



## 2015 ANNUAL MEETING

October 7-10, 2015

### Pre-meeting Courses

Basic Science Focus Forum

International Orthopaedic Trauma Care Forum

ICD-10 Coding for Trauma Surgeons

Residents Comprehensive Fracture Course

Orthopaedic Trauma Boot Camp

Orthopaedic Trauma for PAs & NPs

Young Practitioners Forum

Manchester Grand Hyatt  
San Diego, California

23+ CME



[www.ota.org](http://www.ota.org)



## Acknowledgments

The Orthopaedic Trauma Association gratefully acknowledges 2014 Research and Education Donors.

The continued success and increased impact of the Orthopaedic Trauma Association's research and education effort is dependent upon foundation and industry support.

The OTA expresses sincere appreciation to these contributors for their generous financial support.

### **Platinum Award** (\$150,000 - \$249,999)

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Arthrex  
DePuy Synthes Trauma  
Smith + Nephew

### **Gold Award** (\$100,000 - \$149,999)

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Cardinal Health  
Stryker  
Zimmer

### **Silver Award** (\$75,000 - \$99,999)

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Biomet

### **Copper Award** (\$25,000 - \$49,999)

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Foundation for Orthopedic Trauma

### **Sponsor Award** (\$5,000 - \$24,999)

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Sincere Thanks



Dear Colleagues:

On behalf of the OTA Program Committee and President Ted Miclau, MD, I am pleased to invite you to the 31st Annual Meeting of the Orthopaedic Trauma Association (OTA) to be held in San Diego, California, October 7 – 10, 2015. The tremendous planning efforts of the committee will provide the most comprehensive and up-to-date program on the treatment of musculoskeletal injury yet.

This year's meeting will highlight four main symposia: a discussion of the opioid epidemic and the problem and societal costs of alcohol and nicotine addiction; much anticipated first release of results of the FLOW study; management of acetabular fractures in patients over 60; and the management of elbow trauma. New this year is a podium session of the committee's "highlight" papers, chosen as the best of the best abstracts. Concurrent with the paper sessions, the mini-symposia, case presentations, and skills labs will concentrate on more focused topics, and allow attendees to customize their meeting experience. The scientific program will include the most relevant and scientifically sound research submitted. More than 102 podium presentations and 132 posters were selected by the Program Committee from a record 910 abstracts submitted.

Five distinct CME courses precede the Annual Meeting, beginning with the Basic Science Focus Forum, chaired by Ed Harvey, MD. Beginning Wednesday, October 7th, this one and one-half day event will provide an additional in-depth program designed to augment and expand upon the basic science presented and discussed at the main meeting. Dan Horwitz, MD and Bob Ostrum, MD, will chair a one and one-half day Orthopaedic Trauma Boot Camp, designed for orthopaedic surgeons with busy practices outside of trauma who are called upon to solve difficult fracture problems in their communities. Dr. Horwitz will lead a select team of experienced OTA surgeon educators guiding participants through cases designed to highlight difficult injuries and the tips and tricks for successful treatment.

Wednesday will also feature the highly successful International Forum under the direction of Peter V. Giannoudis, MD. We welcome Germany as our Guest Nation during a symposium covering acetabulum fractures in the elderly. The ICD-10 Coding for Trauma Surgeons chaired by Scott Broderick, MD, and Karen Zupko & Associates will cover changes in orthopaedic trauma billing and coding that will affect everyone's practice. The half-day Young Practitioners Forum led by Jodi Siegel, MD and Lisa Cannada, MD, on Thursday morning will focus on the concerns of members in their first five years of practice. We encourage all to arrive early to the Annual Meeting and take full advantage of these OTA offerings.

A two and one-half day course specifically designed for Physician Assistants and Nurse Practitioners, chaired by Cory Collinge, MD, Michael Gardner, MD, Dan Coll, PA-C, and Dennis Gregory, PA-C, will run concurrent with the Annual Meeting from Thursday, October 8th to Saturday, October 10th. The OTA Residents Fracture Course, chaired by Kyle J. Jeray, MD, and Toni M. McLaurin, MD, will also run concomitant to the Annual Meeting from Wednesday, October 7 to Friday, October 9th.

The common feature of each program event is the commitment to providing the highest quality, most interesting and clinically relevant material related to musculoskeletal trauma by world-class faculty and experts. We truly believe that anyone involved in the field will benefit from the 2015 OTA Annual Meeting.

Please consider joining us in San Diego!

Robert V O'Toole, MD  
Program Chair



Join Us



Dear Colleagues,

Welcome back to San Diego and the Manchester Grand Hyatt Hotel! We are very excited to host all of you again in San Diego for the 31st Annual OTA Meeting. If you have not already registered, I hope you will decide to do so. This year Columbus Day falls on the Monday following our meeting, so hopefully you can plan to stay an extra day or two in our beautiful destination city.

The meeting is located on the west end of the Gaslamp District, which continues to grow in selection of evening activities and great restaurants. Seaport Village, the Midway Museum and Maritime Museums are all within walking distance, and Balboa Park is home to several other great museums. Other family activities include Sea World, The New Children's Museum, and the world famous San Diego Zoo. There are plenty of nearby parks, running and bike routes, area golf courses, and beaches.

October is the last of the dry months for San Diego and is usually a transition period with variable weather. Normal daily temperature is 67 degrees, and ranging from 61 to 74 degrees at Lindbergh Field. If a warm dry Santa Ana wind comes in, temperatures can approach the 90's. Plan to have a sweatshirt or jacket for most evenings are quite cool along the coast.

Recently, I have heard attendees concerned that the meeting has grown too big. I am also one who used to resist change and feel the "overwhelm" of big meetings. However, I am now embracing it with a focus on maintaining the many positives. I am planning to select my breakouts to balance out my education and practical skills. I am planning to socialize and connect with my many Orthopaedic trauma friends across the country and world. I am planning to learn about the latest research in our great specialty.

As many of you know, I have been passionately pursuing a number of different endeavors over the past few years. Like you, I try to juggle all that I put on my plate. As I continue to grow and learn, I find it very helpful to clarify and create Reciprocity in my roles and relationships, which is the "R" or second of *The 8 PRACTICES of Highly Successful Surgeons*. I hope that many of you will be intrigued enough to attend the Saturday breakout, where I will present the information in a highly interactive format as educator and Surgeon Consultant. As an entrepreneur and burnout prevention advocate, I am also organizing a yoga class during the meeting and a bicycling event on Sunday October 11th to promote *SurgeonMasters* for those Surgeons and their family that want to dedicate at least 1-4 hours of their meeting time to creating an outlet for exercise, camaraderie, and creating a fun positive attitude. The fee for these activities is intended to only offset their costs.

I will also be very active as an OTA member, participating in the Business Meeting, the Public Relations Committee meeting, checking out the technical exhibits, and attending as much of the scientific program as I can. I will also be at the Grand Hyatt poolside for the Thursday evening reception, which we selected for everyone's convenience! Keep in mind that my highest priority is to be there as an OTA member, so feel free to approach me and start off with "Jeff, I have a question for you as local host." I will only interact with you in the role that you need at the time.

Please come enjoy!

Jeffrey M. Smith, MD and Kate Smith  
Local Host, San Diego, California



Welcome

## Mission Statement

The mission of the Orthopaedic Trauma Association (OTA) is to promote excellence in care for the injured patient, through provision of scientific forums and support of musculoskeletal research and education of Orthopaedic Surgeons and the public.

