative treatment of adolescent idiopathic scoliosis
113. Harms International Study Group, Beaver Creek, CO, January 3-5, 2003.
- Interobserver and intraobserver reliability of choosing the stable vertebra. Comparing the traditional King vs. the “A” lumbar vertebra method
- Moderator - Case Presentations
114. The Surgical Management of Spinal Disorders, Spinal Deformity Education Group, Medtronic Sofamor Danek, Beaver Creek, CO, January 18, 2003.
- Biomechanics, indications, techniques, and outcomes for posterior thoracic pedicle screws
  - Isthmic spondylolisthesis from pediatric to adult: Indications, treatment options and outcomes
- Case presentation
115. American Academy of Orthopaedic Surgeons 70<sup>th</sup> Annual Meeting, New Orleans, LA, February 5-9, 2003.
- Moderator - ICL 110: Kyphosis of the Thoracic and Thoracolumbar Spine in the Pediatric Patient
    - Surgical complications: Prevention & treatment
  - Moderator - ICL 318: Adolescent Idiopathic Scoliosis: State of the Art
    - Classification of AIS: Treatment based
    - Anterior open treatment of AIS
  - Moderator - ICL 370: Spondylolysis and Spondylolisthesis
    - Treatment of high grade (>50° spondylolisthesis)
116. Advanced Concepts in Anterior Scoliosis Treatment & Advanced Techniques in Spinal Deformity Surgery, Medtronic Sofamor Danek, Half Moon Bay, CA, February 21-22, 2003.
- Anterior surgery – Indications for open and endoscopic approaches
  - Open anterior treatment of scoliosis: Single vs. dual rods
  - Free hand thoracic pedicle screw placement and clinical use in scoliosis and kyphosis surgery
- Spinal osteotomy techniques for the correction of fixed sagittal and/or coronal malalignment to the spine
117. Total Spine: Advances in Theory, Techniques, and Technology 9<sup>th</sup> Annual Meeting, Spinal Science Advancement Foundation, Cancun, Mexico, April 5-8, 2003.
- Advances in anterior correction of TL and thoracic AIS including dual rod and endoscopic techniques
  - Posterior thoracic screw derotation techniques for AIS
- Thoracic pedicle screws
118. Spinal Deformity Study Group, Medtronic Sofamor Danek, Scottsdale, AZ, April 10-12, 2003.
- Anterior treatment of scoliosis: State of the art
  - Deformity basics
  - New deformity procedural trends – 2003
  - How do we treat these patients? Anterior vs. posterior; rod sizes: which system; why?
  - Instrumentation of the young child
  - Spinal osteotomy for fixed sagittal & coronal imbalance
- The use of thoracic pedicle screws in the treatment of spinal deformities: Challenges and training

<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

119. Challenges and Advancements in Pediatric and Adult Spinal Deformity, Kiawah Island, SC, May 16-17, 2003.
- Use of pedicle screws in adult and pediatric deformity
  - Anterior open vs. endoscopic treatment for scoliosis
- Posterior only treatment with pedicle screws for kyphotic deformity
120. Advanced Concepts in Spinal Deformity Surgery (Anterior & Posterior), Medtronic Sofamor Danek, Colorado Springs, CO, May 18-19, 2003.
- Anterior surgery – Indications for open and endoscopic approaches
  - Open anterior treatment of scoliosis: Single vs. dual rods
  - Free hand thoracic screw placement and clinical use in the treatment of spinal deformity
- Spinal osteotomy techniques for the correction of fixed sagittal and/or coronal malalignment to the spine
121. 7<sup>th</sup> Annual International Course on Global Spine – Surgical Principles and the Latest Techniques, Spinal Science Advancement Foundation, BroadWater, Dana Point, CA, June 27-29, 2003.
- AIS classification and when to do a selective fusion
  - Free hand thoracic screw placement and clinical use in scoliosis and kyphosis surgery
  - Spinal osteotomy in degenerative lumbar kyphoscoliosis
  - Posterior treatment of thoracic AIS with thoracic pedicle screws (TPS) and direct apical vertebral derotation (DAVD)
- Panel Discussion - Adult degenerative scoliosis and kyphoscoliosis
122. 10<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Rome, Italy, July 2003.
- Moderator - Panel Discussion
- Endoscopic scoliosis surgery
123. Pedicle Screw Fixation of the Thoracic Spine, Beth Israel Medical Center/Spine Institute, New York, NY, September 23, 2003.
- Free hand thoracic pedicle screw placement
124. Fellows Forum, North American Spine Society, San Diego, CA, October 24, 2003.
- A new classification of AIS: Treatment based
- The use of thoracic pedicle screws (TPS) in pediatric and adult spinal deformity
125. Spinal Deformity Study Group Symposium 2003: Advanced Concepts in Spinal Deformity Surgery, Medtronic Sofamor Danek, St. Louis, MO, November 13-15, 2003.
- Anterior surgery – Indications for open and endoscopic approaches
  - Open anterior treatment of scoliosis: Single rods
- Free hand placement and the use of thoracic pedicle screws (TPS) in pediatric and adult spinal deformity Results of kyphosis correction with TPS/SPOs
126. Making Sense of Spinal Instrumentation, Spinal Science Advancement Foundation, Medtronic Sofamor Danek, New York, NY, December 4-7, 2003.
- What's new in spinal deformity treatment
  - Posterior technique correction options for thoracic AIS: Posterior with screws
- The use of thoracic pedicle screws (TPS): in scoliosis correction
127. Spinal Deformity Education Group: Advancements in Spinal Deformity Care, Medtronic Sofamor Danek, Beaver Creek, CO, January 17-20, 2004.
- The use of thoracic pedicle screws (TPS) in pediatric and adult spinal deformity
  - Strategies for surgical correction of AIS
  - Degenerative spondylolisthesis: Decompression + fusion + instrumentation
- Pediatric case presentation

128. Emerging Treatment Course, Spinal Science Advancement Foundation, Medtronic Sofamor Danek, Beaver Creek, CO, January 2004.
- Emerging treatment options for spinal deformity. TPS: Indications/technique/outcomes
129. Advanced Concepts in Deformity Surgery, Medtronic Sofamor Danek, Tampa, FL, January 31, 2004.
- Thoracic pedicle screw for pediatric and adult spinal deformity
  - Indications for open and endoscopic anterior approaches to scoliosis
  - Single vs. dual rod instrumentation for scoliosis
  - Thoracic pedicle screw placement
  - Clinical use of TPS in deformity surgery
- Introduction to spinal osteotomies
130. Advanced Techniques in Spinal Deformity Surgery, Medtronic Sofamor Danek, San Francisco, CA, February 27-28, 2004.
- Anterior scoliosis surgery-indications for open and endoscopic approaches
  - Open anterior treatment of scoliosis: Single vs. dual rods
  - Introduction to spinal osteotomies
  - Thoracic pedicle screw placement techniques
- Clinical use of thoracic pedicle screws in deformity surgery
131. American Academy of Orthopaedic Surgeons 71<sup>st</sup> Annual Meeting, San Francisco, CA, March 10-14, 2004.
- Moderator - ICL 230: Spondylolysis and Spondylolisthesis
    - Treatment of high grade (>50%) spondylolisthesis
  - Moderator - ICL 274: Adolescent Idiopathic Scoliosis: State-of-the-Art
    - Classification of AIS: Treatment based
    - Anterior open single vs. dual rod instrumentation for idiopathic scoliosis
  - ICL 315: Kyphosis of the Thoracic and Thoracolumbar Spine in the Pediatric Patient
    - Surgical complications: Prevention & treatment
132. Spine Fellow Focus Group, American Academy of Orthopaedic Surgeons, Medtronic Sofamor Danek, San Francisco, CA, March 2004.
- Surgical treatment of degenerative *de novo* lumbar scoliosis
133. Fingers-to-Toes Comprehensive Orthopaedic Review Course for Primary Care Physicians 9<sup>th</sup> Annual Meeting, St. Louis, MO, April 24, 2004.
- Evaluation and treatment of pediatric kyphosis
134. Pediatric Orthopaedic Society of North America Annual Meeting, St. Louis, MO, April 29, 2004.
- Anterior surgery for scoliosis: Indications and use of single vs. dual rods
- Thoracic pedicle screw placement techniques and clinical use in pediatric deformity surgery
135. AANS/CNS Section on Disorders of the Spine and Peripheral Nerves, American Association of Neurological Surgeons 72<sup>nd</sup> Annual Meeting, Orlando, FL, May 1-6, 2004.
- Special Lecture: Spinal deformity: Overview and basic principles
136. 8<sup>th</sup> Annual International Course on Global Spine: Surgical Principles and the Latest Techniques, BroadWater, Chicago, IL, June 25-26, 2004.
- Basics of posterior treatment of thoracic scoliosis: Rationale, results, and complications
  - Treatment of thoracic hyperkyphosis with Smith-Petersen osteotomies
- Adult deformity case conference
137. 11<sup>th</sup> International Meeting on Advanced Spine Techniques, BroadWater, Scoliosis Research Society, Southampton, Bermuda, July 1-3, 2004.
- Surgical management of adult degenerative scoliosis

<sup>v</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

138. Advanced Techniques in Spinal Deformity Surgery, Medtronic Sofamor Danek, Memphis, TN, July 16-17, 2004.
- Endoscopic instrumentation and fusion – Technique and clinical results
  - Anterior scoliosis surgery – indications for open & endoscopic approaches
  - Open anterior instrumentation techniques: Single vs. dual rods
  - Thoracic pedicle screw placement techniques
- Introduction to spinal osteotomies
139. Innovative Techniques in Spine Surgery, Medtronic Sofamor Danek, Los Cabos, Mexico, August 4-7, 2004.
- What's new in: Deformity surgery
140. Advanced Techniques for Thoracic Fixation and Deformity Correction, Hospital for Joint Diseases/Medtronic Sofamor Danek, Secaucus, NJ, October 6-9, 2004.
- Posterior correction techniques for scoliosis and kyphosis using screws
- Thoracic pedicle screw placement techniques
141. Degenerative Lumbar Scoliosis Forum, North American Spine Society, Chicago, IL October 28, 2004.
- Surgical treatment of degenerative de novo lumbar scoliosis
142. Fellows Forum, North American Spine Society, Chicago, IL, October 29, 2004.
- Classification and treatment of adolescent idiopathic scoliosis
143. Spinal Deformity Study Group Symposium 2004: Emerging Trends and Advanced Surgical Techniques, Medtronic Sofamor Danek, St. Louis, MO, November 4-6, 2004.
- Anterior scoliosis surgery – Indications for open and endoscopic approaches
  - Free hand placement and clinical use of thoracic pedicle screw in deformity surgery
  - Results of kyphosis correction with TPS/SPOs
  - Case presentations
  - Moderator - Osteotomies for Treatment of Fixed Spinal Malalignment/Imbalance
- Panel Discussion/Q & A: Open vs. endoscopic, single-rod vs. dual-rod – when and why?
144. 38<sup>th</sup> Annual Meeting of the Japanese Scoliosis Society, Shizuoka, Japan, November 12, 2004.
- Treatment of severe pediatric scoliosis
145. Pre-Adolescent Scoliosis 3<sup>rd</sup> Annual Meeting, Tokyo, Japan, November 14, 2004.
- Treatment for infantile and juvenile idiopathic scoliosis
146. Harms Study Group, DePuy Spine, Beaver Creek, CO, January 7-8, 2005.
- Curves that bend out between 20 & 30 degrees
- Stable vertebrae
147. Transforaminal Lumbar Interbody Fixation, Medtronic Sofamor Danek, Las Vegas, NV, January 14-15, 2005.
- TLIF in deformity
- Case presentations
148. American Academy of Orthopaedic Surgeons 72<sup>nd</sup> Annual Meeting, Washington, D.C., February 23-27, 2005.
- Moderator - ICL 175: Adolescent Idiopathic Scoliosis. State-of-the-Art
    - Anterior open single vs. dual rod instrumentation for idiopathic scoliosis
    - Classification of AIS: Treatment based
  - ICL 383: Modern Techniques in Cervical Spine Surgery
    - Upper thoracic pedicle screws
  - Symposium T - What's New in Pediatric Orthopaedics?
    - Current instrumentation techniques: Are pedicle screws worth it?

149. Fellows Forum, American Academy of Orthopaedic Surgeons, Medtronic Sofamor Danek, Washington D.C., February 23, 2005.
- Evaluation and surgical treatment of adult scoliosis
- Classification and treatment of adolescent idiopathic scoliosis
150. International Training of Japanese Spinal Surgeons, American Academy of Orthopaedic Surgeons, Medtronic Sofamor Danek, Washington D.C., February 25, 2005.
- Free hand placement and treatment of spinal deformity with TPS
151. Pediatric Orthopaedic Surgeons of North America Specialty Day, American Academy of Orthopaedic Surgeons, Washington D.C., February 26, 2005.
- Posterior Pedicle Screw Fixation and Posterior Spinal Fusion without Anterior Surgery
    - Debate: The best treatment for a 13-year-old female with a stiff 85° right thoracic idiopathic scoliosis
  - ICL: Adolescent Idiopathic Scoliosis: State-of-the-Art
    - Etiology, natural history, non-operative treatment
    - Thoracoscopic applications for spinal deformity treatment
152. Federation of Spine Associations 20<sup>th</sup> Annual Meeting, American Academy of Orthopaedic Surgeons, Washington D.C., February 26, 2005.
- Section I – NASS: Thoracic decompensation
153. Advanced Techniques in Pediatric Spinal Deformity Surgery, Medtronic Sofamor Danek, San Francisco, CA, March 4-5, 2005.
- Anterior scoliosis surgery – Indications for open and endoscopic approaches
  - Open anterior instrumentation techniques: Single vs. dual rods
  - Clinical use of thoracic pedicle screws in pediatric deformity surgery
  - Results of kyphosis correction with TPS/SPOs
- PSO and VCR for pediatric deformity correction
154. Spinal Deformity Study Group, Medtronic Sofamor Danek, San Diego, CA, April 28-30, 2005.
- Infantile, juvenile, adolescent summary & discussion
155. Argentina Spine Course, Medtronic Sofamor Danek, Buenos Aires, Argentina, May 16-17, 2005.
- Lenke treatment-directed classification system for AIS
  - Advances in spinal cord monitoring
  - Scoliosis surgery by the anterior approach using CD Horizon dual rod spinal system
  - Limits of anterior surgery – when is posterior a better approach?
  - Treatment of AIS >70° by posterior-only approach
  - Thoracic kyphosis surgery by the posterior-only approach
  - Congenital scoliosis: Surgical treatment by VERTEX/LEGACY 3.5/4.5
  - Anterior column support – Indications & surgical technique
  - Iliac screws for pelvic fixation: Indications & surgical technique
  - Myelomeningocele – Surgical treatment
  - Surgical treatment of degenerative *de novo* lumbar scoliosis
  - Scoliosis with sagittal imbalance: Anterior decancellation procedures
  - Evaluation and surgical treatment of flatback syndrome with spinal osteotomies: SPOs & PSOs
  - Complications and predictive factors to flatback treatments
  - Revision surgery – BMP uses and results
  - Surgical treatment on neurological scoliosis
- Case discussions

156. Advanced Techniques in Pediatric Deformity Surgery (Anterior & Posterior Approaches), Medtronic Sofamor Danek, Memphis, TN, May 20-21, 2005.
- Anterior scoliosis surgery-indications for open and endoscopic approaches
  - Open anterior instrumentation techniques: single vs. dual rods
  - Clinical use of thoracic pedicle screws in deformity surgery
  - SPOs/TPS for pediatric kyphosis correction
  - Panel - Q + A Topic: Lumbosacral Construct Issues and Pediatric Osteotomies
  - Panel Discussion - Screws vs. Hooks/Wires Analysis for Deformity Correction
  - Demo Lab 1
    - Instrumentation in T-L spine
    - Open fixation techniques
    - TPS – Derotation techniques
    - Lumbar PSO
157. Pediatric Deformity Focus Meeting, Medtronic Sofamor Danek, Memphis, TN, May 23-24, 2005.
- Classification of idiopathic scoliosis
  - Pediatric case presentation
158. 9<sup>th</sup> Annual International Course on Global Spine: Spinal Motion, Fusion and Realignment, BroadWater, San Francisco, CA, June 24-26, 2005.
- Posterior kyphosis correction with TPS and SPOs: Are anterior releases needed anymore?
  - Moderator - Session 5: Spinal Realignment
  - Selection of Fusion Levels in Adult Idiopathic Scoliosis: How Distal do You have to Go?
  - Panelist - Case Discussions: Adult Fixed Spinal Deformity
  - Panelist - Case Discussion: Treatment of a “Typical” Right Thoracic AIS
- Panelist - Adult Degenerative Deformity
159. Innovative Techniques in Spine Surgery 2<sup>nd</sup> Annual Meeting, Los Cabos, Mexico, July 20-23, 2005.
- TLIF for degenerative and deformity
  - Evaluation and treatment of degenerative lumbar scoliosis
  - Spondylolisthesis in children and adults
  - Evaluation and treatment of adult scoliosis
  - Spinal osteotomies to correct fixed spinal imbalance
  - Iliac screw fixation for sacropelvic support
  - What’s new in: Thoracic pedicle fixation?
- Panel - Educating Surgeons in New Technology
160. Asia Pacific Spine Congress, Scoliosis Research Society, Jeju Island, Korea, August 25-27, 2005.
- Avoiding ASF in pediatric and adult deformity surgery utilizing pedicle screw fixation
  - Approaches to the pediatric patient undergoing intervertebral stapling
  - Workshop - Thoracic pedicle screw free-hand insertion and 3-D deformity correction techniques
  - Case Discussions - Trauma/tumor/infection
- Moderator - Case Conference
161. Congenital Scoliosis Conference, Medtronic Sofamor Danek, Tokyo, Japan, August 28, 2005.
- Congenital scoliosis: Posterior hemivertebra excision
162. 4<sup>th</sup> Forum of GICD Europe, Barcelona, Spain, September 20, 2005.
- Spinal osteotomy for the treatment of fixed deformity in ankylosing spondylitis
163. State-of-the-Art Strategies in Scoliosis Management, Symposium Lunch Workshop, EuroSpine, Medtronic Sofamor Danek, Barcelona, Spain, September 21, 2005.
- Adolescent Idiopathic Scoliosis: Thoracic screw placement
- Pelvic Fixation: Neuromuscular scoliosis

