

Thursday, October 6, 2016

1:00 pm **Welcome and Donor Awards**  
**Steven A. Olson, MD**  
*President*  
**Robert V. O'Toole, MD**  
*Program Committee Chair*  
**Jean-Claude Gregoire D'Alleyrand, MD**  
*Local Host*

1:15 pm **OTA Honorary Member Acknowledgment**  
**Prof. Dr. med. Dr. h.c. Stephan M. Perren**

1:20 pm - **Symposium I**  
 2:50 pm **A Primer on Prosthetics, Advanced Orthotics and Amputee Care for the Orthopaedic Trauma Surgeon Sponsored by the Society of Military Orthopaedic Surgeons**

Moderator: **Christopher T. LeBrun, MD**  
 Faculty: *Jean-Claude G. D'Alleyrand, MD*  
*Joseph R. Hsu, MD*  
*Ellen Mackenzie, PhD*  
*Paul F. Pasquina, MD*  
*Benjamin K Potter, MD*

This symposium will educate the orthopaedic trauma surgeon on current issues and recent advances in the care of patients with amputation. An emphasis is placed on clinically useful basic concepts of contemporary prosthetics and advanced orthotics. The modern literature on outcomes following major limb trauma sustained in the military and civilian populations will be reviewed. Methods to avoid and optimize the management of complications in amputees will be discussed.

**Learning Objectives**

- ◆ Review contemporary prosthetic and advanced orthotic components and design.
- ◆ Compare and contrast the results from the LEAP and METALS studies.
- ◆ Discuss strategies to avoid and optimize management of common preprosthetic and postprosthetic complications. Highlight recent innovations in amputee care.

1:20 pm **Introduction:** *Christopher LeBrun, MD*  
 1:25 pm **Overview of Prosthetic Components and Design:**  
*Paul F. Pasquina, MD*  
 1:40 pm **Limb Salvage vs. Amputation LEAP/METALS:**  
*Ellen Mackenzie, PhD*  
 1:55 pm **Integrated Orthotic and Rehabilitation Initiative:**  
*Joseph R. Hsu, MD*  
 2:05 pm **Prevention and Management of Common Complications in Amputees:**  
*Benjamin K. Potter, MD*  
 2:20 pm **New Horizons in Amputee Care:**  
*Jean-Claude G. D'Alleyrand, MD*  
 2:35 pm **Symposium Panel, Case Presentations, Discussion, Questions**

2:50 pm Refreshment Break (exhibit hall opens at 2:30)

3:20 pm - **Paper Session 1**  
 4:30 pm **"Program Committee Highlight Papers: High Level Randomized Controlled Trials"**

Moderators: **Robert V. O'Toole, MD**  
**Michael D. McKee, MD**

3:20 pm **Paper 26**  
**Better Clinical and Radiographic Outcomes with Suture Endobutton Compared to Syndesmotic Screw in Treatment of Syndesmotic Injuries – A Randomized Controlled Trial**  
*Mette Andersen, MD; Frede Frihagen, MD; Johan Hellund, MD; Jan Erik Madsen, MD; Wender Figved, MD*

3:26 pm **Paper 27**  
**Single versus Continuous Nerve Block for Extremity Fractures: A Comparative Study**  
**Abhishek Ganta, MD; David Ding, MD; Nina Fisher, BS; Sudheer Jain, MD; Nirmal Tejwani, MD**

3:32 pm Discussion

3:37 pm **Paper 28**  
**Plate Fixation versus Nonoperative Treatment for Displaced Midshaft Clavicular Fractures: A Multicenter Randomized Controlled Trial**  
**Sarah Woltz, MD; S. Stegeman, MD; P. Krijnen, PhD; Bart van Dijkman, MD; Thom van Thiel, MD; N.W.L. Schep, MD; Piet de Rijcke, MD; Jan Paul Frolke, MD; I.B. Schipper, MD**

3:43 pm **Paper 29**  
**Simple Decompression vs Anterior Transposition of the Ulnar Nerve for Distal Humerus Fractures Treated with Plate Fixation - A Multi Centre Randomized Controlled Trial**  
**Emil Schemitsch, MD; Niloofer Dehghan, MD; Milena Vicente; Aaron Nauth, MD, FRCS; Jeremy Hall; Michael McKee, MD; COTS (Canadian Orthopaedic Trauma Society)**

3:49 pm Discussion

Annual Meeting – Program Committee  
 Thursday, October 6

# 2016 OTA ANNUAL MEETING, continued

Thursday, October 6, 2016, cont'd

3:54 pm **Paper 30**  
**EUSOL® Versus Antibiotic Loaded Collagen Granules (Co-Mupimet®) as a Dressing Agent in the Management of Traumatic Wounds**  
*Rajiv Maharjan, MD; Amit Shah, MD; Pashupati Chaudhary, MS*

4:00 pm **Paper 31**  
**Tranexamic Acid Safely Reduced Blood Loss in Hip Arthroplasty for Acute Femoral Neck Fracture**  
*Chad Watts, MD; Matthew Houdek, MD; Stephen Sems, MD; William Cross, MD; Mark Pagnano, MD*

4:06 pm Discussion

4:11 pm - **Symposium II**  
4:26 pm **World Premier of the Multinational FAITH Hip Fracture Trial: And the Answer is...?**

4:11 pm Introduction: *Mohit Bhandari, MD*

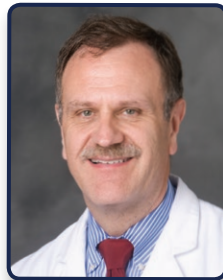
4:14 pm **FAITH Trial Presentation:**  
*Marc F. Swiontkowski, MD*

**Paper 32**  
**Fixation using Alternative Implants for the Treatment of Hip Fractures: A Large Blinded International Multi-Centre Randomized Trial**  
*FAITH Investigators*

4:22 pm Discussion

4:30 pm - **President's**  
5:00 pm **Message**  
**Of Mysteries, Mentors, and Things that Make a Trauma Career**

*Steven A. Olson, MD*  
OTA President



5:00 pm - **Business Meeting**  
6:00 pm (Members Only)

6:00 pm - **Welcome Reception**  
8:00 pm **Gaylord National Harbor Orchard Terrace**  
Join your colleagues for cocktails and hors d'oeuvres on the Orchard Terrace of the Gaylord National Harbor, just outside the exhibit hall.

Friday, October 7, 2016

6:30 am - **Concurrent Breakout Sessions**  
7:30 am **Mini Symposium**

**Limb Reconstruction in Crisis and Conflict Related Injuries**

Moderator: *Daniel J. Stinner, MD, MAJ*

Faculty: *Michael J. Beltran, MD*  
*Cory A. Collinge, MD*  
*Joseph R. Hsu, MD*  
*Christopher S. Smith, MD, LCDR*

Penetrating and high-energy traumatic injuries continue to be the primary source of morbidity in survivors of crisis and conflict. Some evidence does exist from recent conflict to help guide management and decrease morbidity. Also, we will demonstrate techniques to limit infection and reconstruct bone defects.

**Learning Objectives**

- ◆ Understand the pathophysiology and initial management of patients sustaining penetrating injuries.
- ◆ Research basic infection prevention principles and build upon that knowledge with newer, advanced infection prevention techniques.
- ◆ Apply skeletal reconstruction techniques taking into account injury pattern, environment, and limited resources.

**Case Presentation**

**Distal Radius Fractures: Stand Up and Take Charge for Best Results**

Moderator: *Lisa K. Cannada, MD*

Faculty: *Frank A. Liporace, MD*  
*David A. Fuller, MD*

Distal radius fractures are dealt with by a variety of orthopaedic specialists. The Orthopaedic trauma surgeon may encounter a gamut of fracture types ranging from elderly, low energy injuries to multi-trauma falls. This session will review cases and different approaches to similar fracture patterns.

**Learning Objectives**

- ◆ Articulate the benefits of differing fixation strategies for high energy distal radius fractures.
- ◆ Discuss how the type of fixation used affects weight bearing for the upper extremity.
- ◆ List the complications which can occur after this "simple" fracture fixation and how to maximize outcomes.

**Case Presentation**

**Pelvis and Acetabulum Fractures**

Moderator: *Paul Tornetta III, MD*

Faculty: *Cory A. Collinge, MD*  
*Daniel S. Horwitz, MD*  
*Theodore T. Manson, MD*  
*David C. Templeman, MD*

Cases will be presented that highlight the initial management, operative treatment options, and expected outcomes of pelvic and acetabular fractures. An expert panel will provide personal insight and varying options for these injuries. The session is interactive and participants will give their viewpoints during each case.

# 2016 OTA ANNUAL MEETING, continued

Friday, October 7, 2016, cont'd

6:30 am - **Concurrent Breakout Sessions, cont'd**  
7:30 am **Mini Symposium**

## How to Improve the Results in Tibia Plateau Fractures

Moderator: **Utku Kandemir, MD**  
Faculty: *Jackson Lee, MD*  
*Saam Morshed, MD*

Tibia plateau fractures may result in excellent or poor outcomes. Knowledge of surgical approaches, reduction and fixation techniques, post-operative rehabilitation, and management of complications is critical in order to achieve best outcome.