## Vision Statement

The OTA will be the authoritative source for the optimum treatment and prevention of musculoskeletal injury, will effectively communicate this information to the Orthopaedic and medical community and will seek to influence healthcare policy that affect care and prevention of injury.

## Value Statement

The OTA is adaptable, forward thinking and fiscally responsible and is composed of a diverse world-wide membership who provide care and improve the knowledge base for the treatment of injured patients. OTA members provide worldwide leadership through education, research and patient advocacy.

## CME Credits

**23.5 AMA PRA Category 1 Credits™ for attending the Annual Meeting. Additional credits if you attend pre-meeting events:**

- ◆ Basic Science Focus Forum (11.5 CME Credits)
- ◆ ICD-10 Coding for Trauma Surgeons (6 CME Credits)
- ◆ International Trauma Care Forum (8.75 CME Credits)
- ◆ Orthopaedic Trauma Boot Camp (12.75 CME Credits)
- ◆ Young Practitioners Forum (4 CME Credits)
- ◆ PA/NP Course (19.5 AAPA Category 1 CME Credits)

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Academy of Orthopaedic Surgeons and the Orthopaedic Trauma Association. The American Academy of Orthopaedic Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

The American Academy of Orthopaedic Surgeons designates this live activity (OTA 2015 Annual Meeting) for a maximum of 23.5 AMA PRA Category 1 Credits™.

Physicians should claim only the credit commensurate with the extent of their participation in the activity.



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### Pre-Registration

**Deadline September 30, 2015;**

### On-site Registration

**- additional \$100. See Page 59.**

# MEETING AT A GLANCE

## Wednesday, October 7, 2015

### BASIC SCIENCE FOCUS FORUM

7:30 - 8:45 am	Symposium 1: Management of Poly-traumatized Patients with Severe Wounds
8:45 - 9:24 am	Paper Session 1: Biomechanically-Directed Fixation
9:45 - 10:50 am	Symposium 2: Critical Size Bone Defects
10:50 - 11:35 am	Paper Session 2: Critical Size Bone Defects
12:30 - 1:40 pm	Symposium 3: Absolute versus Relative Fixation
1:40 - 2:19 pm	Paper Session 3: Absolute versus Relative Fracture Fixation
2:40 - 3:45 pm	Symposium 4: Biomechanical - Hot Topics 2015
3:45 - 4:50 pm	Paper Session 4: Biomechanics
4:50 pm	Adjourn to International Poster Reception

### ORTHOPAEDIC TRAUMA BOOT CAMP

7:00 - 10:25 am	Trauma Boot Camp Presentations
10:45 am	Labs
11:35 am - 12:50 pm	Trauma Boot Camp Presentations
12:50 pm	Lunch with Case Presentations
1:30 - 4:30 pm	Trauma Boot Camp Presentations

### INTERNATIONAL ORTHOPAEDIC TRAUMA CARE FORUM

7:30 - 8:05 am	Symposium I: Focus Surgical Techniques - Vertical Shear Pelvic Fx
8:05 - 8:37 am	Paper Session 1: Acetabulum
8:37 - 9:09 am	Paper Session 2: Pelvic Injuries & Femur
9:25 - 9:45 am	<b>SIGN Session</b>
9:45 - 10:17 am	Paper Session 3: Knee Injuries
10:17 - 10:49 am	Paper Session 4: Foot and Ankle
10:49 - 11:16 am	Symposium II: Debate: Open Reduction of Difficult Young Intra-capsular NOF Fx
11:16 - 11:48 am	Paper Session 5: Basic Science
11:48 am - 12:28 pm	Paper Session 6: Tibia Injuries
1:00 - 1:25 pm	Symposium III: Post Traumatic Femoral AVN
1:25 - 1:49 pm	<b>Best of the Best Session</b>
1:49 - 2:14 pm	<b>Keynote Speaker: Hans-Christoph Pape, MD</b>
2:14 - 3:19 pm	Symposium IV: Guest Nation
3:40 - 4:10 pm	Symposium V: My Worst Case
4:10 - 4:42 pm	Paper Session 8: Proximal Femoral Fx
4:42 - 5:22 pm	Paper Session 9: Upper Extremity
5:30 - 6:30 pm	<b>International Poster Reception</b>

### ICD-10 CODING FOR TRAUMA SURGEONS

9:00 am - 4:00 pm	ICD-10 Coding Presentations
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### Industry Symposium - Registration Required

Wednesday, October 7, 6:30 pm - 8:00 pm  
DJO Global

## Thursday, October 8, 2015

### YOUNG PRACTITIONERS FORUM

	What's Different Now? Trauma Stats from 2015 Match & Post Fellow Survey
6:30 - 10:20 am	<b>Young Practitioners Forum Presentations</b>
10:20 - 10:50 am	<b>Speed Mentoring Sessions</b>

### BASIC SCIENCE FOCUS FORUM

7:25 - 8:20 am	Symposium 5: What's Important Besides Getting the Bone to Heal?
8:20 - 9:22 am	Paper Session 5: Besides Bone Healing
9:40 - 10:40 am	Symposium 6: Does Research Change Practice?
10:40 - 11:10 am	Paper Session 6: New Technology and Research

### ORTHOPAEDIC TRAUMA BOOT CAMP

7:00 - 8:50 am	Trauma Boot Camp Presentations
9:00 - 9:50 am	Lab 1 - Nailing Proximal Tibia
	Lab 2 - Pilon Ankle Plating
9:50 - 11:00 am	Trauma Boot Camp Presentations

### Industry Symposia

Thursday, October 8, 11:15 am - 12:45 pm

Registration Required - Boxed lunch available

Acelity	Acumed
DePuy Synthes (2)	Ellipse Technologies
Siemens	Stryker Trauma
Zimmer Biomet	

### ANNUAL MEETING

1:00 pm	Welcome and Donor Awards
1:20 - 2:50 pm	Symposium I: Anxious, Addicted and Alone: It is more than just the X-Rays!
3:20 - 4:11 pm	Paper Session 1: Program Committee Highlight Papers: High Level Randomized Controlled Trials
4:11 - 4:30 pm	Symposium II: Results of the FLOW Study
4:30 - 5:00 pm	<b>President's Message: The \$500 Check</b>
	<b>Theodore Miclau III, MD,</b> OTA President
5:00 - 6:00 pm	OTA Business Meeting
6:00 - 8:00 pm	<b>Welcome Reception</b> Manchester Grand Hyatt Pool Deck





# MEETING AT A GLANCE, continued


## Thursday, October 8, 2015, continued

### PA/NP COURSE

12:45 pm	Welcome and Overview
12:55 - 3:40 pm	PA/NP Course Presentations
3:45 - 4:30 pm	<b>Skills Lab</b>
	Spanning Knee Ex Fix
4:30 - 5:00 pm	<b>President's Message</b>
4:30 - 5:00 pm	PA/NP Course Presentations

## Friday, October 9, 2015

### ANNUAL MEETING

6:30 - 7:30 am	<b>Skills Labs</b> (SL1) SIGN (SL2) Periprosthetic Fracture (Femur)
6:30 - 7:30 am	<b>Case Presentations</b>
7:45 - 9:24 am	Paper Session 2: Tibia/Knee
8:00 - 9:30 am	<b>Mini-Symposia</b>
9:55 - 11:15 am	Symposium III: Acetabular Fractures in Patients Older than 60
11:15 - 11:45 am	Guest Nation Presentation
11:45 am - 12:15 pm	<b>John Border, MD</b> Memorial Lecturer
	