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164. Fusionless Treatment of Scoliosis, EuroSpine, Medtronic Sofamor Danek, Barcelona, Spain, September 20, 2005.
- Clinical experiences
  - Concepts including preclinical work
- Case presentations
165. LEGACY™ Surgeon Panel Meeting, EuroSpine, Medtronic Sofamor Danek, Barcelona, Spain, September 22, 2005.
- Rod diameter selection in pediatric and adult spinal deformity correction
  - LEGACY™ extensions (iliac, reduction screws)
166. Lumbosacral Reconstruction in the Aging Spine, Medtronic Sofamor Danek, Philadelphia, PA, September 29, 2005.
- Indications for lumbosacral junction reconstruction: Construct planning for anterior & posterior support
- Case presentation
167. Fellows Forum, Medtronic Sofamor Danek, Philadelphia, PA, September 29, 2005.
- Classification and treatment of adolescent idiopathic scoliosis
168. Young Spine Deformity Symposium 2<sup>nd</sup> Annual Meeting, Sarah M. & Charles E. Seay and Martha & Pat Beard Center for Excellence in Spine Research, Texas Scottish Rite Hospital, Dallas, TX, October 6, 2005.
- Surgical solutions for optimal correction of primary and revision severe pediatric spinal deformities
169. Training for Tomorrow's Deformity Surgeon, Medtronic Sofamor Danek, San Diego, CA, October 16-18, 2005.
- Advanced thoracic, lumbar, sacral, and iliac screw placement
- Succeeding in clinical practice as a spinal deformity surgeon
170. Scoliosis Research Society 40<sup>th</sup> Annual Meeting, Medtronic Sofamor Danek, Miami, FL, October 28, 2005.
- ICL: Fusion Level Selection in AIS
    - Critical choices for the long-term
171. Spinal Deformity Study Group Symposium 2005: Emerging Trends and Advanced Surgical Techniques in Spinal Deformity, Medtronic Sofamor Danek, St. Louis, MO, November 10-12, 2005.
- Open anterior dual rod instrumentation for thoracolumbar/lumbar AIS
  - Current Techniques for adult deformity correction using pedicle screws, SPOs & TLIF
  - Upper thoracic pedicle screw placement and construct planning/correction techniques for pediatric deformity
- Pediatric case discussions
172. 14<sup>th</sup> Annual Spine Surgeon Transition Program's Spine+Science+Management, Medtronic Sofamor Danek, Las Vegas, NV, November 17-19, 2005.
- Cervicothoracic fixation techniques
  - Hyperlordosis case presentation
  - Roundtable Discussion - Spine cases
  - Roundtable Discussion - Practice transition issues
  - Hands-on Cadaver Lab - Thoracic pedicle screw fixation
- Hands-on Cadaver Lab - Cervicothoracic fixation
173. 2<sup>nd</sup> International Pediatric Orthopaedic Society of North America/American Academy of Orthopaedic Surgeons Pediatric Orthopaedic Symposium, Orlando, FL, November 30-December 4, 2005.
- ICL: Posterior Treatment of Scoliosis
    - Selecting fusion levels when using pedicle screw constructs
  - ICL: PSO & VCR for Posterior Deformity Correction
    - Posterior vertebral column resection for severe spinal deformities
- Panel - Case Based Discussion – Idiopathic Scoliosis
174. Spinal Deformity Study Group, Medtronic Sofamor Danek, Chicago, IL, December 1-3, 2005.
- Infantile, juvenile, adolescent summary & discussion

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- 175.3<sup>rd</sup> Annual International Course on Spinal Focus, Medtronic Sofamor Danek, New York, NY, December 9-11, 2005.
- The Kyphosing Spine-Overview of surgical techniques
  - Thoracolumbar kyphosis with “flatback” syndrome: Posterior only SP
  - Panelist - Kyphosing Spine Case Presentations, Discussions and Voting
- Panelist - Adult Degenerative Scoliosis
- 176.The 16<sup>th</sup> Annual Dr. Tom Lowe Spine Symposium: The Surgical Management of Spinal Disorders, Beaver Creek, CO, January 15-17, 2006.
- Complications of pedicle screw implants in pediatric & adult patients
  - Deformity realignment and fixation options for the cervicothoracic junction
  - Cervicothoracic fixation techniques
  - Moderator - Part 3: Thoracic Sagittal Plane Deformity
- Moderator - Case Discussions
- 177.Aging Spine Technology Assessment Meeting, Medtronic Sofamor Danek, Memphis, TN, February 13, 2006.
- Aging spine deformity challenges
- Degenerative scoliosis literature review
- 178.Advanced Techniques in Deformity Surgery, Medtronic Sofamor Danek, Scottsdale, AZ, February 17-18, 2006.
- Anterior scoliosis surgery – indications for open & endoscopic approaches
  - Free hand TPS: Basic & advanced techniques: construct planning/execution for scoliosis correction utilizing pedicle screws
  - Revision deformity surgery: Assessment, treatment and prevention
  - PSO & VCR for severe spinal deformity
  - Case presentations
  - Moderator - Open vs. Endoscopic – Why and when
  - Moderator - Revision Spinal Surgery Treatment
- Moderator - Q + A Topic: Lumbosacral Construct Issues and Osteotomies
- 179.1<sup>st</sup> Annual International Course – Spine Surgery: On the Cutting Edge, BroadWater, Cancun, Mexico, February 24-26, 2006.
- The use of pedicle screws to avoid anterior release surgery
  - Optimizing deformity correction with spinal osteotomies. And, when to refer to a deformity center?
  - Moderator - Session 1: Adult Spinal Deformity
  - Moderator - Session 2: Adult Spinal Deformity
- Panelist - Case Discussion Panel: Adult Spinal Deformity
- 180.Spine Surgeon Transition Program - Fireside Series: *Deformity Surgery-is it right for your practice*, Medtronic Sofamor Danek, Orlando, FL, March 17, 2006.
- Adult degenerative deformity practice
  - Getting started as a deformity surgeon
- Succeeding in clinical practice as a spinal deformity surgeon
- 181.American Academy of Orthopaedic Surgeons 73<sup>rd</sup> Annual Meeting, Chicago, IL, March 22-26, 2006.
- ICL: 285: Modern Techniques in Cervical Spine Surgery
    - Upper thoracic pedicle screws
- 182.International Hands-on Advanced Spinal Instrumentation Course, Medtronic Sofamor Danek, Vancouver, Canada, March 30-April 1, 2006.
- Thoracic pedicle screw placement techniques & avoiding complications
  - State-of-the-art: Spinopelvic fixation
  - Case presentations
- Moderator - Proximal Thoracic Hyperkyphosis Case Discussions

183. Pediatric Surgeon Spine Deformity Meeting, Medtronic Sofamor Danek, Memphis, TN, April 3-4, 2006.
- Use of pedicle screws & posterior osteotomies to avoid anterior releases in spinal deformity surgery
  - Classification of idiopathic scoliosis
- Case presentations
184. Special Symposium on Spinal Deformity, Medtronic Sofamor Danek, Porto, Portugal, April 8, 2006.
- Classification & surgical treatment of adolescent idiopathic scoliosis
185. Advanced Techniques in Deformity Surgery for Pediatric Spine Surgeons, Medtronic Sofamor Danek, Dallas, TX, April 28-29, 2006.
- Free hand TPS: Basic & advanced techniques: Construct planning & execution for scoliosis correction utilizing pedicle screws
  - Revision deformity surgery: Assessment, treatment, and prevention
  - PSO & VCR for severe spinal deformity
- Anterior scoliosis surgery – Indications for open & endoscopic approaches
186. Pediatric Orthopaedic Society of North America Annual Meeting, American Academy of Orthopaedic Surgeons, San Diego, CA, May 3-6, 2006.
- Instructional Course Lecture
    - Complications of pedicle screws
187. The 79<sup>th</sup> Annual Congress of the Japanese Orthopaedic Association, Yokohama, Japan, May 18-21, 2006.
- Symposium 9: Posterior treatment of idiopathic scoliosis using pedicle screws
188. 3<sup>rd</sup> International Chinese Scoliosis Meeting, Beijing, China, May 22, 2006.
- Current scoliosis surgical treatment: *What's new, what's out*
189. Global Spine – Techniques and Technologies from Skull to Sacrum, BroadWater, Las Vegas, NV, June 9-11, 2006.
- Use of pedicle screws & posterior osteotomies to avoid anterior releases in adult scoliosis & kyphosis
  - Fixed sagittal imbalance
  - Adult degenerative deformity practice
  - Moderator - Pediatric and Adult Spinal Deformity
  - Moderator - Session 3: Advanced TL Techniques
  - Moderator - Session 4: Advanced Techniques in Spinal Deformity Surgery
  - Panel - Case Discussion: Combined Coronal and Sagittal Malalignment
  - Panel - Case Discussions: Spinal Deformity Treatment for >age 60
- Panel - Case Discussions: Pediatric
190. 13<sup>th</sup> International Meeting on Advanced Spine Techniques, BroadWater, Scoliosis Research Society, Athens, Greece, July 12-15, 2006.
- ICL: Advanced Pediatric & Adult Spinal Deformity Correction Techniques
    - Considerations for optimal spinal deformity surgical correction
    - Specific adult deformity correction techniques
  - ICL: Scoliosis Affecting the Adult
    - Primary sagittal deformity – adjacent segment problems
    - Primary coronal deformity dealing with double major curves & “when can we be selective?”
  - ICL: Fusionless Treatment of Scoliosis
    - Preliminary experience with anterior tethering for scoliosis & modified “growing rod” techniques
191. Training for Tomorrow's Deformity Surgeon, Medtronic Sofamor Danek, Chicago, IL, August 28-29, 2006.
- Succeeding in clinical practice as a spinal deformity surgeon
  - Advanced thoracic, lumbar, sacral, and iliac screw placement
  - Biomechanical analysis of a custom disc prosthesis placed below a simulated long lumbar fusion construct: Is it stable and feasible?
- Adult case presentations

<sup>v</sup>Student, <sup>r</sup>Resident, <sup>f</sup>Fellow, <sup>n</sup>Neurosurgical Resident, <sup>a</sup>Advanced Deformity Fellow, <sup>d</sup>Domestic Visiting Surgeon, <sup>s</sup>International Research Scholar

192. Spine Surgeon Transition Program, Medtronic Sofamor Danek, Memphis, TN, October 12-13, 2006.  
Construct planning. How, when & why
193. The Pediatric Spine, Washington University School of Medicine, St. Louis, MO, October 14, 2006.  
- Pediatric spondylolisthesis and kyphosis  
Congenital and dysplastic scoliosis
194. Emerging Trends and Advanced Surgical Techniques in Spinal Deformity: Symposium 2006, Medtronic Sofamor Danek, St. Louis, MO, November 2-4, 2006.  
- Are anterior releases necessary for pediatric scoliosis correction with pedicle screws and appropriate posterior releases/osteotomies?  
- Avoiding anterior approaches in adult spinal deformity reconstructions: The role of osteotomies and TLIFs/PLIFs  
VCR for severe pediatric or adult fixed spinal deformity
195. 15<sup>th</sup> Annual Spine Surgeons Transition Program's Course "Spine+Science+Management", Medtronic Sofamor Danek, New Orleans, LA, November 17-18, 2006.  
- Cervicothoracic fixation techniques  
Incorporating deformity into your practice
196. The 17<sup>th</sup> Annual Dr. Tom Lowe Spine Symposium: The Surgical Management of Spinal Disorders, BroadWater, Beaver Creek, CO, January 14-15, 2007.  
- Surgical technique forums: Treatment of post-traumatic kyphosis with PSOs  
· Spinal deformity: Revision surgical treatment for adult scoliosis: Indications and techniques for addressing coronal balance preop and postop. What is the best way to fix the sacrum?
197. ONE Spine: Controversies in Spine Surgery 1<sup>st</sup> Annual Meeting, BroadWater, Cancun, Mexico, February 3-4, 2007.  
- Biomechanical analysis of a custom disc prosthesis placed below a simulated long lumbar fusion constructs: Is it stable and feasible?  
- MAST deformity applications  
- Posterior VCR  
- Primary treatment of adjacent segment problems  
Treatment of kyphotic spinal deformity: Is there any reason to go anterior anymore?
198. American Academy of Orthopaedic Surgeons 74<sup>th</sup> Annual Meeting, San Diego, CA, February 14-18, 2007.  
- ICL 286: Modern Techniques of Cervical Spine Surgery  
· Upper thoracic pedicle screws  
- ICL 345: Congenital Scoliosis/Spinal Deformity in Young Children  
· Infantile and juvenile idiopathic scoliosis
199. Pediatric Orthopaedic Society of North America Specialty Day, American Academy of Orthopaedic Surgeons, San Diego, CA, February 14-18, 2007.  
- ICL: Fusionless treatment of the growing child  
· When is fusion the better option?
200. Current Concepts in Emerging Technologies in Spine, Medtronic Spinal & Biologics, Vail, CO, February 18-21, 2007.  
- Segmental fixation in adolescent deformity  
- Panelist - Breakout Session 1: Adolescent Idiopathic Deformity: Selection of Distal Fusion Level  
Panelist - Breakout Session 7: Adult Deformity: Advanced Posterior Techniques

201. Advanced Techniques in Deformity Surgery for Pediatric Spine Surgeons, Medtronic Spinal & Biologics, Scottsdale, AZ, February 23-24, 2007.
- Revision deformity surgery: Assessment, treatment, and prevention
  - Anterior scoliosis surgery – Indications for open & endoscopic approaches
  - Free hand TPS: Basic & advanced techniques: Construct planning & execution for scoliosis correction utilizing pedicle screws
- PSO & VCR for severe spinal deformity
202. Current Concepts in Spinal Deformity 6<sup>th</sup> Annual Symposium, Las Vegas, NV, March 2, 2007.
- Is anterior surgery necessary?
- Multilevel osteotomies for revision surgery
203. SRS Beijing Course, Scoliosis Research Society, Beijing, China, April 4, 2007.
- Adult idiopathic & degenerative scoliosis: Principles of fusion level selection & surgical techniques
- Surgical treatment of severe sagittal and/or coronal spinal deformity
204. Pediatric Spinal Deformity: On the Cutting Edge, BroadWater, Miami, FL, April 13-14, 2007.
- Avoiding anterior release and fusion in ALL pediatric deformity treated with posterior segmental pedicle screw fixation - is it possible?
  - Posterior vertebral column resection for non-idiopathic severe pediatric deformity
- AIS case discussion
205. Advanced Techniques in Deformity Surgery for Pediatric Spine Surgeons, Medtronic Spinal & Biologics, Dallas, TX, April 20-21, 2007.
- Freehand TPS: Basic & advanced techniques: Construct planning/execution for scoliosis correction utilizing pedicle screws
  - Revision deformity surgery: Assessment, treatment, & prevention
  - Role of TLIF in deformity
  - PSO and VCR for severe spinal deformity
  - Anterior scoliosis surgery – Indications for open and endoscopic approaches
- AIS case discussions
206. Aging Spine Care: Cases in Surgical & Non-Surgical Management, Medtronic Spinal & Biologics, Chicago, IL, April 27-28, 2007.
- Adjacent level management
  - Degenerative lumbar scoliosis (DLS) evaluation & treatment options
  - Adult degenerative lumbar scoliosis cases
  - Moderator - Degenerative Scoliosis
- Moderator - How I Treated it and Take Home Points
207. Spinal Deformity Study Group, Medtronic Spinal & Biologics, Scottsdale, AZ, May 10-12, 2007.
- Infantile, juvenile, and adolescent deformity: an interactive discussion
208. National Association of Orthopaedic Nurses Congress, St. Louis, MO, May 22, 2007.
- Pediatric and adult spinal deformity surgery in 2007: Extreme makeover
209. Chilean Spine Course, Santiago, Chile, May 24-26, 2007.
- Advantages & benefits and also shortcomings of the Lenke classification system
  - Advice & tricks for placing TPS and correction maneuvers
  - Evaluation and treatment philosophy of adult degenerative scoliosis (ADS)
  - Corrective strategies for sagittal imbalance
- Surgical treatment of severe scoliosis/kyphosis

210. The Spine Summit: Emerging Technologies & Best Practices, BroadWater, Maui, HI, June 8-10, 2007.
- Adult idiopathic & degenerative scoliosis: Principles of fusion level selection & surgical techniques
  - Surgical treatment of primary adult scoliosis: The SRS adult deformity classification system – patients who have not had prior surgery – How do we pick levels and when do we need to go to the sacrum?
- When is posterior instrumentation and fusion of the entire curve necessary?
211. Current Concepts & Techniques of Spinal Deformity, Medtronic Spinal & Biologics, Toronto, Canada, June 15-16, 2007.
- Classification of idiopathic scoliosis, determination of fusion levels and the role of selective fusion
  - Derotation
  - Free hand technique of thoracic pedicle screw insertion
  - Gaines procedure
  - Approach to high-grade spondylolisthesis
  - Lumbar & sacral pedicle screw placement
  - Spinal bifida surgical treatment
- Vertebral column resections (VCR)
212. Training Tomorrow's Deformity Surgeon, Medtronic Spinal & Biologics, Chicago, IL, June 24-26, 2007.
- Succeeding in clinical practice as a spinal deformity surgeon
  - Advanced thoracic, lumbar, sacral, and iliac screw placement
  - Phases of surgeon development
  - Adjacent level management
  - Fixed sagittal imbalance
- Posterior VCR
213. 14<sup>th</sup> International Meeting on Advanced Spine Techniques, BroadWater, Scoliosis Research Society, Paradise Island, Bahamas, July 9-11, 2007.
- ICL: Fusionless Treatment of Scoliosis
    - Preliminary experience with anterior tethering for scoliosis & modified “growing rod” techniques
  - ICL: Scoliosis Affecting the Adult
    - Primary sagittal deformity – adjacent segment problems
214. Emerging Trends and Advanced Surgical Techniques in Spinal Deformity: Symposium 2007, Medtronic Spinal & Biologics, St. Louis, MO, November 8-10, 2007.
- Posterior VCR for severe pediatric/adult spinal deformity: Indications/results/tips & pearls
  - Adult revision cases
- Pediatric revision cases
215. Spinal Deformity Study Group Winter Meeting, Chicago, IL, November 29-December 1, 2007.
- Selective vs. non-selective fusions for AIS
  - AIS surgery in brace vs. no brace patients
  - Revision incidence in AIS
  - Clinical appearance of patients with TPS vs. other constructs
  - LEV modifier for AIS classification
  - Radiographic assessment: 1-year vs. 2-year. Is 1-year sufficient?
- Case presentations
216. ONE Spine: Controversies in Spine Surgery 2<sup>nd</sup> Annual Meeting, BroadWater, Cancun, Mexico, February 7-9, 2008.
- Posterior VCR
  - Sagittal imbalance & PSOs
  - Con: The patient should undergo pain management without surgery as risks to treatment due to medical comorbidities outweigh the benefits
  - Adult degenerative lumbar scoliosis case
- Moderator - Adult Deformity

