

2013 Orthopedic Department Research and Education Activity Report

The following details some of the past year's activity of the physicians associated with the spine and scoliosis program, including research, publications, presentations and conference activity.

2013 Orthopaedic Department Reference List

1. Baratela WA, Bober MB, Thacker MM, Belthur MV, Oto M, Rogers KJ, Mackenzie, W.G. Cervicothoracic Myelopathy in Children With Morquio Syndrome A: A Report of 4 Cases. *J Pediatr Orthop* 2013 Oct 3; ePub. PMID 24096444
2. Dede, O.; Thacker, M.M.; Rogers, K.J.; Oto, M.; Belthur, M.V.; Baratela, W.; Mackenzie, W.G. Upper cervical fusion in children with morquio syndrome: intermediate to long-term results. *J Bone Joint Surg Am* 2013 Jul 3; 95(13):1228-34. PMID 2382439
3. Dhawale, A.A.; Shah, S.A.; Yorgova, P.; Neiss, G.; Layer, D.J., Jr.; Rogers, K.J.; Gabos, P.G.; Holmes, L., Jr. Effectiveness of cross-linking posterior segmental instrumentation in adolescent idiopathic scoliosis: a 2-year follow-up comparative study. *Spine J* 2013 Jun 22; (13):10. PMID 23800823
4. Dhawale, A.A.; Shah, S.A.; Reichard, S.; Holmes, L., Jr.; Brislin, R.; Rogers, K.; Mackenzie, W.G. Casting for infantile scoliosis: the pitfall of increased peak inspiratory pressure. *J Pediatr Orthop* 2013 Jan; 33(1):63-7. PMID 23232382
5. El, Rassi G.; Takemitsu, M.; Glutting, J.; Shah, S.A. Effect of Sports Modification on Clinical Outcome in Children and Adolescent Athletes with Symptomatic Lumbar Spondylolysis. *Am J Phys Med Rehabil* 2013 Oct 17; ePub. PMID 24141103
6. Hwang, S.W.; Samdani, A.F.; Marks, M.; Bastrom, T.; Garg, H.; Lonner, B.; Bennett, J.T.; Pahys, J.; Shah, S.; Miyajima, F.; Shuffelbarger, H.; Newton, P.; Betz, R. Five-year clinical and radiographic outcomes using pedicle screw only constructs in the treatment of adolescent idiopathic scoliosis. *Eur Spine J* 2013 Jun; 22(6):1292-9. PMID 23254863
7. Kadhim M, Pizarro C, Holmes L, Jr., Rogers KJ, Kallur A, Mackenzie WG. Prevalence of scoliosis in patients with Fontan circulation. *Arch Dis Child* 2013 Mar; 98(3):170-5. PMID 23264433
8. Kadhim M, Spurrier E, Thacker D, Pizarro C, Mackenzie WG. Scoliosis Surgery in Children With Congenital Heart Disease. *Spine* 2013 Oct 22; ePub. PMID 24153164
9. Karatas AF, Dede O, Rogers K, Ditro CP, Holmes L, Bober M, et al. Growth-Sparing Spinal Instrumentation in Skeletal Dysplasia. *Spine* 2013; Aug 5. ePub ahead of Print. PMID: 23921322
10. Larson, N.A.; Aubin, C.E.; Polly, D.W.; Ledonio, C.G.T.; Lonner, B.S.; Shah, S.A.; Richards, B.S.; Erickson, M.A.; Emans, J.B.; Weinstein, S.L.; Minimize Implants Maximize Outcomes Study Group. Are More Screws Better? A Systematic Review of Anchor Density and Curve Correction in Adolescent Idiopathic Scoliosis. *Spine Deformity* 1[4], 237-247. 2013. DOI 10.1016/j.jspd.2013.05.009
11. Lonner, B.; Yoo, A.; Terran, J.S.; Sponseller, P.; Samdani, A.; Betz, R.; Shuffelbarger, H.; Shah, S.A.; Newton, P. Effect of Spinal Deformity on Adolescent Quality of Life Comparison of Operative Scheuermann's Kyphosis, Adolescent Idiopathic Scoliosis and Normal Controls. *Spine* 2013; 2013 Jan 30. (ePub). PMID 23370683
12. Mackenzie, W.G.; Dhawale, A.A.; Demczko, M.M.; Ditro, C.; Rogers, K.J.; Bober, M.B.; Campbell, J.W.; Grissom, L.E. Flexion-extension cervical spine MRI in children with skeletal dysplasia: is it safe and effective? *J Pediatr Orthop* 2013 Jan; 33(1):91-8. PMID 23232386
13. Marks, M.C.; Newton, P.O.; Bastrom, T.P.; Betz, R.R.; Sponseller, P.D.; Lonner, B.; Shah, S.A.; Samdani, A.; Patcharaporn, M.; Shuffelbarger, H.; Asghar, J. Surgical Site Infection in Adolescent Idiopathic Scoliosis Surgery. *Spine Deformity* 1[5], 352-358. 9-27-2013. Ref Type: Journal (Full) DOI 10.1016/j.jspd.2013.07.004
14. Shah, S.A.; Dhawale, A.A.; Oda, J.E.; Yorgova, P.; Neiss, G.; Holmes, L., Jr.; Gabos, P.G.

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- Ponte Osteotomies With Pedicle Screw Instrumentation in the Treatment of Adolescent Idiopathic Scoliosis. Spine Deformity 1[3], 196-204. 2013. oi:10.1016/j.jspd.2013.03.002
15. Solanki,G.A.; Martin,K.W.; Theroux,M.C.; Lampe,C.; White,K.K.; Shediak,R.; Lampe,C.G.; Beck,M.; Mackenzie,W.G.; Hendriksz,C.J.; Harmatz,P.R. Spinal involvement in mucopolysaccharidosis IVA (Morquio-Brailsford or Morquio A syndrome): presentation, diagnosis and management. J Inherit Metab Dis 2013 Mar;36(2):339-55. PMID 23385297
 16. Sponseller PD, Jain A, Shah SA, Samdani A, Yaszay B, Newton PO, Thaxton LM, Bastrom TP, Marks MC. Deep Wound Infections after Spinal Fusion in Children with Cerebral Palsy: A Prospective Cohort Study. Spine 2013;Aug 16 ePub ahead of Print. PMID: 23963019
 17. Vitale,M.G.; Riedel,M.D.; Glotzbecker,M.P.; Matsumoto,H.; Roye,D.P.; Akbarnia,B.A.; Anderson,R.C.; Brockmeyer,D.L.; Emans,J.B.; Erickson,M.; Flynn,J.M.; Lenke,L.G.; Lewis,S.J.; Luhmann,S.J.; McLeod,L.M.; Newton,P.O.; Nyquist,A.C.; Richards,B.S.,III; Shah,S.A.; Skaggs,D.L.; Smith,J.T.; Sponseller,P.D.; Sucato,D.J.; Zeller,R.D.; Saiman,L. Building Consensus: Development of a Best Practice Guideline (BPG) for Surgical Site Infection (SSI) Prevention in High-risk Pediatric Spine Surgery. J Pediatr Orthop 2013 Jul;33(5):471-8. PMID 23752142

Conference Activity Information

[American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

[2SK - Posterior Release and Ponte Osteotomy for Spinal deformity Correction](#) Suken A. Shah, MD, Wilmington, Delaware [Surgical Skills Course 2SK. Posterior Correction Techniques in Pediatric Spinal Deformities Wednesday, March 20, 2013 7:00 - 10:00 AM](#)

Paper #: 392 - **Michelle Marks**, NMD, Tucson, Arizona

Tracey Bastrom, MA, San Diego, California

Maty Petcharaporn, BS, San Diego, California

Suken A. Shah, MD, Wilmington, Delaware

Amer Samdani, MD, Philadelphia, Pennsylvania

Baron Lonner, MD, New York, New York

Firoz Miyanji, MD, Vancouver, Canada

Peter O. Newton, MD, San Diego, California

Title: Motion Of The Unfused Lumbar Segments Remains Increased Up To 6 Years After Fusion For AIS.