	<i>Christian Krettek, MD, FRACS, FRCSEd</i>
12:15 - 1:15 pm	<b>Women in Orthopaedic Trauma Luncheon</b>
12:15 - 1:15 pm	<b>New Member Luncheon</b>
12:15 - 1:15 pm	LUNCH
12:30 - 1:15 pm	<b>Guided Poster Tours</b> (PT1) International (PT2) Hip, Femur, Geriatric
1:15 - 2:15 pm	<b>Skills Labs</b> (SL3) IM Nailing Proximal Tibia Fx (SL4) Fixation of Proximal Humerus Fx
1:15 - 2:45 pm	<b>Mini-Symposia</b>
1:15 - 3:05 pm	Paper Session 3: General Interest I
3:35 - 4:32 pm	Paper Session 4: Pelvis Acetabulum
4:30 - 5:45 pm	<b>Mini-Symposia</b>
4:32 - 5:48 pm	Paper Session 5: Femur/Polytrauma
5:48 - 6:45 pm	<b>'Suds and Science' Guided Poster Tours</b> Beverages included with these tours. (PT3) Foot and Ankle (PT4) Upper Extremity

### PA/NP COURSE

6:30 - 7:30 am	<b>Case Presentations</b>
8:00 am - 12:15 pm	PA/NP Course Presentations
11:45 am - 12:15 pm	<b>John Border, MD Memorial Lecturer</b>

## Friday, October 9, 2015, continued

12:15 pm - 1:15 pm	LUNCH and <b>Guided Poster Tours</b>
1:15 - 3:00 pm	<b>Skills Labs</b> Hip Nailing Ankle ORIF
3:00 - 4:15 pm	PA/NP Course Presentations
4:15 - 5:15 pm	<b>PA / NP Reception</b>
5:35 - 6:30 pm	<b>Military Reception</b>
5:48 - 6:45 pm	<b>'Suds and Science' Guided Poster Tours</b>

## Saturday, October 10, 2015

### ANNUAL MEETING

6:30 - 7:30 am	<b>Skills Labs</b> (SL5) Complex Ankle Fractures (SL6) Fixation of Intra-Articular Distal Humerus Fractures
6:30 - 7:30 am	<b>Case Presentations</b>
7:45 - 9:00 am	Symposium IV: Elbow Trauma: How to Improve Outcomes in 2015
9:30 - 11:00 am	<b>Mini-Symposia</b>
9:30 - 11:08 am	Paper Session 6: Foot & Ankle
11:00 am - 12:15 pm	<b>Mini-Symposia</b>
11:08 am - 12:22 pm	Paper Session 7: Hip Fractures
12:22 - 1:22 pm	LUNCH
12:35 - 1:20 pm	<b>Guided Poster Tours</b> (PT5) Knee/Tibia (PT6) Reconstruction/General Interest
1:22 - 3:00 pm	Paper Session 8: Infection/General Interest II
1:30 - 3:00 pm	<b>Mini-Symposia</b>
3:15 - 5:10 pm	Paper Session 9: Upper Extremity/Wrist
5:10 pm	Closing Remarks and Adjourn

### PA/NP COURSE

6:30 - 7:30 am	<b>Skills Labs</b> (SL5) Complex Ankle Fractures: Posterior Malleolus, Syndesmosis (SL6) Fixation of Intra-Articular Distal Humerus Fractures
6:30 - 7:30 am	<b>Case Presentations</b>
7:45 - 9:00 am	Symposium IV: Elbow Trauma: How to Improve Outcomes in 2015
9:30 am - 12:15 pm	PA/NP Course Presentations
12:20 - 1:20 pm	LUNCH and <b>Guided Poster Tours</b>
1:30 - 3:15 pm	<b>Skills Labs</b> Distal Femoral Locked Plating Proximal Tibial Locked Plating
3:15 pm - 4:15 pm	PA/NP Course Presentations

# MEETING and PRE-MEETING COURSES

## 2015 Program Committee

Robert V O'Toole, MD, Program Chair  
 Michael D McKee, MD, Program Co-Chair  
 Thomas F Higgins, MD  
 Michael J Gardner, MD  
 David J Hak, MD  
 Stephen Kottmeier, MD  
 Gilbert R Ortega, MD, MPH  
 David W Sanders, MD  
 Gerard P Slobogean, MD

## Target Audience

The Orthopaedic Trauma Association (OTA) Annual Meeting is for the benefit of orthopaedic trauma surgeons and related allied health care professionals.

## Objectives

After attending the OTA Annual Meeting, participants will be able to:

- ◆ Discuss and become familiar with the most up-to-date clinical and basic science advancements related to orthopaedic trauma
- ◆ Demonstrate the impact of transdisciplinary and collaborative care on orthopaedic practice
- ◆ Understand the most recent advances and controversies in percutaneous fixation, open reduction, internal fixation and hip replacement in patients older than 60
- ◆ Learn operative indications of elbow fractures and how to optimize operative treatment.





# BASIC SCIENCE FOCUS FORUM

## 2015 Basic Science Committee

Edward J Harvey, MD, Chair  
Mohit Bhandari, MD; Joseph Borrelli Jr, MD;  
Todd O McKinley, MD; Aaron Nauth, MD;  
Emil H Schemitsch, MD; Brett D Crist, MD

## Target Audience

Academic orthopaedic surgeons, community surgeons with an interest in clinically relevant basic science, basic and clinical researchers, residents and fellows will benefit most from this Basic Science Focus Forum.

Attendees of this activity can earn up to  
**11.5 AMA PRA Category 1 Credits™**

## Objectives

Upon successful completion of the Basic Science Focus Forum, you will be able to:

- ◆ Understand the complex physiological issues associated with polytrauma patients
- ◆ Comprehend the changing treatment and diagnostic parameters for critical size bone defects
- ◆ Recognize the best indications for absolute or relative fixation in fracture management
- ◆ Review the biomechanical principals in directed fixation for controversial fractures and subluxations
- ◆ Appreciate what other musculoskeletal conditions we need to treat in trauma
- ◆ Identify how research may change your practice

## Wednesday, October 7, 2015

6:30 am Registration  
7:30 am Introduction  
*Edward J Harvey, MD, Program Chair*

7:35 am - Symposium 1  
8:45 am Management of Polytraumatized Patients with Severe Wounds  
Moderators: *Todd O McKinley, MD*  
*Timothy Billiar, MD*  
7:35 am Measuring Patient-Specific Mechanical and Ischemic Tissue Injury in Multiply Injured Patients  
*Greg E Gaski, MD*  
7:55 am Restoring Functional Muscle in Severe Wounds with Volumetric Muscle Loss  
*Benjamin Corona, PhD*

8:15 am Computational Biologic Approaches to Understanding Clinical Outcomes in Multiply Injured Patients  
*Yoram Vodovotz, PhD*  
8:35 am Discussion

8:45 am - Paper Session 1  
9:24 am Biomechanically-Directed Fixation  
Moderators: *Todd McKinley, MD*  
*Timothy Billiar, MD*

8:45 am Overview  
*Timothy Billiar, MD*  
8:50 am Paper 1  
Cytokines as Predictors of Multiple Organ Dysfunction Syndrome of Polytrauma Patients – Osteoprotegerin and Lipocalin-2 better than Interleukin-6?  
*Marcel Winkelmann, MD;*  
*Henning Peters; Christian Macke, MD;*  
*Philipp Mommsen, MD;*  
*Christian Zeckey, MD;*  
*Christian Schröter, MD;*  
*Christian Krettek, MD; Claudia Neunaber, MD*

8:56 am Paper 2  
A Severe Hemorrhagic Shock Leads to a Delayed Fracture Healing and Biomechanical Instability in a Murine Model  
*Katrin Bundkirchen, MS; Luisa Schäck, MD;*  
*Sandra Noack, MD; Christian Krettek, MD;*  
*Claudia Neunaber, MD*

9:02 am Paper 3  
Vancomycin and Imipenem Release from Nails Covered with Antibiotic-loaded Acrylic Cement Pharmacokinetic Study  
*Jorge Barla, MD; Luciano Rossi, MD;*  
*Carlos Sancineto, MD*

9:08 am Paper 4  
Elution Characteristics of PMMA Bone Cement IM Spacers Impregnated with Vancomycin and Tobramycin  
*Andrew Patton, MD; Brandon Perez, MD;*  
*William Buford, PhD*

9:14 am Discussion  
9:24 am Break

## BASIC SCIENCE FOCUS FORUM, continued

9:45 am - Symposium 2  
11:35 am Critical Size Bone Defects: Is There a Consensus in 2015 for Diagnosis and Treatment?