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217. Advanced Techniques in Deformity Surgery for Pediatric Spine Surgeons, Medtronic Spinal & Biologics, Los Angeles, CA, February 15-16, 2008.
- Free hand TPS: Basic & advanced techniques: Construct planning/execution for scoliosis correction utilizing pedicle screws
  - PSO & VCR for severe spinal deformity
  - Revision deformity surgery: Assessment, treatment, and prevention
- Pediatric osteotomy case discussions
218. American Academy of Orthopaedic Surgeons 75<sup>th</sup> Annual Meeting, San Francisco, CA, March 5, 2008.
- ICL 170: Congenital Scoliosis and Spinal Deformity in Young Children
    - Infantile and idiopathic scoliosis
219. Pediatric Orthopaedic Society of North America Specialty Day, American Academy of Orthopaedic Surgeons, San Francisco, CA, March 5, 2008.
- ICL: PSO & VCR for Posterior Deformity Correction
    - Posterior VCR for severe scoliosis
220. Spine Surgeon Transition Program, Medtronic Spinal & Biologics, Memphis, TN, March 13-15, 2008.
- Sagittal imbalance and PSOs
221. Aging Spine Care, Medtronic Spinal & Biologics, Chicago, IL, April 4-5, 2008.
- Radiographic and clinical factors important for decision making in degenerative lumbar scoliosis
  - How I treat it and take home pearls
    - Adult DLS cases
222. MAST Deformity Expanded Users Group Meeting, Medtronic Spinal & Biologics, Memphis, TN, April 10-11, 2008.
- Deformity overview: Past and present
- Principles of segmental, regional, and global correction
223. 4<sup>th</sup> Advanced Deformity Meeting, DePuy Spine, Zurich, Switzerland, April 17-18, 2008.
- Indications for posterior vertebral resection
  - Are health related outcomes, QUALY's, SRS-22 an effective tool for evaluating patient satisfaction in this group? Is a new questionnaire necessary?
- Early prophylactic intervention – stapling, tethering, wedge osteotomies
224. Advanced Techniques in Deformity Surgery for Spine Surgeons, Medtronic Spinal & Biologics, Albuquerque, NM, May 1, 2008.
- PSO and VCR for severe spinal deformity
  - Panelist- Case Presentation and Panel Discussion
- Moderator - Panel Discussion: Future of Deformity Surgery
225. 25<sup>th</sup> Anniversary of the First Surgery using CD<sup>®</sup> Instrumentation, Medtronic Spinal & Biologics, Paris, France, June 19-20, 2008.
- Post-laminectomy proximal thoracic hyperkyphosis in a neurofibromatosis patient with severe myelopathy and chin-on-chest deformity
226. The Surgical Management of Spinal Disorders, International Meeting on Advanced Spinal Deformity Pre-Course, BroadWater, Scoliosis Research Society, Shenzhen, China, July 7, 2008.
- Adult scoliosis and kyphosis: Evaluation and surgical management
  - Spondylolisthesis: Spectrum of care for all ages
- Trauma case discussion

227. 15<sup>th</sup> International Meeting on Advanced Spine Techniques, BroadWater, Scoliosis Research Society, Hong Kong, China, July 8-11, 2008.
- Posterior VCR in adult deformity
  - Posterior kyphosis correction with TPS & SPOs: Are anterior releases needed anymore?
  - Transitioning from open to less invasive deformity surgery
  - HOMSA – Minimally invasive techniques as an adjunct to open surgery
  - Leader - Roundtable Discussion on Adult Deformity
  - Faculty - ICL: MAST Deformity: Advances in Minimally Invasive Treatment
  - Faculty - ICL: Triplanar Correction in Adult Deformity
  - Faculty - ICL: Critical Evaluation of Bone Grafting Technologies: Bone graft options for adult deformity
  - Faculty - ICL: Pediatric Deformity: Derotation and Emerging Technologies: Pediatric spinal osteotomies
  - Faculty - Fundamentals Session: Deformity
    - AIS classification, selection of fusion levels, and correction techniques
    - Advanced pediatric & adult spinal deformity correction techniques
  - Moderator - Adult Deformity
    - Adult spinal deformity cases
228. Advances in Spinal Deformity 1<sup>st</sup> International Symposium and Cadaveric Workshop, Medtronic Spinal & Biologics, Toronto, Ontario, Canada, September 5-6, 2008.
- The classification of AIS
  - Free hand technique
  - O-Arm® imaging system overview
- Vertebral column manipulation (VCM)
229. Spinal Deformity 2008: Optimal Clinical Practice, SRS Young Surgeon Program, Medtronic Spinal & Biologics, Salt Lake City, UT, September 10, 2008.
- HOMSA: Hybrid open muscle sparing approach
230. SRS Pre-Meeting Course, Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10, 2008.
- Vertebral column resection for AIS
  - Moderator - Indications and Techniques to Posterior Osteotomies in AIS Patients (Risser 0-5)
- Panelist - Avoiding Disasters
231. Scoliosis Research Society 43<sup>rd</sup> Annual Meeting, Salt Lake City, UT, September 10-13, 2008.
- ICL: 3D Scoliosis Evaluation and Classification
    - Case presentation & clinical relevance of 3D analysis
- Hibbs Society Session: Vertebral column resection (VCR) for AIS
232. SRS World Wide Program on Spinal Deformity: Current Concepts, Scoliosis Research Society, New Delhi, India, October 2-4, 2008.
- Selective fusion – outcomes/evidence for recommendations
  - Complications in the treatment of adult spinal deformity
  - Neurological complications – how to prevent them
- Case example: Traction and posterior approach
233. Emerging Trends and Advanced Surgical Techniques in Spinal Deformity: Symposium 2008, Medtronic Spinal & Biologics, St. Louis, MO, November 6-8, 2008.
- SPO vs. PSO vs. VCR for thoracic and TL kyphosis realignment: Sorting out the risk/benefit ratios
  - Moderator - Adult Complex Revisions
    - Case discussions
  - Moderator - Adolescent and Adult Deformity Cases
    - Case discussions

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234. 17<sup>th</sup> Annual Spine Surgeons Transition Program's Course "Spine+Science+Management", Medtronic Spinal & Biologics, New Orleans, LA, November 20-22, 2008.
- Complex spinal deformity treatment: 2008
- Complex case discussions
235. 5<sup>th</sup> Annual International Pediatric Orthopaedic Symposium, American Academy of Orthopaedic Surgeons, Orlando, FL, December 3-7, 2008.
- Indications and techniques for spinal osteotomies and vertebral resection in idiopathic scoliosis and Scheuermann kyphosis
- Panel Member - Case-Based Discussions
236. 19<sup>th</sup> Annual Dr. Thomas Lowe Spine Symposium: The Surgical Management of Spinal Disorders, BroadWater, Beaver Creek, CO, January 17-20, 2009.
- Complications on patients whom I have operated. What are the risk factors for such situations? How do I get out of the quicksand?
  - Moderator - Spinal Deformity: Fusionless and Minimally Invasive Techniques – Hope or Hype?
  - Panel - Spinal Deformity: AIS and Adult
- Panel - Spinal Deformity: Complications
237. ONE Spine: Controversies in Spine Surgery 3<sup>rd</sup> Annual Meeting, BroadWater, Cancun, Mexico, February 6-7, 2009.
- Moderator - Adult Deformity Challenges
  - The best surgical approach is an anterior DLIF/XLIF +/- posterior instrumentation
  - The optimal surgical treatment is anterior release/ASF with post Inst/SPOs PSF
  - Thoracic VCR for severe scoliosis
- Optimal treatment is brace/extension cast instead of posterior ORIF
238. Advanced Techniques in Deformity Surgery for Pediatric Spine Surgeons, Medtronic Spinal & Biologics, Philadelphia, PA, February 20-21, 2009.
- PSO and VCR for severe spinal deformity
- Pediatric osteotomy case discussions
239. American Academy of Orthopaedic Surgeons, 76<sup>th</sup> Annual Meeting, Las Vegas, NV, February 25-28, 2009.
- ICL 244: Congenital Scoliosis and Spinal Deformity in Young Children
    - Infantile and idiopathic scoliosis
240. Spine Surgeon Transition Program, Fireside Series: Avoiding and Managing Complications in Spine Surgery, Medtronic Spinal & Biologics, Las Vegas, NV, February 25, 2009.
- Avoiding and managing complications in spine surgery
241. Open Deformity Meeting, Medtronic Spinal & Biologics, Madrid, Spain, March 6-7, 2009.
- The Lenke classification of AIS: Treatment directions
  - Vertebral column manipulation (VCM)
  - Posterior vertebral column resection (VCR)
  - Thoracic pedicle screws: Start points and free hand technique
  - Adult spinal deformity cases
- Pediatric spinal deformity cases
242. Pediatric Spinal Deformity: On the Cutting Edge II, BroadWater, Coral Gables, FL, April 3-4, 2009.
- Pulmonary function after AIS surgery
  - Potpourri of new information in AIS
  - Panel Member - Discussion: Fusion Level and Approach Selection in AIS
- Panel Member - Discussion: Neurological Changes or Monitoring Change with Deformity Surgery

243. XXII Brazilian Spine Society Meeting, Scoliosis Research Society, Iguassu Falls, Parana, Brazil, April 28-May 1, 2009.
- Management of sagittal deformities in adults: Decision making on osteotomies (SPO/PSO/VCR)
  - Newer techniques and trends in pediatric spinal deformity
  - Fixation of L5-S1: Techniques and indications in pediatric deformity
- Adult spinal deformity cases
244. 1<sup>st</sup> Chinese Scoliosis Research Society International Meeting, Scoliosis Research Society, Beijing, China, May 14-18, 2009.
- Avoiding neurologic complications during VCR surgery
  - Avoiding neurologic complications during kyphosis surgery
  - Updates and additions to the Lenke classification system of AIS
- AIS cases
245. X Congress of the South African Spine Society, Medtronic Spinal & Biologics, Sun City, South Africa, May 25-31, 2009.
- Construct selection for posterior correction
  - Treatment options and overview of surgical strategies – posterior-only
  - Coping with complications. Cases not gone to plan – Case discussions
  - Posterior vertebral column resection
  - Does coronal balance play a role in the outcomes of adult spinal deformity?
  - Pedicle screws for pediatric & adult spinal deformity
  - Evaluation and surgical treatment of adult degenerative lumbar scoliosis
  - Workshop - Posterior Correction of AIS with Vertebral Derotation using the VCM Device
  - Workshop - TLIF for Pediatric and Adult Deformity
  - Workshop - Degenerative Spinal Deformities
  - Workshop - Pedicle Subtraction Osteotomy
  - Workshop - HOMSA
- Workshop - Iliac Screws
246. 16<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Vienna, Austria, July 15-18, 2009.
- ICL 1B: Spondylolisthesis in the Adolescent and Young Adult
    - High grade spondylolisthesis: When and how to reduce
  - Moderator - ICL 2D – Adult Deformity II
    - VCR for severe adult spinal deformity
  - Moderator - ICL 4C – Adolescent Idiopathic Scoliosis II
    - Indications and technique for post VCR in severe primary and revision AIS
  - ICL 5E – Adult/Pediatric Deformity: My Worst Complication and How I Treated It
    - Overview of potential complications and their potential clinical impact
    - My worst complication
  - Fundamentals Session: Adult Deformity
    - Sagittal plane deformity and correction
- Moderator - Round Table Discussions: Adult Deformity
247. Scoliosis Research Society 44<sup>th</sup> Annual Meeting, San Antonio, TX, September 23-26, 2009.
- Complications in Spinal Deformity Surgery: Segment 7 - Do Deformity Surgeons Learn from Their Mistakes?
    - The mistakes I've made too many times
  - Critical Concepts in Adult Deformity Surgery: Segment 2 - Surgical Techniques for Adult Deformity
    - Posterior osteotomies: When have you done enough?
248. Spinal Deformity Study Group China Section Meeting, Scoliosis Research Society, Shanghai, China, October 9, 2009.
- Activities of Spinal Deformity Study Group-USA

249. Understanding the Treatment of Spine Deformity, Medtronic Spinal & Biologics, Wroclaw, Poland, November 16-18, 2009.

- AIS classification system
- What is the current “best practice” for the treatment of idiopathic scoliosis?
- Surgical approaches – The advantages and drawbacks of using anterior, posterior and combined approaches
- Conservative medical management of AIS – Who benefits?
- Complications and revisions of AIS surgery
- Can the genetic profile predict curve progression in AIS?

The treatment of adult spine deformities – The when, where and how of vertebral osteotomies

250. First European Federation of National Associations of Orthopaedics and Traumatology Expert Meet Expert Forum, Autonomous University of Barcelona, Spanish Spine Society, Barcelona, Spain, November 19-20, 2009.

- Posterior 3-column osteotomies including pedicle resection and vertebral resection
- Complications of vertebral osteotomies

Problem with fixation to S1

251. 3<sup>rd</sup> International Congress on Early Onset Scoliosis and Growing Spine, The Growing Spine Foundation, Istanbul Turkey, November 20-21, 2009.

- Complications – What is acceptable with current techniques?
- Moderator - Case Discussion

Moderator - Free Podium presentations

252. 26<sup>th</sup> AANS/CNS Section on Disorders of the Spine and Peripheral Nerves: Staying Ahead of the Curve: Succeeding in Changing Times, Orlando, FL, February 17-20, 2010.

- Special Course III: Surgical Techniques for Adult Deformity
  - Segment 2 – Surgical Techniques for Adult Deformity: Posterior osteotomies: When have you done enough?
- Moderator - Panel 2: Management of Intraoperative Problems in Deformity Cases
- Questions & Discussion
- Scientific Session I – Spinal Surgery Ahead of the Curve (New Technology and Techniques
  - Looking ahead in spinal deformity surgery

253. Advanced Deformity for Spine Surgeons Technique Training, Medtronic Spinal & Biologics, Dallas, TX, February 19-20, 2010.

- Apical derotation maneuvers for the T & L spine
- PSO and VCR for severe spinal deformity

Safety in spinal deformity surgery/O-Arm/intraoperative imaging

254. 8<sup>th</sup> Annual AOSNA Fellows Forum, AOSpine North America, Banff, Alberta, Canada, April 8-10, 2010.

Surgical treatment of spinal deformity: State of the art in 2010

255. Society on Scoliosis Orthopaedic and Rehabilitation Treatment 7<sup>th</sup> International Conference on Conservative Management of Spinal Deformities, Montréal, Canada, May 20-22, 2010.

- Evaluation and treatment of adult scoliosis

Classification of adolescent idiopathic scoliosis: past, present and future

256. AAOS/SRS Webinar: Idiopathic Scoliosis: Current Concepts, Challenges and Complications, May 25, 2010.

- Curve classification and guidelines for treatment
- Role of releases and osteotomies

Complications and how to avoid them: Neurologic injury

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

257. ONE Spine: 4<sup>th</sup> Annual Controversies in Spine Surgery, BroadWater, Nassau, Bahamas, June 25-26, 2010.

- Deformity Challenges
  - Adult spinal deformity update
  - Video: 2010 update: New advances in vertebral body resection for severe adult deformity
  - Case Debate: 58-year-old with untreated AIS and back pain. Posterior-only is the preferred treatment
- Panelist - Deformity Challenges
- Moderator - Surgical Technique Forums & Working Lunch. Case Round Tables

Moderator - The Aging Spine

258. Cleveland Spine Review: Hands-on 2010, Cleveland Clinic, Cleveland, OH, July 7-13, 2010.

- Thoracic instrumentation techniques tricks and pearls
- Lab: Dorsal Thoracic Exposures and Instrumentation

Deformity cases

259. 17<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Toronto, Ontario, Canada, July 22-24, 2010.

- Keynote Address - Introduction
- ICL 1B Spondylolisthesis - The benefit of reduction vs. in situ in the treatment of L5-S1 high-grade spondylolisthesis
- Moderator - ICL 2D Adult Deformity II: Use of Osteotomies in Adult Spinal Deformity
  - Introduction
  - Post VCR for severe adult deformity
- Moderator - ICL 3D Adult Deformity III: Decision Making Relative to Extension to the Sacrum Pelvis
  - Enhanced fusion for sacropelvic fusion: Graft options, interbody supplementation and biologics
- Moderator - ICL 5E Adult/Pediatric Deformity: My Worst Complication and How I Treated It
  - Introduction
  - My Worst Complication
- Fundamentals Session: Adult Deformity - Sagittal plane deformity in adults: Surgical options

Panelist - Round Table Case Discussions Adult Deformity

260. ONE Spine Fellow's and Resident's Course 1<sup>st</sup> Annual Meeting, Seattle Science Foundation, Seattle, WA, August 20-22, 2010.

- Surgical planning for AIS: Fusion levels, anterior vs. posterior and minimizing complications

Posterior deformity correction: Techniques/pearls/mistakes

261. SRS/AMCICO Pre-Congress Course, Scoliosis Research Society, Acapulco, Mexico, September 12-13, 2010.

- Expert Lecture: All you need to know about congenital scoliosis: Classification, diagnosis, associated conditions, management, fusion vs. excision
- Degenerative Adult Scoliosis
  - Complications: Prevention, recognition and management. Is it worth it (cost vs. benefit)?
- Sagittal Alignment problems
  - Flatback syndrome: Causes, prevention, correction
  - Posterior spinal osteotomies: Types, indications, execution, complications, outcomes

262. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Kyoto, Japan, September 21-24, 2010.

Moderator - Adolescent Idiopathic Scoliosis

263. The 5<sup>th</sup> International Congress of Chinese Orthopaedic Association, Spinal Deformity Pre-Course, Scoliosis Research Society, Chengdu, China, November 11-14, 2010.