### Learning Objectives

- ◆ Outline the right surgical approach.
- ◆ Identify aids of reduction, bone void fillers.
- ◆ Identify fixation techniques (place, type of construct)

7:45 am - **Paper Session 2**  
9:25 am **Tibial Shaft, Distal Femur, Knee**

Moderators: **David J. Hak, MD**  
**Cyril Mauffrey, MD**

7:45 am **Paper 33**  
**Parapatellar Semi-Extended and Flexed Knee Tibial Nailing Techniques are Equivalent in Regards to Knee Pain: A Randomized Controlled Trial**  
**David Rothberg, MD; Ami Stuart, PhD; Angela Presson, PhD; Thomas Higgins, MD; Erik Kubiak, MD**

7:51 am **Paper 34**  
**Is Septic Knee Arthritis a Realistic Concern Following Suprapatellar Nailing of Open Tibia Fractures?**  
**Frances Broghammer, BS; John Scolaro, MD; Caroline Tougas, MD; Luke Nicholson, MD; Geoffrey Marecek, MD**

7:57 am **Paper 35**  
**Effect of Infrapatellar Nerve Block on Chronic Anterior Knee Pain After Tibial Nailing: A Randomized Double-Blind Placebo-Controlled Study (INCOP)**  
**M.S. Leliveld, MD; S.J. M. Kamphuis; M.H.J. Verhofstad, MD**

8:03 am Discussion

8:08 am **Paper 36**  
**LIPUS Health Utility and Economic Analysis**  
**Paul Tornetta III, MD; Jason Busse, DC; Mohit Bhandari, MD; Gordon Guyatt, MD; Thomas Einhorn, MD; James Heckman, MD; Kwok-Sui Leung, MD; Emil Schemitsch, MD; Stephen D. Walter, PhD; Natasha Burke, MSc; Rob Hopkins, PhD**

8:14 am **Paper 37**  
**The Trajectory of Short and Long Term Functional Recovery of Tibial Shaft Fractures Following Intramedullary Nail Fixation**  
**Sebastian Ko, MD; Peter O'Brien, MD; Pierre Guy, MD; Henry Broekhuysse, MD; Piotr Blachut, MD; Kelly Lefavre, MD**

8:20 am **Paper 38**  
**Progression of Healing Using RUST: Can We Eliminate The Cost of Early Radiographs?**  
**Robert Wojahn, MD; Torgom Abraamyan, BS; Amanda Spraggs-Hughes, BS, MA; Michael Gardner, MD; William Ricci, MD; Christopher McAndrew, MD;**

8:26 am Discussion

8:31 am **Paper 39**  
**Percutaneous or Open Reduction of Closed Tibial Shaft Fractures During Intramedullary Nailing Does Not Increase Wound Complications Infection or Nonunion Rates**  
**Darryl Auston, MD; Jordan Meiss, MD; Rafa Serrano, MD; Brian Kistler, MD; Thomas Sellers, MD; Michael Beebe, MD; Jonathan Quade, MD; Timothy Hoggard, BS; Benjamin Maxson, DO; Anthony Infante, DO; David Watson, MD; Anjan Shah, MD; Hassan Mir, MD**

8:37 am **Paper 40**  
**Radiographic Investigation of the Distal Extension of Fractures into the Articular Surface of the Tibia (The RIDE FAST Study)**  
**Lucas Marchand, MD; Ajinkya Rane, MD; Zachary Working, MD; Lance Jacobson, MD; Erik Kubiak, MD; Thomas Higgins, MD; David Rothberg, MD;**

8:43 am **Paper 41**  
**Extreme Nailing: Is It Safe to Allow Immediate Weightbearing of Extraarticular Distal Tibia Fractures (OTA 43-A) Treated with IM Fixation?**  
**Michael Beebe, MD; Rafael Serrano-Riera, MD; Jonathan Quade, MD; Darryl Auston, MD; Anthony Infante, DO; Anjan Shah, MD; Benjamin Maxson, DO; David Watson, MD; Roy Sanders, MD; Hassan Mir, MD**

8:49 am Discussion

Annual Meeting — Tibial Shaft / Distal Femur / Knee  
Friday, October 7

# 2016 OTA ANNUAL MEETING, continued

Friday, October 7, 2016, cont'd

8:54 am **Paper 42**  
**In-vivo Stiffness Measurements for Distal Femur Fractures Fixed with Locked Plating**  
**Christopher Parks, MD; Michael Gardner, MD; William Ricci, MD; Christopher McAndrew, MD;**

9:00 am **Paper 43**  
**The Effect of Coronal Plane Angulation on the Outcomes of Operatively Treated Distal Femur Fractures**  
**Paul Tometta III, MD; Margaret Cooke, MD; Kenneth Egol, MD; Clifford Jones, MD; Janos Ertl, MD; Brian Mullis, MD; Ed Perez, MD; Cory Collinge, MD; Robert Ostrum, MD; Catherine Humphrey, MD; Robert Dunbar, MD; William Ricci, MD; Laura Phieffer, MD; David Teague, MD; Christopher Born, MD; Alan Zonno, MD; Judith Siegel, MD; Henry Sagi, MD; Andrew Schmidt, MD; Stephen Sems, MD; Darin Friess**

9:06 am **Paper 44**  
**Should We Throw Away the External Fixator for Knee Dislocations?**  
**Robert Corey, MD; Nathan Park, BS; Scott Kaar, MD; Lisa Cannada, MD**

9:12 am **Paper 45**  
**Fixed Angle Locking Plate Fixation of Complex Comminuted Patellar Fractures**  
**Tyler Moore, MD; Bharat Sampathi, BA; Martin Tynan, MD; David Zamorano, MD; John Scolaro, MD**

9:18 am Discussion

9:25 am Refreshment Break

8:00 am - **Concurrent Breakout Sessions**  
9:00 am **Skills Lab**  
**Fixation of Proximal Humeral Fractures**

Lab Leader: **Andrew R. Fras, MD**  
Faculty: **TBD**

This lab will demonstrate a number of technical principles that are within the surgeon's control (i.e., accurate reduction, nor varus alignment, placement of a calcar screw) that can minimize mechanical failure after proximal humeral fracture fixation.

### Learning Objectives

- ◆ Identify fracture indications for fixation of proximal humeral fractures, especially in the elderly.
- ◆ Recognize technical factors during fixation that minimize the risk of mechanical construct failure.
- ◆ Apply implant design features that are optimal for different fracture types.



8:00 am - **Skills Lab**

9:00 am **SIGN Fracture Care International**

Lab Leader: **Lewis G. Zirkle Jr., MD**  
*SIGN Fracture Care International*

The SIGN Fracture Care International (SIGN) IM Nail interlocking screw system is designed for use in developing countries and for surgeons everywhere who should like to avoid radiation from use of C-arm. The distal interlocking screws can be placed consistently and quickly using a mechanical technique which has been used in 177,000 fractures of long bones. The goal of SIGN nail sawbones skills labs is to learn SIGN technique for stabilization of tibia and femur fractures. Table instructors will include surgeons who are OTA-SIGN scholars.

### Learning Objectives

- ◆ Identify the difference in performing IM nail interlocking screw fixation without power or C-arm.
- ◆ Evaluate the use of mechanical methods to ream in place distal interlocking screws using SIGN technique.
- ◆ Discuss the different long bones that can be treated with the same nail and instrument set.

8:00 am - **Concurrent Breakout Sessions**  
9:30 am **Mini Symposium**

**Proximal Humerus Fractures: Optimizing Surgical Management and Technique in 2016**

Moderator: **Emil H. Schemitsch, MD**  
Faculty: **Nilofar Dehghan, MD**  
**Edward J. Harvey, MD**  
**Aaron Nauth, MD**  
**Michael D. McKee, MD**

Proximal humerus fractures are increasing in frequency and complexity. The failure rate of operative intervention remains higher than that seen with other fractures and there remains significant room for improvement in the care of these injuries. A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of proximal humerus fractures.

### Learning Objectives

- ◆ Identify which proximal humerus fractures need surgery.
- ◆ Describe how to optimize fixation of proximal humerus fractures.
- ◆ Explain how to manage complications following proximal humerus surgery.

# 2016 OTA ANNUAL MEETING, continued

Friday, October 7, 2016, cont'd

8:00 am - **Concurrent Breakout Sessions, cont'd**  
9:30 am **Mini Symposium**

## Minute to Win-It "Crises in Health Policy"

Moderator: **Douglas W. Lundy, MD**

Faculty: *Bruce D. Browner, MD*  
*John D. Campbell, MD*  
*A. Alex Jahangir, MD*  
*Clifford B. Jones, MD*  
*Gerald J. Lang, MD*  
*Manish K. Sethi, MD*  
*Michael Suk, MD, JD*  
*Todd A. Swenning, MD*  
*Nirmal C. Tejwani, MD*

This mini-symposia will, in rapid-fire progression outline the major policy issues that will affect the practice of orthopaedic trauma and summarize how we should meet these challenges. Each speaker will quickly summarize the issue and what we should do about it.