Moderators: *Aaron Nauth, MD*  
*J Tracy Watson, MD*

9:45 am **Size Matters: Defining "Critical" in Bone Defect Size**  
*Emil Schemitsch, MD*

10:00 am Induced Membrane Techniques (Masquelet) for Bone Defect Management  
*Brent L Norris, MD*

10:15 am The Role of Biologics in Bone Defect Management  
*J Tracy Watson, MD*

10:30 am Infected Bone Defects: State of the Art Treatment  
*Aaron Nauth, MD*

10:45 am Discussion

10:50 am - **Paper Session 2**  
11:35 am **Critical Size Bone Defects**

Moderators: *Aaron Nauth, MD*  
*J Tracy Watson, MD*

10:50 am Overview  
*Aaron Nauth, MD*

10:55 am **Paper 5**  
Effect of External Beam Irradiation on the Pathway of Bone Fracture Healing  
*Yongren Wu, PhD; Evan Hanna, MD; Daniel McDonald, MS; Kenneth Vanek, PhD; Hai Yao, PhD; Vincent Pellegrini, MD*

11:01 am **Paper 6**  
Novel PTH Based Bone Graft Substitute for Treatment of Fractures – Results from a Large Ovine Tibial Plateau Defects Study  
*Jason Schense, PhD; Brigitte von Rechenberg, DVM; Martin Stauber, PhD; Stephen Ferguson, Prof PhD*

11:07 am **Paper 7**  
Pharmaceutical and Genetic Depletion of Sclerotin and the Effect on Fracture Healing  
*Mohammad Alzahrani, MD, MSc; Reggie Hamdy, MB, MSc (Ortho.), FRCS(C)*

11:13 am **Paper 8**  
Comparative Analysis of Thrombopoietin (TPO), a Novel Agent to Heal Segmental Bone Defects, with Bone Morphogenetic Protein-2 (BMP-2): A Hypothesis Generating Transcriptomic Study  
*Nabarun Chakraborty, MS; MBA; Rasha Hammamieh, PhD; Duncan Donohue, PhD; Todd McKinley, MD; Paul Childress, PhD; Benjamin Corona, PhD; Tien-Min Chu, DDS; PhD; Melissa Kacena, PhD*

11:19 am **Paper 9**  
BMP-2 Increases Survival of Mesenchymal Stem Cells and Fracture Healing when Deployed in Photopolymerizable Hydrogels  
*Motasem Refaat, MD; Nina Vollmer, PhD; Steve Ho, BS; Eben Alsberg, PhD; Kent Leach, PhD; Mark Lee, MD*

11:25 am Discussion

11:35 am Lunch

12:30 pm - Symposium 3  
1:40 pm Absolute versus Relative Fixation

Moderators: *Joseph Borrelli, MD*  
*Brent L Norris, MD*

12:30 pm Plates: Alternative Fixation Methods and Their Influence on Fracture Healing  
*Gerald Lang, MD*

12:45 pm IM Nails are the Mainstay of Diaphyseal and Metaphyseal? Fracture Fixation: And Why?  
*Thomas A (Toney) Russell, MD*

1:00 pm Pros and Cons of Plates and Screws in Osteoporotic Bone  
*David Rothberg, MD*

1:15 pm Periprosthetic Fracture Fixation: To Graft or Not to Graft?  
*William M Ricci, MD*

1:30 pm Discussion

1:40 pm - **Paper Session 3**  
2:19 pm **Absolute versus Relative Fracture Fixation**

Moderators: *Joseph Borrelli Jr, MD*  
*Brent L Norris MD*

1:40 pm Overview  
*Joseph Borrelli Jr, MD*

1:45 pm **Paper 10**  
Controlled Axial Dynamization with a Novel Active Locking Plate can Deliver Faster and Stronger Healing  
*Michael Bottlang, PhD; Stanley Tsai, MS; Anika Drechsler, BS; Brigitte von Rechenberg, DVM; Manuel Asch, BS; Daniel Fitzpatrick, MS, MD; Peter Augat, PhD; Steven Madey, MD*

- 1:51 pm **Paper 11**  
A Biomechanical Comparison of Standard versus Far Cortical Locking Screws in a Periprosthetic Distal Femur Fracture  
*Kimberly Jacobsen, MD; J Bledsoe, PhD; Heidi Israel, PhD, RN; Jeffrey Whiting, MD; Lisa Cannada, MD*
- 1:57 pm **Paper 12**  
In Vivo Correlation of RUST Scoring with Biomechanical Strength of Nailed Tibia Fractures: Can We Finally Define Union Radiographically?  
*Paul Tornetta, MD; Jody Litrenta, MD; William Ricci, MD; Roy Sanders, MD; Robert O'Toole, MD; Henry Faber, MS; Jason Nascone, MD*
- 2:03 pm **Paper 13**  
The Biomechanical Advantage of Locked versus Non-locked Symphyseal Plating of Unstable Pelvic Ring Injuries  
*Ryan Godinsky, MD; Gregory Vrabec, MD; Loredana Guseila, BS; Danielle Filipkowski, MS; John Elias, PhD*
- 2:09 pm Discussion
- 2:19 pm Break

- 2:40 pm - **Symposium 4**  
3:45 pm **Biomechanical - Hot Topics 2015**  
Moderators: *Emil Schemitsch, MD; Michael Bottlang, MD*
- 2:40 pm Proximal Humerus Fractures: Using Biomechanics to Reduce Failure of Locked Implants  
*TBD*
- 2:48 pm Femoral Neck Fracture Fixation: What is the Rationale for Implant Choice?  
*Gerard P Slobogean, MD*
- 2:56 pm Nailing Unstable Intertrochanteric Fractures: Biomechanical Evidence for Improved Proximal Fixation  
*Steven A Olson, MD*
- 3:04 pm Periprosthetic Distal Femur Fractures: Nail or Plate?  
*Emil Schemitsch, MD*
- 3:12 pm Syndesmotic Injuries: How Flexible Should the Fixation Be?  
*David W Sanders, MD*
- 3:20 pm Talar Neck Fractures: Is Standard Screw Fixation Adequate?  
*Bruce Sangeorzan, MD*
- 3:28 pm - 3:45 pm Discussion

- 3:45 pm - **Paper Session 4**  
4:50 pm **Biomechanics**  
Moderators: *Emil Schemitsch, MD; Michael Bottlang, MD*