Location: Room McCormick Place, Room S102

Time: Thursday, March 21, 2013

Presenter: Michelle Marks

Paper #: 394 –

Sina Pourtaheri, MD, Paterson, New Jersey

Suken A. Shah, MD, Wilmington, Delaware

William G. Mackenzie, MD, Wilmington, Delaware

Laurens Holmes, PhD, DrPH, Wilmington, Delaware

Title: Halo-Gravity Traction in Skeletal Dysplasia Patients with Severe Kyphoscoliosis: outcomes and complications

Location: Room McCormick Place, Room S102

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Time: Thursday, March 21, 2013

Presenter: Sina Pourtaheri

Paper #: 454 - **Annalise N. Larson**, MD, Rochester, Minnesota

Carl-Eric Aubin, PhD, Montreal, Canada

David W. Polly Jr, MD, Minneapolis, Minnesota

Charles Gerald T. Ledonio, MD, Minneapolis, Minnesota

Baron Lonner, MD, New York, New York

Suken A. Shah, MD, Wilmington, Delaware

Daniel J. Sucato, MD, Dallas, Texas

Lawrence G. Lenke, MD, Saint Louis, Missouri

Mark A. Erickson, MD, Aurora, Colorado

Title: Are More Screws Better? A Systematic Review of the Implant Density and Curve Correction in AIS

Location: Room McCormick Place, Room S102

Time: Thursday, March 21, 2013

Presenter: Annalise Larson

Paper #: 462 –

Muayad Kadhim, MD, Wilmington, Delaware

William G. Mackenzie, MD, Wilmington, Delaware

Pizarro Christian, MD, Wilmington, Delaware

Laurens Holmes, PhD, DrPH, Wilmington, Delaware

Kenneth J. Rogers, PhD, Wilmington, Delaware

Kallur K. Antony, MD, Albuquerque, New Mexico

Title: Prevalence of Scoliosis in Patients with Fontan Circulation

Location: Room McCormick Place, Room S102

Time: Thursday, March 21, 2013

Presenter: Muayad Kadhim

Paper #: 463 –

Curtis D. VandenBerg, MD, New York, New York

Suken A. Shah, MD, Wilmington, Delaware

Peter G. Gabos, MD, Wilmington, Delaware

Richard R. Bowen, MD, Wilmington, Delaware

Dinesh K. Choudhry, MD, Wilmington, Delaware

Karen Sacks, Wilmington, Delaware

Kenneth J. Rogers, PhD, Wilmington, Delaware

Title: Perioperative Use of Gabapentin in Idiopathic Scoliosis Improves Pain Management after Posterior Spinal Fusion

Location: Room McCormick Place, Room S102

Time: Thursday, March 21, 2013

Presenter: Curtis VandenBerg

Paper No. 748 –

Suken A. Shah, MD, Wilmington, Delaware

Michelle Marks, NMD, Tucson, Arizona

Maty Petcharaporn, BS, San Diego, California

Baron Lonner, MD, New York, New York

Peter O. Newton, MD, San Diego, California

2013 Orthopedic Department Research and Education Activity Report

Title: Towards Quality and Safety in Spinal Surgery: Use of a Multicenter Database Registry for Quality Improvement

Location: McCormick Place, Room S10

Time: Friday, March 22, 2013, 3:06 PM

Presenter: Suken Shah

Poster # P243 –

Behrooz A. Akbarnia, MD, La Jolla, California

Nima Kabirian, MD, San Diego, California

Jeff Pawelek, La Jolla, California

Daniel Zhang, BS, Rockville, Maryland

Gregory Redding, MD, Seattle, Washington

John B. Emans, MD, Boston, Massachusetts

Suken A. Shah, MD, Wilmington, Delaware

Charles E. Johnston II, MD, Dallas, Texas

Title: Is There a Significant Increase in Thoracic Height after Growing Rod Surgery for Early Onset Scoliosis?

Presenter: Behrooz Akbarnia

Poster # P249 –

Suken A. Shah, MD, Wilmington, Delaware

Ali F. Karatas, MD, Wilmington, Delaware

Arjun Dhawale, MD, South Miami, Florida

Ozgur Dede, MD, Pittsburgh, Pennsylvania

Laurens Holmes, PhD, DrPH, Wilmington, Delaware

Petya Yorgova, MS, Wilmington, Delaware

Geraldine Neiss, PhD, Wilmington, Delaware

Gregory M. Mundis, MD, San Diego, California

Jeff Pawelek, La Jolla, California

Title: What is the Effect of Growing Rod Lengthening on the Sagittal Profile and Pelvic Parameters in Early Onset Scoliosis?

Presenter: Suken Shah

[Specialty Day – POSNA . Spine Symposium](#)

When Do We Leave A Residual Curve? (Motion, Invasiveness vs. Deformity). **Suken A. Shah**, MD, Wilmington, Delaware. [Specialty Day – POSNA . Spine Symposium Saturday, March 23, 2013 10:38 AM - 12:00 PM](#)

[SPA/AAP Pediatric Anesthesiology 2013 meeting](#), March 14-17, 2013 at the Red Rock Resort in Las Vegas, NV.

1. Shah SA, VandenBerg C, Gabos PG, J. Richard Bowen, Choudhry D, Sacks K, Rogers KJ
Perioperative use of Gabapentin in Children for Spinal Fusion Surgery

[European Paediatric Orthopaedic Society, April 17-20, 2013, Athens Greece](#)

Podium

2013 Orthopedic Department Research and Education Activity Report

1. William Mackenzie, MD “Specialized Symposium II - Recent knowledge in pediatric spine deformities: What should any pediatric orthopaedic surgeon know?” Clinical Examination: tips and Tricks. April 18, 2013
2. Ali Karatas Fuat, Ozgur Dede, Kenneth Rogers, Michael Bober, Suken Shah, William Mackenzie. Growth sparing spinal instrumentation in skeletal dysplasia. April 19, 2013

e-Poster

1. E70 Muayad Kadhim, Ellen Spurrier, Deepika Thacker, Christian Pizarro, William G. Mackenzie. Scoliosis Surgery in Children with Congenital Heart Disease
2. E115 Prakash Sitoula, Kirk Dabney, Laurens Holmes, Kenneth Rogers, Freeman Miller. "The Long-term Outcomes of Early Spine Fusion for Scoliosis in Children with Cerebral Palsy"

[Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

May 2, 2013

PAPER NUMBER/TITLE: 30 / “Comprehensive Program Aligning Structure, Processes and the Electronic Medical Record Improves Quality and Safety Of Complex Spinal Deformity Surgery In Children”

Suken A. Shah, MD, Stephen Lawless, MD MBA, William G. Mackenzie, MD DAY/DATE/TIME OF PRESENTATION: 5/2/2013 / 09:16 AM-09:20 AM

PAPER NUMBER/TITLE: 37 / “Long-Term Outcome Of Early Spine Fusion For Scoliosis In Children With Cerebral Palsy”

Prakash Sitoula, MD, Kirk Dabney, MD, Kenneth Rogers, MD, Laurens Holmes Jr., MD, Freeman Miller, MD.

DAY/DATE/TIME OF PRESENTATION: 5/2/2013, 05:13 PM-05:17 PM

IFPOS/POSNA Day

IFPOS PAPER NUMBER/TITLE: 3 / “Choosing The Lower Instrumented Vertebra In Scheuermann’s Kyphosis: Revisited”. Suken Shah, MD, Muayad Kadhim, MD, Baron S. Lonner, MD, Harry L Shufflebarger, MD, Paul Sponseller, MD, Peter Newton, MD.