### Learning Objectives

- ◆ Learn how MACRA will affect the delivery of healthcare in the US.
- ◆ Summarize MIPS, value based medicine and the physician's role in this program.
- ◆ Assess the issues associated with the APM pathway and the benefits to orthopaedic surgeons.

## Mini Symposium

### Mangled Extremity Evaluation and Management

Moderator: **Raymond A. Pensy, MD**

Faculty: *Michael J. Bosse, MD*  
*L. Scott Levin, MD*  
*Raymond A. Pensy, MD*  
*Benjamin K. Potter, MD*

This Symposium will provide the audience with an understanding of the best available evidence in guiding treatment for limb salvage vs amputation. The Symposium will also provide the audience with a review of the basic and advanced treatment options for both skeletal and soft tissue reconstruction, to include pitfalls and pearls.

### Learning Objectives

- ◆ Describe initial triage and management of the mangled extremity.
- ◆ Summarize recent evidence regarding the risk - benefit ratio for limb salvage vs amputation.
- ◆ Show various examples of beginner, intermediate, and advanced techniques for limb salvage.

## Mini Symposium

### From Good to Great: Improving your Treatment of Femoral Head Fractures

Moderators: **Jaimo Ahn, MD; John A. Scolaro, MD**

Faculty: *David L. Helfet, MD*  
*Mark C. Reilly, MD*  
*Milton L. Routt, MD*  
*H. Claude Sagi, MD*  
*Mark S. Vrahas, MD*

So you think you're a pretty good trauma surgeon. You're on the steep part of the learning curve and feeling like you're doing okay. Sometimes, things go smooth in the OR and your reductions look "perfect." Sometimes they don't quite go so fantastic and, to top it all off, you're not always sure why or how to make it better. We've assembled some of our most trusted and experienced hip surgeons to help get you from good to great.

### Learning Objectives

- ◆ Apply rationale for when to operate and when to leave it alone.
- ◆ Show the utility of anterior and posterior approaches to the femoral head surface; and incorporate techniques for better execution.
- ◆ Summarize nuances of options for femoral head fixation.

9:55 am - **Symposium III**  
11:15 am **Fracture Healing Controversies: The Problems and Solutions You Need to Know About in 2016!**

Moderator: **Emil H. Schemitsch, MD**

Faculty: *Mohit Bhandari, MD*  
*Kenneth A. Egol, MD*  
*Michael D. McKee, MD*  
*Aaron Nauth, MD*  
*Paul Tornetta III, MD*

There continues to be a significant burden of disease associated with delayed and nonunion of fractures. The assessment of fracture healing remains controversial. A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of these problem injuries. This will have important implications given the impact on patient outcomes.

### Learning Objectives

- ◆ To improve understanding of the fracture healing process.
- ◆ To achieve consensus regarding best evidence for management of problem fractures.
- ◆ To achieve consensus regarding best evidence for augmentation of fracture repair.

### Fracture Union: Can it be Defined and Predicted?

*Paul Tornetta III, MD*

### Critical Size Defects: Is There a Consensus on Diagnosis and Treatment?

*Emil H. Schemitsch, MD*

(continued)

# 2016 OTA ANNUAL MEETING, continued

Friday, October 7, 2016, cont'd

9:55 am - **Symposium III**  
11:15 am **Fracture Healing Controversies (cont'd)**

**Atypical Femur Fractures: How to Improve Surgical Outcomes!**  
*Kenneth A. Egol, MD*

**The Infected Fracture: Is There a Gold Standard for Management?**  
*Michael D. McKee, MD*

**The Extreme Fragility Fracture: What I Do Differently!**  
*Aaron Nauth, MD*

**Augmentation of Fracture Repair: Is Anything Ready for Prime Time?**  
*Mohit Bhandari, MD*

**Cases, Questions, Discussion, Consensus:**  
*All Faculty*

11:15 am - 11:45 am **Guest Nation Introduction**  
Steven A. Olson, MD, OTA President

## Guest Nation Presentation

2016 Guest Nation - India

### Evolution of Trauma Care in India: Current Status and Future Directions



**Professor Sudhir K. Kapoor**  
*Hon. Treasurer Indian Orthopaedic Association (IOA); Dean, ESI Post Graduate Institute of Medical Sciences and Research; Professor & HOD Orthopaedics, New Delhi, Delhi, INDIA*

It is a great honor to welcome Professor Sudhir Kapoor, President, Indian Orthopaedic Association, along with members of the Indian Orthopaedic Association and the Indian Trauma Society.

The Guest Nation program was initiated in 2011 in recognition of the importance and benefits of sharing knowledge and experience with international colleagues.

11:45 am - 12:15 pm **John Border, MD Memorial Lecturer**

**Keith A. Mayo, MD**  
*Medical Director, Hansjörg Wyss Hip & Pelvis Center Seattle, Washington*



This lectureship was established to honor the memory of Dr. John Border. John Border was instrumental in the development of modern trauma care and in particular, modern orthopaedic trauma care. He was the pioneer in the concept of total care and the implications of the orthopaedic injuries on the total management of the trauma patient. He was also a surgeon scientist, using both his clinical observations and basic science research to further his patient care in Orthopaedic Trauma.

12:15 pm -1:15 pm Lunch

**New Member Luncheon**  
**Women in Orthopaedic Trauma Luncheon**

12:30 pm -1:15 pm **Lunchtime Guided Poster Tours**  
(PT1) **Hip/Femur**  
Guide: *Thomas F. Higgins, MD*  
(PT2) **International**  
Guide: *Peter V. Giannoudis, MD*

1:15 pm - 2:35 pm **Paper Session 3 Acetabulum, Pelvis, and Spine**  
Moderator: **David W. Sanders, MD**  
**Pierre Guy, MD**

1:15 pm **Paper 46**  
**ORIF vs Arthroplasty of Geriatric Acetabular Fractures**  
*Theodore Manson, MD; Robert O'Toole, MD*

1:21 pm **Paper 47**  
**Risk Factors for Early Reoperation Following Operative Treatment of Acetabular Fractures**  
*Anthony Ding, MD; Robert O'Toole, MD; Renan Castillo, PhD; George Reahl, BS; Ryan Montalvo, BS; Marcus Sciadini, MD; Jason Nascone, MD; Theodore Manson, MD*

1:27 pm Discussion

1:32 pm **Paper 48**  
**Does Prehospital Spinal Immobilization Influence Inhospital Decision to Obtain Imaging after Trauma?**  
*Joseph Drain, BS; Timothy Moore, MD; Heather Vallier, MD*

1:38 pm **Paper 49**  
**A Randomized Controlled Clinical Trial of Indigenized Innovative Negative Pressure Device for the Management of Stage 3 and 4 Pressure Ulcer in Traumatic Paraplegia Patients**  
*Rajeshwar Srivastava, MS; Mukesh Dwivedi, PhD Scholar; Amit Bhagat, PhD Scholar; Saloni Raj, MBBS;*

1:44 pm **Paper 50**  
**Indications for CT-Angiography of the Vertebral Arteries after Trauma**  
*Joseph Drain, BS; Douglas Weinberg, MD; Timothy Moore, MD; Heather Vallier, MD*

1:50 pm Discussion

1:55 pm **Paper 51**  
**A Randomised Control Trial Using Neuromuscular Electrical Stimulation with Pelvic Fracture Rehabilitation: An Interim Analysis**  
*Jessica Rich, MRes; Peter Bates, FRCS; Paul Culpán, BSc*

# 2016 OTA ANNUAL MEETING, continued

Friday, October 7, 2016, cont'd

2:01 pm **Paper 52**  
**Relationship of Sacral Fractures to Nerve Injury: Is the Denis Classification Still Accurate?**  
*Jannat Khan, BS; Alejandro Marquez-Lara, MD; Anna Miller, MD*

2:07 pm Discussion

2:12 pm **Paper 53**  
**Does Operative Intervention Provide Early Pain Relief for Patients with Un-Displaced Unilateral Sacral Fractures?**  
*Paul Tometta III, MD; Julie Agel, ATC; Anna Miller, MD; Joshua Gary, MD; Clifford Jones, MD; Jason Lowe, MD; Darin Friess, MD; Ross Leighton, MD; William Ricci, MD; Erik Kubiak, MD; Laurence Kempton, MD; Heather Vallier, MD; Brian Mullis, MD; Sean Nork, MD; Zachary Roberts, MD*

2:18 pm **Paper 54**  
**INFIX vs. Plating for Pelvic Fractures with Symphyseal Disruption**  
*Rahul Vaidya, MD; Adam Martin, MD; Matthew Roth, MS; Frederick Tonnos, DO; Kerellos Nasr, MD*

2:24 pm **Paper 55**  
**Predictors of Unplanned Reoperation after Operative Treatment of Pelvic Ring Injuries**  
*George Ochenjele, MD; Kristoff Reid, MD; Renan Castillo, MD; Carrie Schoonover, BS; Ryan Montalvo, BS; Theodore Manson, MD; Marcus Sciadini, MD; Jason Nascone, MD; Robert O'Toole, MD;*

2:30 pm Discussion

1:15 pm - **Concurrent Breakout Sessions**  
 2:15 pm **Skills Lab**

**Distal Femur Plating**  
 Lab Leader: **Gerard P. Slobogean, MD**

Fractures of the distal femur can be challenging. This lab will examine the indications for nailing versus plating, and focus on techniques for obtaining an accurate reduction. Newer plate/screw technologies that may minimize deformity and enhance the healing of these difficult injuries will be demonstrated.

