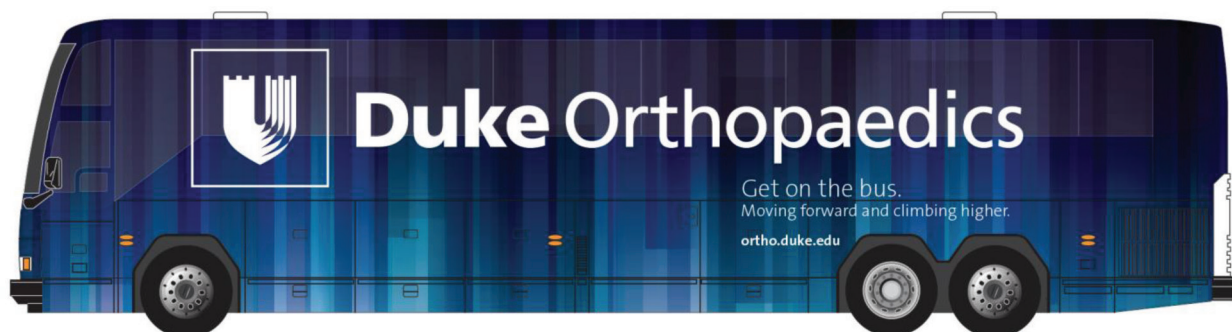


AAOS/ORS Annual Meetings Update

This marked an exciting year for Duke Orthopaedics as our department gave a record number of presentations at both the American Academy of Orthopaedic Surgery (AAOS) and Orthopaedic Research Society (ORS) annual meetings in Orlando, FL. Several of the residents and faculty attended, joined by dozens of Piedmont members from across the country. Excellent talks and posters were presented by all, with special recognition given to Benjamin Alman's paper on "Improving Bone Healing in Neurofibromatosis: A Study in Mice" and Louis DeFrates' work on "The Effects of ACL Graft Placement on *in vivo* Knee Function and Cartilage Thickness Distribution," for which he was awarded the Kappa Delta Young Investigator Award on March 3. The Piedmont Orthopaedic Society Mid-Winter Reception was held at the Hilton Orlando with transportation provided by a full-size bus decorated with the Duke Orthopaedics logo. Everyone had a great time, celebrated in classic Piedmont fashion.



American Academy of Orthopaedic Surgery 2016

Instructional Course Talks

- Ensuring a Winner: The A, B, Cs of Primary Total Knee Arthroplasty—Michael Bolognesi
- Stress Management and Balance for the Orthopaedic Surgeon—CT Moorman
- Skeletal Dysplasia: Evaluation and Management—Ben Alman
- The Land of Ligaments: Navigating Sprains, Strains, and Ruptures about the Foot and Ankle—James Nunley
- Primary Anterior Cruciate Ligament Failure: How do I Get it Right the Second Time!—Annunziato Amendola and CT Moorman
- Management of Common Complications of Total Knee Arthroplasty: A Case-based Discussion—Michael Bolognesi
- Recurrent Dislocation after Total Hip Arthroplasty: Controversies and Solutions—Samuel Wellman
- Osteotomy and Arthrodesis of the Forefoot and Hindfoot—Samuel Adams
- Arthritis of the Ankle Joint: Refining and Expanding Options in Management—Mark Easley
- Multiple Ligament Knee Injuries: What Would You do?—Annunziato Amendola and CT Moorman
- Complications of Common Hand Surgery Procedures—Fraser Leversedge
- Management of Common Complications of Foot and Ankle Surgery—Selene Parekh
- Cost Effectiveness Research in Orthopedics: What You Need to Know?—Chad Mather
- Managing Problems and Complications during and after Primary Total Knee Arthroplasty—Michael Bolognesi

Symposium Talks

- Preoperative Optimization of Total Joint Arthroplasty Surgical Risk—Michael Bolognesi