DAY/DATE/TIME OF PRESENTATION: 5/2/2013, 01:27 PM-01:31 PM

IFPOS PAPER NUMBER/TITLE: 4 / “Ponte Osteotomies With Pedicle Screw Instrumentation In The Treatment Of Adolescent Idiopathic Scoliosis”

Suken A. Shah, MD¹; Arjun A. Dhawale, MD¹; Jon E. Oda, MD²; Petya Yorgova, MS¹; Geraldine I. Neiss, PhD¹; Laurens Holmes, PhD, DrPH¹; Peter G. Gabos, MD¹

DAY/DATE/TIME OF PRESENTATION: 5/2/2013, 01:31 PM-01:35 PM

IFPOS PAPER NUMBER/TITLE : 37 / Long-Term Outcome Of Early Spine Fusion For Scoliosis In Children With Cerebral Palsy. Prakash Sitoula, MD, Kirk Dabney, MD, Freeman Miller, MD, Kenneth Rogers, PhD, ATC, Laurens Holmes, PhD.

DAY/DATE/TIME OF PRESENTATION: 5/2/2013, 5:13 PM-05:17 PM

May 3, 2013

PAPER TITLE: Assessment For Deep Wound Infections Following Pediatric Scoliosis Surgery

Suken Shah, MD, Sina Pourtaheri, MD, Freeman Miller, MD, Kirk W Dabney, MD, Susan Dubowsky, PA-C, Laurens Holmes, PhD

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DAY/DATE/TIME OF PRESENTATION: 5/3/2013, 02:40 PM-02:44 PM

Paper Title: Building Consensus: “Best Practice Guideline” For High-Risk Pediatric Spine Surgical Site Infection. Michael G Vitale, MD, MPH, Matthew D. Riedel, BA, Lisa Saiman, MD, MPH, Hiroko Matsumoto, MA a, Michael P. Glotzbecker, MD, John B. Emans, MD, Mark A. Erickson, MD, John (Jack) M. Flynn, MD, Behrooz A. Akbarnia, MD, Richard C.E. Anderson, MD, Douglas L. Brockmeyer, MD, Lawrence G. Lenke, MD, Scott J. Luhmann, MD, Stephen Lewis, MD, Peter O. Newton, MD, B. Stephens Richards III, MD, Daniel J. Sucato, MD, Suken A. Shah, MD, David L. Skaggs, MD, John T. Smith, MD, Paul D. Sponseller, MD, Reinhard D. Zeller, MD, Ann-Christine Nyquist, MD, MSPH, Lisa M. McLeod, MD, MPH, David P. Roye, MD

DAY/DATE/TIME OF PRESENTATION: 5/3/2013 2:45 PM – 2:49 PM

IFPOS e-poster

Growth Sparing Spinal Instrumentation In Skelatal Dysplasia. William Mackenzie, MD, Ali Karata, MD, Ozgur Dede, MD, Kenneth Rogers, PhD, ATC, Michael Bober, MD, Suken Shah, MD

Podium Presentations

SURGICAL TECHNIQUES:

a. Derotation: My Preference is...

4:05 PM – 4:10 PM Segmental Suken A. Shah, MD

PEDIATRIC CERVICAL SPINE:

4:40 PM – 4:50 PM My Approach To The Down Syndrome Patient William G. Mackenzie, MD

5:00 – 5:15 Case Presentations/Panel Discussion Moderator: Firoz Miyajji, MD Panel: William G. Mackenzie, John B. Emans, MD, John P. Dormans, Suken A. Shah, MD

[20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)

Abstract Presentations

1. Paper #51: Complications in Operative Scheuermann’s Kyphosis: Do the Pitfalls Differ from Operative Adolescent Idiopathic Scoliosis? Baron S. Lonner, MD; Courtney Toombs, BS; Michael Guss, MD; Brian Braaksma, MD; Suken A. Shah, MD; Amer F. Samdani, MD; Harry L. Shufflebarger, MD; Paul D. Sponseller, MD; Peter O. Newton, MD Thursday 13:56-14:00 East Ballroom C
2. Paper #103: Comprehensive Program Aligning Structure, Processes and the Electronic Medical Record Improves Quality and Safety of Complex Spinal Deformity Surgery. Suken A. Shah, MD; William G. Mackenzie, MD; Stephen T. Lawless, MD, MBA Friday 10:01-10:03 East Ballroom C
3. Paper #114: Occipito-Cervical Fusion in Skeletal Dysplasia: A New Surgical Technique. Prakash Sitoula, MD; Laurens Holmes, PhD, DrPH; Colleen Ditro, MSN; Kenneth J. Rogers, PhD; Suken A. Shah, MD; William G. Mackenzie, MD Friday 11:11-11:15 East Ballroom AB

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4. Paper #175: What is the Anticipated U.S. Cost of Pedicle Screws Versus Luque Wire Instrumentation for Neuromuscular Scoliosis Surgery? A. Noelle Larson, MD; Charles Gerald T. Ledonio, MD; David W. Polly, MD; Suken A. Shah, MD; Scott J. Luhmann, MD Saturday 11:04-11:08 East Ballroom AB

e-Poster

251. Risk and Predisposing Factors in Surgical Site Infections After Pediatric Spinal Deformity Surgery: Density Case-Control Assessment Jesse Allert, MD; Sina Pourtaheri, MD; Freeman Miller, MD; Kirk W. Dabney, MD; Laurens Holmes, PhD, DrPH; Suken A. Shah, MD; Susan Dubowy, BS USA

260. Should Cerebral Palsy Patients Undergo Scoliosis Deformity Correction in the Winter Months? Burt Yaszay, MD; Paul D. Sponseller, MD; Suken A. Shah, MD; Amer F. Samdani, MD; Firoz Miyanji, MD, FRCSC; Jahangir Asghar, MD; Peter O. Newton, MD; Harms Study Group

326. While Inconvenient, Baclofen Pumps Do Not Complicate Scoliosis Surgery in CP Patients Burt Yaszay, MD; James D. Bomar, MPH; Paul D. Sponseller, MD; Suken A. Shah, MD; Jahangir Asghar, MD; Amer F. Samdani, MD; Tracey Bastrom, MA; Peter O. Newton, MD; Harms Study Group

329. Variations in Perioperative Care of Children with Cerebral Palsy Undergoing Surgery for Scoliosis: A Multi-Center Comparison of the Drivers of Cost and Outcome Brian Scannell, MD; Peter O. Newton, MD; Burt Yaszay, MD; Suken A. Shah, MD; Paul D. Sponseller, MD; Firoz Miyanji, MD, FRCSC; Mark F. Abel, MD; Harry L. Shufflebarger, MD; Harms Study Group

Presentation

AIS I: Clinical & Radiologic Evaluation session

When Can Stopping Short Predictably Give Good Results in AIS? Suken A. Shah, MD

Thursday 14:40-14:50 (session starts at 14:20) East 2&3

2A: EOS: Clinical Evaluation/Surgical Techniques

Timing of Surgery and Indications for Definitive Fusion. Suken A. Shah, MD

Friday 14:30-14:40 (session starts at 14:20) East 8&15

[48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

Pre-Meeting Course

Neuromuscular Scoliosis and Neurodegenerative Adult Spinal Deformity: Pediatric to Adulthood Treatment Techniques Session

Case Presentations: The Treatment of Pediatric Neurogenic Deformity: How Do Techniques Differ Around the World? Moderator: Steven M. Mardjetko, MD Panel: Suken A. Shah, MD; Lawrence L. Haber, MD; Alain Dimeglio, MD; Sean Molloy, MBBS, MSc, FRCS

Wednesday 9:09-9:29 AM

[Techniques for the Preservation of Sagittal Balance: An International Perspective](#)

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Debate: Best Treatment Recommendations: 3 Cases of Pediatric Patients with Post Traumatic Sagittal Imbalance, Post-infectious, PJK in Neuromuscular Kyphoscoliosis Moderator: Laurel C. Blakemore, MD
Debaters: Suken A. Shah, MD; Kenneth M.C. Cheung, MD
Wednesday 2:32-2:52 PM

