

ORS/AAOS Annual Meetings

The Duke Department of Orthopaedic Surgery had a proud showing at both the 2013 Orthopaedic Research Society (ORS) annual meeting held from January 26th to 29th, 2013, in San Antonio, Texas, as well as the American Academy of Orthopaedic Surgeons (AAOS) annual meeting held from March 19th to 23rd, 2013, in Chicago, Illinois. Many members of the Duke Orthopaedic Surgery family were able to gather for the Piedmont Orthopaedic Society Mid-Winter reception held on March 22nd, 2013, at the Sheraton in downtown Chicago. Listed below is a summary of the podium presentations, posters, demonstrations, and invited lectures from the current faculty and residents at these meetings.

AAOS

Symposium

Practical Tips to Create, Cultivate and Sustain Your Professional Network—Benjamin Alman, MD

Spotlight talk

Pericytes and Tumor Initiating Cells in Sarcoma: Implications for a Novel Treatment Approach—Benjamin Alman, MD

AAOS, PSNA Specialty Day

How to Train Fellows in the Open Clubfoot Experience—Benjamin Alman, MD

Paper Presentation

Potential Cytokine and Metabolite Biomarkers of Post-Traumatic Ankle Arthritis Synovial Fluid—
Samuel Adams, Elizabeth Kensicki, Lyne C Jones, Gregory P Guyton, Stuart D Miller, Lew C Schon

Instructional Course Lectures

The Social and Economic Value of Orthopaedic Surgery—Richard Mather, MD

Rotator Cuff Surgical Skills Session—Grant Garrigues, MD

Podium

Why are Total Knees Failing Today? Etiology of Total Knee Revision in 2010 and 2011

William C Schroer, MD, Keith R Berend, MD, CL Barnes, MD, Michael P Bolognesi, MD,

Ryan Nunley, MD, Michael E Berend, MD Adolph V Lombardi Jr, MD

Poster

P132. Risk Factors, Outcomes and Timing of Manipulation Under Anesthesia after Total Knee Arthroplasty—

Erik Newman, Durham, North Carolina, Thomas A Herschmiller, MD, David E Attarian, MD,

Thomas P Vail, MD, Michael P Bolognesi, MD, Samuel S Wellman, MD

Impact of Blood Transfusion on Acute Wound Infection Following Total Knee and Hip Arthroplasty—Erik Newman, Tyler S Watters, MD, Jason M Jennings, MD, Samuel S Wellman, MD, David E Attarian, MD, Stuart Grant, MD, Cynthia Green, PhD, Thomas P Vail, MD, Michael P Bolognesi, MD

Laminoplasty vs Laminectomy with Fusion for the Treatment of Spondylotic Cervical Myelopathy—Adam Caputo, MD, Jordan Schaeffer, MD, Todd Chapman, Keith Michael, MD, Christopher Brown, MD

Scientific Exhibit

Mechanism of Primary Knee Arthroplasty Failure: Difference of a Decade—

William C Schroer, MD, Keith R Berend, MD, Michael E Berend, MD, Ryan Nunley, MD, CL Barnes, MD, Adolph V Lombardi Jr, MD, Michael P Bolognesi, MD

Instructional Course Lectures

Unicompartmental and Primary Total Knee Arthroplasty: Measured Resection vs Gap Balancing—Rafael J Sierra, MD, Michael P Bolognesi, MD, William L Griffin, MD, William G Hamilton, MD, Raymond H Kim, MD

Innovative Techniques and Frontiers in Revision Total Knee Arthroplasty—Paul F Lachiewicz, MD, Michael P Bolognesi, MD, Jess H Lonner, MD, Javad Parvizi, MD, FRCS

Innovative Techniques in Revision Total Hip Arthroplasty—Paul F Lachiewicz, MD, Keith R Berend, MD, Michael P Bolognesi, MD, Scott M Sporer, MD

Hand and Wrist Trauma: Case Based Approach—Fraser Leversedge, MD.

Hand and Wrist Problems Orthopods Treat (or should treat): Diagnostic and Operative Tips—Fraser Leversedge, MD.

Paper Presentations

Paper Presentations; Hand and Wrist I: Hand and Tendon—Fraser Leversedge, MD

ASSH Specialty Day

Open Reduction Internal Fixation of Metacarpal and Phalangeal Fractures—Fraser Leversedge, MD.