- SRS Presidential remarks
- Moderator - Section 1 AIS
- Moderator - Case Discussions
- Section 3: Severe Spinal Deformity
  - Posterior osteotomies for the treatment of pediatric and adult spinal deformity

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264. 7<sup>th</sup> Annual International Pediatric Orthopaedic Symposium, Pediatric Orthopaedic Society of North America, Academy of Orthopaedic Surgeons, Orlando, FL, November 29-December 3, 2010.
- Moderator - ICL: Idiopathic Scoliosis: Selection of Fusion Levels
    - Idiopathic scoliosis: selection of fusion levels
  - ICL Spine: State of the Art Management
    - Selective thoracic fusion: picking the right case and LIV
    - Hemivertebra resection
    - Panelist - Cases: Surgical decision-making scoliosis, kyphosis, EOS
265. Hands-On Workshop, Medtronic Spinal & Biologics, Orlando, FL, December 1, 2010.
- Moderator - Osteotomies and Instrumentation Techniques to Maximize Correction
    - PSF with instrumentation: Role of releases & osteotomies
  - Moderator - Medtronic Spine: Reduction and Fixation for Spondylolisthesis
    - Reduction vs. in situ in the treatment of high-grade spondylolisthesis
266. The 20<sup>th</sup> Annual Dr. Tom Lowe Spine Symposium: The Surgical Management of Spinal Disorders, BroadWater, Beaver Creek, CO, January 14-17, 2011.
- Panelist - Adult Deformity I
  - Panelist - Adult Deformity II
    - Management of kyphosis and sagittal imbalance in the adult patient, both primary and iatrogenic. Classification, decision making and analyzing the risk/benefit ratio
    - Infection
267. Association of Spine Surgeons of India Conference 2011, Association of Spine Surgeons of India, Mumbai, India, January 27-28, 2011.
- Panel - Planning Surgery in Adolescent Idiopathic Scoliosis
    - Classification of AIS and its role in planning surgery
  - Panel - Adult Scoliosis
    - Proximal and distal junctional problems
  - Corrective Osteotomies for Restoring Sagittal Balance
    - PVCR technique in rigid kyphoscoliosis
  - Guest Lecture: Complications in deformity surgery: Avoidance and effect on outcomes
  - Panel - Spondylolisthesis Management
    - Overview of surgical techniques
268. American Academy of Orthopaedic Surgeons 78<sup>th</sup> Annual Meeting, San Diego, CA, February 15-19, 2011.
- ICL 307: Complications of Pediatric Spinal Surgery: Identification, Evaluation, Treatment and Prevention
    - Classification of AIS and its role in planning surgery
  - Symposium: Spinal Deformity: What Every Orthopaedic Surgeon Needs to Know
    - Adolescent idiopathic scoliosis
269. Controversies in Deformity Spine Surgery Symposium, Stryker Spine, Santa Fe, NM, March 4-5, 2011.
- Classification, operative indications and selection of fusion areas
  - Optimizing safety during spine surgery
  - VCR for severe deformity
- TLIF: Use in adult deformity treatment
270. Spinal Deformity LIVE, BroadWater, Washington University School of Medicine, St. Louis, MO, March 10-11, 2011.
- Live surgery #2: Pediatric posterior VCR
  - Moderator - Case Discussion: Pediatric Revision
    - Pediatric revision cases
  - Live surgery #2: Adult pedicle subtraction osteotomy
  - Moderator - Case Discussions: Adult Revision Deformity
    - Adult revision cases

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

271. Pediatric Spine Deformity: On the Cutting Edge III, BroadWater, Coral Gables, FL, April 1-2, 2011.
- Debate: There is No Indication for Thoracoplasty in the Surgical Treatment of AIS
    - Pro
  - VCR in pediatric deformity
  - Panelist - Perioperative Neurological Events
- Panelist - AIS
272. Evaluation and Treatment of Adult Spinal Deformity: Skull to Sacrum, North American Spine Society, Scoliosis Research Society, Burr Ridge, IL, April 28-30, 2011.
- Lab 1: Implant placement into the occiput cervical and thoracic spine
  - Lunch Lecture: Optimizing safety in spinal deformity surgery
  - Spinal osteotomies: SPO/PSO/VCR
- Lab 2: Spinal osteotomies: SPO/PSO/VCR
273. 18<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Copenhagen, Denmark, July 14-16, 2011.
- Optimizing neurologic safety during spinal deformity surgery
  - ICL 2C – Adult Deformity II: Use of Osteotomies in Adult Spinal Deformity
    - Vertebral column resection
  - Moderator - Debate 5: Optimal Treatment for a 15-year-old, Two Years Post-Menarche with a 45-Degree Lenke 5C Scoliosis
  - ICL 3C – Adult Deformity III: Decision Making Relative to Extension to the Sacrum Pelvis
    - Mistakes to avoid and surgical strategy in obtaining optimum balance at the lumbosacral junction
274. Scoliosis Research Society 45<sup>th</sup> Annual Meeting, Louisville, KY, September 14-17, 2011.
- Moderator - Pre-Course: Session II: Techniques for Optimizing Safety and Outcomes in Spinal Deformity Surgery
    - Optimizing safety during posterior vertebral column resection (VCR) surgery
    - Optimizing safety in spinal deformity surgery: What I have learned in my 20-year career
  - Opening Ceremonies
  - Introduction of the 2011 Harrington Guest Lecturer: Keith H. Bridwell, MD
  - SRS Lifetime Achievement Award for 2011: Ronald L. DeWald, MD
  - Presidential Address
- Introduction to the 41<sup>st</sup> President of the SRS
275. Advances in Spine: Pediatric Deformity, Medtronic Spinal & Biologics, Memphis, TN, October 3-4, 2011.
- VCR for severe pediatric spinal deformity
  - Use of the O-Arm
  - Determining distal fusion levels in adolescent idiopathic scoliosis
  - Osteotomy overview and planning
- Salvage techniques and revision scoliosis surgery
276. Pre XI SILACO-Current Techniques in Scoliosis, Medtronic Spinal & Biologics, Buenos Aires, Argentina, October 11, 2011.
- Current approach to AIS: When to go anterior, and posterior fusion levels
  - Optimizing 3D correction of pediatric spinal deformities
- Complications and revisions of AIS surgery
277. XI Congress SILACO, Scoliosis Research Society, Buenos Aires, Argentina, October 12-15, 2011.
- Fusion levels and instrumentation planning for adolescent idiopathic scoliosis
  - Round Table Discussion: This went well...this did not
  - Severe and difficult curve (>90°) management and complications: PSO and VCR
- Workshop - Osteotomies: PSO and VCR

278. Adult Spine Deformity Hands-On Adult. Chicago, IL, November 2-5, 2011.

- Optimizing safety in spinal deformity surgery
- Moderator - Session 2
  - Spinal osteotomies: SPO/PSO/VCR

Moderator - Case Discussions

279. China Orthopaedic Association, Scoliosis Research Society, Beijing, China, December 1-2, 2011.

- Moderator - Early-Onset Spinal Deformity
- Moderator - Case Discussions on Early-Onset Spinal Deformity
- Moderator - Debate: Best Treatment for a 55-degree Thoracolumbar AIS Curve
- Moderator - Adult Spinal Tumors and Deformity
- Moderator - Case Discussions on Complex Pediatric and Adult Deformity
- Panel - Case Discussions on AIS and Pediatric Kyphosis
- Panel - Case Discussions on Adult Idiopathic Scoliosis
- Optimizing safety during spinal deformity surgery
- Debate: Best Treatment for a 95-degree Fixed Angular Thoracolumbar Kyphosis in an Adult
  - Posterior VCR

Closing remarks

280. AOSpine Davos Course, Davos, Switzerland, December 11-16, 2011.

- Overview lecture: State of deformity surgery in 2011
- Complex Case Presentation: Adult Fixed Coronal and Sagittal Imbalance (Revision Surgery)
  - Case solution
- Complex Case Presentation: Congenital Scoliosis with Spine Anomalies and Rib Fusions
  - Take-home message
- Complex Case Presentation: Syndromal Scoliosis-Neurofibromatosis with Dysplastic Thoracic Kyphoscoliosis
  - Update lecture

Moderator - Complex Case 1: Adult Scoliosis with Double Major Curve

281. Spinal Deformity Symposium, Medtronic Spinal & Biologics, Barcelona, Spain, January 19-20, 2012.

- Optimal correction of scoliosis curves based on anchorage and correction maneuvers
- The when, where and how vertebral osteotomies

Revision spinal deformity surgery: who is a candidate and how to successfully complete

282. Spine on the Mountain, BroadWater, Vail, CO, January 26-28, 2012.

- Frontiers of spinal deformity – lessons for the typical spine practice
- Improving outcomes: When to go front, when to go back, and when to go both front and back

Panel - When does a lumbar degenerative case become a deformity?

283. American Academy of Orthopaedic Surgeons 79<sup>th</sup> Annual Meeting, San Francisco, CA, February 7-11, 2012.

- ICL: Complications of Pediatric Spinal Surgery: Identification, Evaluation, Treatment and Prevention
  - Complications of spine osteotomies
- ICL: My Worst Complication in Spine Surgery: Evaluation, Management and Outcomes of Adult Deformity
  - Adult revision Scheuermann's kyphosis patient undergoing a posterior vertebral column resection (VCR) with intraoperative aortic injury
- ICL: Spinal Growth Modulation
  - Anterior tether

284. ASSICON Worldwide Conference, Scoliosis Research Society, New Delhi, India, February 23-26, 2012.

- Pitfalls and complications in the treatment of EOS
- Surgical treatment of severe scoliosis deformities step by step (with videos)

Signal change in the OR: What the next steps should be

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

285. Complications in Pediatric Spinal Deformity, BroadWater, Salt Lake City, UT, March 1-3, 2012.  
Severe kyphosis and myelopathy
286. Evaluation and Treatment of Adult Spinal Deformity: Skull to Sacrum, North American Spine Society, Burr Ridge, IL, March 16-17, 2012.
- Welcome Introduction
  - Optimizing safety in spinal deformity surgery
  - Spinal osteotomies: SPO/PSO/VCR
  - Cases & panel discussions
- Hands-on Skills Lab - Spinal Osteotomies: SPO/PSO/VCR
287. Spinal Deformity Live, BroadWater, Washington University School of Medicine, St. Louis, MO, April 19-20, 2012.
- Live surgery 1: Pediatric deformity
  - Live surgery 2: Adult deformity
  - Moderator - Adult Primary Deformity
    - Adult case discussion
  - Moderator - Pediatric Revision Deformity
    - Pediatric case discussion
288. 5<sup>th</sup> Annual Global Dubai Spine Masters. State-of-the-Art Complex Spine Reconstruction & Deformity Management Strategies. Dubai, United Arab Emirates, May 6-8, 2012.
- Surgical planning in AIS
  - Techniques for limiting blood loss during major spinal surgeries
  - Free hand pedicle screw placement in the scoliotic spine
  - Video Case Presentations
    - Pedicle subtraction osteotomy
  - Untreated idiopathic scoliosis in the young adult: When do you start considering surgical intervention
  - Keynote Lecture: The role for vertebral column resections in the management of severe spinal deformity
  - Panel - Degenerative Deformity. Case Presentations
    - Elderly patients with a double major idiopathic scoliosis deformity
  - Panel - Case Presentations
    - Thoracolumbar burst fracture with progressive kyphosis in an osteoporotic female
  - Moderator - Case Presentations
    - Cases that could be ended at L5 or sacrum/pelvis
289. 1<sup>st</sup> Annual Dilemmas in Deformity, South Devon, United Kingdom, May 9-10, 2012.
- Flatback
  - Debate: Balancing or Breaking the Spine
    - Breaking
- Keynote: Spinal osteotomies
290. Pediatric Orthopaedic Society of North America Annual Meeting, American Academy of Orthopaedic Surgeons, Denver, CO, May 17-18, 2012.
- Moderator - Spine Symposium
  - Instructional Course Lectures
    - TLIF for pediatric deformity
    - Vertebral column manipulator (VCM)



291. 19<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Istanbul, Turkey, July 16-20, 2012.

- Moderator - General Session 1: Whitecloud Award Nominees – Clinical Science
- Instructional Course Lecture 2C: Adult Deformity II: Use of Osteotomies in Adult Spinal Deformity
  - Vertebral column resection for severe adult deformity
- Instructional Course Lecture 2D: Adolescent Idiopathic Scoliosis I: Classification and Fusion Level Selection
  - How the Lenke Classification System guides fusion levels
- Complications Series: My Worst Complication in AIS and Strategies to Prevent
- Instructional Course Lecture 4D: Adolescent Idiopathic Scoliosis II: Correction Techniques for Simple to Severe Curves
  - Vertebral column resection

292. Scoliosis Research Society 47<sup>th</sup> Annual Meeting and Pre-Meeting Course, Chicago, IL, September 5-8, 2012.

- Cases for Discussion: Revision spondyloptosis resection surgery from a posterior-only approach: Review of four cases
- Sagittal Plane Deformity: Cradle to Grave
  - Sagittal plane in neuromuscular spinal deformity
- Has the refinement of the vertebral column resection technique (VCR) forever changed the approach to the treatment of severe spinal deformities in children over the past decade?
  - Panel - Debate and Case Discussion: Has Pedicle Screw Instrumentation and VCR Replaced the Need for Multi-Stage Surgery for the Treatment of Severe Pediatric Spinal Deformity?

293. Innovative Solutions for Spinal Deformity – Addressing Surgical Complications, Medtronic Spinal & Biologics, Memphis, TN, September 20-21, 2012.

- Use of Enabling Technologies in Deformity Surgery
  - Safety in spinal surgery: The role of navigation and neural monitoring
- Derotation Techniques & Associated Challenges
  - Case presentations and key learnings
  - Enbloc/hybrid VCM
- Lab Technique Overview

Adult lab technique demo

294. Master's Deformity Peer-to-Peer, DePuy Spine, Raynham and Boston, MA, September 28-29, 2012.

- Seeing the spine in 3D: Classification
- Panelist - Coronal Imbalance in Adult Deformity Surgery

Moderator - VCR: How Aggressive Does Your Approach Need to be for Severe Pediatric Deformity >90°?

295. 18<sup>th</sup> Annual Meeting of Spine Society of Ho Chi Minh City Vietnam combined with BJD Decade, Worldwide Conference, Scoliosis Research Society, Ho Chi Minh City, Vietnam, November 30-December 2, 2012.

- Classification and operative treatment of adult idiopathic scoliosis
- The basic science and clinical reality of spinal tethering for juvenile scoliosis
- Use of various spinal osteotomies for correction of spinal kyphosis

The use of TLIFs for correction of lumbar segmental instability with or without regional/global spinal deformity

<sup>v</sup>Student, <sup>s</sup>Resident, <sup>f</sup>Fellow, <sup>n</sup>Neurosurgical Resident, <sup>a</sup>Advanced Deformity Fellow, <sup>d</sup>Domestic Visiting Surgeon, <sup>i</sup>International Research Scholar

296. The Surgical Management of Spinal Disorders, 22<sup>nd</sup> Annual Dr. Tom Lowe Spine Symposium, BroadWater, Beaver Creek, CO, January 18-21, 2013.
- Session 1: Complications. My Worst Complications—And What Can We Learn
    - Case 2: Adult spinal deformity complications
  - Session 3: Adult Deformity I
    - Avoiding and treating neurologic complications in adult deformity surgery
    - Case 1: Lumbosacral pseudarthrosis following idiopathic scoliosis surgery. Why did it happen? How do we fix it?
  - Moderator - Session 10: Adult Deformity II. Case Presentations
    - Complications, other than neurologic, in the surgical treatment of adult spinal deformity. What are the common complications, can we reduce the prevalence and how do they impact patient care?
    - Case 3: Major vascular injury during posterior 3-column surgery
297. Spine on the Mountain: Global Spinal Balance, BroadWater, Vail, CO, January 31-February 2, 2013.
- Panel - Session 3: Biologics. Case Presentations
  - Session 4: Adult Lumbar Degenerative Stenotic Scoliosis
    - My 5 most important tips when treating adult lumbar degenerative stenotic scoliosis
  - Panel - Session 4: Adult Lumbar Degenerative Stenotic Scoliosis. Case Presentations
  - Panel - Session 5: Thoracolumbar Spine. TL Degenerative Deformity Cases  
Grade 2/3 spondylolisthesis. How I approach it
298. Association for Collaborative Spine Research, Chicago, IL February 15-16, 2013.
- Research III: Deformity  
AOSpine Scolio-Risk-1 study
299. Spinal Deformity Live, BroadWater, Washington University School of Medicine, St. Louis, MO, March 7-9, 2013.
- Live Surgery #1: Pediatric Deformity Case
  - Moderator - Session 4: Concurrent Case Discussions: Primary Pediatric Deformity
  - Moderator - Dinner Cases
  - Live Surgery #2: Adult Deformity Case  
Moderator - Session 8: Case Discussions: Adult Revision Deformity
300. American Academy of Orthopaedic Surgeons 80<sup>th</sup> Annual Meeting, San Francisco, CA, March 19-23, 2013.
- ICL 125: Complications of Pediatric Spinal Surgery: Identification, Evaluation, Treatment and Prevention
    - Complications of spine osteotomies: Smith-Petersen/Ponté osteotomy (SPO), pedicle subtraction osteotomy (PSO) and vertebral column resection (VCR)
301. Scoliosis Research Society Symposium: A Decade of Change in the Treatment of Pediatric & Adult Spinal Deformity: What innovations in diagnostic, guidance and surgical techniques have proven effective? 80<sup>th</sup> AAOS Annual Meeting, San Francisco, CA, March 20, 2013.  
Has the refinement of the vertebral column resection technique (VCR) revolutionized the approach to the treatment of severe spinal deformities in children over the past decade?
302. Global Spine Congress 2013: Fundamentals in Spine Deformity Care, AOSpine, Hong Kong, China, April 2-4, 2013.
- Spinal Deformity in the Child  
Adolescent idiopathic scoliosis  
Panelist - Case Presentations with Panel Discussion

303. Spinal Deformity Down Under, Sydney, Australia, April 5-6, 2013.
- Classification: Does it lead to improved outcomes?
  - Three-dimensional correction of AIS: Techniques, is there a “gold standard”?
  - Case 4 - VCR in pediatric deformity
  - Osteotomies and VCR: Decision making and surgical technique
  - Pitfalls in adult deformity: Proximal junctional kyphosis
    - Crossing the lumbosacral junction or stopping at L5
304. 4<sup>th</sup> Annual Pediatric Spinal Deformity: On the Cutting Edge, BroadWater, Coral Gables, FL, April 12-13, 2013.
- Session III: Complications in Deformity Surgery
    - Complications of VCR
  - Session IV: AIS
    - VCR techniques for severe deformity: How to do it and how to learn it
305. 6<sup>th</sup> Annual Spring Deformity Surgeon Education Symposium: Complications in Spine Deformity, Guest Speaker, Stryker Spine, New Orleans, LA, April 25-27, 2013.
- Optimizing neurologic safety in spinal deformity surgery
306. Pediatric Orthopaedic Society of North America Annual Meeting, American Academy of Orthopaedic Surgeons, Toronto, Ontario, Canada, May 2-3, 2013.
- Period 1, Debate Session C: The Thoracolumbar (Lenke 5) Curve
    - I only do posterior approach
  - Debates Session D: High Grade Spondylolisthesis
    - The case for reduction and interbody fusion
  - Panel Member - High Grade Spondylolisthesis Case Presentations/Panel Discussion
- Moderator - Period 2: Free Podium presentation Session
307. SILACO-GEER Worldwide Conference Pre-Meeting Course, Spain Spine Society, Scoliosis Research Society, Valencia, Spain, May 29, 2013.
- Session II: Complications and Reconstruction
    - Reconstructive surgery in AIS
    - Debate: Severe AIS: No need for anterior approach for severe AIS
    - Panel 2 - Case Presentations – AIS
  - Session V: Adult Scoliosis Deformity in the Elderly
    - Restoration of sagittal balance of the spine in the elderly
  - Session VI: Surgical Treatment of Adult Scoliosis
    - PJK risk factors and management
308. ONE Spine Master’s Course: 2013 Controversies in Spine Surgery, Seattle Science Foundation, Seattle, WA, June 7, 2013.
- Featured Speaker: Stenosis at the bottom of spinal deformities and deformity constructs
- Hands-On Cadaver Lab - Posterior osteotomy techniques
309. 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Vancouver, British Columbia, Canada, July 10-13, 2013.
- Moderator - Concurrent Roundtable Session 1B: Adolescent Idiopathic Scoliosis
- Moderator - Concurrent Roundtable Session 3D: My Most Complex and Challenging Case
310. Hands-On Workshop: Implant Selection in the Complex Spine, Medtronic Spinal & Biologics, 20<sup>th</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Vancouver, British Columbia, Canada, July 12, 2013.
- Design rationale for complex spine implants
  - Case studies in AIS
- Hands-on SOLERA 5.5/6.0 instruments and implants with sawbones