Half-Day Course: Spinal Deformity in Myelomeningocele

Co-Chairs: Peter G. Gabos, MD & Muharrem Yazici, MD

Thursday 1:30-4:30 pm

Surgical Treatment of Scoliosis: What Techniques are Available Worldwide? Peter G. Gabos, MD

Thursday 2:45-3:00 pm

Abstract Presentation

1. Paper #3: The Impact of Prolonged Surgical Wait Times on AIS: What Complications can be Expected? Firoz Miyajani, MD, FRCSC; Tracey Bastrom, MA; Amer F. Samdani, MD; Burt Yaszay, MD; David H. Clements, III, MD; Suken A. Shah, MD; Michelle C. Marks, PT, MA; Randal R. Betz, MD; Harry L. Shufflebarger, MD; Peter O. Newton, MD
Thursday 8:08-8:12AM Forum 5/6
2. Paper #12: The Effect of Time and Fusion Length on Motion of the Un-fused Lumbar Segments in Adolescent Idiopathic Scoliosis. Michelle C. Marks, PT, MA; Tracey Bastrom, MA; Maty Petcharaporn, BS; Suken A. Shah, MD; Amer F. Samdani, MD; Randal R. Betz, MD; Baron S. Lonner, MD; Firoz Miyajani, MD, FRCSC; Peter O. Newton, MD
Thursday 9:14-9:18AM Forum 5/6
3. Paper 13#: What an AIS Patient Sees in the Mirror: Validation of the Truncal Anterior Asymmetry Scoliosis Questionnaire (TAASQ). Baron S. Lonner, MD; Courtney Toombs, BS; Suken A. Shah, MD; Tracey Bastrom, MA; Phedra Penn, MS; Kristin Bright, PhD; Carrie Scharf Stern, MD; Marjolaine Roy-Beaudry, MSc; Marie Beausejour; Stefan Parent, MD, PhD
Thursday 9:28-9:32AM Forum 5/6
4. Paper #32: Magnetic Growth Rods Improve Pulmonary Function in Children with Early Onset Scoliosis. Wai Weng Yoon, BSc(Hons), MBBS, MRCS, FRCS(Tr&Orth); Fady S. Sedra, MB BCh, MSc, MRCS; Nanjundappa S. Harshavardhana, MD, MS(Orth); Suken A. Shah, MD; Francesco Muntoni, MD, FRCPC, FMed Sci; Colin Wallis, MB, ChB, FRCPC, MRCP, MD, DCH, FCP(SA); Hilali H. Noordeen, FRCS
Friday 8:26-8:30am Forum 5/6
5. Paper #58: Variations in Sagittal Spino-Pelvic Alignment Between Different Curve Patterns of Adolescent Idiopathic Scoliosis: Is the Evolution of Thoracic Scoliosis Different Than Lumbar? Tom P. Schlösser, MD; Suken A. Shah, MD; Samantha J. Reichard; Kenneth J. Rogers, PhD; Koen L. Vincken, PhD; Rene M. Castelein, MD, PhD
Friday 10:09-10:13am Forum 5/6
6. Paper #59: An Independent Evaluation of the Validity of a DNA-Based Prognostic Test for Adolescent Idiopathic Scoliosis. Benjamin D. Roye, MD, MPH; Margaret L. Wright, BS; Hiroko Matsumoto, MA; Petya Yorgova, MS; Geraldine I. Neiss, PhD; Daren J. McCalla, BS; Joshua E. Hyman, MD; David P. Roye, Jr., MD; Suken A. Shah, MD; Michael G. Vitale, MD, MPH
Friday 10:13-10:17am Forum 5/6
7. Paper #60: The Simplified Skeletal Maturity Method and its Correlation with Curve Progression in Idiopathic Scoliosis. Prakash Sitoula, MD; Kushagra Verma, MD, MS; James O. Sanders, MD; Petya Yorgova, MS; Geraldine I. Neiss, PhD; Kenneth J. Rogers, PhD; Laurens Holmes, Jr. PhD; Peter G. Gabos, MD; Suken A. Shah, MD
Friday 10:17-10:21am Forum 5/6
8. Paper #90: Proximal Junctional Kyphosis in Cerebral Palsy. Risk factors and Guidelines. Paul D. Sponseller, MD; Suken A. Shah, MD; Burt Yaszay, MD; Peter O. Newton, MD; Mark F. Abel, MD; Tracey Bastrom, MA; Michelle C. Marks, PT, MA; Patrick J. Cahill, MD

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Friday 4:16-4:20pm Forum 5/6

9. Paper #91: A Prospective Multicenter Study of Neuromonitoring for Cerebral Palsy Scoliosis: the Nature and Rate of Alerts and Recovery of Changes. Suken A. Shah, MD; Paul D. Sponseller, MD; Mark F. Abel, MD; Peter O. Newton, MD; Burt Yaszay, MD; Firoz Miyanji, MD, FRCSC; Amer F. Samdani, MD; Harms Study Group

Friday 4:30-4:34pm Forum 5/6

10. Paper #97: Pulmonary Function Changes Maintained Following Surgery for Scheuermann's Kyphosis. Baron S. Lonner, MD; Courtney Toombs, BS; Suken A. Shah, MD; Amer F. Samdani, MD; Peter O. Newton, MD

Saturday 8:00-8:04 am Forum 5/6

11. Paper #99: Quality of Life Improvement Following Surgery for Scheuermann's Kyphosis Compared to Adolescent Idiopathic Scoliosis. Baron S. Lonner, MD; Courtney Toombs, BS; Suken A. Shah, MD; Amer F. Samdani, MD; Patrick J. Cahill, MD; Harry L. Shufflebarger, MD; Burt Yaszay, MD; Paul D. Sponseller, MD; Peter O. Newton, MD;

Saturday 8:08-8:12am Forum 5/6

12. Paper #123: Scoliosis Surgery in Children with Congenital Heart Disease. Muayad Kadhim, MD; William G. Mackenzie, MD; Ellen Spurrier; Deepika Thacker; Christian Pizarro, MD

Saturday 11:42-11:46am Forum 5/6

Physician Educational and Presentation Activities

Dr. Dabney updated 18oct2013

Poster- electronic

E115 Prakash Sitoula, Kirk Dabney, Laurens Holmes, Kenneth Rogers, Freeman Miller. "The Long-term Outcomes of Early Spine Fusion for Scoliosis in Children with Cerebral Palsy" [European Paediatric Orthopaedic Society, April 17-20, 2013, Athens Greece](#)

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Dr. Gabos updated 18oct2013

Grand Rounds speaker

1. Idiopathic Scoliosis, St. Lukes University School of Medicine, New York, New York, January 31, 2013.
2. Recent Advances in the Diagnosis and Treatment of Scoliosis. Bayhealth Medical Center / Kent General Hospital, Dover, DE, May 28, 2013

Manuscripts

(4) Dhawale,A.A.; Shah,S.A.; Yorgova,P.; Neiss,G.; Layer,D.J.,Jr.; Rogers,K.J.; Gabos,P.G.; Holmes,L.,Jr. Effectiveness of cross-linking posterior segmental instrumentation in adolescent idiopathic scoliosis: a 2-year follow-up comparative study. Spine J 2013 Jun 22;(13):10. PMID 23800823

(20) Shah,S.A.; Dhawale,A.A.; Oda,J.E.; Yorgova,P.; Neiss,G.; Holmes,L.,Jr.; Gabos,P.G. Ponte Osteotomies With Pedicle Screw Instrumentation in the Treatment of Adolescent Idiopathic Scoliosis. Spine Deformity 1[3], 196-204. 2013. doi:10.1016/j.jspd.2013.03.002