Podium Presentations

- Psychiatric Disorders Increase Complication Rate after Primary Total Knee Arthroplasty—Mitchell Klement, Brian Nickel, Samuel Wellman, Michael Bolognesi, and Thorsten Seyler
- Comparing Complications of Metal-on-Metal Total Hip Arthroplasty with Other Hip Bearings—Lindsay Kleeman, Thorsten Seyler, Samuel Wellman, and Michael Bolognesi (*Southern Orthopaedic Association President Award paper)

- Total Hip Arthroplasty Risk after Bariatric Surgery—Brian Nickel, Mitchell Klement, Michael Bolognesi, and Thorsten Seyler
Should We Think Twice About Psychiatric Disease in Total Hip Arthroplasty?—Mitchell Klement, Daniel Blizzard, Samuel Wellman, Michael Bolognesi, and Thorsten Seyler
Comparing Acute with Delayed Total Hip Arthroplasty for Medicare Patients with Acetabular Fractures—Lindsay Kleeman, Thorsten Seyler, Samuel Wellman, and Michael Bolognesi
Resident Involvement Increases Morbidity but not Mortality in Foot and Ankle Surgery—Selene Parekh and Samuel Adams
Do Surgeons Agree on What Constitutes Tension at Nerve Repair Sites?—Fraser Leversedge
Performance of PROMIS in Healthy Patients Undergoing Meniscal Surgery—Ned Amendola
Meniscus Allograft Transplantation: Clinical Outcomes and Survivorship at Mean 5-Year Follow-Up—Ned Amendola
Meniscal Allograft Transplantation in the Pediatric and Adolescent Population—Jonathan Riboh
Utilization and Cost of Reverse Shoulder Arthroplasty vs Hemiarthroplasty for Proximal Humerus Fractures—Thorsten Seyler, Chad Mather, Michael Bolognesi, and Grant Garrigues
Ankylosing Spondylitis Increases Peri- and Postoperative Complications after Total Hip Arthroplasty—Daniel Blizzard, Mitchell Klement, Thorsten Seyler, Michael Bolognesi, and Christopher Brown
Outcomes following Total Hip Arthroplasty in Sickle Cell Hemoglobinopathy: Targets for Improvement—Daniel Mangiapani, Thorsten Seyler, Samuel Wellman and Michael Bolognesi
Lingering Risk: Bariatric Surgery Prior to Total Knee Arthroplasty—Brian Nickel, Mitchell Klement, Michael Bolognesi, and Thorsten Seyler
Tibia Screw Configuration and Fibular Osteotomy Decrease Healing Time in Exchange Nailing—Michael Morwood
Postoperative Radiological Changes and Developing Proximal Junctional Kyphosis—Faisal Konbaz
Interposition Porcine Dermal Matrix Xenografts: An Alternative to Traditional Treatment of Massive Cuff Tears—Julie Neumann, Kathleen Reay, Blake Boggess, and Alison Toth
Outcomes after Total Hip Arthroplasty for Post-traumatic Arthritis—Thorsten Seyler, Chad Mather, Samuel Wellman, and Michael Bolognesi
Prospective Evaluation of Structural Allograft Transplantation for Osteochondral Lesions of the Talar Shoulder—Samuel Adams, James Nunley, and Mark Easley
Improving Bone Healing in Neurofibromatosis: A Study in Mice—Ben Alman
Simple Neurectomy vs Intramuscular Implantation for Interdigital Neuroma: A Comparative Study—Ned Amendola
Interposition Porcine Dermal Matrix Xenografts: An Alternative to Traditional Treatment of Massive Cuff Tears—Julie Neumann, Kathleen Reay, Blake Boggess, and Alison Toth
Ankle Injury Prevention Programs for Soccer Athletes: A Level 1 Systematic Review and Meta-Analysis—Nathan Grimm and Ned Amendola
Predictors for Readmission following Primary Total Joint Arthroplasty in Lower Extremity—Ned Amendola
Quantifying the Length of the Electronic Medical Record Implementation Period—Daniel Scott, Michael Bolognesi, Samuel Wellman, and Chad Mather