<sup>v</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

311. Fourth Annual ONE Spine Resident's & Fellow's Course, Seattle Science Foundation, Seattle, WA, August 16-18, 2013.
- Hands-on Cadaver Lab & Exhibits
  - Posterior osteotomy techniques
- Posterior deformity correction: Techniques, pearls and mistakes
312. Scoliosis Research Society 48<sup>th</sup> Annual Meeting Pre-Meeting Course, Lyon, France, September 18, 2013.
- Combined Afternoon Session 1: Techniques for the Preservation of Sagittal Balance: An International Perspective
    - Sagittal imbalance due to congenital dorsal hemivertebra: When is treatment indicated?
  - Educational Program, Half-Day Course 3: Sagittal Plane Deformity Corrective Techniques
    - Osteotomy techniques: Vertebral column resection
313. Evolution of Therapies in Sagittal Plane Deformity: "30 Years of Innovation and Counting", Medtronic Spinal & Biologics, Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 19, 2013.
- Spinal column realignment in the AIS patient
314. Early Onset Scoliosis Symposium: Pushing the Boundaries of Spine Treatment with Low Dose Images, EOS Imaging, Scoliosis Research Society 48<sup>th</sup> Annual Meeting, Lyon, France, September 19, 2013.
- How EOS has changed my practice
315. Innovative and Advanced Surgery of the Degenerative and Deformed Lumbar Spine, St. Louis University, Saint Louis, MO, September 26-28, 2013.
- Hands-on Lab
  - Scoliosis Treatment Options
    - Open correction of deformity
    - Three column osteotomy of the lumbar spine
    - Worst case of my career - what I learned from it and how I would do it differently today
316. 1<sup>st</sup> Annual Spine Deformity Solutions: A Hands-On Course from the Scoliosis Research Society, Burr Ridge, IL, October 3-5, 2013.
- Session 2: Thoracolumbar Posterior Open and Minimally Invasive Techniques
    - Open posterior thoracic techniques, including osteotomies and vertebral column resection techniques
    - Video demonstration and discussion of posterior open and MIS techniques
317. 57<sup>th</sup> Annual Fall Congress of the Korean Orthopaedic Association, Plenary guest speaker, Seoul, Korea, October 17-19, 2013.
- Surgical treatment of adolescent idiopathic scoliosis: Progressing from 2 dimensional to 3 dimensional analysis and correction
  - Spinal osteotomies for the treatment of pediatric and adult spinal deformity
- Optimizing safety during spinal deformity surgery
318. 2013 Midwest Deformity Peer to Peer, DePuy Synthes, Chicago, IL, October 25-26, 2013.
- Moderator - Vertebral Column Resection: Specific Helpful and Helpless Techniques
  - Panelist - What I Have Learned From EOS 3D Imaging and What I Hope to Learn
- My next/last worst case
319. NUH Singapore Deformity Spine Course, Webinar, Medtronic Spinal & Biologics, November 23, 2013.
- Spinal osteotomies in the treatment for the treatment of pediatric and adult spinal deformity

320. Spine: Base to Summit, BroadWater, Beaver Creek, CO, January 17-20, 2014.
- Session 1: What Have We Learned? Treatments 10 Years Ago vs Today
    - How I treated lumbar flatback syndrome 10 years ago. How should we treat today?
  - Panel - Session 3: Spine Surgery at the Junctions – Part 2
    - Case discussions: Practical solution at the T-L-S junctions
  - Panel - Case discussions: Lumbar Spine
  - Moderator - Fireside Chat: Interactive Case Discussions: Revision Surgery
  - Session 8: Lumbar Approach Selection – From Minimal to Maximal
    - Open posterior approach: When and why it is best
321. SRS/ASSICON Worldwide Conference, Kolkata, India, January 23-26, 2014.
- Early Onset Scoliosis
    - Early onset congenital scoliosis
    - Case discussion
  - Adult Deformity
    - Complications of adult spinal deformity surgery: How to avoid them
    - Case discussion
322. Medtronic Spinal & Biologics Workshop, SRS/ASSICON Worldwide Conference, Kolkata, India, January 23, 2014.  
Spinal osteotomies for the treatment of pediatric & adult spinal deformity
323. Neurologic Complications in Pediatric Spine Surgery, Salt Lake City, UT, January 31-February 1, 2014.
- Session 2: Working Lunch: Case Discussions
    - Delayed neurological loss
  - Moderator - Session 3: Responding to Intraoperative Neuromonitoring (IONM). Changes in High Risk/Unstable Spine
    - Approaching the high risk patient: Pre, intra and postoperative considerations
    - Loss of evoked potentials during vertebral column resection – what's different?
  - Session 6: General IONM Issues
    - Revisiting the unstable (high risk) spine checklist
324. Spine Deformity LIVE, BroadWater, Washington University School of Medicine, Saint Louis, MO, February 28-March 1, 2014.
- Surgery - Adult pedicle subtraction osteotomy
  - Moderator - Session #3: Spinal Deformity Case Discussions. Pediatric spinal deformity – primary and revision
  - Moderator - Spinal Deformity from Occiput to Sacrum
- PASE lab rotation
325. Spinal Deformity Complications & Revisions: Lessons Learned, Medtronic Spinal & Biologics, Dublin, Ireland, March 6-7, 2014.
- Similarities and differences regarding the surgical management of pediatric versus adult deformity
  - Sagittal balance-the new gold standard in preventing revision?
- What do we do about the evolution of idiopathic scoliosis in adults? Analysis of long follow-up cases (Harrington, CD...)
326. Scoliosis Research Society Symposium, 81<sup>st</sup> American Academy of Orthopaedic Surgeons Annual Meeting, New Orleans, LA, March 11-15, 2014.
- Loss of Standing Balance: The Lifelong (Cradle to Grave Management of Sagittal Imbalance of the Spine
    - How have recent advances in surgical techniques improved the success and safety of surgery in adult sagittal deformity?

327. Meeting of the Minds: Advanced Spinal Deformity Product Training & Clinical Symposium, K2M, Washington D.C., April 4-5, 2014.
- Adolescent Session
    - Clinical algorithm for treatment of AIS
    - Treatment of severe, rigid, coronal plane pediatric deformities
  - Adult Session
    - Indications & complications of osteotomies of adult spinal deformity
  - Hands-On Workshop. Applying MESA Deformity®, EVEREST® and RAVINE®
    - Multi rod constructs
  - Chairman - Kyphosis & Spondylolisthesis Session
    - Scheuermann's overcorrection and PJK development: How to avoid and treat
  - Chairman - Congenital Session
    - Correction of congenital kyphosis, including angular deformity
  - Anterior Surgery Session
    - Debate: Is there still a place for anterior surgery in AIS? (counterpoint & vote)
  - Chairman - PJK Session
    - What can we do in the future
328. 2<sup>nd</sup> Spine Deformity Solutions: A Hands-On Course, American Association of Neurological Surgeons, Scoliosis Research Society, Houston, TX, April 24-26, 2014.
- Fireside Chats
    - Pediatric spinal deformity cases
  - Thoracolumbar Posterior Open and Minimally Invasive Techniques
    - Open posterior thoracic technique, including osteotomies and vertebral column resection technique
    - Video demo and discussion of posterior open and minimally invasive techniques
329. XXXVII National Congress of the Italian Society of Spine Surgery and Italian Group for Scoliosis SICV & GIS, Medtronic Spinal & Biologics, Milan, Italy, May 15-17, 2014.
- AIS surgery: direct derotation of the curve
- Vertebral osteotomies in spine surgery
330. K2M Proximal Junctional Kyphosis Hands-On Workshop, 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Valencia, Spain, July 16, 2014.
- Why is PJK a real problem now?
331. 21<sup>st</sup> International Meeting on Advanced Spine Techniques, Pre-course, Scoliosis Research Society, Valencia, Spain, July 16, 2014.
- Symposia B: Return to Play after Spinal Surgery
    - Return to sports after fusion for AIS
  - Moderator - Concurrent Session 5B: Adolescent Idiopathic Scoliosis Roundtable
  - Debate Series #3, 9C: Safety Instructional Course Lecture
    - Intra-operative safety strategies for three-column osteotomy
  - Concurrent Session 10B: Adult Deformity II: Surgical Planning & Techniques Instructional Course Lecture
    - Role for vertebral column resection in adult spinal deformity
332. Spinal Deformity Complications & Revisions: Lessons Learned, Medtronic Spinal & Biologics, Miami, FL, August 14-15, 2014.
- Is sagittal balance the new gold standard in preventing revision?
- Case discussions: What do we know about the evolution of idiopathic scoliosis in adults? Analysis of long follow up cases (Harrington, CD, etc.)

<sup>v</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

333. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Pre-Meeting Course, Anchorage, AK, September 10, 2014.
- Afternoon Session II: How We Learn: Mentors, Mentees and Reverse Mentoring
    - ASF/PSF versus vertebral column resection: Indications
- Moderator - Morning Session I: What We Know About Severe Spine Deformity and How We Teach It
334. Scoliosis Research Society 49<sup>th</sup> Annual Meeting, Educational Program, Half-Day Courses, Anchorage, AK, September 11, 2014.
- Surgical Techniques in the Management of Adult Spinal Deformity: Tips and Tricks
    - Posterior-based osteotomies for deformity correction (PSO and VCR)
  - Lunchtime Symposium: From Study Group to Podium: Challenges and Opportunities in Multicenter/Study Group Research
    - What it takes to get started
335. Innovative and Advanced Surgery of the Degenerative and Deformed Lumbar Spine, PASE Workshop, St. Louis University, St. Louis, MO, October 2-4, 2014.
- Treatment options: Open correction of deformity, 3 column osteotomies of the lumbar spine
- Cadaver Demonstration: Lumbar PSO
336. 3<sup>rd</sup> Spine Deformity Solutions: A Hands-On Course, Scoliosis Research Society, Burr Ridge, IL, October 9-11, 2014.
- Fireside Chats: Pediatric spinal deformity cases
  - Session 1: Thoracolumbar Posterior Open and Minimally Invasive Techniques
    - Open posterior thoracic techniques including osteotomies and vertebral column resection techniques
337. 8<sup>th</sup> International Congress on Early Onset Scoliosis and Growing Spine (ICEOS), BroadWater, Warsaw, Poland, November 20-21, 2014.
- Ask the Faculty Case Discussion and Receptions
    - Unsolved problems still in need of answers/suggestions
  - Session 8: Masters' Tips & Tricks
    - Master's technique: VCR & growing rods
338. 11<sup>th</sup> Annual International Pediatric Orthopaedic Symposium, POSNA, AAOS, Lake Buena Vista, FL, December 3-6, 2014.
- Leader - IPOS Breakout Session: AIS-Best Practices in 2014
  - Concurrent Session: AIS: State-of-the-Art
    - Mistakes I have made and seen in treating AIS
  - Panelist - Controversial AIS Cases
  - Extreme Surgery: Hope or Hype?
    - Multilevel VCR
339. Spine: Base to Summit Annual Meeting, BroadWater, Beaver Creek, CO, January 16-19, 2015.
- Moderator - Session 5: PJK
    - PJK and PJ failure: Sorting out the myriad of contributing risk factors in order to lessen to occurrence of this ongoing and unsolved issue
  - Session 6: Fireside Chats. Complex Deformity and Revision
    - Fixed thoracic hyperkyphosis along with fixed sagittal imbalance in a 60 y/o patient with 24 prior spine surgeries
  - Session 7: Morning Crossfire: Lumbar Lordosis Restoration
    - Opinion 1: Do it posteriorly
  - Session 8: Adult Deformity
    - Case #3: Deformity with spinal claudication symptomatology. Patient aged over 60 years

<sup>v</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

340. Evidence-Based Pediatric Deformity Care, Harms Study Group, Las Vegas, NV, January 24, 2015.
- Debate: All AIS 1C Curves Should be Fused Selectively
    - Affirmative stance
  - Debate: Is Anterior Surgery in AIS Ready for a Comeback?
    - Negative stance
341. Spine Surgery LIVE, BroadWater, Washington University School of Medicine, St. Louis, MO, February 12-14, 2015.
- Surgery #1: Pediatric VCR
  - Surgery #2: Adult Lumbar PSO
  - Session 6: Spinal Surgery Case Discussions
- Moderator: - Adult Deformity
342. 15<sup>th</sup> Brazilian Congress of Spine Surgery, São Paulo, Brazil, March 11-13, 2015.
- Degenerative Lumbar Column
    - Spinal deformity surgery: Essential considerations
  - Lumbar Spine Stenosis and Adult Scoliosis
    - Degenerative lumbar scoliosis: Spectrum of surgical options
  - Adolescent Idiopathic Scoliosis Principles
    - Adolescent idiopathic scoliosis: Classification and operative treatment
  - Special Lectures: Spinal Balance and Treatments – The Origin/Nature/Methods and Limits of Knowledge
    - Spinal osteotomy for the treatment of deformities
343. 5<sup>th</sup> Pediatric Spinal Deformity: On the Cutting Edge, BroadWater, Coral Gables, FL, April 10-11, 2015.
- Session II: Spondylolisthesis: Complications
    - Complications of VCR: Avoidance and management
  - Session III: Early Onset Scoliosis: Congenital Deformity
    - My most challenging case and what I learned: Congenital thoracic deformity
  - Session V: AIS and Miscellaneous
    - VCR technique (video)
- Debate: AIS: Lenke 1C curves: Selective fusion is treatment of choice
344. Global Spine Congress, AOSpine International, Buenos Aires, Argentina, May 20-22, 2015.
- Early Onset Scoliosis
- The value of MAGEC growing rods over conventional open distraction techniques – fact or fiction?
- Growth modulation: thoracoscopic stapling – useful prophylaxis or over treatment?
- MIS technique in AIS: Useful or another fad?
345. AO Deformity KF Symposium, AOSpine International, Buenos Aires, Argentina, May 23, 2015.
- Neurologic complications
346. ONE Spine Master's Course, Seattle Spine Foundation, Seattle, WA, June 26, 2015.
- Vertebral column resection, pedicle osteotomy and osteotomies for severe scoliosis correction: When and which procedure
    - Hands-on cadaver lab: Posterior osteotomy techniques
347. 22<sup>nd</sup> International Meeting on Advanced Spine Techniques, Scoliosis Research Society, Kuala Lumpur, Malaysia, July 8-12, 2015.
- Session 2C. Debate Series 1
    - Debate 2. What is the best way to achieve lumbar lordosis?
  - Session 13. Video Based Surgical Techniques
    - Three-column osteotomy



348.Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Pre-Meeting Course, Minneapolis, MN, September 30, 2015.

- Session: Adolescent Idiopathic Scoliosis
  - Lenke 1A AIS deformity
  - Classification of AIS (then, now, future)

Moderator - The Future

349.Scoliosis Research Society 50<sup>th</sup> Annual Meeting, Minneapolis, MN, September 30-October 3, 2015.

- 3D Management of Adolescent Idiopathic Scoliosis, Lunchtime Symposium
  - Case presentation: Different curve types to be treated differently based on 3D anatomy and representation
  - Closing remarks and perspectives

Moderator - Adolescent Idiopathic Scoliosis

350.5<sup>th</sup> Spine Deformity Solutions: A hands-on course, Scoliosis Research Society, Istanbul, Turkey, October 22-25, 2015.

- Fireside Chat: Pediatric Spinal Deformity
- Session 1: Thoracolumbar Posterior Open and Minimally Invasive Techniques
  - Open posterior thoracic techniques: including osteotomies and VCR technique

351.Global Spine Outreach Annual Symposium, Adult and Pediatric Spinal Deformity: Evaluation, Decision Making, and Treatment, Cali, Colombia, November 13, 2015.

- Adolescent idiopathic scoliosis: evaluation, decision making and treatment
- Pediatric spinal deformity – case discussions: case 2: a complex pediatric deformity for discussion
- Complex pediatric reconstructive topics: congenital spine deformity - treatment techniques
- Intraoperative monitoring: clinical experience with intra-operative neuro-monitoring
- Adult deformity: posterior spinal osteotomies: when, where and how?
- Adult deformity case discussions: case 2: A complex, revision adult deformity

352.5<sup>th</sup> Spine Update Conference & Workshop, Al-Khobar, Saudi Arabia, December 1 – 3, 2015

Session 1 : Adult Spinal Deformity

- Selection of fusion Levels for Adult Spinal Deformity
- Deformity Correction techniques

Session 2 : Adolescent Idiopathic Scoliosis

- Selection of fusion Levels for Adult Spinal Deformity
- Spinal Osteotomies in the treatment of Adult Spinal Deformity

353.1<sup>st</sup> Annual International Spinal Deformity Symposium, BroadWater, Chicago, IL, December 4-5, 2015.

- The challenges of adult spinal deformity
- Moderator - Session 4: Progress and Challenges in the Surgical Management of Spinal Deformity
- Rules to live by in complex spinal deformity surgery: Things I wish I'd known at the start of my career
- Panel - Surgical Management of High Grade Spondylolisthesis in Adult: Case Discussions
- Session 6: Practical Deformity Surgery Tips
  - When you should *not* do a PSO!
- Moderator - Session 7: Surgical Management of Symptomatic PJK following prior TL to S or Upper Thoracic to Sacrum Surgery
- Panel - Surgical Management of Symptomatic PJK following prior TL to S or Upper Thoracic to Sacrum Surgery: Case Discussions
- Session 9: Revision Surgery for Failed Primary Adult Deformity Surgery
  - How I think a case through: Bringing together the research and practical tips

Panel - Revision Surgery for Failed Primary Adult Deformity Surgery

354. 9<sup>th</sup> International Congress on Early Onset Scoliosis (ICEOS) November 19 & 20, 2015, Seaport Hotel, Boston, MA

- Free Paper #14: The Radiographic and Clinical Impact of Preoperative Halo-Gravity Traction in the Treatment of Early-Onset Spinal Deformity
- Session 8: What Have We Learned?