Moderator -

Half-Day Course: Spinal Deformity in Myelomeningocele

Co-Chairs: Peter G. Gabos, MD & Muharrem Yazici, MD

September 19 , 2013

[48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

Podium presentations- abstract

Paper #60: The Simplified Skeletal Maturity Method and its Correlation with Curve Progression in Idiopathic Scoliosis. Prakash Sitoula, MD; Kushagra Verma, MD, MS; James O. Sanders, MD; Petya Yorgova, MS; Geraldine I. Neiss, PhD; Kenneth J. Rogers, PhD; Laurens Holmes, Jr. PhD; Peter G. Gabos, MD; Suken A. Shah, MD

Friday 10:17-10:21am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

Podium presentations-topic

Surgical Treatment of Scoliosis: What Techniques are Available Worldwide? Peter G. Gabos, MD

September 19, 2013

[48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

Dr. Mackenzie updated 18oct2013

Manuscripts

- (2) Dede,O.; Thacker,M.M.; Rogers,K.J.; Oto,M.; Belthur,M.V.; Baratela,W.; Mackenzie,W.G. Upper cervical fusion in children with morquio syndrome: intermediate to long-term results. J Bone Joint Surg Am 2013 Jul 3;95(13):1228-34. PMID 23824392
- (5) Dhawale,A.A.; Shah,S.A.; Reichard,S.; Holmes,L.,Jr.; Brislin,R.; Rogers,K.; Mackenzie,W.G. Casting for infantile scoliosis: the pitfall of increased peak inspiratory pressure. J Pediatr Orthop 2013 Jan;33(1):63-7. PMID 23232382
- (11) Kadhim M, Pizarro C, Holmes L, Jr., Rogers KJ, Kallur A, Mackenzie WG. Prevalence of scoliosis in patients with Fontan circulation. Arch Dis Child 2013 Mar;98(3):170-5. PMID 23264433
- (17) Mackenzie,W.G.; Dhawale,A.A.; Demczko,M.M.; Ditro,C.; Rogers,K.J.; Bober,M.B.; Campbell,J.W.; Grissom,L.E. Flexion-extension cervical spine MRI in children with skeletal dysplasia: is it safe and effective? J Pediatr Orthop 2013 Jan;33(1):91-8. PMID 23232386
- (21) Solanki,G.A.; Martin,K.W.; Theroux,M.C.; Lampe,C.; White,K.K.; Shediak,R.; Lampe,C.G.; Beck,M.; Mackenzie,W.G.; Hendriksz,C.J.; Harmatz,P.R. Spinal involvement in mucopolysaccharidosis IVA (Morquio-Brailsford or Morquio A syndrome): presentation, diagnosis and management. J Inherit Metab Dis 2013 Mar;36(2):339-55. PMID 23385297

4/15 – 4/20 – EPOS – “Spine – Clinical Examination: Tips & Tricks” “OP – Growth sparing spinal instrumentation in skeletal dysplasia”

Podium presentations- abstract

Ali Karatas Fuat, Ozgur Dede, Kenneth Rogers, Michael Bober, Suken Shah, William Mackenzie. Growth sparing spinal instrumentation in skeletal dysplasia. April 19, 2013 [European Paediatric Orthopaedic Society, April 17-20, 2013, Athens Greece](#)

Paper #123: Scoliosis Surgery in Children with Congenital Heart Disease. Muayad Kadhim, MD; [William G. Mackenzie, MD](#); Ellen Spurrier; Deepika Thacker; Christian Pizarro, MD
Saturday 11:42-11:46am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

Podium presentations-topic

William Mackenzie, MD “Specialized Symposium II - Recent knowledge in pediatric spine deformities: What should any pediatric orthopaedic surgeon know?” Clinical Examination: tips and Tricks. April 18, 2013 [European Paediatric Orthopaedic Society, April 17-20, 2013, Athens Greece](#)

PEDIATRIC CERVICAL SPINE:

4:40 PM – 4:50 PM My Approach To The Down Syndrome Patient William G. Mackenzie, MD
[Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

Poster- electronic

2013 Orthopedic Department Research and Education Activity Report

E70 Muayad Kadhim, Ellen Spurrier, Deepika Thacker, Christian Pizarro, William G. Mackenzie. Scoliosis Surgery in Children with Congenital Heart Disease [European Paediatric Orthopaedic Society, April 17-20, 2013, Athens Greece](#)

Dr. Miller updated 04Nov2013

Moderator

Podium presentations- abstract

IFPOS PAPER NUMBER/TITLE : 37 / Long-Term Outcome Of Early Spine Fusion For Scoliosis In Children With Cerebral Palsy. Prakash Sitoula, MD, Kirk Dabney, MD, Freeman Miller, MD, Kenneth Rogers, PhD, ATC, Laurens Holmes, PhD.

DAY/DATE/TIME OF PRESENTATION: 5/2/2013, 5:13 PM-05:17 PM [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

Podium presentations-topic

March 4/15, 2013 7th Indian Association of Cerebral Meeting, Lucknow, India,

4. Miller, F Scoliosis Management . 7th Indian Association of Cerebral Meeting, Lucknow, India, March 9, 2013

Poster- electronic

E115 Prakash Sitoula, Kirk Dabney, Laurens Holmes, Kenneth Rogers, Freeman Miller. "The Long-term Outcomes of Early Spine Fusion for Scoliosis in Children with Cerebral Palsy" [European Paediatric Orthopaedic Society, April 17-20, 2013, Athens Greece](#)

Dr. Shah updated

Manuscripts

- (4) Dhawale,A.A.; Shah,S.A.; Yorgova,P.; Neiss,G.; Layer,D.J.,Jr.; Rogers,K.J.; Gabos,P.G.; Holmes,L.,Jr. Effectiveness of cross-linking posterior segmental instrumentation in adolescent idiopathic scoliosis: a 2-year follow-up comparative study. Spine J 2013 Jun 22;(13):10. PMID 23800823
- (5) Dhawale,A.A.; Shah,S.A.; Reichard,S.; Holmes,L.,Jr.; Brislin,R.; Rogers,K.; Mackenzie,W.G. Casting for infantile scoliosis: the pitfall of increased peak inspiratory pressure. J Pediatr Orthop 2013 Jan;33(1):63-7. PMID 23232382
- (10) Hwang,S.W.; Samdani,A.F.; Marks,M.; Bastrom,T.; Garg,H.; Lonner,B.; Bennett,J.T.; Pahys,J.; Shah,S.; Miyanji,F.; Shufflebarger,H.; Newton,P.; Betz,R. Five-year clinical and radiographic outcomes using pedicle screw only constructs in the treatment of adolescent idiopathic