- 3:45 pm Overview  
*Emil Schemitsch, MD*
- 3:50 pm **Paper 14**  
The Effect of Varying Tension of a Suture Button Construct in Fixation of the Tibiofibular Syndesmosis - Evaluation Using Stress Computed Tomography  
*John Morellato, MBBS (Hons); Hakim Louati, MSc; Andrew Bodrogi, MD; Andrew Stewart, MD; Steven Papp, MD FRCP; Allan Liew, MD, FRCSC; Wade Gofton, MD, FRCP*
- 3:56 pm **Paper 15**  
Anatomic Ligament Repair Restores Ankle and Syndesmotic Rotational Stability as Much as Syndesmotic Screw Fixation  
*Patrick Schottel, MD; Josh Baxter, PhD; Susannah Gilbert, MS; Matthew Garner, MD; Dean Lorch, MD*
- 4:02 pm **Paper 16**  
Initial Stiffness of Bicortical Locked Screw versus Unicortical Locked Screw and Graft-Cable Fixation of Comminuted Vancouver C Periprosthetic Fractures: A Biomechanical Study  
*Michael Beebe, MD; David Hulet, BS; Casey Whale, BS; Sean Tagge, BS; Jeremy Gililland, MD; Erik Kubiak, MD*
- 4:08 pm Discussion
- 4:18 pm **Paper 17**  
Comparison of Three Methods for Maintaining Inter-fragmentary Compression after Fracture Fixation  
*Brigham Au, MD; John Groundland, MD; Brandon Santoni, PhD; Kyle Stoops, MD; H Claude Sagi, MD*



## BASIC SCIENCE FOCUS FORUM, continued

- 4:24 pm **Paper 18**  
**Periprosthetic Supracondylar Femoral Fractures Following Knee Arthroplasty: A Biomechanical Comparison of Four Methods of Treatment**  
*Tatu Mäkinen, MD, PhD;*  
*Herman Dhotar, MD, FRCSC;*  
**Simcha Fichman, MD;** *Matthew Gunton, MD, FRCSC;*  
*Mitchell Woodside, MSc;*  
*Oleg Safir, MD, MEd, FRCSC;*  
*David Backstein, MD, MEd, FRCSC;*  
*Thomas Willett, PhD;*  
*Paul Kuzyk, MD, MASC, FRCSC*
- 4:30 pm **Paper 19**  
**Axial and Rotational Mal-Reduction (Golf Club Deformity) in Distal Femur Fractures**  
*Ali Alhandi, MBBS;* *Willard Moore, MD;*  
**Jason Lowe, MD;** *David Kaimrajh, MS;*  
*Edward Milne, BSc;* *Loren Latta, PhD*
- 4:36 pm Discussion
- 4:50 pm **ADJOURN TO INTERNATIONAL POSTER RECEPTION**



## Thursday, October 8, 2015

- 7:25 am **Introduction**  
*Edward J Harvey, MD, Program Chair*

- 7:30 am - **Symposium 5**  
 8:20 am **What's Important Besides Getting the Bone to Heal?**  
 Moderators: *Brett D Crist, MD*  
*Mark A Lee, MD*
- 7:30 am **What to Do When the Articular Cartilage Doesn't Heal or Can't Be Reconstructed?**  
*James P Stannard, MD*
- 7:40 am **Periarticular Knee Fractures: Ligamentous Stability Affects Success**  
*William Harvin, MD*
- 7:50 am **Fractures Don't Heal without Soft Tissue Coverage: Understanding the Soft Tissue Reconstructive Ladder**  
*Michael J Gardner, MD*
- 8:00 am **Muscular Recovery: How Much is Lost with Injury?**  
*Thomas Higgins, MD*
- 8:10 am Discussion

- 8:20 am - **Paper Session 5**  
 9:22 am **Besides Bone Healing**  
 Moderators: *Brett D Crist, MD*  
*Mark A Lee, MD*

- 8:20 am **Overview**
- 8:25 am **Paper 20**  
**Autologous Minced Muscle Treatment of Volumetric Muscle Loss Improves Neuromuscular Strength**  
*Jennifer McDaniel, PhD;* *Catherine Ward, PhD;*  
*Joseph Wenke, PhD;* *Benjamin Corona, PhD*
- 8:31 am **Paper 21**  
**Comparison Between Supra-patellar and Para-patellar Approach for Proximal Tibia Fractures: Cadaveric Study**  
*Rodolfo Zamora, MD;* *Craig Wright, MD;*  
*Adam Short, MD;* *David Seligson, MD*
- 8:37 am **Paper 22**  
**Blind Area of Reverse-L Posteromedial Approach Compare with Posterolateral Approach for Posterolateral Tibial Plateau Fractures: A Cadaveric Study**  
*Wich Orapiriyakul, MD;*  
*Theerachai Apivotthakakul, MD*

- 8:43 am **Paper 23**  
The Safety and Feasibility of Minimally Invasive Plate Osteosynthesis (MIPO) on the Medial Side of the Femur:  
A Cadaveric Injection Study  
*Theerachai Apivatthakakul, MD*
- 8:49 am Discussion
- 8:54 am **Paper 24**  
Under Pressure: The Utility of Splitting Fiberglass Casts  
*Kevin Kleis, DO; John Schlechter, DO; Joshua Doan, MEng; Christine Farnsworth, MS; Eric Edmonds, MD*
- 9:00 am **Paper 25**  
Targeted Stimulation of Retinoic Acid Receptor Signaling Mitigates the Formation of Heterotopic Ossification Formation in an Established Blast-Related Traumatic Injury Model  
*Gabriel Pavey, MD; Ammar Qureshi, PhD; Allison Tomasino, BS; Danett Bishop, PhD; Masahiro Iwamoto, PhD; Maurizio Pacifici, PhD; Benjamin Potter, MD; Thomas Davis, PhD; Jonathan Forsberg, MD*
- 9:06 am **Paper 26**  
Transforming Growth Factor- $\beta$ 2 Gene Expression Early may be Predictive of the Severity of Future Development of Heterotopic Ossification  
*Ronald Goodlett, MD; Patrick Jones, MD; Youngmi Ji, PhD; Daniel Griffin, MD; Leon Nesti, MD, PhD; Husain Bharmal, MD*
- 9:12 am Discussion
- 9:22 am Break

- 9:40 am - 10:40 am **Symposium 6**  
**Does Research Change Practice?**  
Moderators: *Mohit Bhandari, MD; Edward J Harvey, MD*
- 9:40 am **Orthopaedic Research Funding Trends – Is Trauma Getting Its Fair Share?**  
*Mitchell Bernstein, MD*
- 9:50 am **6 Clinical Research Papers That Have Influenced My Practice**  
*Michael T Archdeacon, MD*
- 10:00 am **6 Basic Science Research Papers That Have Influenced My Practice**  
*Steven R Papp, MD*
- 10:10 am **Does Level I Evidence Mean “I Should Change my Practice?”**  
*Peter Giannoudis, MD*

- 10:20 am **Are Journals the Future Source of Practice-Changing Evidence?**  
*Roy Sanders, MD*
- 10:30 am Discussion

- 10:40 am - 11:10 am **Paper Session 6**  
**New Technology and Research**  
Moderators: *Edward J Harvey, MD; Peter V Giannoudis, MD*