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

- Lessons Learned from Adults with EOS: What can EOS Surgeons do Better?
- Masters Technique: Does VCR have a Role in EOS

355. 17<sup>th</sup> Annual Palm Beach Symposium January 30<sup>th</sup> – February 1<sup>st</sup> Kravis Center, West Palm Beach, FL  
 -Spinal Deformity Corrective Surgery: Extreme Makeovers

356. Spine Summit 2016 - 32nd Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves March 16 - 19, 2016, Orlando, FL

- Neurological Complications in Spinal Deformity Surgery
- Anterior column reconstruction superfluous
- High Grade Spondylolisthesis: Reduce and Realign

357. 2016 Transfer Center Nurses' Symposium at NYPH/Columbia University Medical Center Spinal Deformity Corrective Surgery: Extreme Makeovers, , April 28th, 2016

358. 355. GEER Scientific Congress of the Spanish Society Spine Program. Spinal Surgery and Reconstructive Surgery Osteotomies. June 2<sup>nd</sup>, 2016 Toledo, Spain

- Session 2: Reconstructive Surgery In Growing And Adolescent Reconstructive surgical strategy Selection of the osteotomy
- Session 3: Reconstructive Surgery In The Elderly Reconstructive surgery in sagittal imbalance. Thoracic and lumbar osteotomies
- Session 4: Outcomes Of Reconstructive Surgery Optimizing safety in spinal reconstructive surgery

359. 356. IMAST: The 23rd International Meeting on Advanced Spine Techniques. July 13-16, 2016, Washington D.C

- Optimal Sagittal Alignment in Adult Deformity: Patient Selection, Surgical Techniques, and Instrumentation Options
- Osteotomy Planning: What Factors Force My Hand in Performing Osteotomies?
- Surgical Techniques: A Video-Based Session : Deformity TLIF

360. Nordic Spinal Deformities Society 2016 meeting. August 25-27, 2016 , Naantali Finland

- Is pedicle screw instrumentation evidence based for AIS
- Vertebral column resection for severe pediatric scoliosis
- Revision adult deformity surgery

361. 2016 Global Spine Outreach Symposium. Mexico City, MX, October 22, 2016

- Classification of Adolescent Idiopathic Scoliosis
- Neuromonitoring: Algorithm for Monitoring Changes
- Vertebral Column Resection

362. Scoliosis Research Society & Asia Pacific Spine Society Spine Deformity Solutions: A Hands-On Course.

- October 28- 30, 2016, Hong Kong, China
- Adult Spinal Deformity Reconstruction Cases TL/Lumbar
- Session 2: Osteotomies and Pelvic Fixation – VCR
- Session 3: Adult Spinal Deformity & Cervical Deformity- Neurologic Complications

363. Broadwater 2<sup>nd</sup> Annual International Spinal Deformity Symposium. November 11-12, 2016, Chicago, IL

- Session 3: AIS-Step-by-Step Surgical Treatment: PSF with VCR of a 150 Deg 4AN Curve
- Session 6: Combined coronal and sagittal imbalance in the Adult-Intro to Problem and Recent Lit Review
- Session 8: Complications: Avoidance and Treatment –Neurologic

364. The 50th Annual Meeting of Japanese Scoliosis Society. November 17<sup>th</sup> – 19<sup>th</sup> , 2016, Sakyo-ku, Kyoto

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

-Vetebral column resection for severe spinal deformity: Experience of over 250 cases of the past 15 years

365.The Total Spine Series 2016/2017, Broadwater, New York, NY, December 9, 2016 - January 8, 2017

- Correction of adult global spinal imbalance
- VCR for complex pediatric spinal deformity

366. Spine: Base to Summit, Broadwater, Beaver Creek, Co, January 26-29, 2017

- Extreme Deformity: Lessons Learned over 10 years
- Debate: Spinal deformity surgery: total body biplane. X-ray imaging is always needed. Agree / Disagree
- Case Discussion: Complex Thoracolumbar Deformity
- Session 5: Degenerative Deformity
- Case Discussion: Complex Deformity

367.Scoliosis Research Society IMAST: The 24th International Meeting on Advanced Spine Techniques. Cape Town, Africa, July 12-15, 2017

- Revision 3-4 Level Case: How to Avoid a 3 Column Osteotomy
- 3C: Adolescent Idiopathic Scoliosis: Surgical Pearls to Achieve Success for Each Lenke Curve Type: The “Rule Book”
- My Learning Curve for 3 Column Osteotomies (3CO): What I Learned to Make is Safe and Efficient

368.Medtronic “Decision Making for the Complex Adult Patient” Course Jersey City, NJ , July 28-29, 2017

- -Posterior Correction of TL to Sacrum for Degenerative Lumbar Scoliosis
- -Iliac Fixation Principles & Techniques
- -Increasing Lordosis Through Interbody

369.Medtronic Regional Deformity Symposium-The University of Hong Kong-Shenzhen Hospital, Guangdong, China, August 4<sup>th</sup>,2017

- -30' Topic: Spinal Osteotomies for the Treatment of Pediatric and Adult Spinal Deformity
- 30' Topic: AIS Surgical Pearls to achieve success for each Lenke Curve type: the "Rule Book"

370.Medtronic Summer University: Speechs & Case Discussion, Shanghai , China, August 5<sup>th</sup>-6<sup>th</sup> ,2017

- 20' Topic:Optional Sagittal Alignment in Adult Deformity
- 8' Topic: Lenke Classification
- 20' Topic: Strategies and Techniques to Reduce Complications in AIS

371. Medtronic Skull to Sacrum, September 21-23, 2017Jersey City, NJ

- Planning for Optimal Outcomes: The Role of Sagittal Alignment and Balance
- Iliac Fixation
- Adult Deformity Correction
- Extreme Deformity: Lessons Learned Over 10 Years

372. Merc Annual Musculoskeletal Education and Research Center Symposium, August 25-26, 2017, Philedelphia,PA

- Optimal Treatment of a 120° AIS Curve

373. SRS 52nd Annual Meeting & Course, Philadelphia, PA, September 6-9, 2017

- Management of a Catastrophic Intra-Operative Events: The WHO Standard of
- Care in Handling these Events
- -Severe Neglected AIS, is VCR Needed?

374.371. Global Spine Outreach Spinal Deformity Symposium, Mexico City, MX, October 28, 2017  
Classification of Adolescent Idiopathic Scoliosis

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

- -Advanced 3-Column Osteotomies
- -Neuromonitoring: Algorithm for Monitoring Changes
- -Vertebral Column Resection

375..Broadwater 3rd Annual International Spinal Deformity Symposium (ISDS) November 3-4, 2017 Chicago, IL

- PSF with VCR
- Kickstand Iliac Screw/Rod Construct for Optimizing Coronal Alignment in Adult Spinal Deformity
- Tips and Pearls

376. 2<sup>nd</sup> Kuwait Conference on Orthopedics Update “Cutting-edge information and maximize networking opportunities in the field of Orthopedics & Rehabilitation” December 7 – 9<sup>th</sup> 2017, Kuwait City

- -Spine deformity approach in adolescence
- -Update on congenital scoliosis management
- -Adolescent Idiopathic Scoliosis
- -Selective fusion state of the art Shoulder level
- -UIV in general Sagittal Kyphosis and selection of UIV LIV selection
- -Optimizing safety and avoiding complications
- -Role of intraoperative 3 D module
- -Management of intraoperative Neuromonitoring changes
- Kyphosis in AIS
- -Normal sagittal parameters
- -PCO for Restoration of kyphosis
- -PCO for Sagittal vs coronal deformity
- -Spine derotation does it affect kyphosis restoration

377. Broadwater Spine Base to Summit, January 18<sup>th</sup> -21<sup>st</sup>, 2018, Beaver Creek, CO

- -Deformity correction—MIS
- -Complex adult deformity with comorbidities: Operate now because comorbidities are not reasonably modifiable, or optimize preoperatively.
- -The impact of spinal flexibility on deformity correction. How to measure preoperative flexibility and assess the need for osteotomies
- -Intraop technical tips on safe and optimal spinal realignment in the coronal, sagittal, and axial planes
- Complex spinal deformity
- PCO or PSO

378. 35<sup>th</sup> Anniversary of the CD Correction Philosophy, January 25 – 26, 2018, Medtronic ,Athens, Greece

- Assembling the right multidisciplinary team to maximize surgical outcomes
- The value of a complication data base in deformity surgery
- Cervical response to thoracic deformity: What does this mean for the PED & ASD world?
- My strategy to avoid proximal junctional kyphosis PJK
- Evolution of surgery for AIS over 35 years: Have outcomes improved?
- SO or not PSO: When is it appropriate and what are the techniques that create necessary alignment from anterior or posterior?
- Intraoperative neuromonitoring during adult spinal deformity surgery: Alert positive cases in different surgical
- Procedures

379. Medtronic Decision Making for the Complex Pediatric & Adult Patient, February 16-17-2018, Westin Lake Las Vegas, , Henderson, NV

- Planning for Optimal Outcomes: The Importance of Global Sagittal Balance and Avoiding Complications

380. Spine Summit 2018 – 34<sup>th</sup> Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves, Orlando, FL March 14-17, 2018

- -Thoracolumbar Deformity Classification and Optimal Treatment Paradigms

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

381. European Spine Journal – Meet The Experts Two Decades of Sagittal Balance, March 16-17,2018
  - Meliá Castilla Madrid, Spain
  - -Parameters of global body alignment
382. 2018 LatAm Deformity Observership Presbyterian Hospital, April 9-10, 2018, Medtronic, New York, US
  - Spinal Osteotomies for Deformity Correction
383. 3rd Annual Summit in Safety in Spine Surgery, April 20<sup>th</sup>,2018, Broadwater New York,NY, US
  - Avoidance of Catastrophic Intraop Events
  - Industry CEOs Discuss How to Make the Team “Row in the Same Direction”
384. 25<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), July 11-14, 2018, Los Angeles, CA
  - Special Symposium Building Efficiencies and Minimizing Redundancies/ 25 Years of IMAST from Those Who Built It
  - -How to Build a Spine Hospital
  - -Perspectives on the Evolution of IMAST
  - ALIF vs TLIF for Sagittal Restoration in Deformity Correction
  - -TLIF – I Can Get Great Correction with Lordotic Cages and Good Technique without the Morbidity
  - Common Challenges in Adult Spinal Deformity: Treatment Based Case Approach
  - -Lessons for Performing Pedicle Subtraction Osteotomy: These Have Kept Me Out of Trouble
  - -Global Alignment Planning: Matching Osteotomies and Instrumentation to the Deformity
385. Medtronic Surgery Observation Program. September 11-12, 2018, New York, NY
  - Preop and Postop Case Presentations and Discussions
  - Surgery 1: AIS
386. Skull To Sacrum, Medtronic, September 13-15, 2018, New York,NY
  - What I Want the Next Generation of Spinal Reconstruction Surgeons to Know: Lessons Learned Over 25+ Years of Practice
  - Planning for Optimal Outcomes: The Role of Global Coronal Sagittal Alignment and Balance.
  - 3CO, or Not to 3CO?
  - Rod Selection, Configuration, and Number with a Goal of Optimizing Correction While Preventing Implant Breakage and Pseudoarthrosis
387. 16th Annual Congress Of The Czech Spine Surgery Society And Slovak Spine Society. October 14-16, 2018, Brno, Czech Republic
  - Global Coronal And Sagittal Radiographic Alignment In Spinal Deformity Patients
388. 3rd Annual International Spinal Deformity Symposium (ISDS), November 30 - December 1, 2018, New York, New York.
  - Surgical Treatment Options For Adult Spinal Deformity (ASD)
  - Patient Presentation:Revision Spinal Reconstruction
389. Spine: Base to Summit 2019. January 18-21, 2019, Vail, CO
  - Session 3 Complex Spinal Deformity Coronal Realignment - How I do it. Technical execution of optimal: Coronal realignment
  - Session 9: Case Discussions -TL Deformity
  - Session 5: Complex Deformity
390. Broadwater Pediatric Spinal Deformity: On the Cutting Edge VII, March 1-2, 2019, Gables, FL.
  - Lessons Learned From My Most Challenging AIS Case With Distal Level Issues
  - Lessons Learned From My Most Challenging Cervicothoracic Anomaly
  - Construct for Challenging Pathology
  - Three Column Osteotomy In Deformity

391. AANS Annual Scientific Meeting -Benzel Symposium: State-of-the-art in Complex Spine Surgery, April 11-12, 2019, San Diego, CA
- How Vertebral Column Resection has Revolutionized Care For the Most Severe Spinal Deformity Patients
392. 4th Annual Safety in Spine Surgery Summit, April 26th, 2019, Broadwater, New York, NY
- Examining the Black Box: Root Cause Analyses of Neurological injury
393. Perking Union Medical College Hospital (PUMCH) International Congress on Spine Deformity & 1<sup>st</sup> International Early Onset Scoliosis Summit, May 3-4, 2019, Beijing, China
- A New Classification System of Adult Idiopathic Scoliosis
  - Correction of Coronal Imbalance: The Kickstand Screw-Rod Construct
  - When are 3 Column Osteotomies Necessary for Spinal Deformity Correction.
394. Global Spine Congress 2019, May 15–18, 2019, Toronto, Canada
- Cutting Edge Updates in Spine Surgery: Current Concepts in Adult Deformity Surgery
395. 12th International Musculoskeletal Society (I.M.S.) Annual Meeting. July 1-2, 2019
- Lenke Classification: Why Did we Need this New Classification, Case Studies
  - Role of Osteotomies in Challenging Cases
  - Clinical and Radiographic Evaluation of Adult Deformity: What are the Landmines?
  - Sagittal Balance Correction: Open Techniques
396. 26th International Meeting on Advanced Spine Techniques, July 17-20, 2019, Amsterdam, the Netherlands
- My Worst Complication: Lessons Learned from the Masters Case 1
  - Posterior Vertebral Column Resection in Severe Deformity
397. 2019 International Course Argentine Society of Pathology of the Spine (SAPCV), August 8-9, 2019, Argentina
- Sagittal Alignment and Optimization during Revision Spinal Surgery
  - Experts Panel: Drs. Lenke, Ames, Schwab, Gupta
  - Coronal Plane Alignment: The Often Neglected but Important Component to Optimal Spinal Reconstruction Surgery
  - Multi-Rod Constructs in Spinal Reconstruction: Current Use and Technical Tips for Insertion
  - MODULE 5: ADULT -Experts Panel: Drs. Gupta, Lenke; Samdani, Shah, Munhoz Da Rocha
  - Complex Deformity
398. Scoliosis Research Society 54th Annual Meeting & Course, September 18-21, 2019, Montréal, Canada
- Adolescent Idiopathic Scoliosis II Moderator
  - Posterior Only Correction is Effective in Achieving Alignment Goals
  - When Do You Really Need a PSO or VCR?
399. North American Spine Society's 34th Annual Meeting, September 25-28, 2019, Chicago, IL
- Lessons Learned in Adult Deformity Surgery
  - How to Maximize Lumbar Lordosis with Transforaminal Lumbar Interbody Fusion
  - Technique Demo: Complex Osteotomy for Spinal Deformity Correction
400. Medtronic: Skull to Sacrum. October 10-11, 2019, New York, NY
- Managing the Imbalance: My Personal Journey as a Spine Surgeon, Husband, Father
  - Surgical Planning for Optimal Outcomes
  - Optimizing Screw Purchase and MRC Configuration in TL Deformity Correction
  - My Biggest Failures/My Most Complex Cases
401. 5<sup>th</sup> Annual International Spinal Deformity Symposium (ISDS), December 6-7, 2019, New York, New York.
- SCM/Neurologic Complications during TL Deformity Surgery: Avoidance and Treatment
  - Surgical Theater
  - Building a Solid Foundation for the Adult Deformity Construct
  - AcuPac Advanced – A Novel Bone Grafting Solution
  - Utilization of 360 Degree Virtual Reality for Planning

<sup>¶</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

- Complex Spinal Deformity Correction
  - On Which ASD Patients Am I Doing a 3CO in 2019?
  - Multi-Rod Constructs for ASD: Why, When and How?
  - Middle age Female with Multiple Prior Spine Surgeries, last one a T4-Sac. PSF complicated by DWI and implant removal, Pseudarthrosis, Coronal and Sagittal Imbalance: How to Salvage?
  - Tips and Pearls
- 402.Spine: Base to Summit Annual Meeting, BroadWater, Beaver Creek, CO, January 23-26, 2020.
- Complex spinal deformity
  - Lessons I've learned in complex deformity: Principles that will serve you well
  - Open correction
- 403.European Spine Journal 'Meet the Experts', March 13<sup>th</sup> – 14<sup>th</sup>, 2020, Madrid, Spain
- Revision after pediatric spine deformity surgery
- 404.SANS Academy Residents Webinar, Friday, 1 May 2020
- Adult Idiopathic Scoliosis
- 405.Moroccan Spine and Spinal Cord Surgery Society Webinar, May 26,2020
- Posterior Spinal Osteotomies For The Treatment Of Spinal Deformity
- 406.SRS 55<sup>th</sup> Annual Meeting, September 9-12, 2020, Phoenix, Arizona, USA
- Session 9: Nerves and Big Curves: Advances in neuromonitoring and management of Severe Spinal deformity

#### **XIV. VISITING PROFESSOR/GUEST LECTURER/INVITED SPEAKER**

1. University of North Carolina, Grand Rounds, Chapel Hill, NC, September 13, 1991.  
Results of Cotrel-Dubousset Instrumentation (CDI) for adolescent idiopathic scoliosis (AIS) with minimum 2-year follow-up
2. West Virginia University, Grand Rounds, Morgantown, WV, October 30, 1991.  
The surgical treatment of degenerative spondylolisthesis with spinal stenosis
3. Columbus Orthopaedic Society, Grand Rounds, Columbus, OH, October 30, 1992.  
The surgical treatment of spinal fractures
4. University of Louisville, Grand Rounds, KY, Louisville, KY, January 16, 1995.  
Pathology of sagittal spinal alignment
5. Washington University School of Medicine, Neurosurgical Grand Rounds, St. Louis, MO, March 1996.  
Biomechanical considerations for the correction of spinal pathology with instrumentation
6. BJC Primary Care Physicians, Grand Rounds, St. Louis, MO, December 1997.  
Lumbar spinal stenosis
7. University of California, Grand Rounds, San Francisco, CA, April 27, 1998.  
Classifying adolescent idiopathic scoliosis. Perspectives for anterior vs. posterior surgical treatment
8. University of Louisville, Grand Rounds, Louisville, KY, May 12, 1998.  
- Anterior solid rod instrumentation for adolescent idiopathic scoliosis  
A new and comprehensive classification system for adolescent idiopathic scoliosis
9. New Techniques in Scoliosis Surgery, German Spine Research Society, Frankfurt, Germany, July 1998.  
- New classification system for scoliosis: Why do we need a new classification?  
Anterior release with posterior instrumentation in the treatment of double major curves
10. Oakland Children's Hospital, Pediatric Spinal Deformity Conference, Oakland, CA, March 20, 1999.  
Congenital scoliosis. Spontaneous lumbar curve response to selective anterior vs. posterior thoracic instrumentation and fusion