2013 Orthopedic Department Research and Education Activity Report

- scoliosis. Eur Spine J 2013 Jun;22(6):1292-9. PMID 23254863
- (15) Larson,N.A; Aubin,C.E.; Polly,D.W.; Ledonio,C.G.T; Lonner,B.S.; Shah,S.A.; Richards,B.S.; Erickson,M.A; Emans,J.B; Weinstein,S.L.; Minimize Implants Maximize Outcomes Study Group
Are More Screws Better? A Systematic Review of Anchor Density and Curve Correction in Adolescent Idiopathic Scoliosis. Spine Deformity 1[4], 237-247. 2013. DOI 10.1016/j.jspd.2013.05.009
 - (16) Lonner,B.; Yoo,A.; Terran,J.S.; Sponseller,P.; Samdani,A.; Betz,R.; Shuffelbarger,H.; Shah,S.A.; Newton,P. Effect of Spinal Deformity on Adolescent Quality of Life Comparison of Operative Scheuermann's Kyphosis, Adolescent Idiopathic Scoliosis and Normal Controls. Spine 2013;2013 Jan 30.(ePub). PMID 23370683
 - (19) Robinson,K.G.; Mendonca,J.L.; Militar,J.L.; Theroux,M.C.; Dabney,K.W.; Shah,S.A.; Miller,F.; Akins,R.E. Disruption of Basal lamina components in neuromotor synapses of children with spastic quadriplegic cerebral palsy. PLoS One 2013 Aug 16;8(8):e70288. PMID 23976945
 - (20) Shah,S.A.; Dhawale,A.A.; Oda,J.E.; Yorgova,P.; Neiss,G.; Holmes,L.,Jr.; Gabos,P.G. Ponte Osteotomies With Pedicle Screw Instrumentation in the Treatment of Adolescent Idiopathic Scoliosis. Spine Deformity 1[3], 196-204. 2013. doi:10.1016/j.jspd.2013.03.002
 - (22) [Sponseller PD](#), [Jain A](#), [Shah SA](#), [Samdani A](#), [Yaszay B](#), [Newton PO](#), [Thaxton LM](#), [Bastrom TP](#), [Marks MC](#). Deep Wound Infections after Spinal Fusion in Children with Cerebral Palsy: A Prospective Cohort Study. Spine 2013;Aug 16 ePub ahead of Print. PMID: 23963019
 - (24) Vitale,M.G.; Riedel,M.D.; Glotzbecker,M.P.; Matsumoto,H.; Roye,D.P.; Akbarnia,B.A.; Anderson,R.C.; Brockmeyer,D.L.; Emans,J.B.; Erickson,M.; Flynn,J.M.; Lenke,L.G.; Lewis,S.J.; Luhmann,S.J.; McLeod,L.M.; Newton,P.O.; Nyquist,A.C.; Richards,B.S.,III; Shah,S.A.; Skaggs,D.L.; Smith,J.T.; Sponseller,P.D.; Sucato,D.J.; Zeller,R.D.; Saiman,L. Building Consensus: Development of a Best Practice Guideline (BPG) for Surgical Site Infection (SSI) Prevention in High-risk Pediatric Spine Surgery. J Pediatr Orthop 2013 Jul;33(5):471-8. PMID 23752142

Moderator

POSNA / IFPOS Combined Half-Day Pre-Course

Pediatric Orthopaedic Society of North America and International Federation of Pediatric Orthopaedic Societies May 1, 2013 Program Co-Chairs: **Suken A. Shah, MD** Patricia Fucs, MD

Podium presentations- abstract

Paper #: 392 - **Michelle Marks**, NMD, Tucson, Arizona **Tracey Bastrom**, MA, San Diego, California **Maty Petcharaporn**, BS, San Diego, California **Suken A. Shah**, MD, Wilmington, Delaware **Amer Samdani**, MD, Philadelphia, Pennsylvania **Baron Lonner**, MD, New York, New York **Firoz Miyanji**, MD, Vancouver, Canada **Peter O. Newton**, MD, San Diego, California Title: Motion Of The Unfused Lumbar Segments Remains Increased Up To 6 Years After Fusion For AIS.

Location: Room McCormick Place, Room S102 Time: Thursday, March 21, 2013 Presenter: Michelle Marks [American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

Paper #: 394 –

Sina Pourtaheri, MD, Paterson, New Jersey **Suken A. Shah**, MD, Wilmington, Delaware **William G. Mackenzie**, MD, Wilmington, Delaware **Laurens Holmes**, PhD, DrPH, Wilmington, Delaware Title: Halo-Gravity Traction in Skeletal Dysplasia Patients with Severe Kyphoscoliosis: outcomes and complications Location: Room McCormick Place, Room S102

Time: Thursday, March 21, 2013 Presenter: Sina Pourtaheri [American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

2013 Orthopedic Department Research and Education Activity Report

Paper #: 454 - **Annalise N. Larson**, MD, Rochester, Minnesota **Carl-Eric Aubin**, PhD, Montreal, Canada **David W. Polly Jr**, MD, Minneapolis, Minnesota **Charles Gerald T. Ledonio**, MD, Minneapolis, Minnesota **Baron Lonner**, MD, New York, New York **Suken A. Shah**, MD, Wilmington, Delaware **Daniel J. Sucato**, MD, Dallas, Texas **Lawrence G. Lenke**, MD, Saint Louis, Missouri **Mark A. Erickson**, MD, Aurora, Colorado Title: Are More Screws Better? A Systematic Review of the Implant Density and Curve Correction in AIS
Location: Room McCormick Place, Room S102 Time: Thursday, March 21, 2013
Presenter: Annalise Larson [American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

Paper #: 463 –
Curtis D. Vandenberg, MD, New York, New York **Suken A. Shah**, MD, Wilmington, Delaware **Peter G. Gabos**, MD, Wilmington, Delaware **Richard R. Bowen**, MD, Wilmington, Delaware **Dinesh K. Choudhry**, MD, Wilmington, Delaware **Karen Sacks**, Wilmington, Delaware **Kenneth J. Rogers**, PhD, Wilmington, Delaware Title: Perioperative Use of Gabapentin in Idiopathic Scoliosis Improves Pain Management after Posterior Spinal Fusion
Location: Room McCormick Place, Room S102 Time: Thursday, March 21, 2013 Presenter: Curtis Vandenberg [American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

Paper No. 748 –
Suken A. Shah, MD, Wilmington, Delaware **Michelle Marks**, NMD, Tucson, Arizona **Maty Petcharaporn**, BS, San Diego, California **Baron Lonner**, MD, New York, New York **Peter O. Newton**, MD, San Diego, California Title: Towards Quality and Safety in Spinal Surgery: Use of a Multicenter Database Registry for Quality Improvement Location: McCormick Place, Room S10 Time: Friday, March 22, 2013, 3:06 PM Presenter: Suken Shah
[American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

Shah SA, Vandenberg C, Gabos PG, J. Richard Bowen, Choudhry D, Sacks K, Rogers KJ Perioperative use of Gabapentin in Children for Spinal Fusion Surgery SPA/AAP Pediatric Anesthesiology 2013 meeting, March 14-17, 2013 at the Red Rock Resort in Las Vegas, NV.

Ali Karatas Fuat, Ozgur Dede, Kenneth Rogers, Michael Bober, Suken Shah, William Mackenzie. Growth sparing spinal instrumentation in skeletal dysplasia. April 19, 2013 [European Paediatric Orthopaedic Society, April 17-20, 2013, Athens Greece](#)

PAPER NUMBER/TITLE: 30 / “Comprehensive Program Aligning Structure, Processes and the Electronic Medical Record Improves Quality and Safety Of Complex Spinal Deformity Surgery In Children”
Suken A. Shah, MD, Stephen Lawless, MD MBA, William G. Mackenzie, MD DAY/DATE/TIME OF PRESENTATION: 5/2/2013 / 09:16 AM-09:20 AM [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

PAPER NUMBER/TITLE: 52 / Hip Subluxation, Pelvic Obliquity, And 52 Scoliosis In The CP Population: A Random Triad Or A Predictable Relationship?

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Firoz Miyanji, MD, Amer Samdani, Peter F. Sturm, MD, Suken A. Shah, MD, Paul D. Sponseller, MD, Peter O. Newton, MD

DAY/DATE/TIME OF PRESENTATION: 5/2/2013 / 10:41 AM – 10:45 AM [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

IFPOS/POSNA Day

IFPOS PAPER NUMBER/TITLE: 3 / “Choosing The Lower Instrumented Vertebra In Scheuermann’s Kyphosis: Revisited”. Suken Shah, MD, Muayad Kadhim, MD, Baron S. Lonner, MD, Harry L Shufflebarger, MD, Paul Sponseller, MD, Peter Newton, MD.