- 10:40 am Overview
- 10:45 am **Paper 27**  
Repetitive Reduction Lead to Significant Elevated IL-6 Levels in Femoral Fractures:  
A Quantitative Analysis of a Robot-Assisted Reduction Process in a Rat Model  
*Claudia Neunaber, MD; Ralf Westphal, MD; Christian Krettek, MD; Thomas Goesling, MD; Philipp Haas, MD; Katrin Bundkirchen, MS*
- 10:51 am **Paper 28**  
Carbon Monoxide Releasing Molecule-3 (CORM-3) Protects the Skeletal Muscle In Porcine Model of Compartment Syndrome  
*Aurelia Bihari, MSc; Gediminas Cepinskas, DVM, PhD; David Sanders, MD; Abdel-Rahman Lawendy, MD, PhD, FRCSC*
- 10:57 am **Paper 29**  
The Effect of Iron Chelators on Bioceramic Bone Graft Remodeling  
*Justin Drager, MDCM; Zeeshan Sheikh, PhD; Yu Ling Zhang, MSc; Abhishek Kumar, MD; Edward Harvey, MD, MSc, FRCSC; Jake Barralet, PhD*
- 11:03 am Discussion
- 11:10 am **ADJOURN TO INDUSTRY SYMPOSIA**  
**Registration Required**  
(Boxed lunch available)

# ORTHOPAEDIC TRAUMA BOOT CAMP

Daniel S Horwitz, MD & Robert F Ostrum, MD,  
Program Chairs

Attendees of this activity can earn up to  
12.75 **AMA PRA Category 1 Credits™**

## Target Audience

This course is intended for the practicing orthopaedic surgeon who takes emergency room or trauma call. Current techniques in orthopaedic care will be stressed with attention to appropriate soft tissue management and up-to-date implant selection. Case discussions will be used for interactive learning and audience participation.

## Objectives

Upon successful completion of this course, you will be able to:

- ◆ Understand current indications for operative and non-operative treatment of fractures and dislocations
- ◆ Comprehend appropriate surgical techniques, approaches, and implant selections for fracture care
- ◆ Recognize the importance of careful soft tissue techniques
- ◆ Analyze critically ill traumatized patients and practice appropriate temporary stabilization procedures and establish protocols for transfer

## Wednesday, October 7, 2015

6:15 am **Registration and Breakfast**  
7:00 am **Welcome and Announcements**  
*Daniel S Horwitz, MD*

### Upper Extremity

Moderator: *Daniel S Horwitz, MD*

7:05 am **Clavicle Fractures**  
*Robert A Probe, MD*  
7:25 am **Proximal Humerus Fractures**  
*William M Ricci, MD*  
7:45 am **Distal Humerus Fractures**  
*James A Goulet, MD*  
8:05 am **Distal Radius Fractures**  
*Thomas F Varecka, MD*  
8:25 am **Questions / Discussion**  
8:40 am **Case Presentations**  
*Daniel S Horwitz, MD*

### Polytrauma and Biologics

Moderator: *Steven J Morgan, MD*

8:55 am **Orthobiologics**  
*J Tracy Watson, MD*  
9:15 am **Open Fractures**  
*Robert F Ostrum, MD*  
9:35 am **Initial Management of the Polytrauma Patient**  
*Dolfi Herscovici Jr, DO*  
9:55 am **Questions / Discussion**  
10:10 am **Case Presentations**  
*Steven J Morgan, MD*  
10:25 am **Break**

10:45 am **Lab 1 –**

**Clavicle Plating**

Lab Leader: *Steven J Morgan, MD*

**Lab 2 –**

**Supracondylar Elbow Plating**

Lab Leader: *James A Goulet, MD*

### Hip Fractures

Moderator: *Jeffrey O Anglen, MD*

11:35 am **Intertrochanteric Fractures: IMHS Versus DHS**  
*Jeffrey O Anglen, MD*  
11:55 am **Femoral Neck Fractures in Elderly: ORIF, Monopolar, or THR**  
*Kenneth A Egol, MD*  
12:15 pm **Femoral Neck Fractures in Younger Patients**  
*J Tracy Watson, MD*  
12:35 pm **Questions / Discussion**  
12:50 pm **Lunch with Case Presentations**  
*Jeffrey O Anglen, MD*

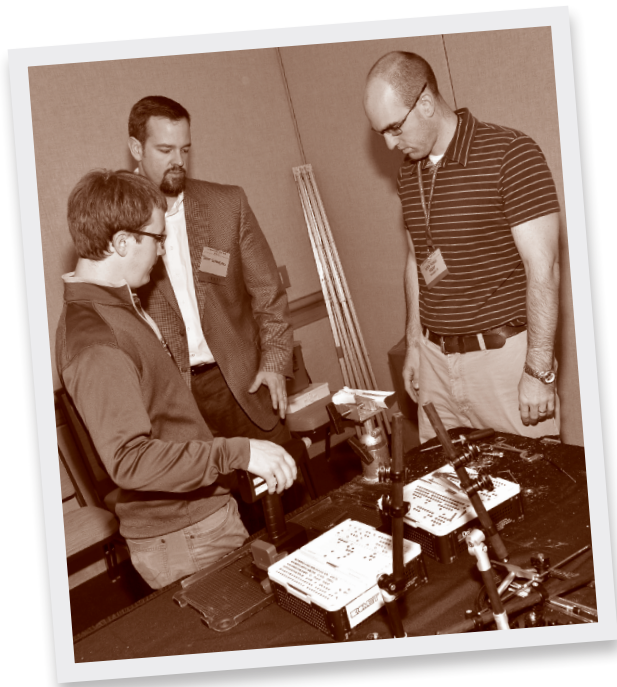
### Femoral Shaft/Supracondylar Femur Fractures

Moderator: *Frank A Liporace, MD*

1:30 pm **The Stable Appearing Pelvic Fracture that is Really Unstable. How Do You Tell?**  
*Andrew H Schmidt, MD*  
1:50 pm **Femoral Nailing: Antegrade versus Retrograde**  
*Daniel S Horwitz, MD*  
2:10 pm **Supracondylar Femur Fractures**  
*Paul Tornetta III, MD*  
2:30 pm **Periprosthetic Fractures**  
*Clifford B Jones, MD*  
2:50 pm **Break**



- 3:10 pm Role and Technique for  
Spanning External Fixator  
*Jeffrey O Anglen, MD*
- 3:30 pm Patella Fractures  
*Joshua Langford, MD*
- 3:50 pm Questions / Discussion
- 4:05 pm Case Presentations  
*Frank A Liporace, MD*
- 4:30 pm Adjourn



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## Thursday, October 8, 2015

### Tibia Fractures Top to Bottom

Moderator: *Erik Kubiak, MD*

- 7:00 am Tibial Plateau Fractures  
*Steven J Morgan, MD*
- 7:20 am Tibial Shaft Fractures  
*Philip R Wolinsky, MD*
- 7:40 am Tibial Nonunions  
*Gerald J Lang, MD*
- 8:00 am Pilon Fractures - Surgical  
Approaches and Techniques  
*Nigel Rossiter, MD*
- 8:20 am Questions / Discussion
- 8:35 am Case Presentations  
*Erik Kubiak, MD*
- 8:50 am Break

### 9:00 am Lab 1 – Nailing Proximal Tibia

Lab Leader: *Erik Kubiak, MD*

### Lab 2 – Pilon Ankle Plating

Lab Leader: *Joshua Langford, MD*

### Calcaneus Fractures

Moderator: *Nigel Rossiter, MD*

- 9:50 am Ankle Fractures in the Elderly  
Osteoporotic and Neuropathic  
*Dolfi Herscovici Jr, MD*
- 10:10 am Calcaneus Fracture Emergencies  
*Erik Kubiak, MD*
- 10:30 am Questions / Discussion
- 10:45 am Case Presentations  
*Nigel Rossiter, MD*
- 11:00 am Adjourn  
*Daniel S Horwitz, MD*
- 11:15 am - **INDUSTRY SYMPOSIA**  
12:45 pm *Registration Required*  
(Box lunch available)

# INTERNATIONAL ORTHOPAEDIC TRAUMA CARE FORUM

**Wednesday,  
October 7, 2015**

## 2015 International Committee

Peter V Giannoudis, MD, Chair  
Ney Amaral, MD; Fernando de la Huerta, MD;  
Amir M Matityahu, MD; Cyril Mauffrey, FRCS (Ortho), MD  
Max Morandi, MD; Thomas A (Toney) Russell, MD

Attendees of this activity can earn up to  
**8.75 AMA PRA Category 1 Credits™**

## Target Audience

The Orthopaedic Trauma Association (OTA) International Orthopaedic Trauma Care Forum is for the benefit of orthopaedic trauma surgeons and related allied health care professionals with an interest in international trauma healthcare.