Best of AAOS—Symposium

Chair: Hand and Wrist Committee—Fraser Leversedge, MD

Presentation

Can We Justify the Use of Precontoured Plates for First Metatarsophalangeal Joint Arthrodesis?—Stephanie Watson Mayer, MD, Nicole Zelenski, BS, Mark E Easley, MD, James K Deorio, MD, James A Nunley, MD

PODIUM PRESENTATION

Patient-Reported Outcomes, Function, and Gait Mechanics after Fixed and Mobile-Bearing Total Ankle Replacement—RM Queen, RJ Butler, SB Adams, JK DeOrio, ME Easley, JA Nunley.

POSTER, ALTERNATE PODIUM PRESENTATION

Bilateral Differences in Gait Mechanics Following Total Ankle Replacement: A Two-Year Longitudinal Study. AAOS Annual Meeting 2013—RM Queen, RJ Butler, SB Adams, JK DeOrio, ME Easley, JA Nunley.

Poster

The Effect of Hindfoot Alignment on Frontal Plane Mechanics Following Total Ankle Replacement (Best Foot and Ankle Poster—also presented at AAOS 2013) Orthopaedic Research Society Annual Meeting 2013—RM Queen, RJ Butler, SB Adams, ME Easley, JK DeOrio, JA Nunley.

ORS

Podium Presentations

Correlation of Pain Response and *in vivo* Imaging of NFκB Activity in a Model of Inflammatory Arthritis—RD Bowles, BA Mata, TK Mwangi, GM Palmer, LA Setton.

A Gain of Function Channelopathy in Transient Receptor Potential Vanilloid 4 induces Skeletal Dysplasia *in vivo*: The Role of Follistatin. AL McNulty, H Leddy, N Rothfus, S Lee, M Kirby, M Hutson, W Liedtke, F Guilak.

Mutation of the Mechano-Osmosensitive Ion Channel TRPV4 Results in Dysfunctional Calcium Signaling and Altered Gene Expression in Chondrocytes—HA Leddy, AL McNulty, S Lee, NE Rothfus, W Liedtke, F Guilak.

In vivo Analysis of Tibiofemoral Contact Strains in ACL Reconstructed and Uninjured Contralateral Knees—JP Willhite, EC Okafor, GM Utturkar, CE Spritzer, ES Abebe, DC Taylor, CT Moorman, WE Garrett, LE DeFrate.

Effects of ACL Deficiency on Localized Tibiofemoral Cartilage Strains After Dynamic Activity—EG Sutter, MR Widmyer, GM Utturkar, CE Spritzer, WE Garrett, LE DeFrate.

A Thermally Responsive Curcumin Conjugate for Local Antagonism of Inflammation in Radiculopathy—SM Sinclair J Bhattacharyya, JR McDaniel, D Gooden, X Chen, EJ Toone, A Chilkoti and LA Setton.

The Effects of Proteoglycan Depletion on T1rho and T2 Mapping of Porcine Articular Cartilage—WC Mostertz, RE Wilusz, CE Spritzer, F Guilak, LE DeFrate.

In vivo Measurement of Localized Tibiofemoral Cartilage Strains After Dynamic Activity—EG Sutter, MR Widmyer, GM Utturkar, CE Spritzer, WE Garrett, LE DeFrate.

Posters

The Mechanical Properties of the Chondrocyte Pericellular Matrix Exhibit High Resistance to Enzymatic Digestion of Glycosaminoglycans—RE Wilusz, F Guilak.

Regional Mechanical Properties of Meniscus Pericellular and Extracellular Matrix via Atomic Force Microscopy—J Sanchez-Adams, RE Wilusz, F Guilak.

Identifying the Molecular Phenotype of Cells in the Human Intervertebral Disk Reveals the Existence of a Unique Notochordal-like Cell Population—X Tang, L Jing, L Setton, W Richardson, R Isaacs, R Fitch, C Brown, J Chen.

Understanding Changes in Hip and Knee Mechanics following Total Ankle Replacement—RM Queen, S Adams, ME Easley, JK DeOrio, JA Nunley, RJ Butler.

The Effect of Hindfoot Alignment on Frontal Plane Mechanics Following Total Ankle Replacement—RM Queen, RJ Butler, SB Adams, ME Easley, JK DeOrio, JA Nunley.

Correlation of Pain Response and *in vivo* Imaging of NF-κB Activity in a Model of Radiculopathy—RD Bowles, IO Karikari, KJ Riebi, GD Sempowski, LA Setton.

The Influence of Gender on Walking Mechanics Following Total Ankle Replacement—RM Queen, RJ Butler, SB Adams, ME Easley, JK DeOrio, JA Nunley.

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