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

11. University of Missouri, Grand Rounds, Columbia, MO, January 4, 2000.  
Newest classification of adolescent idiopathic scoliosis
12. Ohio State University Medical Center, Grand Rounds, Cleveland, OH, February 11, 2000.  
A new comprehensive classification of adolescent idiopathic scoliosis (AIS). Predicting and assessing treatment
13. Thomas Jefferson University, Grand Rounds, Philadelphia, PA, March 2, 2000.  
- A new classification of AIS. An algorithmic approach  
Preservation of sagittal plane. Biomechanical rationale and data
14. Japanese Orthopaedic Association Annual Meeting, Kobe, Japan, April 2000.  
- Clinical results of posterior fusion for degenerative lumbar pathology  
Pediatric and adult spinal deformity
15. Nagoya University, Nagoya, Chikusa-ku, Japan, April 2000.  
Complex anterior scoliosis surgery
16. Nippon Medical Hospital, Sendagi, Bunkyo-ku, Tokyo, Japan, April 2000.  
Pediatric and adult spinal deformity surgery
17. Tokyo Women's Medical University, Shinjuku-ku, Tokyo, Japan, April 2000.  
Pediatric and adult spinal deformity surgery with emphasis on the AM8 CD Horizon System
18. Tufts University, New England Baptist Medical Center, Grand Rounds, Medford, MA, May 2000.  
Degenerative scoliosis – Radiographic features
19. Northwestern University, Grand Rounds, Chicago, IL, June 10, 2000.  
A new surgical classification of adolescent idiopathic scoliosis (AIS): Predicting and assessing treatment
20. Tokyo Medical University, Nishi-Shinjuku, Tokyo, Japan, November 18, 2001.  
Anterior single vs. dual rod instrumentation for scoliosis
21. Okayama University, Tsushima-Naka, Okayama, Japan, November 19, 2001.  
Evaluation and treatment of lumbar degenerative scoliosis
22. Seoul Spine Institute, Inje University Medical School, Seoul, South Korea, November 20, 2001.  
The use of spinal cord monitoring in the treatment of scoliosis and other spinal deformities
23. Asan Medical Center, Seoul, South Korea, November 21, 2001.  
- Free hand placement of thoracic pedicle screws in spinal deformity  
- The evaluation and treatment of degenerative lumbar scoliosis  
- Classification of adolescent idiopathic scoliosis  
The use of spinal cord monitoring in the treatment of scoliosis and other spinal deformities
24. University of Cincinnati, Cincinnati Children's Hospital, Grand Rounds, Cincinnati, OH, March 19-20, 2002.  
- Anterior treatment of scoliosis: State of the art  
- The use of pedicle screws in the treatment of spinal deformities  
A new classification of adolescent idiopathic scoliosis
25. Walter Reed Medical Center, Grand Rounds, Bethesda, MD, April 27, 2002.  
Free hand placement of thoracic pedicle screws: Results in scoliosis
26. Northwestern University, Grand Rounds, Chicago, IL, June 28, 2002.  
A new surgical classification of adolescent idiopathic scoliosis



27. Atlanta Scottish Rite Hospital, Guest Speaker for Endowed Lectureship, Atlanta, GA, November 21-22, 2002.
  - A new classification of AIS: Treatment based
  - The use of pedicle screws for the correction of pediatric spinal deformity
  - The surgical treatment of neuromuscular spinal deformity
  - Surgical treatment of pediatric kyphosis. How to avoid complications
  - Anterior treatment of scoliosis: State of the art
 Pediatric low & high grade spondylolisthesis
  
28. Northwestern University, Grand Rounds, Chicago, IL, December 2002.
 A new classification system of AIS: Treatment based
  
29. University of Washington, Grand Rounds, Seattle, WA, January 22, 2003.
  - Idiopathic scoliosis: Classification and surgical management
  - A new classification system of AIS: Treatment based
 Spondylolisthesis
  
30. Shriners Hospital for Children, Grand Rounds, Springfield, MA, April 3-4, 2003.
  - A new classification of AIS: Treatment based
 Anterior open treatment of AIS
  
31. Columbia Presbyterian Medical Center, Grand Rounds, New York, NY, April 24, 2003.
  - A new classification of AIS: Treatment based
 Thoracic pedicle screws (TPS) for spinal deformity
  
32. Michigan State University, Resident Program Grand Rounds, Kalamazoo, MI, May 8-10, 2003.
  - A new classification of AIS: Treatment based
  - Thoracic pedicle screws (TPS): For the treatment of spinal deformity
  - Anterior treatment of AIS: State of the art
  - Spondylolisthesis
  - Global spinal imbalance – Who is an operative candidate? How to decide
 Case presentation
  
33. Rush-Presbyterian – St. Luke’s Medical Center, Grand Rounds, Chicago, IL, October 1, 2003.
 A new classification of AIS: Treatment based
  
34. New York University Hospital for Joint Disease, Grand Rounds, Spine Lectureship, New York, NY, October 9-10, 2003.
  - A new classification of AIS: Treatment based
 The use of thoracic pedicle screws (TPS) in pediatric and adult spinal deformity
  
35. University of Indiana Medical Center, Grand Rounds, Indianapolis, IN, January 14-15, 2004.
  - A new classification of AIS: Treatment based
 An overview of adult scoliosis deformity
  
36. Twin Cities Spine Center, Grand Rounds, Minneapolis, MN, May 7, 2004.
  - Classification and treatment of adolescent idiopathic scoliosis
 The use of thoracic pedicle screws (TPS) in pediatric and adult spinal deformity
  
37. St. Luke’s-Roosevelt Medical Center, Grand Rounds, New York, NY, June 10, 2004.
  - Advances in treatment of spinal deformity: Thoracoscopic techniques and thoracic pedicle screws
 Classification and treatment of adolescent idiopathic scoliosis
  
38. Québec Scoliosis Society Annual Meeting, Presidential Guest Lecturer, Montréal, Québec, Canada, October 15, 2004.
  - Lenke classification of AIS: Treatment recommendations
 Results of TPS for spinal deformity treatment

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

39. Chiba University, Inage-ku, Chiba-shi, Chiba, Japan, November 15, 2004.
  - Thoracic pedicle screws for the treatment of spinal deformity
 Spinal osteotomies: SPOs and PSOs
40. Tokyo University, Bunkyo, Tokyo, Japan, November 16, 2004.
  - Thoracic pedicle screws in pediatric spinal deformity
 Spinal osteotomies: SPOs and PSOs
41. St. Marianna University School of Medicine, Asahi-ku, Kanagawa, Yokohama, Japan, November 17, 2004.
  - Thoracic pedicle screws for spinal deformity treatment
 Lenke classification system of AIS: Treatment direction
42. Sun Yat-Sen University School of Medicine, Guangzhou, Guangdong, China, November 19, 2004.
  - Thoracic pedicle screws for spinal deformity
 Lenke classification of AIS
43. Lenox Hill Hospital, Grand Rounds, New York, NY, January 20, 2005.
  - Evaluation and surgical treatment of adult scoliosis
 Evaluation and surgical treatment of flatback syndrome with spinal osteotomies: SPOs & PSOs
44. AI duPont Institute, Grand Rounds, Wilmington, DE, January 26, 2005.
  - Update on evaluation and treatment of adolescent idiopathic scoliosis
  - Lenke classification for AIS: Treatment based
 Use of TPS for pediatric spinal deformity
45. Carolinas Medical Center, Grand Rounds, Charlotte, NC, April 25, 2005.
  - Update on evaluation and treatment of adolescent idiopathic scoliosis
46. University of Oklahoma Medical Center, Visiting Professor/Resident Graduation, Oklahoma City, OK, May 5-6, 2005.
  - Spinal osteotomies: What, why, when, where, and how
  - Spondylolisthesis: Spectrum of pathology in all ages
 Evaluation and treatment of pediatric idiopathic scoliosis: State of the art
47. 10<sup>th</sup> Annual Brazilian Spine Society Meeting, Presidential Guest Lecturer, Salvador, Bahia, Brazil, May 11-13, 2005.
  - Correction of pediatric and adult spinal deformity with thoracic pedicle screws
  - Evaluation and treatment of adult spinal deformity
  - Spinal osteotomy for the treatment of fixed deformity
 Lenke classification system of adolescent idiopathic scoliosis
48. Stanford University Medical Center, Grand Rounds, Palo Alto, CA, June 22, 2005.
  - Update on evaluation and treatment of adolescent idiopathic scoliosis
49. Michigan State–Grand Rapids, Grand Rounds, Grand Rapids, MI, July 27, 2005.
  - Lenke classification system of adolescent idiopathic scoliosis: Treatment directions
 Evaluation and surgical treatment of adult scoliosis
50. Hokkaido University School of Medicine, Kita-ku, Sapporo, Hokkaido, Japan, August 29, 2005.
  - Free hand TPS placement and posterior scoliosis correction
51. City Wide Spine & University of CA-San Diego, Grand Rounds, San Diego, CA, February 8, 2006.
  - Classification and surgical treatment of adolescent idiopathic scoliosis
 Use of pedicle screws and osteotomies to avoid anterior releases in spinal deformity surgery
52. Wake Forest University–Baptist Medical Center, Grand Rounds, Winston-Salem, NC, April 19, 2006.
  - The Lenke classification system of operative AIS: Treatment directions

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

53. Walter-Reed Army Medical Center, Grand Rounds, Washington D.C., May 8-9, 2006.
  - Classification & surgical treatment of adolescent idiopathic scoliosis
 Use of pedicle screws & posterior osteotomies to avoid anterior releases in spinal deformity surgery
54. The 79<sup>th</sup> Annual Congress of the Japanese Orthopaedic Association, Yokohama, Japan, May 19, 2006.
  - Invited Lecture 7: Evaluation and treatment of adult spinal deformity patients
55. 301 Military Hospital, Haidian, Beijing, China, May 21, 2006.
  - Classification and surgical treatment of adolescent idiopathic scoliosis
56. Nanjing University Medical School, Gulou Hospital, Nanjing, China, May 23, 2006.
  - Use of pedicle screws and posterior osteotomies to avoid anterior releases in spinal deformity surgery
 Current scoliosis surgical treatment: *What's new, what's out*
57. Peking University Medical College, Dongcheng, Beijing, China, May 22, 2006.
  - Current scoliosis surgical treatment: *What's new, what's out*
58. National University of Singapore, Singapore, June 11-15, 2006.
  - The Lenke AIS classification system: Treatment discussions
  - Evaluation and treatment of adult spinal deformity
 The use of pedicle screws & osteotomies to avoid anterior release/fusion in pediatric & adult spinal deformity surgery
59. Cedars-Sinai Symposium, Cedars-Sinai Medical Center, Los Angeles, CA, June 27, 2006.
  - The use of pedicle screws & osteotomies to avoid anterior release/fusion in pediatric & adult spinal deformity surgery
 The Lenke classification system of adolescent idiopathic scoliosis: Treatment directions
60. Washington University School of Medicine, Neurosurgery, Grand Rounds, St. Louis, MO, August 2, 2006.
  - Current spinal deformity treatment 2006: What's new, what's out
61. British Scoliosis Society Annual Meeting, Greg Houghton Memorial Lecture, Dublin, Ireland, September 28-29, 2006.
  - Routine & advanced thoracic screw placement
  - Use of small implants in pediatric spinal deformity
  - TLIF for degenerative deformity
  - PSO & VCR for severe spinal deformity
 Avoiding anterior release/fusion in pediatric & adult spinal deformity surgery
62. Brown Medical School/Rhode Island Hospital, Grand Rounds, Providence, RI, October 17-18, 2006.
  - The Lenke classification system of adolescent idiopathic scoliosis: Treatment directions
63. Akron Children's Musculoskeletal Health Center, Grand Rounds, Akron, OH, December 8, 2006.
  - Cervical & cervicothoracic deformity correction techniques
  - Current pediatric & adult scoliosis treatment 2006: *What's new, what's out*
  - Management themes in infantile & juvenile idiopathic & congenital scoliosis
  - Spondylolisthesis: Spectrum of pathology in all ages
  - Treatment of kyphotic spinal deformity: Is there any reason for a formal anterior approach anymore?
 Difficult deformity case discussions
64. Albert Einstein College of Medicine/Montefiore Medical Center, Grand Rounds, New York, NY, May 8, 2007.
  - Surgical treatment decisions for AIS based on the Lenke classification system
65. Washington University School of Medicine, Neurosurgery, Grand Rounds, St. Louis, MO, August 23, 2007.
  - Current spinal deformity treatment 2007: What's new, what's out

66. 9<sup>th</sup> HC Yang Visiting Professorship, University of Hong Kong, Hong Kong, China, September 24-28, 2007.
  - Thoracic pedicle screw placement and correction techniques
  - Surgical treatment decisions for AIS based on the Lenke classification systemPosterior VCR for non-idiopathic severe pediatric deformity
67. Keio University, Minato, Tokyo, Japan, October 10, 2007.  
Posterior VCR for the treatment of pediatric and adult spinal deformity
68. 41<sup>st</sup> Annual Meeting of the Japanese Scoliosis Research Society, Nagoya, Japan, October 12-13, 2007.
  - Pedicle screw construct for the treatment of AIS
  - VCR for severe pediatric and adult deformityrhBMP-2 use in pediatric and adult spinal deformity
69. University of Kansas City, Grand Rounds, Wichita, KS, October 25, 2007.
  - Evaluation & surgical treatment of adult degenerative lumbar scoliosis
  - The Lenke classification of AIS: Treatment basedSurgical treatment of spinal deformity circa 2007: Extreme makeovers
70. Northwestern University, Grand Rounds, Chicago, IL, April 4, 2008.  
Surgical treatment of spinal deformity circa 2008: Extreme makeovers
71. Research Triangle Park Orthopaedic Society, Grand Rounds, Chapel Hill, NC, April 22, 2008.  
Spinal deformity surgery in 2008: Extreme makeovers
72. Case Western University, Bohlman Visiting Professor/Grand Rounds, Cleveland, OH, April 30, 2008.
  - Spinal deformity correction in 2008: Extreme makeovers from a posterior only approachThe Lenke classification of AIS: Treatment directions
73. Edward Dawson Memorial Lectureship, University of CA–Los Angeles, Santa Monica, CA, October 1, 2008.  
The Lenke classification of AIS: Treatment directions
74. University of Utah Orthopaedic Center, Grand Rounds, Salt Lake City, UT, March 11, 2009.
  - The Lenke classification and surgical treatment of AISSpinal deformity correction in 2009: Extreme makeovers from a single posterior approach
75. 14<sup>th</sup> Annual Brazilian Spine Society Meeting, Presidential Guest Lecturer, Salvador, Bahia, Brazil, April 30-May 1, 2009.
  - Management of sagittal deformities in adults: Decision making on osteotomies
  - Newer techniques and trends in pediatric spinal deformityFixation of L5-S1: Techniques and indications in pediatric deformity
76. Tongji Medical College, Huazhong University of Science and Technology, Wuhan, China, May 17-18, 2009.
  - Surgical treatment of severe spinal deformitySurgical strategies for idiopathic scoliosis
77. Guangzhou Hospital, Medtronic Spinal & Biologics, Guangzhou, Guangdong, China, October 9, 2009.  
Direct vertebral rotation (DVR)
78. Nanjing Gulou Hospital, Medtronic Spinal & Biologics, Nanjing, China, October 10, 2009.  
Direct vertebral rotation (DVR)
79. Sofield Day, Shriners Hospital for Children – Chicago Unit, Chicago, IL, November 13, 2009.
  - Classification and fusion level selection in AIS
  - The surgical treatment of neuromuscular spinal deformityPosterior vertebral column resection (VCR) for severe pediatric spinal deformity

80. Thomas Jefferson University, The Rothman Institute, Grand Rounds, Philadelphia, PA, April 8, 2010.  
Classification of adolescent idiopathic scoliosis: King to Lenke to the future
81. Neuroscience/Neurosurgery, Grand Rounds, Stanford University, Palo Alto, CA, April 16, 2010.  
Surgical treatment of spinal deformity: State of the art in 2010
82. Fellows Alumni Spine Day Conference, Cincinnati Children's Hospital, the University of Cincinnati College of Medicine, Cincinnati, OH, April 24, 2010.
  - Classification of adolescent idiopathic scoliosis: King to Lenke to the futurePosterior VCR for severe pediatric spinal deformity
83. Laura B. Flawn, MD Endowed Professorship in Diseases of the Spine and Spine Trauma, The University of Texas Health Science Center at San Antonio, San Antonio TX, October 4, 2010.
  - Spinal deformity correction for a posterior only approach: Extreme makeoversClassification of AIS: From King to Lenke to the future
84. Puget Sound Spine Interest Group, Seattle Neuroscience Institute of Swedish Medical Center, Seattle, WA, January 14, 2011.  
Optimizing safety during spinal deformity surgery
85. IX Curso de Columna Eduardo Luque, Instituto Nacional de Rehabilitacion, Mexico City, Mexico, January 20-21, 2011.
  - Results of surgical treatment of AIS
  - Past, present and future of the surgical treatment of AIS
  - Step by step – my surgical technique for the treatment of AISPosterior osteotomies in the treatment of severe spine deformities
86. St. Joseph's Hospital, Grand Rounds, Patterson, NJ, April 28, 2011.  
AIS classification and selection of fusion levels
87. 16<sup>th</sup> Annual Spine Fellows Conference, Spine Institute of New York, New York, NY, April 28, 2011.  
Posterior treatment of spinal deformity with optimal correction while maximizing safety
88. 10<sup>th</sup> Annual David B. Levine, MD Distinguished Lecturer, Hospital for Special Surgery, New York, NY, June 10, 2011.  
Optimizing safety in spinal surgery
89. Nationwide Children's Hospital, Grand Rounds, Columbus, OH, November 18, 2011.  
The surgical treatment of adolescent idiopathic scoliosis: State-of-the-art
90. 34<sup>th</sup> Annual Resident-Alumni Thesis Day, Northwestern University, Evanston, IL, May 4, 2012.
  - Classification of AIS: From King to Lenke to the futureSevere spinal deformity patients treated with posterior vertebral column resection: "Extreme makeovers"
91. 7<sup>th</sup> Annual UCSF Spine Symposium, Ritchey Lecture, University of California–San Francisco, CA, June 1-2, 2012.  
Optimizing safety and correction in spinal deformity surgery
92. Waverly Lecture, NorthShore University HealthSystem, Evanston, IL, October 6, 2012.
  - Classification of AIS: from King to Lenke to the futureSevere spinal deformity patients treated with a posterior VCR: "extreme makeovers"
93. Columbia University, Grand Rounds, New York, NY, May 8-9, 2013.  
The use of osteotomies in the treatment of pediatric and adult spinal deformities
94. University of Alabama, Grand Rounds, Birmingham, AL, May 14, 2013.  
Classification of adolescent idiopathic scoliosis. From King to Lenke to the future
95. Resident Graduation Day, Johns Hopkins University, Baltimore, MD, June 14-15, 2013.  
Spinal osteotomies for the treatment of pediatric and adult spinal deformity