Poster Presentations

- Complications in Total Hip Arthroplasty Patients with Parkinson's Disease: A Medicare Database Review—Travis Dekker, Thorsten Seyler, and Michael Bolognesi
Abnormally High Dislocation Rates of Total Hip Replacement Following Contemporary Low Back Surgery—Sergio Mendoza
Hip Resurfacing Arthroplasty Outcomes Compared to Total Hip Arthroplasty in the Medicare Population—Lindsay Kleeman, Thorsten Seyler, Samuel Wellman, and Michael Bolognesi
Tranexamic Acid in Total Hip Arthroplasty: Do Drug Formulation and Dosage Determine Efficacy and Safety?—Jonathan Riboh
What is the Role of Dual Diagnosis in Primary Total Knee Arthroplasty?—Mitchell Klement, Brian Nickel, Daniel Blizzard, Michael Bolognesi, and Thorsten Seyler
Decreased Range of Motion following Total Knee Arthroplasty is Predicted by the Tampa Scale of Kinesiophobia (TSK)—Thorsten Seyler
Fixed Bearing vs Mobile Bearing Total Ankle Replacement: A Comparative Study in 179 Patients—Ned Amendola
Outcomes and Complications of Four Total Ankle Replacement: A Comparative Study—Ned Amendola

- Comparison Outcomes of Total Ankle Replacement with and without Achilles Tendon Lengthening—Ned Amendola
 Comparison Outcomes and Complications of Patients Who Underwent Haglund’s Deformity Correction—Ned Amendola
 Electronic Medical Record Implementation Results in Decreased Patient-Physician Interaction—Daniel Scott, Michael Bolognesi, Samuel Wellman and Chad Mather
 Is the SRS Membership Accurately Reporting MandM Data?: A Comparison of the SRS and NSQIP Databases—Sergio Mendoza
 All-Inside vs Inside-Out Meniscal Repair with Concurrent ACL Reconstruction: A Meta-Regression Analysis—Ned Amendola
 What Are Complications and Risk Factors for Morbidity in Elective Hip Arthroscopy? A Review of 1,325 Patients—Ned Amendola

Exhibits

- Anatomic Layers of the Hip—Chad Mather
 Arthroscopic Treatment of Impingement after Total Ankle Arthroplasty—Julie Neumann and James DeOrio

American Orthopaedic Foot and Ankle Society Specialty Day

- Mark Easley—President
 Selene Parekh—Program Chair
 Symposium I: Wow, That is a Bunion—How do I Get That into a Shoe? Biplanar Chevron—James DeOrio
 Symposium II: Do You Believe in This Pixie Dust? What to do with that Posterior Tibial Tendon—Annunziato Amendola
 Moderator: Karl Schewewitzer
 Symposium III: What Else Can I do with My MD: Presidential Address—Mark Easley
 Symposium V: To Operate or Not . . . That Is the Question: Operative Intervention of Jones Fractures—James Nunley
 Symposium VI: Controversies: 3D Printed Implants—Sam Adams

American Orthopaedic Society for Sports Medicine Specialty Day

- Scientific Session V: Team Physician Update: Unintended Consequences of Concussion Prevention in NCAA Football—Annunziato Amendola
 Interposition Porcine Acellular Dermal Matrix Xenograft Successful Alternative in Treatment for Massive Rotator Cuff—Julie Neumann, Kathleen Reay, Blake Boggess and Alison Toth

American Society for Surgery of the Hand and American Association for Hand Surgery Specialty Day

- Session III—Soft Tissue: Recurrent ganglion—Fraser Leversedge

Arthroscopy Association of North America Specialty Day

- Session VII: Case Based Approaches
 Panelist: Dean Taylor

Orthopaedic Trauma Association Specialty Day

- ORIF vs Acute Arthroplasty for Common Fractures: What is The Evidence? Radial Head—David Ruch
 Syndesmotic Injuries: Semi-Rigid Fixation is the New Gold Standard—Annunziato Amendola
 Moderator: Steven Olson