### Learning Objectives

- ◆ Describe the indications for plating versus intramedullary nailing for fractures of the distal femur.
- ◆ Identify techniques to establish optimal fracture reduction in a minimally invasive approach.
- ◆ Illustrate how newer plate/screw fixation methods may improve the biology of distal femoral fracture healing.

1:15 pm - **Skills Lab**

2:15 pm **Clavicle and AC Joint Fixation**

Lab Leader: **Michael D. McKee, MD**

The indications and surgical techniques for primary fixation of displaced clavicle fractures remain controversial. This lab will define surgical indications, surgical approach (superior or anterior), and implant choice. Precontoured plate and hook plate fixation of injuries to the distal shoulder girdle (distal clavicle, AC joint) will also be discussed.

### Learning Objectives

- ◆ Identify patient and fracture indications for fixation of acute, displaced mid-shaft fractures of the clavicle.
- ◆ Describe the surgical approach and fixation options for fixation of displaced clavicular fractures.
- ◆ Demonstrate the technical aspects that minimize the success rate of hook plate fixation for acromioclavicular (AC) joint disruptions.

1:15 pm - **Concurrent Breakout Sessions**

2:45 pm **Mini Symposium**

**Fragility Fractures and Bone Health: What You Need to Do to Establish and Run a Fragility Fracture Program**

Moderator: **James A. Goulet, MD**

Faculty: *Kyle J. Jeray, MD; Clifford B. Jones, MD; Joseph M. Lane, MD; Debra Sietsema PhD, RN; Marc F. Swiontkowski, MD*

Orthopaedic surgeons are confronting a higher frequency of fragility fractures in their practices, as well as a considerably higher expectation that their practices will diagnose and treat the underlying basis of fragility fractures in their practices. This mini-symposium will expose attendees to methods for managing fragility fractures, and will review successful strategies for establishing and running their own fragility fracture services.

### Learning Objectives

- ◆ Describe the size and scope of fragility fracture epidemic, and the impact of treatment.
- ◆ Identify methods for managing current fragility fractures and preventing future fragility fractures.
- ◆ Create an appreciation of successful strategies for establishing and running their own fragility fracture services.



Annual Meeting – Acetabulum / Pelvis / Spine  
 Friday, October 7

# 2016 OTA ANNUAL MEETING, continued

Friday, October 7, 2016, cont'd

1:15 pm - **Concurrent Breakout Sessions, cont'd**  
2:45 pm **Mini Symposium**

## Getting It Out: The Trials and Tribulations of Hardware Removal

Moderator: **David J. Hak, MD**  
Faculty: *Christian Krettek, MD*  
*Greg M. Osgood, MD*

Hardware removal is one of the most frequent surgical procedures we perform, yet it can pose an unpredictable level of surgical difficulty. While it may be true that no one looks good removing hardware, some who are unprepared can look a lot worse. Techniques, tips and tricks for removal of various implants will be highlighted.

### Learning Objectives

- ◆ Identify the indications and benefits of hardware removal.
- ◆ Review tips and techniques for removal on intramedullary nails.
- ◆ Explain tips and techniques for solutions to problems encountered during routine hardware removal.

## Mini Symposium

### Treatment of Complex Knee Dislocations

Moderator: **William T. Obremsky, MD**  
Faculty: *Frank R. Avilucea*  
*William H. Harvin, MD*  
*James P. Stannard, MD*

Incidence and associated injuries as well as emergent management will be reviewed. Treatment options for repair and/or reconstruction of multiple ligament tears and associated injuries will be explained. Complications and expected results will be discussed.

### Learning Objectives

- ◆ Define incidence and associated injuries as well as emergent treatment.
- ◆ List treatment options and timing for repair and/or reconstruction.
- ◆ Explain complications and outcomes of treatments.

2:35 pm - **Paper Session 4:**  
3:38 pm **Upper Extremity I:  
Humeral Shaft, Elbow, Wrist**

Moderators: **Robert V. O'Toole, MD**  
**Gregory J. Della Rocca, MD**

2:35 pm **Paper 56**  
**The Post-Sarmiento Era: Is It Time to Re-Think Expectations of Functional Bracing for Humeral Shaft Fractures?**  
**Rafael Serrano-Riera, MD;**  
*Benjamin Maxson, DO; Anthony Infante, DO;*  
*David Watson, MD; Roy Sanders, MD;*  
*Hassan Mir, MD; Anjan Shah, MD;*

2:41 pm **Paper 57**  
**A Firm Shake Leads to a Strong Union: Stability Six Weeks following Humeral Shaft Fracture Predicts Healing**  
**Adam Driesman, BA, Nina Fisher, BS;**  
*Sanjit Konda, MD; Kenneth Egol, MD*

2:47 pm Discussion

2:52 pm **Paper 58**  
**A Prospective Randomized Trial of Non-Operative versus Operative Management of Olecranon Fractures in the Elderly**  
**Andrew Duckworth, MBChB;**  
*Nicholas Clement, MRCSEd;*  
*Jane McEachan, FRCSEd; Timothy White, MD;*  
*Charles Court-Brown, MD;*  
*Margaret McQueen, MD*

2:58 pm **Paper 59**  
**Comparison of the Henry vs. Thompson Approaches for Fixation of Proximal Radial Shaft Fractures: A Multicenter Study**  
*Paul Tornetta III, MD; Jesse Dashe, MD;*  
*Robert Parisien, MD; Brett Murray, BS;*  
*Andrew Marcantonio, DO; Kate Belluvue, MD;*  
*Reza Firoozabadi, MD; Garbriel Merlin, MD;*  
*Samuel Klatman, MD; Mary George, MD;*  
*Peter Krause, MD; Alex Sadauskas, BS;*  
*Lisa Cannada, MD; John Ruder, MD;*  
*CAPT (ret) Michael Bosse, MD;*  
*Barbara Steverson, RN; Philip Fontenot, MD;*  
*Shaan Patel, MD; Hassan Mir, MD;*  
*Harish Kempegowda, MD; Daniel Horwitz, MD;*  
*Jerald Westberg, MD; Benjamin Sandberg, MD;*  
*Anna Miller, MD; Alexandra Goodwin, MD*

3:04 pm **Paper 60**  
**A Prospective Randomized Trial of Plate Fixation versus Tension Band Wire for Olecranon Fractures**  
**Andrew Duckworth, MBChB;**  
*Nicholas Clement, MRCSEd; Timothy White, MD;*  
*Charles Court-Brown, MD;*  
*Margaret McQueen, MD*



# 2016 OTA ANNUAL MEETING, continued

Friday, October 7, 2016, cont'd

3:10 pm **Paper 61**  
**Long-Term Outcomes of Total Elbow Arthroplasty for Distal Humeral Fracture: Results from a Prior Randomized Clinical Trial**  
*Niloofer Dehghan, MD; Matthew Furey, MD; Emil Schemitsch, MD; Christine Schemitsch, BS; Michael McKee, MD*

3:16 pm Discussion

3:21 pm **Paper 62**  
**Intraoperative O-arm Imaging of AO-OTA C2 and C3 Distal Radius Fractures Identifies Malreduced Final Reductions in up to 30% of Cases**  
*Brian Vickaryous, MD; J Dean Cole, MD; Bob Meuret, MD*

3:27 pm **Paper 63**  
**Digital Edema Predicts Early Progression to Functional Plateau Following Volar Locked Plating for Distal Radius Fractures**  
*Michael Maceroli, MD; Edward Shields, MD; John Ketz, MD; John Elfar, MD; Jonathan Gross, MD; Warren Hammert, MD*

3:33 pm Discussion

3:40 pm Refreshment Break (Hall open 3:30 pm-6:15 pm)

4:10 pm - **Concurrent Breakout Sessions**  
5:30 pm **Mini Symposium**

**Syndesmosis Injury:  
How Times have Changed**

Moderator: **Lisa K. Cannada, MD**  
Faculty: *Samuel Adams, MD  
Thomas Jones, MD  
Seth R. Yarboro, MD  
Robert D. Zura, MD*

The syndesmosis is now not overlooked as an important component of a good result in ankle fracture fixation. Fixation has evolved along with techniques to improve results. This symposium will provide up-to-date tips and tricks on this important topic.

