

## 2013 Orthopedic Department Research and Education Activity Report

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

### Table of Contents

#### 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.; Church, C.; Henley, J.; Holmes, L., Jr.; Thacker, M.M.; Mackenzie, W.G.; Miller, F. Gait pattern and lower extremity alignment in children with Morquio syndrome. *J Pediatr Orthop B* 2013 Jan; 22(1):59-62. PMID 23010763
4. Dung, V.C.; Tomatsu, S.; Montano, A.M.; Gottesman, G.; Bober, M.B.; Mackenzie, W.; Maeda, M.; Mitchell, G.A.; Suzuki, Y.; Orii, T. Mucopolysaccharidosis IVA: Correlation between genotype, phenotype and keratan sulfate levels. *Mol Genet Metab* 2013 Jun 26; 133(1):10. PMID 23876334
5. 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
6. 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
7. 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 Inher Metab Dis* 2013 Mar; 36(2):339-55. PMID 23385297
- 35 Yasuda, E.; Fushimi, K.; Suzuki, Y.; Shimizu, K.; Takami, T.; Zustin, J.; Patel, P.; Ruhnke, K.; Shimada, T.; Boyce, B.; Kokas, T.; Barone, C.; Theroux, M.; Mackenzie, W.; Nagel, B.; Ryerse, J.S.; Orii, K.E.; Iida, H.; Orii, T.; Tomatsu, S. Pathogenesis of Morquio A syndrome: An autopsied case reveals systemic storage disorder. *Mol Genet Metab* 2013 Apr 16; 133(1):10. PMID: 23683769
36. Yilmaz, G.; Oto, M.; Thabet, A.M.; Rogers, K.J.; Anticevic, D.; Thacker, M.M.; Mackenzie, W.G. Correction of Lower Extremity Angular Deformities in Skeletal Dysplasia With Hemiepiphysiodesis: A Preliminary Report. *J Pediatr Orthop* 2013 Aug 20. ePub ahead of Print. PMID: 23965916

(2)

**Conference Activity Information**

[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

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

Podium

1. 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. E39 Ali F. Karatas, MD, Michael B. Bober, MD, PhD, Rogers Kenneth, PhD, ATC, Angela L. Duker, MS, Colleen Ditro, William G Mackenzie., MD. Hip Pathology in Majewski Osteodysplastic Primordial Dwarfism Type II

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

May 2, 2013

IFPOS/POSNA Day

e-Poster

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**

Wednesday, May 1

## 2013 Orthopedic Department Research and Education Activity Report

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

### Abstract Presentations

1. 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

## 2013 Orthopedic Department Research and Education Activity Report

### Dr. Mackenzie updated 18oct2013

Grand Rounds speaker –

1. Rainbow Babies & Children's Hospital, Cleveland, OH 4/2-4/3
  - a. Skeletal Dysplasias
  - b. Lower Extremities

### 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
- (6) Dhawale,A.A.; Church,C.; Henley,J.; Holmes,L.,Jr.; Thacker,M.M.; Mackenzie,W.G.; Miller,F. Gait pattern and lower extremity alignment in children with Morquio syndrome. J Pediatr Orthop B 2013 Jan;22(1):59-62. PMID 2301076
- (8) Dung,V.C.; Tomatsu,S.; Montano,A.M.; Gottesman,G.; Bober,M.B.; Mackenzie,W.; Maeda,M.; Mitchell,G.A.; Suzuki,Y.; Orii,T. Mucopolysaccharidosis IVA: Correlation between genotype, phenotype and keratan sulfate levels. Mol Genet Metab 2013 Jun 26;(13):10. PMID 23876334
- (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
- (25) Yasuda,E.; Fushimi,K.; Suzuki,Y.; Shimizu,K.; Takami,T.; Zustin,J.; Patel,P.; Ruhnke,K.; Shimada,T.; Boyce,B.; Kokas,T.; Barone,C.; Theroux,M.; Mackenzie,W.; Nagel,B.; Ryerse,J.S.; Orii,K.E.; Iida,H.; Orii,T.; Tomatsu,S. Pathogenesis of Morquio A syndrome: An autopsied case reveals systemic storage disorder. Mol Genet Metab 2013 Apr 16;(13):10. PMID: 23683769
- (26)

### 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](#)

### 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

E39 Ali F. Karatas, MD, Michael B. Bober, MD, PhD, Rogers Kenneth, PhD, ATC, Angela L. Duker, MS, Colleen Ditro, William G Mackenzie., MD. Hip Pathology in Majewski Osteodysplastic Primordial Dwarfism Type II [European Paediatric Orthopaedic Society, April 17-20, 2013, Athens Greece](#)

## 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. Shah updated**

Podium presentations- abstract

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](#)

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](#)

2. 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](#)

Podium presentations-topic

Poster- electronic

Growth Sparing Spinal Instrumentation In Skelatial 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](#)

Dr. Thacker updated

Manuscripts

- Baratela WA, Bober MB, **Thacker MM**, Belthur MV, Oto M, Rogers KJ, Mackenzie WG.  
[Cervicothoracic Myelopathy in Children With Morquio Syndrome A: A Report of 4 Cases.](#)  
J Pediatr Orthop. 2013 Oct 3. [Epub ahead of print] PMID: 24096444
1. 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
  2. Detweiler S, Thacker MM, Hopkins E, Conway L, Gripp KW. Orthopedic manifestations and implications for individuals with Costello syndrome. Am J Med Genet A 2013 Jun 27;10. PMID 23813656
  3. Dhawale,A.A.; Church,C.; Henley,J.; Holmes,L.,Jr.; Thacker,M.M.; Mackenzie,W.G.; Miller,F.  
Gait pattern and lower extremity alignment in children with Morquio syndrome. J Pediatr Orthop B 2013 Jan;22(1):59-62. PMID 23010763
  4. Yilmaz,G.; Oto,M.; Thabet,A.M.; Rogers,K.J.; Anticevic,D.; Thacker,M.M.; Mackenzie,W.G.  
Correction of Lower Extremity Angular Deformities in Skeletal Dysplasia With Hemiepiphysiodesis: A Preliminary Report. J Pediatr Orthop 2013 Aug 20. ePub ahead of Print. PMID:23965916

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Moderator:

[Musculoskeletal section- Morquio Summit \(Amsterdam\) 7/31 – 8/1/13](#)

Podium presentations - abstract