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

96. Arthur Steffee Lectureship, Iowa State University, Iowa City, IA, September 6-7, 2013.
  - Classification of AIS: Past, present and future
  - Evaluation and treatment of high-grade isthmic spondylolisthesisOptimizing safety in spinal deformity surgery
97. University of Missouri, Grand Rounds, Columbia, MO, November 5-6, 2013.  
AIS: Current state-of-the-art
98. Clinical Symposia Lecture series, Cedars-Sinai Spine Center, Los Angeles, CA, December 10-11, 2013.
  - Spinal osteotomies for the treatment of pediatric and adult deformityClassification of AIS from King to Lenke to the future
99. Annual Orthopaedic Day Conference, Guest Lecturer, Denver Children's Hospital, Denver, CO, April 17-19, 2014.
  - Classification and treatment of adolescent idiopathic scoliosis: Past, present and futureThe use of spinal osteotomies in pediatric spinal deformity surgery
100. Scoliosis Surgery Over the Century: From Hibbs to Present, Columbia University, New York, NY, September 28, 2014.  
Adolescent idiopathic scoliosis: From where we have come?
101. Duke University Medical Center, NSU Lectureship/Orthopaedic Surgery Grand Rounds, Durham, NC, October 28, 2014.
  - Spinal osteotomies for the treatment of pediatric and adult spinal deformityCase presentations
102. Hospital for Special Surgery, Guest Lecturer Spine Grand Rounds, New York, NY, February 5, 2015.
  - Age affects total body sagittal alignment in asymptomatic adults
  - Do adult spinal deformity patients with severe but flexible sagittal malalignment need 3-column osteotomies?Variations in sagittal alignment parameters based on age
103. Philadelphia Orthopaedic Society, Grand Rounds, Kambin Lecturer, Philadelphia, PA, April 13, 2015.  
Spinal deformity in 2015: "Extreme makeovers"
104. Hospital for Joint Diseases - NYU Langone Medical Center, Grand Rounds, New York, NY, December 11<sup>th</sup>, 2015
  - Vertebral Column Resection for the Treatment of Severe Spinal Deformity: Balancing Correction with Safety
105. Grand Rounds Speaker at the Dept of Neurosurgery, Columbia University, New York, New York, February 11<sup>th</sup>, 2016  
Vertebral Column Resection (VCR) for Severe Spinal Deformity: Balancing Safety with Correction
106. Principles and Techniques of Complex Spine Reconstruction, Weill Cornell Medical College, New York, NY, April 9<sup>th</sup>, 2016
  - Vertebral Column Resection
  - Thoracolumbar Deformity Cases
107. 2016 Emans Spine Symposium, Harvard Medical School, Boston, MA, November 8<sup>th</sup>, 2016
  - What I have learned the past 15 years and over 250 Posterior VCR cases
108. Longwood Grand Rounds, Harvard Medical School/Brigham and Women's Hospital, Boston, MA April 29<sup>th</sup>, 2017  
-VCR for Severe Spine Deformity
109. UCSF Orthopaedic Surgery Grand Rounds Lecture Series, University of California, San Francisco, CA, May 26<sup>th</sup>, 2017  
Severe Spinal Deformity Treated with a Vertebral Column Resection
110. Stanford University Neurosurgery Grand Rounds, Stanford, Ca, June 2<sup>nd</sup>, 2017  
-Severe Spinal Deformity Treated with Vertebral Column Resection

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

111. Orthopaedic Grand Rounds at Lenox Hill Hospital/Northwell Health, New York, NY, June 19<sup>th</sup>, 2017  
- The Use of Spinal Osteotomies for Spinal Deformity Correction
112. Cornell Medicine's Neurological Surgery Grand Rounds, New York, NY, January 29, 2018  
- VCR for Severe Spine Deformity
113. University of Maryland Orthopaedic Grand Rounds, Baltimore, MD, February 21<sup>st</sup>, 2019  
- Spine osteotomy for the treatment of pediatric and adult spinal deformity
114. UCSF 64th Annual LeRoy C. Abbott Society Scientific Program and 51st Annual Verne T. Inman Lectureship CME Conference, San Francisco, CA, May 9-10, 2019  
- Optimizing Safety in Spinal Deformity Reconstructive Surgery  
- Building a Spine Hospital: Conception to Reality to Success
115. Northwell Health at Long Island Jewish Medical Center Grand Rounds at the Dept of Orthopedics, Queens, NY, October 20<sup>th</sup>, 2019  
- Current Concepts in ASD:  
- Describe current radiographic analysis of ASD patients  
- Present Surgical Treatment Options, Results, Complications and Outcomes  
- Explain how big data and analytics will help Improve patient selection and surgical outcomes  
- VCR Surgery for Severe Spinal Deformity  
- Describe what a VCR surgery entails  
- Explain Current Indications and Risks Involved  
- Present Data on correction, complications and Outcomes of VCR Surgery

## **XV. ELECTRONIC WEBINAR/ZOOM/WEBEX PRESENTATIONS**

1. Virtual Grand Rounds between 4 Spine Centers Facilitated by Medtronic Spine, April 8, 2020  
- PSO: When Is It Really Needed and Techniques to Optimize Correction and Minimize Complications
2. Medtronic Global Webinar on COVID-19 & Spine Care Worldwide, April 28, 2020
3. Moroccan Spine and Spinal Cord Surgery Society Live Webinar, May 26, 2020  
- Posterior Spinal Osteotomies for the Treatment of Spinal Deformity
4. Scoliosis Research Society Webinar : Intra-operative Difficulties: Mitigation Strategies, June 4, 2020  
- The Difficult Spinal Anchor: What are the Options
5. Medtronic Masters In China: International Spinal Deformity Summit Forum, June 6, 2020  
- Treatment Strategies for Severe AIS
6. Rutgers-New Jersey Medical School & Robert Wood Johnson Medical School Virtual Grand Rounds, June 10, 2020  
- A New Classification of Adult Idiopathic Scoliosis: Evaluation and Treatment Guidelines
7. Lenox Hill Hospital Zucker School of Medicine at Hofstra Virtual Global Spine Conference, July 2<sup>nd</sup>, 2020  
- A New Classification of Adult Idiopathic Scoliosis: Treatment Recommendations
8. Azevedo Lima Hospital- Spine Talk Lives , July 8<sup>th</sup>, 2020  
- A New Classification of Adult Idiopathic Scoliosis: Evaluation and Treatment Recommendations
9. Broadwater: Pearls of Modern Spine Surgery, July 15<sup>th</sup>, 2020  
- Correcting Coronal Imbalance with the Kickstand Screw-rod Construct

<sup>v</sup>Student, <sup>r</sup>Resident, <sup>f</sup>Fellow, <sup>j</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>s</sup>International Research Scholar

## **XVI. INSTRUCTIONAL MANUALS/VIDEOS/TUTORIALS**

1. Resident CORE Curriculum: Developmental Abnormalities of the Spine. Myelodysplasia and Klippel-Feil Syndrome. NASS, December 1995.
2. Editorial: Anterior Correction of Scoliosis using the Ventral Derotation Spondylodesis (VDS) According to Zielke, Osteotech, December 1995.
3. Video Surgical Workshop of Spinal Fracture Fixation: Parts I & II - Anterior Transthoracic – Retroperitoneal Approach to the Lumbar Spine. Anterior L1 Vertebrectomy; Spinal Canal Decompression; Thoracoscopy; Spinal Endoscopy, and Thoracic and Lumbar Spine Trauma. MVP, Sofamor-Danek, St. Louis, MO, 1996.
4. Instructional Manual – OR Allied Health Professions: Update on Spinal Instrumentation, Part 1. Spinal Anatomy, Part 5: Evolution of Spinal Instrumentation. Spinal Science Advancement Foundation, December 1996.
5. CD HORIZON® Spinal System: A Review and Discussion of Four Posterior Spinal Deformity Corrections using a New Low Profile, Top Tightening Spine Instrumentation System--Case Study Review. Sofamor-Danek Group, March 1997.
6. SRS Tutorial: Anterior Thoracic Instrumentation and Fusion for Adolescent Idiopathic Scoliosis. St. Louis Children's Hospital, St. Louis, MO, June 22, 1998.
7. SRS Tutorial: Anterior Thoracic Instrumentation and Fusion for Adolescent Idiopathic Scoliosis. St. Louis Children's Hospital, St. Louis, MO, September 1998.
8. Surgical Technique Video: CD HORIZON® ECLIPSE™. Medtronic Sofamor Danek, 2000.
9. 10-Minute Instructional Video: Thoracic Pedicle Screws for Adolescent Idiopathic Scoliosis. Medtronic Sofamor Danek, June 2000.
10. SRS Tutorial: Pedicle Screw Instrumentation for Scoliosis. St. Louis Children's Hospital, St. Louis, MO, July 17, 2000.
11. Making Sense of Spinal Surgery, 8-Volume CD-ROM: Procedures of Spinal Surgery. Spinal Science Advancement Foundation, May 2001.
12. Instructional Video: Techniques of Pedicle Subtraction Osteotomy. Medtronic Sofamor Danek, May 29, 2001.
13. SRS Tutorial 14: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, May 14, 2001.
14. SRS Tutorial 15: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, June 25, 2001.
15. 5-Minute Instructional Video: Open Dual Rod LEGACY™ Instrumentation for Adolescent Idiopathic Scoliosis. Medtronic Sofamor Danek, June 2001.
16. SRS Tutorial 16: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, July 23, 2001.
17. SRS Tutorial 1: Anterior Open Treatment of Idiopathic Scoliosis. St. Louis, MO, February 1, 2002.
18. SRS Tutorial 2: Thoracic and Lumbar Pedicle Screws for Idiopathic Scoliosis. St. Louis, MO, February 1, 2002.
19. Introduction for CD HORIZON® Scoliosis. Medtronic Sofamor Danek, April 2002.
20. Anterior Instrumentation in the Treatment of Idiopathic Scoliosis. Using CD HORIZON® LEGACY™ Anterior Instrumentation "State of the Art". Medtronic Sofamor Danek, May 2002.
21. CD HORIZON® LEGACY™ Spinal System. Anterior Dual Rod Surgical Technique. Medtronic Sofamor Danek, April 2002.

<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



22. SRS Tutorial: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, April 29, 2002.
23. SRS Tutorial: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, June 10, 2002.
24. SRS Tutorial 9: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, July 29, 2002.
25. Anterior Spinal Fusion with PYRAMESH® Kidney Bean and Mini Kidney Bean Cages V. Medtronic Sofamor Danek, December 2002.
26. LIBERTY™ Iliac Screw Placement. Medtronic Sofamor Danek, 2003.
27. 12-Minute Instructional Video: Direct Vertebral Derotation Using Posterior Thoracic Pedicle Screws. Medtronic Sofamor Danek, January 2003.
28. 10-Minute Instructional Video: Direct Vertebral Derotation Using Anterior Dual Rod LEGACY™ Instrumentation for Thoracolumbar/Lumbar Scoliosis. Medtronic Sofamor Danek, February 2003.
29. 12-Minute Instructional Video: Lumbar Pedicle Subtraction Osteotomy for Treating Sagittal Imbalance. Medtronic Sofamor Danek, February 2003.
30. 5-Minute Instructional Video: Iliac Fixation Using CD HORIZON® Fixed Iliac Screws. Medtronic Sofamor Danek, February 2003.
31. SRS Tutorial 3: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, April 28, 2003.
32. SRS Tutorial 5: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, June 23, 2003.
33. 10-Minute Instructional Video: Scheuermann's Kyphosis Correction using Thoracic Pedicle Screws and Smith-Petersen Osteotomies. Medtronic Sofamor Danek, November 2003.
34. X10 CROSSLINK® Plate: Surgical Technique. Medtronic Sofamor Danek, 2003.
35. Rod Diameter Selection in Pediatric and Adult Spinal Deformity Correction. Medtronic Sofamor Danek, 2003.
36. CD HORIZON® LEGACY™ 5.5 mm Spinal System: Deformity Surgical Technique. Medtronic Sofamor Danek, February 2004.
37. Importance of Proper Utilization of CD HORIZON® CROSSLINK® Plates in Adult Spinal Deformity Surgery. Medtronic Sofamor Danek, April 2004.
38. Sacropelvic Fixation: Iliac and Sacral Screw Indications and Placement Technique. Medtronic Sofamor Danek, 2004
39. SRS Tutorial: Treatment of Pediatric Spinal Deformity with Thoracic Pedicle Screws. Shriners Hospital for Children, St. Louis, MO, May 17, 2004.
40. SRS Tutorial: Treatment of Pediatric Spinal Deformity with Thoracic Pedicle Screws. Shriners Hospital for Children, St. Louis, MO, June 14, 2004.
41. POSNA Tutorial: Pedicle Screw Instrumentation for Pediatric Spinal Deformity. Shriners Hospital for Children, St. Louis, MO, October 13, 2004.
42. POSNA Tutorial: Pedicle Screw Instrumentation for Pediatric Spinal Deformity. Shriners Hospital for Children, St. Louis, MO, December 13, 2004.

<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

43. Clinical Indications for a Single-Screw, Dual-Rod Construct in Anterior Spinal Fixation. Medtronic Sofamor Danek, 2004.
44. 5-Minute Instructional Video: Scoliosis Derotation Animation Using CD HORIZON® LEGACY™ 5.5 mm Instrumentation. Medtronic Sofamor Danek, August 2005.
45. Kyphosis Correction using Smith-Petersen Osteotomies and Thoracic Pedicle Screws. Medtronic Sofamor Danek, August 2005.
46. SRS Tutorial: Thoracic Pedicle Screws in Pediatric Spinal Deformity. St. Louis Children's Hospital, St. Louis, MO, September 26, 2005.
47. POSNA Tutorial: Pedicle Screw Instrumentation for Pediatric Spinal Deformity. Shriners Hospital for Children, St. Louis, MO, December 5, 2005.
48. POSNA Tutorial: Pedicle Screw Instrumentation for Pediatric Spinal Deformity. Shriners Hospital for Children, St. Louis, MO, January 10, 2006.
49. CD HORIZON® LEGACY™ Spinal System – Deformity Surgical Technique. Medtronic Sofamor Danek, 2006.
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<sup>¶</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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66. POSNA Tutorial: Pedicle Screw Instrumentation for Pediatric Spinal Deformity. Shriners Hospital for Children, St. Louis, MO, March 18, 2008.
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<sup>‡</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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## **XVII. PUBLISHED ABSTRACTS**

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<sup>‡</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>v</sup>Student, <sup>\*Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>\$</sup>International Research Scholar</sup>

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<sup>¥</sup>Student, <sup>§</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>‡</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar



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<sup>¶</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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<sup>¥</sup>Student, <sup>‡</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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## **XVIII. EDUCATIONAL VIDEOS/ VIDEO ARTICLES**

1. IHL's WeChat. [Lin teacher big hall] "super doctor" Lenke the next stop. July 07, 2017. [http://mp.weixin.qq.com/s/qSCs2V36a\\_R2SowqYaoWvw](http://mp.weixin.qq.com/s/qSCs2V36a_R2SowqYaoWvw)
2. Introduction: Video Illustrations of Techniques and Strategies for Adult and Pediatric Spinal Deformity Surgery <https://thejns.org/video/view/journals/neurosurg-focus-video/2/1/article-pIntro.xml>

## **XVIII. PATENTS**

1. Novel Ultrapurification Method To Allow Safe Use Of Intraspinal Vancomycin And Other Antimicrobials For Prevention And/Or Treatment Of Wound Infections. Filed February 8, 2017. Application number 62/456,693
2. Novel Broad-Spectrum Compounded Antimicrobial Medication For Prevention Or Treatment Of Surgical Or Traumatic Wound Infections For Use By The Intraspinal Route Of Administration. Filed February 8, 2017. Application number 62/456,642
3. Low Profile Bone Screw Extender and its Application in Minimum Invasive Spinal Surgeries. Filed February 3, 2009. Patent No. 8,727,972 issued May 20, 2014.
4. Methods and Instruments for Spinal Derotation (Vertebral Column Manipulator Device). Patent No. 7,655,008 B2 issued February 2, 2010.
5. Contourable Spinal Staple with Centralized and Unilateral Prongs. Patent No. 6,830,571 B2 issued December 14, 2004.

<sup>‡</sup>Student, <sup>†</sup>Resident, <sup>\*</sup>Fellow, <sup>‡</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

6. Contourable Spinal Staple with Centralized and Unilateral Prongs. Patent No. 6,533,787 B1 issued March 18, 2003.
7. Rod and Anchor System and Method for Using. Filed December 3, 2008. USPTO Publication No. 2010-0137918 A1. Application No. 12/326927.
8. Adjustable Vertebral Body Elevator (for the PSO/VCR tool set). Filed February 7, 2008. USPTO Publication No. 2009-0404148 A1. Application No. 12/027545.
9. Hook for Vertebral Osteosynthesis Device, and Device Including Same. Filed May 4, 2009. USPTO Publication No. EP2288302 A1. Application No. EP20090738552.
10. Lateral Pars Anchor for Posterior Fixation. Attorney Docket No. P32113.00. France Application No. 0852966.
11. Non Pedicular Posterior Spinal Fixation. Attorney Docket No. P31316.00. France Application No. 0852967.
12. Spinal Stabilization System and Method. Filed February 15, 2012. USPTO Publication No. US20130211453 A1. Application No. US 13/397,365.
13. Spinal Correction System and Method. Filed April 2, 2013. Application No. 13749658.4 – 1506. PCT/US2013024637.
14. Spinal Implant. Filed October 30, 2017. Application No. C00017411.USD1
15. Spinal Correction System and Method. Filed \_\_\_\_ . Docket No. C00011151.*USI3*. *Applocation* No. \_\_\_\_\_
16. Intravertebral Administration And Dosing Methods And Pharmaceuticals For Use Therein. Filed 2/8/18 Pub. Date 8/9/18 Docket No. HKL.300PCT/ Docket No. HKL.300UTI PCT Pub No. US2018/0221296 A1 U.S. App. No. 15/892,227

<sup>v</sup>Student, <sup>\*</sup>Resident, <sup>\*</sup>Fellow, <sup>†</sup>Neurosurgical Resident, <sup>†</sup>Advanced Deformity Fellow, <sup>^</sup>Domestic Visiting Surgeon, <sup>§</sup>International Research Scholar

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