#### Learning Objectives

- ◆ Describe the current complications of ankle fractures with syndesmosis injuries.
- ◆ List the pros and cons of open reduction of the syndesmosis joint.
- ◆ Discuss the current types of syndesmosis fixation.

#### Mini Symposium

**ORIF versus Acute Arthroplasty for Common Extremity Injuries: What Does Evidence-based Medicine Tell Us?**

Moderator: **Emil H. Schemitsch, MD, FRCSC**  
Faculty: *Hans J. Kreder, MD, FRCSC  
Michael D. McKee, MD, FRCSC  
Aaron Nauth, MD, FRCSC  
Andrew H. Schmidt, MD, FRCSC*

Increasingly, evidence based medicine (EBM) is being promoted by various groups as the standard to define clinical care. This symposium will illustrate how the use of currently available EBM studies can aid in decision-making with regards to treatment of common extremity injuries with ORIF versus acute arthroplasty.

#### Learning Objectives

- ◆ Identify the indications for ORIF vs acute arthroplasty for fractures of the proximal humerus and the elbow.
- ◆ Describe the indications for ORIF vs acute arthroplasty for fractures of the acetabulum.
- ◆ Explain the indications for ORIF vs acute arthroplasty for fractures around the knee.

#### Mini Symposium

**Techniques and Controversies in Treatment of Acetabular Fractures**

Moderator: **Marcus F. Sciadini, MD**  
Faculty: *Michael T. Archdeacon, MD  
Tim Chesser, MB, BS, FRCS  
Conor P. Kleweno, MD  
Mark C. Reilly, MD  
Adam J. Starr, MD*

This will be a case-based discussion of alternative options for the treatment of challenging acetabular fractures. Faculty are chosen with many different and often contradictory perspectives on the treatment alternatives for these difficult fractures, including the surgical approach, surgical strategy, positioning of the patient and the use of specially-designed or custom implants or instruments. The goal is to generate a lively discussion and debate regarding the relative benefits and drawbacks to the various perspectives presented with audience feedback and participation welcomed and anticipated.

#### Learning Objectives

- ◆ Compare and contrast strengths and weaknesses of alternative surgical approaches to complex acetabular fractures (eg: ilioinguinal vs AIP).
- ◆ Identify treatment strategies for geriatric acetabular fractures (eg: ORIF vs arthroplasty vs percutaneous fixation).
- ◆ Explain the utility of specialty implants, instruments and techniques in the treatment of complex acetabular fractures.

Annual Meeting – Upper Extremity I  
Friday, October 7

# 2016 OTA ANNUAL MEETING, continued

Friday, October 7, 2016, cont'd

4:16 pm - **Paper Session 5:**  
5:36 pm **Non-union and General Interest I**

Moderator: **Thomas F. Higgins, MD**

4:10 pm **Paper 64**  
**Taylor Spatial Frame Stacked Transport for Tibial Infected Nonunions with Bone Loss: Long Term Functional Outcomes**  
**Joshua Napora, MD; Douglas Weinberg, MD; Blake Eagle; Bram Kaufman, MD; John Sontich, MD**

4:16 pm **Paper 65**  
**Can a Tibia Shaft Nonunion Be Predicted at Initial Fixation? Applying the Nonunion Risk Determination (NURD) Score to the SPRINT Trial Database**  
**Gerard Slobogean, MD; Kevin O'Halloran, MD; Nathan O'Hara, MHA; Renan Castillo, PhD; Sheila Sprague, PhD; Mohit Bhandari, MD; Robert O'Toole, MD; SPRINT Investigators**

4:22 pm Discussion

4:27 pm **Paper 66**  
**Patient Reported Pain Following Successful Nonunion Surgery: Can We Completely Eliminate It?**  
**Kenneth Egol, MD; Nina Fisher, BS; Adam Driesman, BA; Sanjit Konda, MD**

4:33 pm **Paper 67**  
**Intertrochanteric Osteotomy for Femoral Neck Non-union: Does Undercorrection Result in an Acceptable Rate of Femoral Neck Union?**  
**Brandon Yuan, MD; David Shearer, MD; David Barei, MD; Sean Nork, MD**

4:39 pm **Paper 68**  
**Any Cortical Bridging Predicts Healing of Supracondylar Femur Fractures**  
**Patrick Strotman, MD; Madhav Karunakar, MD; Tammy Rhoda, MPH; Rachel Seymour, PhD; William Lack, MD**

4:45 pm Discussion

4:50 pm **Paper 69**  
**Are Large Clinical Trials in Orthopaedic Trauma Justified?**  
**Sheila Sprague, PhD; Paul Tornetta III, MD; Gerard Slobogean, MD; Nathan O'Hara, MHA; Paula McKay, BSc; Diane Heels-Ansdell, MSc; Brad Petrisor, MD; Kyle Jeray, MD; Emil Schemitsch, MD; David Sanders, MD; Mohit Bhandari, MD; FAITH Investigators**

4:56 pm **Paper 70**  
**An Evaluation of the Relationship between 6-week Post-Discharge Risk Classification and 6-month Outcomes Following Orthopaedic Trauma**  
**Renan Castillo, MD; Kristin Archer, PhD; CAPT (ret) Michael Bosse, MD; Robert Hymes, MD; Andrew Pollak, MD; Heather Vallier, MD; Anna Bradford, PhD; Susan Collins, MSc; Katherine Frey, RN; Yanjie Huang, ScM; Daniel Scharfstein, ScD; Elizabeth Wysocki, MS; Stephen Wegener, PhD; Ellen MacKenzie, PhD; (Consortium) METRC**

5:02 pm Discussion

5:07 pm **Paper 71**  
**Are Early Career Orthopaedic Trauma Surgeons Performing Enough Complex Trauma Surgery?**  
**Jacob Gire, MD; Michael Gardner, MD; Alex Harris, PhD; Julius Bishop, MD**

5:13 pm **Paper 72**  
**Management of Complex Orthopaedic Trauma – Is the Balance Shifting Away from Level I Trauma Centers?**  
**Meir Marmor, MD; Saam Morshed, MD; Arash Rezaei**

5:19 pm **Paper 73**  
**Surgical Management and Reconstruction Training (SMART) Course for International Orthopedic Surgeons: Saving Limbs after Traumatic Injury**  
**Hao-Hua Wu, BA; Kushal Patel, MD; Amber Caldwell, BA; Richard Coughlin, MD; Scott Hansen, MD; Joseph Carey, MD**

5:25 pm **Paper 74**  
**"Red-Yellow-Green": Effect of an Initiative to Guide Surgeon Choice of Orthopaedic Trauma Implants**  
**Kanu Okike, MD; Rachael Pollak, BA; Robert O'Toole, MD; Andrew Pollak, MD**

5:31 pm Discussion

5:36 pm ADJOURN to Poster Tours

5:36 pm -6:30 pm **Military Reception**  
(All Active Duty Military, Retired Military, and Landstuhl Distinguished Visiting Scholar participants are welcome to attend.)

5:40 pm - 6:15 pm **Suds n' Science Guided Poster Tours**  
(PT3) **Foot/Ankle**  
Guide: **Paul Tornetta III, MD**  
(PT4) **General Interest**  
Guide: **Michael J. Gardner, MD**

# 2016 OTA ANNUAL MEETING, continued

Saturday, October 8, 2016

6:30 am - **Concurrent Breakout Sessions**

7:30 am **Case Presentation**

## **Distal Humerus Fractures: Tips and Tricks**

Moderator: **Utku Kandemir, MD**

Faculty: *Michael J. Gardner, MD*

*John T. Gorczyca, MD*

*Michael D. McKee, MD*

*Milan K. Sen, MD*

Treatment of Distal Humerus fractures may result in excellent or poor outcomes. Knowledge of surgical approaches, reduction and fixation techniques, and postoperative management is critical in order to achieve best outcome. This case-based panel discussion will be held specifically addressing the approaches, fractures with intraarticular comminution, fractures with extension into the shaft, coronal shear fractures, ulnar nerve management and postoperative management.

### **Learning Objectives**

- ◆ List pros and Cons of Different Surgical Approaches.
- ◆ Discuss tips of Reduction and Fixation Techniques.
- ◆ Discuss postoperative rehabilitation.

## **Mini Symposium**

### **Developing and Maintaining a Successful Clinical Research Program**

Moderator: **Heather A. Vallier, MD**

Faculty: *Julie Agel, ATC*

*Mary A. Breslin, BA*

*William T. Obrebsky, MD*

This mini-symposium is designed for practitioners, research personnel, and physicians in training who aspire to develop a successful clinical research program. Key elements and resources will be described. Efficient and compliant data management strategies will be reviewed. Funding sources will be discussed. Opportunities for collaboration and growth will be demonstrated.