DAY/DATE/TIME OF PRESENTATION: 5/2/2013, 01:27 PM-01:31 PM [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

IFPOS PAPER NUMBER/TITLE: 4 / “Ponte Osteotomies With Pedicle Screw Instrumentation In The Treatment Of Adolescent Idiopathic Scoliosis”

Suken A. Shah, MD¹; Arjun A. Dhawale, MD¹; Jon E. Oda, MD²; Petya Yorgova, MS¹; Geraldine I. Neiss, PhD¹; Laurens Holmes, PhD, DrPH¹; Peter G. Gabos, MD¹

DAY/DATE/TIME OF PRESENTATION: 5/2/2013, 01:31 PM-01:35 PM [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

May 3, 2013

PAPER TITLE: Assessment For Deep Wound Infections Following Pediatric Scoliosis Surgery
Suken Shah, MD, Sina Pourtaheri, MD, Freeman Miller, MD, Kirk W Dabney, MD, Susan Dubowsky, PA-C, Laurens Holmes, PhD

DAY/DATE/TIME OF PRESENTATION: 5/3/2013, 02:40 PM-02:44 PM [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

Paper Title: Building Consensus: “Best Practice Guideline” For High-Risk Pediatric Spine Surgical Site Infection. Michael G Vitale, MD, MPH, Matthew D. Riedel, BA, Lisa Saiman, MD, MPH, Hiroko Matsumoto, MA a, Michael P. Glotzbecker, MD, John B. Emans, MD, Mark A. Erickson, MD, John (Jack) M. Flynn, MD, Behrooz A. Akbarnia, MD, Richard C.E. Anderson, MD, Douglas L. Brockmeyer, MD, Lawrence G. Lenke, MD, Scott J. Luhmann, MD, Stephen Lewis, MD, Peter O. Newton, MD, B. Stephens Richards III, MD, Daniel J. Sucato, MD, Suken A. Shah, MD, David L. Skaggs, MD, John T. Smith, MD, Paul D. Sponseller, MD, Reinhard D. Zeller, MD, Ann-Christine Nyquist, MD, MSPH, Lisa M. McLeod, MD, MPH, David P. Roye, MD

DAY/DATE/TIME OF PRESENTATION: 5/3/2013 2:45 PM – 2:49 PM [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

5. Paper #51: Complications in Operative Scheuermann’s Kyphosis: Do the Pitfalls Differ from Operative Adolescent Idiopathic Scoliosis? [Baron S. Lonner, MD](#); Courtney Toombs, BS; Michael Guss, MD; Brian Braaksma, MD; Suken A. Shah, MD; Amer F. Samdani, MD; Harry L. Shufflebarger, MD; Paul D. Sponseller, MD; Peter O. Newton, MD Thursday 13:56-14:00 East Ballroom C [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)
6. Paper #103: Comprehensive Program Aligning Structure, Processes and the Electronic Medical Record Improves Quality and Safety of Complex Spinal Deformity Surgery. [Suken A. Shah, MD](#); William G. Mackenzie, MD; Stephen T. Lawless, MD, MBA Friday 10:01-10:03 East Ballroom C

2013 Orthopedic Department Research and Education Activity Report

[20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)

7. Paper #114: Occipito-Cervical Fusion in Skeletal Dysplasia: A New Surgical Technique. Prakash Sitoula, MD; Laurens Holmes, PhD, DrPH; Colleen Ditro, MSN; Kenneth J. Rogers, PhD; [Suken A. Shah, MD](#); William G. Mackenzie, MD Friday 11:11-11:15 East Ballroom AB [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)
8. Paper #175: What is the Anticipated U.S. Cost of Pedicle Screws Versus Luque Wire Instrumentation for Neuromuscular Scoliosis Surgery? [A. Noelle Larson, MD](#); Charles Gerald T. Ledonio, MD; David W. Polly, MD; Suken A. Shah, MD; Scott J. Luhmann, MD Saturday 11:04-11:08 East Ballroom AB [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)
9. Paper #3: The Impact of Prolonged Surgical Wait Times on AIS: What Complications can be Expected? [Firoz Miyanji, MD, FRCSC](#); Tracey Bastrom, MA; Amer F. Samdani, MD; Burt Yaszay, MD; David H. Clements, III, MD; Suken A. Shah, MD; Michelle C. Marks, PT, MA; Randal R. Betz, MD; Harry L. Shufflebarger, MD; Peter O. Newton, MD
Thursday 8:08-8:12AM Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)
10. Paper #12: The Effect of Time and Fusion Length on Motion of the Un-fused Lumbar Segments in Adolescent Idiopathic Scoliosis. [Michelle C. Marks, PT, MA](#); Tracey Bastrom, MA; Maty Petcharaporn, BS; Suken A. Shah, MD; Amer F. Samdani, MD; Randal R. Betz, MD; Baron S. Lonner, MD; Firoz Miyanji, MD, FRCSC; Peter O. Newton, MD
Thursday 9:14-9:18AM Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)
11. Paper 13#: What an AIS Patient Sees in the Mirror: Validation of the Truncal Anterior Asymmetry Scoliosis Questionnaire (TAASQ). [Baron S. Lonner, MD](#); Courtney Toombs, BS; Suken A. Shah, MD; Tracey Bastrom, MA; Phedra Penn, MS; Kristin Bright, PhD; Carrie Scharf Stern, MD; Marjolaine Roy-Beaudry, MSc; Marie Beausejour; Stefan Parent, MD, PhD
Thursday 9:28-9:32AM Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)
12. Paper #32: Magnetic Growth Rods Improve Pulmonary Function in Children with Early Onset Scoliosis. [Wai Weng Yoon, BSc\(Hons\), MBBS, MRCS, FRCS\(Tr&Orth\)](#); Fady S. Sedra, MB BcH, MSc, MRCS; Nanjundappa S. Harshavardhana, MD, MS(Orth); Suken A. Shah, MD; Francesco Muntoni, MD, FRCPCH, FMed Sci; Colin Wallis, MB, ChB, FRCPCH, MRCP, MD, DCH, FCP(SA); .Hilali H. Noordeen, FRCS
Friday 8:26-8:30am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)
13. Paper #58: Variations in Sagittal Spino-Pelvic Alignment Between Different Curve Patterns of Adolescent Idiopathic Scoliosis: Is the Evolution of Thoracic Scoliosis Different Than Lumbar? [Tom P. Schlösser, MD](#); Suken A. Shah, MD; Samantha J. Reichard; Kenneth J. Rogers, PhD; Koen L. Vincken, PhD; Rene M. Castelein, MD, PhD
Friday 10:09-10:13am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)
14. Paper #59: An Independent Evaluation of the Validity of a DNA-Based Prognostic Test for Adolescent Idiopathic Scoliosis. [Benjamin D. Roye, MD, MPH](#); Margaret L. Wright, BS; Hiroko

2013 Orthopedic Department Research and Education Activity Report

Matsumoto, MA; Petya Yorgova, MS; Geraldine I. Neiss, PhD; Daren J. McCalla, BS; Joshua E. Hyman, MD; David P. Roye, Jr., MD; Suken A. Shah, MD; Michael G. Vitale, MD, MPH
Friday 10:13-10:17am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

15. Paper #60: The Simplified Skeletal Maturity Method and its Correlation with Curve Progression in Idiopathic Scoliosis. Prakash Sitoula, MD; Kushagra Verma, MD, MS; James O. Sanders, MD; Petya Yorgova, MS; Geraldine I. Neiss, PhD; Kenneth J. Rogers, PhD; Laurens Holmes, Jr. PhD; Peter G. Gabos, MD; Suken A. Shah, MD
Friday 10:17-10:21am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

16. Paper #90: Proximal Junctional Kyphosis in Cerebral Palsy. Risk factors and Guidelines. Paul D. Sponseller, MD; Suken A. Shah, MD; Burt Yaszay, MD; Peter O. Newton, MD; Mark F. Abel, MD; Tracey Bastrom, MA; Michelle C. Marks, PT, MA; Patrick J. Cahill, MD
Friday 4:16-4:20pm Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

17. Paper #91: A Prospective Multicenter Study of Neuromonitoring for Cerebral Palsy Scoliosis: the Nature and Rate of Alerts and Recovery of Changes. Suken A. Shah, MD; Paul D. Sponseller, MD; Mark F. Abel, MD; Peter O. Newton, MD; Burt Yaszay, MD; Firoz Miyanji, MD, FRCSC; Amer F. Samdani, MD; Harms Study Group
Friday 4:30-4:34pm Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