## Objectives

Attendees of the International Orthopaedic Trauma Care Forum will:

- ◆ Learn about the varied methods of treating fracture and trauma complications from around the world
- ◆ Understand the pros and cons of open reduction techniques of the difficult young intra-capsular NOF fracture
- ◆ Increase knowledge and understanding of the anterior and posterior approach to vertical shear pelvic fractures
- ◆ Become familiar with unique approaches to acetabulum fractures in the elderly treated in Germany
- ◆ Understand the most recent advances and controversies of post traumatic femoral AVN
- ◆ Gain insight as to best practices when things go wrong

## Program

7:30 am **Welcome**  
*Peter V Giannoudis, MD, Program Chair*

7:35 am - 8:05 am **Symposium I**  
**Focus Surgical Techniques - Vertical Shear Pelvic Fracture: My Preferred Method of Reduction-Fixation**

Moderators: *William G DeLong Jr, MD*  
*Tim Chesser, MD*

–Anterior Approach – *Cyril Mauffrey, MD*  
–Posterior Approach – *Amir M Matityahu, MD*

8:05 am - 8:37 am **Session 1 – Acetabulum**

Moderators: *Keith Willett, MD*  
*Amir M Matityahu, MD*

- 8:05 am **Paper 1**  
**Acetabular Fractures in Elderly Patients: A Comparative Study of Low-Energy versus High-Energy Injuries**  
*Cyril Mauffrey, MD; Ji-Wan Kim, MD; Benoit Herbert, MD; Jiandong Hao, MD; William Min, MD; Bruce Ziran, MD*
- 8:13 am **Paper 2**  
**The State of Pelvic and Acetabular Surgery in the Developing World: A Global Survey of Orthopaedic Surgeons at SIGN Hospitals**  
*Paul Whiting, MD; Duane Anderson, MD; Daniel Galat, MD; Lewis Zirkle, MD; Hassan Mir, MD*
- 8:21 am **Paper 3**  
**Functional Outcome and Quality of Life after Surgical Management of Displaced Acetabular Fractures in Tanzania**  
*Edmund Eliezer, MD*
- 8:29 am Discussion

8:37 am - 9:09 am **Session 2 – Pelvic Injuries and Femur**

Moderator: *Ross K Leighton, MD*  
*Michael L Nerlich, MD*

- 8:37 am **Paper 4**  
**Impact of Pelvic Fracture on the Clinical Outcomes of Severely Injured Trauma Patients: Where We Stand in 2015**  
*Khalid Almahmoud, MD; Roman Pfeifer, MD; Philipp Lichte, MD; Thomas Dienstknecht, MD; Frank Hildebrand, MD; Hans-Christoph Pape, MD*
- 8:45 am **Paper 5**  
**Pelvic Fractures In Paediatric Polytrauma Patients: Classification, Concomitant Injuries And Early Mortality**  
*Theodoros Tosounidis, MD; Hassaan Sheikh, MD; Peter Giannoudis, MD*
- 8:53 am **Paper 6**  
**Predictors of Reoperation for Adult Femoral Shaft Fractures Managed Operatively in Sub-Saharan Africa**  
*Edmund Eliezer, MD; Billy Haonga, MD; Saam Morshed, MD; David Shearer, MD*
- 9:01 am Discussion
- 9:09 am Break

## 9:25 am - 9:45 am SIGN Session

Moderator: **Lewis G Zirkle, MD**

- Earthquake Nepal 2015  
*Bhaskar Raj Pant, MD*
- 2015 Earthquake Disaster Response by  
Nepal Orthopaedic Hospital  
*Saju Pradhan, MD*

## 9:45 am - 10:17 am Session 3 – Knee Injuries

Moderators: **Max Morandi, MD**  
**Paulo Roberto Lourenco, MD**

### 9:45 am Paper 7

**Comminuted Patella Fractures in Adults:  
Management and Clinical Outcome**  
*Liam Walker, MD; Michalis Panteli, MD;  
Ippokrates Pountos, MD; Peter Giannoudis, MD*

### 9:53 am Paper 8

**Internal Fixation without Bone Grafting for  
Depressed Articular Surface Fractures of  
the Tibial Plateau**  
*Tim Chesser, MD; Steven Morris, MD*

### 10:01 am Paper 9

**Structural Bone Grafting as a Treatment for  
Periprosthetic Knee Fractures:  
A Review of 15 Cases**  
*Ion Carrera, MD; Angelica Millan, MD;  
Xavier Aguilera, MD; Julio De Caso, MD;  
Fernando Celaya, MD*

10:09 am Discussion

## 10:17 am - 10:49 am Session 4 – Foot and Ankle

Moderator: **Fernando de la Huerta, MD**  
**Hans-Christoph Pape, MD**

### 10:17 am Paper 10

**Arthroscopic Assisted Minimally Invasive  
Fixation of the Supination-External Rotation  
Ankle Fractures**  
*Chao-Ching Chiang, MD; Ching-Kuei Huang, MD;  
Yun-Hsuan Tzeng, MD*

### 10:25 am Paper 11

**Direct Comparison of Syndesmotic  
Reconstructive Techniques Using  
Weightbearing CT**  
*Jennifer Hagan, MD; Boyko Gueorguiev, PhD;  
R Geoff Richards, PhD; Kajetan Klos, MD;  
Paul Simons, MD*

### 10:33 am Paper 12

**Close Reduction and Percutaneous Screw  
Fixation for Talar Neck Fractures**  
*Hu Wang, MD; Zhe Song, MD*

10:41 am Discussion

## 10:49 am - 11:16 am Symposium II

**Debate: Open Reduction of the  
Difficult Young Intra-capsular  
NOF Fracture**

Moderator: **Mohit Bhandari, MD, PhD**

- Anterior Open Reduction-Fixation  
Technique (video)  
*Christian Krettek, MD, FRACS*
- Pros/Con – Best Evidence  
*Brad Petrisor, MD*

## 11:16 am - 11:48 am Session 5 – Basic Science

Moderators: **Cyril Mauffrey, FRCS (Ortho), MD**  
**Emil H Schemitsch, MD**

### 11:16 am Paper 13

**The Impact of a Femur Fracture on  
Systemic Neutrophil Activation in  
Pigs**

*Michel Teuben, MD;  
Marjolein Heeres, MD;  
Taco Blokhuis, MD; Roman Pfeifer, MD;  
Klemens Horst, MD;  
Leo Koenderman, MD;  
Hans-Christoph Pape, MD;  
Luke Leenen, MD*

### 11:24 am Paper 14

**Angular Stable Intramedullary  
Nailing - Does It Provide  
Biomechanical Benefit?**

*Peter Augat, MD;  
Stefanie Hoffmann, MD;  
Manuel Kessler, MD;  
Daniel Stephan, MD;  
Geert von Oldenburg, MD;  
Claus Gerber, MD*