### **Learning Objectives**

- ◆ Develop personnel, infrastructure, and other resources to establish a clinical research program.
- ◆ Describe roles, responsibilities, and important attributes of a productive research coordinator.
- ◆ Identify opportunities for research collaboration, and demonstrate strategies for participation and funding.
- ◆ Develop compliant and efficient data management systems.

## **Mini Symposium**

### **Pelvic Ring Disruption Decision Making: Deciding What Needs Fixed and How**

Moderator: **Jason W. Nascone, MD**

Faculty: *Pierre Guy, MD*

*H. Claude Sagi, MD*

*Adam J. Starr, MD*

Case based discussion of pelvic ring disruptions with thought leaders in the field. Participants should expect in-depth discussion of evaluation of stability and how it relates to overall management of these difficult injuries. The panel will also explore regional differences in treatment philosophies as well as different options for fixation.

### **Learning Objectives**

- ◆ Discuss appropriate assessment of pelvic ring injuries.
- ◆ Describe stability of pelvic ring as it relates to management.
- ◆ Summarize various options available to regain or maintain stability of the pelvic ring.

## **Case Presentation**

### **A Piece of Tibia is Missing, What are My Options?**

Moderator: **Cyril Mauffrey, MD**

Faculty: *Gregory J. Della Rocca, MD*

*Peter V. Giannoudis, MD*

*Kyros R. Ipaktchi, MD*

Post-traumatic segmental tibial defects are common and require a well planned treatment strategy. In this case based discussion we focus on surgical treatment strategies to reconstruct such defects using the induced membrane technique. Our cases will highlight strategies to reduce failures such as innovative ways of fixation as well as what to do when things go wrong. We will conclude with "simple" soft tissue coverage procedures that can be performed by non microvascular surgeons in the community.

### **Learning Objectives**

- ◆ Identify various treatment strategies to reconstruct bony defects.
- ◆ Describe the importance of staged treatment.
- ◆ Explain simple options to cover soft tissue defects.

# 2016 OTA ANNUAL MEETING, continued

Saturday, October 8, 2016, cont'd

7:45 am - **Symposium IV**  
9:00 am **Femoral Neck Fractures:  
Who to Fix, Who to Replace,  
and How to Do It**

Moderator: **Theodore T. Manson, MD**

Faculty: *Joshua L. Gary, MD*  
*Dean G. Lorch, MD*  
*Andrew H. Schmidt, MD*  
*Gerard P. Slobogean, MD*

This symposium will aid in preoperative decision making as well as intra-operative techniques for treatment of femoral neck fractures in the young and old. Specific lectures on techniques for ORIF of both young and older patients will be reviewed. In addition, techniques for achieving the best outcomes with the use of arthroplasty in older patients will be covered.

### Learning Objectives

- ◆ Explain whether patient should be treated with ORIF or Arthroplasty.
- ◆ Apply recent advances in ORIF of femoral neck fractures.
- ◆ Use recent advances in arthroplasty for femoral neck fractures.

- 7:45 am **Decision Making for Femoral Neck Fractures, Who Should We Fix and Who Should We Replace?**  
*Gerard P. Slobogean, MD*
- 7:55 am **Decision Making for Femoral Neck Fractures-Does Fixation Construct Matter or Is It All in the Reduction?**  
*Joshua L. Gary, MD*
- 8:05 am **Surgical Techniques for Reduction and Fixation of Femoral Neck Fractures in both Young and Old Patients?**  
*Dean G. Lorch, MD*
- 8:20 am **Decision Making for Older Femoral Neck Fractures-Who Gets a Hemi and Who Gets a Total Hip? Do I Use Cement or Press Fit?**  
*Andrew H. Schmidt, MD*
- 8:35 am **Surgical Techniques for Total Hip Replacement for Femoral Neck Fracture:**  
*Theodore T. Manson, MD*
- 8:50 am **Case Presentations**  
*All Faculty*

- 9:00 am - **Paper Session 6**  
10:15 am **Hip Fractures: Young and Old**  
Moderators: **Gilbert R. Ortega, MD**  
**Holly Tyler-Paris Pilson, MD**

- 9:00 am **Paper 75**  
**Failure Patterns of Young Femoral Neck Fractures: Which Complication Should We Choose?**  
*David Stockton, MD; Karan Dua, MD; Peter O'Brien, MD; Andrew Pollak, MD; Gerard Slobogean, MD*
- 9:06 am **Paper 76**  
**Open Reduction Internal Fixation vs. Closed Reduction Internal Fixation in Treatment of Young Adults with Femoral Neck Fractures: A Multicenter Retrospective Cohort Study**  
**Keisuke Ishii, MD;** *Hao-Hua Wu, BA; Paul Tornetta III, MD; Darin Friess, MD; Clifford Jones, MD; Ross Leighton, MD; Ari Levine, MD; Jeff Maclean, MD; Brian Mullis, MD; William Obrebsky, MD; Robert Ostrum, MD; Anas Saleh, MD; Andrew Schmidt, MD; David Teague, MD; Antonios Tsismenakis, MD; Saam Morshed, MD*
- 9:12 am **Paper 77**  
**Immediate Weight Bearing as Tolerated has Improved Outcomes Without an Increased Risk of Reoperation after Intramedullary Fixation for Subtrochanteric Fractures Compared to Modified Weight Bearing**  
*Brian Cunningham, MD; David Shearer, MD; Brian Miller, MD; Saif Zaman, MD; Hrayr Basmajian, MD; Ryan Montalvo, BS; George Reahl, BS; Ryan McLemore, PhD; Henry Sagi, MD; Robert O'Toole, MD; William Obrebsky, MD*
- 9:18 am Discussion
- 9:23 am **Paper 78**  
**Is Vitamin D Associated with Improved Physical Function and Reduced Re-Operation Rates in Elderly Patients with Femoral Neck Fractures Treated with Internal Fixation?**  
*Sheila Sprague, PhD; Gerard Slobogean, MD; Earl Bogoch, MD; Brad Petrisor, MD; Alisha Garibaldi, MSc; Nathan O'Hara, MHA; Mohit Bhandari, MD; FAITH Investigators*
- 9:29 am **Paper 79**  
**Predictors of Cephalomedullary Nail Failure in the Treatment of Intertrochanteric Hip Fractures**  
**David Ciuffo, MD;** *Douglas Zaruta, MD; Jason Lipof, MD; John Gorczyca, MD; Catherine Humphrey, MD; Gillian Soles, MD; Kyle Judd, MD; John Ketz, MD*

# 2016 OTA ANNUAL MEETING, continued

Saturday, October 8, 2016, cont'd

9:35 am **Paper 80**  
**Frailty is a Better Marker than Age in Predicting Post-Operative Mortality and Complications Following Pelvis and Lower Extremity Trauma**  
*Cathy (CatPhuong) Vu, BS; Robert Runner, MD; William Reisman, MD; Mara Schenker, MD*

9:41 am Discussion

9:46 am **Paper 81**  
**Hip Fracture Patient on Warfarin: Is Delay of Surgery Necessary?**  
**Matthew Cohn, BS; Ashley Levack, MD; Nikunj Trivedi, BS; Jordan Villa, MD; Joseph Koresse, BS; David Wellman, MD; John Lyden, MD; Dean Lorich, MD; Joseph Lane, MD**

9:52 am **Paper 82**  
**Can Evidence-Based Guidelines Decrease Unnecessary Echocardiograms for Pre-Operative Evaluation of Hip Fracture Patients?**  
**Chris Adair, MD; Eric Swart, MD; Rachel Seymour, PhD; Joshua Patt, MD; Madhav Karunakar, MD**

9:58 am **Paper 83**  
**Hip Arthroplasty for Fracture vs. Elective Patients: One Bundle Does Not Fit All**  
**Siddharth Mahure, MD; Richard Yoon, MD; Lorraine Hutzler, MS; Nirmal Tejwani, MD; Frank Liporace, MD; Joseph Bosco, MD; Kenneth Egol, MD**

10:04 am **Paper 84**  
**Effect of Hospital and Surgeon Volume on Mortality After Hip Fracture**  
**Kanu Okike, MD; Priscilla Chan, BS; Liz Paxton, MA**

10:10 am Discussion

9:10 am - **Concurrent Breakout Sessions Skills Lab**

Lab Leader: **Paul Tornetta III, MD**

Proximal tibia fractures represent a challenge for the orthopaedist. This hands-on lab will focus on topics such as indications, surgical approach (including supra-patellar), start point, reduction maneuvers, blocking screws and nail choice to enhance the ability to obtain and maintain a satisfactory reduction.

## Learning Objectives

- ◆ Identify the indications for the use of intramedullary nailing for a proximal tibial fracture
- ◆ Describe the surgical approach options for proximal tibial intramedullary nailing.
- ◆ Practice the technical aspects of reduction and nail insertion to minimize the potential for deformity.