18. Paper #97: Pulmonary Function Changes Maintained Following Surgery for Scheuermann's Kyphosis. Baron S. Lonner, MD; Courtney Toombs, BS; Suken A. Shah, MD; Amer F. Samdani, MD; Peter O. Newton, MD
Saturday 8:00-8:04 am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

19. Paper #99: Quality of Life Improvement Following Surgery for Scheuermann's Kyphosis Compared to Adolescent Idiopathic Scoliosis. Baron S. Lonner, MD; Courtney Toombs, BS; Suken A. Shah, MD; Amer F. Samdani, MD; Patrick J. Cahill, MD; Harry L. Shufflebarger, MD; Burt Yaszay, MD; Paul D. Sponseller, MD; Peter O. Newton, MD;
Saturday 8:08-8:12am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

20. Paper #123: Scoliosis Surgery in Children with Congenital Heart Disease. Muayad Kadhim, MD; William G. Mackenzie, MD; Ellen Spurrier; Deepika Thacker; Christian Pizarro, MD
Saturday 11:42-11:46am Forum 5/6 [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

Podium presentations-topic

[2SK - Posterior Release and Ponte Osteotomy for Spinal deformity Correction](#) Suken A. Shah, MD, Wilmington, Delaware. [Surgical Skills Course 2SK. Posterior Correction Techniques in Pediatric Spinal Deformities. Wednesday, March 20, 2013 7:00 - 10:00 AM American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

2013 Orthopedic Department Research and Education Activity Report

Suken A. Shan, MD, Wilmington Delaware. When Do We Leave a Residual Curve? (Motion, Invasiveness vs. Deformity). Specialty Day – POSNA. Spine Symposium Saturday, March 23, 2013
10:38 AM - 12:00 PM

Advanced Deformity Tutorial, San Diego, CA – April 4-5, 2013

SURGICAL TECHNIQUES:

a. Derotation: My Preference is...

4:05 PM – 4:10 PM Segmental Suken A. Shah, MD [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

PEDIATRIC CERVICAL SPINE:

4:40 PM – 4:50 PM My Approach To The Down Syndrome Patient William G. Mackenzie, MD

5:00 – 5:15 Case Presentations/Panel Discussion Moderator: Firoz Miyanji, MD Panel: William G. Mackenzie, John B. Emans, MD, John P. Dormans, Suken A. Shah, MD [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

AIS I: Clinical & Radiologic Evaluation session

When Can Stopping Short Predictably Give Good Results in AIS? Suken A. Shah, MD

Thursday 14:40-14:50 (session starts at 14:20) East 2&3 [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)

2A: EOS: Clinical Evaluation/Surgical Techniques

Timing of Surgery and Indications for Definitive Fusion. Suken A. Shah, MD

Friday 14:30-14:40 (session starts at 14:20) East 8&15 [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)

Neuromuscular Scoliosis and Neurodegenerative Adult Spinal Deformity: Pediatric to Adulthood Treatment Techniques Session

Case Presentations: The Treatment of Pediatric Neurogenic Deformity: How Do Techniques Differ Around the World? Moderator: Steven M. Mardjetko, MD Panel: Suken A. Shah, MD; Lawrence L. Haber, MD; Alain Dimeglio, MD; Sean Molloy, MBBS, MSc, FRCS

Wednesday 9:09-9:29 AM [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

[Techniques for the Preservation of Sagittal Balance: An International Perspective](#)

Debate: Best Treatment Recommendations: 3 Cases of Pediatric Patients with Post Traumatic Sagittal Imbalance, Post-infectious, PJK in Neuromuscular Kyphoscoliosis Moderator: Laurel C. Blakemore, MD
Debaters: Suken A. Shah, MD; Kenneth M.C. Cheung, MD

Wednesday 2:32-2:52 PM [48th Scoliosis Research Society Annual Meeting and Course. September 18-21, 2013. Lyon, France.](#)

Poster- paper

Poster # P243 –

2013 Orthopedic Department Research and Education Activity Report

Behrooz A. Akbarnia, MD, La Jolla, California

Nima Kabirian, MD, San Diego, California

Jeff Pawelek, La Jolla, California

Daniel Zhang, BS, Rockville, Maryland

Gregory Redding, MD, Seattle, Washington

John B. Emans, MD, Boston, Massachusetts

Suken A. Shah, MD, Wilmington, Delaware

Charles E. Johnston II, MD, Dallas, Texas

Title: Is There a Significant Increase in Thoracic Height after Growing Rod Surgery for Early Onset Scoliosis?

Presenter: Behrooz Akbarnia

[American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

Poster # P249 –

Suken A. Shah, MD, Wilmington, Delaware

Ali F. Karatas, MD, Wilmington, Delaware

Arjun Dhawale, MD, South Miami, Florida

Ozgur Dede, MD, Pittsburgh, Pennsylvania

Laurens Holmes, PhD, DrPH, Wilmington, Delaware

Petya Yorgova, MS, Wilmington, Delaware

Geraldine Neiss, PhD, Wilmington, Delaware

Gregory M. Mundis, MD, San Diego, California

Jeff Pawelek, La Jolla, California

Title: What is the Effect of Growing Rod Lengthening on the Sagittal Profile and Pelvic Parameters in Early Onset Scoliosis?

Presenter: Suken Shah

[American Academy of Orthopaedic Surgery. Chicago, IL. March 19-23, 2013](#)

Pediatric Hospitalist Co-Management Impact On The Care Of Medically Complex Children Undergoing Spinal Surgery” - Shah [Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

Poster- electronic

Growth Sparing Spinal Instrumentation In Skelatal Dysplasia. William Mackenzie, MD, Ali Karata, MD, Ozgur Dede, MD, Kenneth Rogers, PhD, ATC, Michael Bober, MD, Suken Shah, MD

[IFPOS/POSNA Day Pediatric Orthopaedic Society of North America May 1-4, 2013, Toronto, ON, CA](#)

251. Risk and Predisposing Factors in Surgical Site Infections After Pediatric Spinal Deformity Surgery: Density Case-Control Assessment [Jesse Allert, MD](#); Sina Pourtaheri, MD; Freeman Miller, MD; Kirk W. Dabney, MD; Laurens Holmes, PhD, DrPH; Suken A. Shah, MD; Susan Dubowy, BS USA [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)

260. Should Cerebral Palsy Patients Undergo Scoliosis Deformity Correction in the Winter Months? [Burt Yaszay, MD](#); Paul D. Sponseller, MD; Suken A. Shah, MD; Amer F. Samdani, MD; Firoz Miyanji, MD, FRCSC; Jahangir Asghar, MD; Peter O. Newton, MD; Harms Study Group [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)

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326. While Inconvenient, Baclofen Pumps Do Not Complicate Scoliosis Surgery in CP Patients Burt Yaszay, MD; James D. Bomar, MPH; Paul D. Sponseller, MD; Suken A. Shah, MD; Jahangir Asghar, MD; Amer F. Samdani, MD; Tracey Bastrom, MA; Peter O. Newton, MD; Harms Study Group [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)

329. Variations in Perioperative Care of Children with Cerebral Palsy Undergoing Surgery for Scoliosis: A Multi-Center Comparison of the Drivers of Cost and Outcome Brian Scannell, MD; Peter O. Newton, MD; Burt Yaszay, MD; Suken A. Shah, MD; Paul D. Sponseller, MD; Firoz Miyanji, MD, FRCSC; Mark F. Abel, MD; Harry L. Shufflebarger, MD; Harms Study Group [20th International Meeting on Advanced Spine Techniques • July 10-13, 2013 Vancouver, British Columbia, Canada](#)

Significant Events

2013 Orthopedic Department Research and Education Activity Report