ORTHOPAEDIC RESEARCH SOCIETY 2016

Podium Presentations

- Cartilage-Specific Knockout of the Mechanosensory Ion Channel TRPV4 Inhibits Age-Related Osteoarthritis—Dianne Little and Amy McNulty
In vivo Cartilage Strains in Regions of Cartilage-to-Cartilage Contact and Cartilage-to-Meniscus Contact—Louis DeFrate, William Garrett, Amy McNulty, and CT Moorman

FGFR3 Modulates Fracture Repair by Controlling the Balance of Intramembranous and Endochondral Ossification—Ben Alman (*International Combined Orthopaedic Research Society (ICORS) Best Posters)

Elevated Lipid Metabolites in Synovial Fluid after Intra-articular Ankle Fracture—Samuel Adams, Mark Easley, and Steven Olson

In vivo Characterization of Acute Localized Tibial Cartilage Strains as a Function of Walk Duration—Louis DeFrate and William Garrett

The Effect of Conditional Macrophage Depletion on the Development of Injury-Induced Knee OA in Obese Transgenic MAFIA Mice—Dianne Little and Virginia Kraus

Characterization of Meniscus-derived Matrix and Evaluation for Repair of the Meniscus—Amy McNulty

Macrophage Secreted Factors Rejuvenate Fracture Repair—Ben Alman

Intracellular Cholesterol Production is Required for Chondrocyte Differentiation: Analysis of Srebp Cleavage-activating Protein (*sca*p) Deficient Mice—Ben Alman and Matthew Hilton

Il-1 α Enhances Piezo1-Mediated Mechanotransduction in Articular Chondrocytes—Amy McNulty

A Novel Treatment for Nf1-Associated Deficiencies in Fracture Repair—Ben Alman and Gurpreet Baht

Poster Presentations

Oral Type 1 Collagen Peptides Induce Chondroregeneration in Post-traumatic Osteoarthritis—Matthew

Quantitative MR Characterization of Knee Cartilage 1 year after Tibial Plateau Fracture Correlates with Functional Outcomes at 2 years—Rita Baumgartner

Abnormally High Dislocation Rates of THR Following Contemporary Low Back Surgery—Sergio Mendoza

Chondrocyte-Specific RUNX2 Overexpression Accelerates Cartilage Degeneration Following Traumatic Injury—Matthew Hilton

Differentiation of Human Induced Pluripotent Stem Cells (iPSCs) to Nucleus Pulposus-like Cells *in vitro*—Jun Chen

Evaluation of Tendon Derived Matrix (TDM) Crosslinking Techniques for Electrospun Multi-layered Scaffolds—Dianne Little

Apolipoprotein E in Hematopoietic Cells Regulates Fracture Repair—Ben Alman

Microrna-29 Suppresses Cell Proliferation, and is Regulated by Beta-catenin and Glucocorticoids in Desmoid Tumors—Ben Alman

Diurnal Variations of T1 ρ Relaxation Times in Tibial Cartilage—Louis DeFrate and William Garrett

Synovial Inflammation Results in Increased IL-1 mediated NF- κ B Activity in Isolated Porcine Joint Capsule Cells—Amy McNulty and Steven Olson

NOTCH Modified Mesenchymal Stem Cell Sheets Enhance Bone Repair in a Mouse Femur Allograft Model—Matthew Hilton

Revision Total Ankle Arthroplasty Results in Similar Outcomes to Primary Total Ankle Arthroplasty—Sam Adams

Cholesterol Processing Genes Act Downstream of Hedgehog (Hh) Signaling in Chondrosarcoma: Implications for Therapy—Ben Alman

In vivo Measurement of Localized Patella Cartilage Strain in Response to Running—Louis DeFrate

Moderators

Louis DeFrate: Knee Ligament

Dianne Little: Tendon and Ligament: Progenitors and Stem Cells

ORS Awards

**Kappa Delta Young Investigator Award*: Louis DeFrate for “The effects of ACL graft placement on *in vivo* knee function and cartilage thickness distribution”