10:15 am Refreshment Break

9:10 am - **Concurrent Breakout Sessions**  
 10:25 am **Mini Symposium**

**Rib Fracture Fixation and the Surgical Management of Flail Chest Injuries: State of the Art**

Moderator: **Michael D. McKee, MD**

Faculty: *Gerard P. Slobogean, MD; Peter Althausen, MD; Aaron Nauth, MD; Niloofar Dehghan, MD; Emil H. Schemitsch, MD*

Rib fracture fixation in the setting of the flail or unstable chest wall injuries in trauma patients is gaining in popularity. Although it is a non-traditional area of surgical fixation, there is some preliminary evidence that stabilization of flail chest injuries may significantly decrease patient morbidity and improve outcomes. Increasingly, orthopaedic trauma surgeons are becoming involved in the surgical management and care of these patients. This symposium will examine the history, techniques, current status, and future of rib fracture fixation.

## Learning Objectives

- ◆ Explain the theory and evidence behind the introduction of rib fracture fixation surgery for unstable chest wall injuries.
- ◆ Identify an understanding of the current indications and surgical strategies for the fixation of unstable chest wall injuries.
- ◆ Describe the role of randomized clinical trials in the introduction of new surgical techniques / technology.

## Mini Symposium

**Translational Research and Future Technologies in Orthopaedic Trauma Infections**

Moderator: **Mark E. Shirtliff, MD**

Faculty: *Garth Ehrlich, PhD; Joseph C. (Josh) Wenke, PhD; Robert V. O'Toole, MD*

This symposium will introduce the biofilm concept of infection and how this microbial mode of growth can be used to develop translational diagnostics and preventative strategies in orthopaedic trauma infections. Experts in basic and clinical translational research will present applicable studies and technologies.

## Learning Objectives

- ◆ Describe recent translational research and available technologies that will soon be available to practicing orthopaedic and infectious disease physicians.
- ◆ Discuss the biofilm mode of growth.
- ◆ List prevention and diagnostic strategies in orthopaedic infection.

Annual Meeting – Hip Fractures / Breakout Sessions  
 Saturday, October 8

# 2016 OTA ANNUAL MEETING, continued

Saturday, October 8, 2016, cont'd

9:10 am - **Concurrent Breakout Sessions**  
10:25 am **Mini Symposium**

## Critical Aspects of Orthopaedic Trauma in 2016 that can Impact Your Financial Future

Moderator: **Peter L. Althausen, MD**

Faculty: *Timothy J. Bray, MD*  
*J. Scott Broderick, MD, MPH*  
*Chris McBride, MBA*  
*Justin Walker, MD*  
*Anthony Williams ChFC, RFC, CLU*

The objective of this symposium is to provide orthopaedic trauma surgeons with an overview of the most important economic aspects of Orthopaedic Trauma which can affect all of us over the coming year. It is vital that we all understand the economic opportunities that exist nationwide to support our trauma systems, private practices, hospitals and personal finances.

### Learning Objectives

- ◆ Describe how to maximize the financial aspects of your trauma system both in your hospital and private practice.
- ◆ Explain the financial impact of new Medicare programs and hospital agreements.
- ◆ Review the basics of personal finance to protect your assets and maximize the benefit of your hard work.

10:25 am Refreshment Break - Visit Technical Exhibits



10:45 am - **Concurrent Breakout Sessions**  
12:15 pm **Mini Symposium**

## The 8 Practices of Highly Successful Surgeons

Moderator: **Jeffrey M. Smith, MD**

Faculty: *Philip Stahel, MD*

A rewarding and fulfilling surgical practice is more than the next surgical procedure. Athletes, performers, business owners and other professionals create a high level of success that is sustainable when they spend a comparable amount of time and energy learning, understanding and implementing practices that address areas beyond their specific trade or skill. This program gives an overview of the 8 essential practices and demonstrates where our standard training methods in medical school, residency, fellowship and practice actually lead to burnout or less fulfilling practice survival skills. This interactive session will also help each surgeon create action plans to create best practices for a sustainable lifestyle-friendly practice starting with energy and wellness, work-life balance, and complex problem solving (EMR, staff turnover, surgery scheduling, dealing with administrators, and so on).

### Learning Objectives

- ◆ Identify the 8 Practices of Highly Successful Surgeons and understand why knowledge of these are your empowerment to create a sustainable and fulfilling surgical practice.
- ◆ Create an implementation plan to apply the 8 practices to your daily life and begin to see results of your efforts.
- ◆ Set up and master the 8 practices so they become engrained in your being so will live a balanced life with sustainable and fulfilling surgical practice and career.

## Mini Symposium

### Elbow Trauma: How to Maximize Outcome

Moderator: **William T. Obrebsky, MD**

Faculty: *Chad M. Corrigan, MD*  
*Lisa K. Cannada, MD*

We will review technique and tips for fixation of supracondylar distal humerus fractures. Tips and decision making will also be reviewed for elbow fracture dislocations. Decision making and stabilization for lateral and medial approaches for joint stabilization will be discussed.

### Learning Objectives

- ◆ Identify techniques and tricks for distal humerus fracture internal fixation.
- ◆ Describe techniques and tricks for elbow fracture dislocations.
- ◆ Review recognition and stabilization of complex elbow dislocations.

# 2016 OTA ANNUAL MEETING, continued

Saturday, October 8, 2016, cont'd

10:45 am - **Paper Session 7**  
12:28 pm **Pain Management, Pediatrics and Infection**

Moderator: **Michael D. McKee, MD**  
**Hassan R. Mir, MD**

10:45 am **Paper 85**  
**Efficacy of Peri-Incisional Multimodal Drug Injection Following Operative Management of Femur Fractures**  
**Daniel Koehler, MD; Larry Marsh, MD;**  
**Matthew Karam, MD; Catherine Fruehling, BA;**  
**Michael Willey, MD**

10:51 am **Paper 86**  
**Are Continuous Femoral Nerve Catheters Beneficial for Pain Management After Operative Fixation of Tibial Plateau Fractures? A Randomized Trial**  
**Paul Tornetta III, MD; Margaret Cooke, MD;**  
**Tyler Welch, MD; Oleg Gusakov, MD**


10:57 am Discussion

11:02 am **Paper 87**  
**Patient Coping and Expectations About Recovery Predict Development of Chronic Post-Surgical Pain Pain Interference and Reduced Quality of Life After Traumatic Open Extremity Fracture**  
**Jason Busse, DC; Sun Makosso-Kallyth, PhD;**  
**Brad Petrisor, MD; Kyle Jeray, MD;**  
**Ted Tufescu, MD; Georges-Yves Laflamme, MD;**  
**Paula McKay, BSc; Randi McCabe, PhD;**  
**Yannick Le Manach, MD; Mohit Bhandari, MD;**  
**FAITH Investigators**

11:08 am **Paper 88**  
**Is Scheduled Perioperative Intravenous Acetaminophen Use In Geriatric Hip Fractures Cost-Effective?**  
**Alan Edwards, MD; Alexander Bollinge, MD;**  
**Thomas Wenzlick, BS; Terrence Endres, MD**

11:14 am **Paper 89**  
**Continuous Infraclavicular Brachial Plexus Block Versus Single Shot Nerve Block for Distal Radius Surgery: A Prospective Randomized Comparative Trial**  
**Abhishek Ganta, MD; David Ding, MD;**  
**Nina Fisher, BS; Sudheer Jain, MD;**  
**Nirmal Tejwani, MD**

11:20 am Discussion

11:25 am **Paper 90**  
**Best Trauma Paper of the 2016 POSNA Annual Meeting**  
  
**Functional Bracing for Treatment of Pediatric Diaphyseal Femur Fractures: An Alternative to Spica Casting**  
**Andrea S. Kramer, MD; Colin Woon, MD;**  
**David Speers, CPO, LPO**

11:31 am **Paper 91**  
**Randomized Controlled Trial Comparing the Outcome of Titanium Elastic Nailing Versus Stainless Steel Nailing in the Management of Pediatric Diaphyseal Femur Fractures**  
**Rajiv Maharjan, MD; Kumud Limbu, MD;**  
**Raju Rijal, MD**

11:37 am **Paper 92**  
**Comparison of the Outcome of Above-Knee and Below-Knee Cast for Isolated Tibial Shaft Fractures in Children – a Randomized Trial**  
**Rajiv Maharjan, MD; Amit Limbu, MD;**  
**Shiva Paneru, MD**

11:43 am Discussion

11:48 am **Paper 93**  
**Pediatric Supracondylar Humerus Fractures: Does After-hours Treatment Influence Outcomes?**  
**Gabrielle Paci, MD;**  
**Kali Tileston, MD; John Vorhies, MD;**  
**Julius Bishop, MD**

11:54 am **Paper 94**  
**Pulseless Supracondylar Humerus Fracture with AIN or Median Nerve Injury – An Absolute Indication for Open Reduction?**  
**Paul Choi, MD; Liam Harris, BS;**  
**Alexander Broom, BA;**  
**Joseph Yellin, BA; Ashley Miller, BS;**  
**John Roaten, MD;**  
**Jeffrey Sawyer, MD;**  
**Patrick Whitlock, MD;**  
**Alexandre Arkader, MD;**  
**John Flynn, MD; David Skaggs, MD**

12:00 pm Discussion

Annual Meeting – Pain Management / Pediatrics / Infection  
Saturday, October 8

# 2016 OTA ANNUAL MEETING, continued

Saturday, October 8, 2016, cont'd

12:05 pm **Paper 95**  
**Clinical Validation of a Novel ELISA Serum Assay Test for Detection of Staphylococcus aureus Biofilm Antibodies in Serum of Orthopedic Trauma Patients**  
*Janet Harro, PhD; Ryan Montalvo, BS; Theodore Manson, MD; Robert O'Toole, MD; Manjari Joshi, MD; Timothy Zerhusen, BS; Roman Natoli, MD; Mark Shirliff, PhD*

12:11 pm **Paper 96**  
**Intraoperative Temperature in Hip Fractures: Effect on Complications and Outcome**  
**Andrew Pepper, MD; Nicholas Frisch, MD; Stuart Guthrie, MD; Craig Silverton, DO**

12:17 pm **Paper 97**  
**Nasal Decolonization with Povidone-Iodine Decreases Surgical Site Infection in the Elderly with Intracapsular Femur Fractures**  
**Rafael Serrano-Riera, MD; Anthony Infante, DO; Benjamin Maxson, DO; Anjan Shah, MD; Roy Sanders, MD; Hassan Mir, MD; David Watson, MD**

12:23 pm Discussion

12:30 pm Lunch - Exhibit Hall closes at 1:30pm

12:30 pm - **Lunchtime Guided Poster Tours**

1:15 pm (PT5) **Knee/Tibia**  
Guide: *J. Tracy Watson, MD*

(PT6) **Upper Extremity**  
Guide: *Michael D. McKee, MD*

1:30 pm - **Paper Session 8**  
2:39 pm **Upper Extremity II:  
Scapula, Clavicle, Proximal Humerus**

Moderator: **Gerard P. Slobogean, MD**

1:30 pm **Paper 98**  
**Should Displaced Scapular Body Fractures Be Operatively Treated? A Randomized Controlled Trial**  
**Clifford Jones, MD; Debra Sietsema, PhD; James Ringler, MD; Terrence Endres, MD**

1:36 pm **Paper 99**  
**5-10 Year Outcomes of Operatively Treated Scapula Fractures**  
*Jeffrey Gilbertson, BA; Joscelyn Tatro, MS; Lisa Schroder, BS; Peter Cole, MD*

1:42 pm Discussion

1:47 pm **Paper 100**  
**Plate Fixation Does Not Beat Nonoperative Treatment for Displaced Midshaft Clavicular Fractures: A Meta-Analysis of Randomized Controlled Trials**  
**Sarah Woltz, MD; P. Krijnen, PhD; I.B. Schipper, MD;**

1:53 pm **Paper 101**  
**Operative Treatment of Displaced Midshaft Clavicle Fractures: Have Evidence-Based Recommendations Changed Practice Patterns?**  
*Prism Schneider, MD; Julie Agel, ATC; Richard Bransford, MD; Edward Harvey, MD*

1:59 pm **Paper 102**  
**Midshaft Clavicle Fractures: A Meta-Analysis Comparing Surgical Fixation via Anteroinferior Plating vs. Superior Plating**  
*Alex Nourian, BS; Satvinder Dhaliwal, MPH; Sitaram Vangala, MS; Peter Vezeridis, MD*

2:05 pm Discussion

2:10 pm **Paper 103**  
**Pre-operative Humeral Head Thickness Predicts Screw Cutout After Locked Plating of Proximal Humerus Fractures**  
**Lorraine Stern, MD; John Gorczyca, MD**

2:16 pm **Paper 104**  
**Proximal Humerus Fracture Fixation Failure: A Retrospective Review.**  
*John Williams, MD; William Uffmann, MD; Joshua Harmer, BS; Robert Tashjian, MD; Erik Kubiak, MD*

2:22 pm **Paper 105**  
**Reverse Shoulder Arthroplasty for Proximal Humerus Fractures: Outcomes Comparing Primary Reverse Arthroplasty for Fracture versus Reverse Arthroplasty After Failed Osteosynthesis**  
*Steven Shannon, MD; Eric Wagner, MD; Matthew Houdek, MD; William Cross, MD; Joaquin Sanchez-Sotelo, MD*

2:28 pm **Paper 106**  
**Intermediate to Long Term Outcomes Following Initial Treatment of Proximal Humerus Fractures in Ontario Canada: A Population Based Retrospective Cohort**  
**Lauren Nowak, MSc; Michael McKee, MD; Aaron Nauth, MD; Milena Vicente, RN; Marissa Bonyun, MD; Emil Schemitsch, MD**

2:34 pm Discussion



# 2016 OTA ANNUAL MEETING, continued

Saturday, October 8, 2016, cont'd

1:30 pm - **Concurrent Breakout Sessions**  
2:40 pm **Mini Symposium**

## How to Use Ring Fixators (TSF and Ilizarov) for Tibia Fractures

Moderator: **Theodore T. Manson, MD**

Faculty: *Joseph R. Hsu, MD*  
*Stephen M. Quinnan, MD*  
*Robert V. O'Toole, MD*

Designed for the practicing surgeon caring for tibial fractures, this session will allow adaptation of ring fixators (Taylor Spatial Frame and Ilizarov Frames) into your practice. Basics of safe and easy frame application will be reviewed as well as strategies to treat tibial plateau and pilon fractures as well as bone transport and grafting for tibial defects. The surgeon should at the completion of the course have the cognitive skill set for basic bone transport as well as straightforward tibial plateau and pilon fractures using ring fixator frames.

### Learning Objectives

- ◆ Describe the basics of ring fixator application.
- ◆ Treat tibial plateau and pilon fractures using a ring fixator.
- ◆ Use ring fixators to treat tibial bone loss.

## Mini Symposium

### Lower Extremity Arthroplasty: Unreconstructable Articular Fractures, Periprosthetic Fractures, and Failed Fixation

Moderator: **Adam Sassoon, MD**

Faculty: *George J. Haidukewych, MD*  
*Conor P. Kleweno, MD*

This session will highlight clinical indications, technical pearls, and potential pitfalls related to lower extremity arthroplasty in the treatment of unreconstructable periarticular fractures, periprosthetic fractures, and failed fracture fixation.

### Learning Objectives

- ◆ Identify the indications for primary arthroplasty in the definitive treatment of severe and unreconstructable periarticular fractures.
- ◆ Identify which periprosthetic fractures require revision arthroplasty in conjunction with fracture fixation and technical pearls for dealing with this demanding problem.
- ◆ Recognize arthroplasty as a salvage option in the setting of failed fixation, non-unions, and malunions.

2:40 pm Refreshment Break - NO EXHIBITS

3:00 pm - **Paper Session 9**  
5:10 pm **Foot & Ankle, Amputation, Open Fractures and General Interest II**

Moderators: **Stephen A. Kottmeier, MD**  
**Clifford B. Jones, MD**

3:00 pm **Paper 107**  
**Can You Drive Before You Walk? Driving Tests for Patients with Surgically Treated Ankle Fractures**  
**Sean Ho, MBBS;**  
*Mei Leng Chan, Doctor of Philosophy (OT); Ernest Kwek, FRCS;*

3:06 pm **Paper 108**  
**PROMIS Computer Adaptive Tests Compared with Time To Brake in Patients with Complex Lower Extremity Trauma**  
*Seewan Kim, BS; Daniel Wiznia, MD; Leon Averbukh, BS; Andrea Torres, BS; Edward Kong, BS; Chang-Yeon Kim, BS; Michael Leslie, DO*

3:12 pm **Paper 109**  
**Serial Radiographs Do Not Change the Clinical Course of Non-Operative Stable Weber B Ankle Fractures**  
**Lucas Marchand, MD;**  
*Zachary Working, MD; Ajinkya Rane, MD; Lance Jacobson, MD; Erik Kubiak, MD; Thomas Higgins, MD; David Rothberg, MD*

3:18 pm **Paper 110**  
**Equivalent Functional Outcomes Following Injury Specific Fixation of Posterior Malleolar Fractures and Equivalent Ligamentous Injuries**  
**Ashley Levack, MD;**  
*Stephen Warner, MD; Elizabeth Gausden, MD; David Helfet, MD; Dean Lorich, MD*

3:24 pm Discussion

3:29 pm **Paper 111**  
**Articular Inflammatory Cytokine Response is Greater in Acute Plafond Fractures than in Acute Tibial Plateau Fractures**  
*Justin Haller, MD; Lucas Marchand, MD; David Rothberg, MD; Erik Kubiak, MD; Thomas Higgins, MD*

Annual Meeting — Foot & Ankle / Amputation / Open Fr  
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