### 11:32 am Paper 15

**Nail Medullary Canal Ratio Affects  
Mechanical Axis Deviation during Femoral  
Lengthening with an Intramedullary  
Distractor**

*Nael Hawi, MD; Mohamed Kenawey, MD;  
Christian Krettek, MD; Emmanouil Liodakis, MD*

11:40 am Discussion



# INTERNATIONAL ORTHOPAEDIC TRAUMA CARE FORUM, continued

## 11:48 am - 12:28 pm Session 6 – Tibia Injuries

Moderator: *Christopher G Moran, MD*  
*P Duffy, MD*

11:48 am **Paper 16**  
Minimally Invasive Plate Osteosynthesis for Periprosthetic Tibial Fractures after Total Knee Arthroplasty  
*Joon-Woo Kim, MD; Ki-Chul Park, MD; Jong-Keon Oh, MD; Chang-Wug Oh, MD; Hee-Soo Kyung, MD; Kyung-Hyun Park, MD*

11:56 am **Paper 17**  
Bone Transport Combined with Open Wound Treatment for Tibial Fracture Infected Nonunion  
*Hu Wang, MD; Pen-fei Wang, MD*

12:04 pm **Paper 18**  
Outcomes of Tibia Fractures Treated with a SIGN Intramedullary Nail at Nepal Orthopedic Hospital  
*Michael Self, MD; Jill Larson, MD; Anil Shrestha, MD; S David Stulberg, MD*

12:12 pm **Paper 19**  
Lower Extremity Fractures in Uganda Continue to Impact Income, Quality of Life and the School Attendance of Dependents at One Year Post-injury  
*Nathan O'Hara, MD; Rodney Mugarura, MD; Jeffrey Potter, MD; Trina Stephens, MD; Marit Rehavi, MD; Patrick Francois, MD; Piotr Blachut, MD; Peter O'Brien, MD; Tito Beyeza, MD; Gerard Slobogean, MD*

12:20 pm Discussion

12:28 pm LUNCH

## 1:00 pm - 1:25 pm Symposium III Post Traumatic Femoral AVN

Moderator: *Christian Krettek, MD, FRACS*  
–Core Decompression – *B Bouillon, MD*  
–Biological Based Therapies  
*Peter V Giannoudis, MD*

## 1:25 pm - 1:49 pm Session 7 – Best of the Best

Moderator: *Thomas A (Toney) Russell, MD*  
*Florian Gebhard, MD, PhD*

1:25 pm **Paper 20**  
Iliioinguinal Approach and Infrapectineal Plate Fixing Posterior Column for Complex Acetabular Fractures  
*Yan Zhuang, MD; Hu Wang, MD*

1:31 pm **Paper 21**  
Isolating only a Novel Mesenchymal Stem Cell Subpopulation Leads to a High Mitogenic and Osteogenic Outcome  
*Ippokrates Pountos, MD; Karen Henshaw, MD; Peter Giannoudis, MD*

1:37 pm **Paper 22**  
Reconstruction of Femoral Head Impaction Injuries using Osteochondral Shell Autografts Harvested from the Head-Neck Junction  
*Marius Keel, MD; Jennifer Cullmann, MD; Salvatore Tomagra, MD; Harald Bonel, MD; Johannes Bastian, MD*

1:43 pm Discussion

1:49 pm **Keynote Speaker –**  
**Hans-Christoph Pape, MD**  
*University of Aachen Medical Center Aachen, Germany*  
Introduction: *Theodore Miclau III, MD*



## 2:14 pm – 3:19 pm Symposium IV Guest Nation: Germany Acetabulum Fracture Fixation in the Elderly: My Preferred Method of Treatment



Moderator: *Peter V Giannoudis, MD*  
*Theodore Miclau III, MD*  
–Non-operative Treatment  
*William G DeLong Jr, MD*  
–Fixation – *Michael L Nerlich, MD*  
–Replacement – *Florian Gebhard, MD, PhD*

3:19 pm Break

## 3:40 pm - 4:10 pm Symposium V (My Worst Case: When Things Go Wrong Then /What?)

Moderator: *Roy Sanders, MD*  
–Case 1 – *Christopher G Moran, MD*  
–Case 2 – *Daniel S Horwitz, MD*

## 4:10 pm - 4:42 pm Session 8 – Proximal Femoral Fractures

Moderator: *Andrew H Schmidt, MD*  
*B Bouillon, MD*

4:10 pm **Paper 23**  
Which Intramedullary Nailing Treatment for Intertrochanteric Femoral Fractures Results in Better Outcomes?  
*Martin Hoffmann, MD; Debra Sietsema, MD; Justin Khoriaty, MD; Clifford Jones, MD*

4:18 pm **Paper 24**  
Effect of Teriparatide on Atypical Complete Femoral Fractures treated with Intramedullary Nailing  
*Hyun-Seok Joo, MD; Dong-Eun Kim, MD; Ji-Wan Kim, MD; Ki-Chul Park, MD; Jung-Jae Kim, MD*

4:26 pm **Paper 25**  
Incidence of Bone Protection and Associated Fragility Injuries in Patients with Proximal Femoral Fractures  
*Ignacio Aguado-Maestro, MD; Michalis Panteli, MD; Manuel Garcia-Alonso, MD; Alejandro Bañuelos-Díaz, MD; Roberto Escudero-Marcos, MD; Peter Giannoudis, MD*

4:34 pm Discussion

4:42 pm - 5:22 pm **Session 9 – Upper Extremity**  
Moderator: *Douglas W Lundy, MD; Nigel Rossiter, MD*

4:42 pm **Paper 26**  
Removal of Volar Plates after Open Reduction Internal Fixation of Distal Radius Fractures: Clinical Reasons and Radiographic Analysis  
*Amir Shlaifer, MD*

4:50 pm **Paper 27**  
Prevention of Complex Regional Pain Syndrome Type 1 in Patients with Distal Radius Fracture - A Pilot Study  
*Emily Boersma, MD; Henk Van de Meent, MD; Jan Paul Frölke, MD*

4:58 pm **Paper 28**  
Diaphyseal Humeral Fractures in the Elderly: Results of Surgical Treatment  
*Nimrod Snir, MD; Ron Batash, MD; Oleg Dolkart, MD; Eran Maman, MD; Gilad Eisenberg, MD; Yaniv Warschawski, MD; Ely Steinberg, MD*

5:06 pm **Paper 29**  
Elbow Hinged External Fixator: Our Treatment Approach for Complex Elbow Dislocation in Elderly  
*Pietro Maniscalco, MD; Marco Caforio, MD; Patrizia Mantelli, MD; Luigi Bisogno, MD*

5:14 pm Discussion

5:22 PM **ADJOURN TO INTERNATIONAL POSTER RECEPTION**

5:30 pm - 6:30 pm **International Poster Reception**

**Poster 1** Determinants of Access to Orthopaedic Surgery at Uganda's National Hospital  
*Trina Stephens, MSc; Nathan O'Hara, MHA; Jeffrey Potter, MD; Rodney Mugarura, MBChB, M.Med; Piotr Blachut, MD; Peter O'Brien, MD; Tito Beyeza, MD; Gerard Slobogean, MD*

**Poster 2** Corrective Osteotomy of The Distal Femur: A Minimally Invasive Surgical Technique Using a Locking Plate and Temporary External Fixation  
*Joon-Woo Kim, MD; Chang-Wug Oh, MD; Jong-Keon Oh, MD; Tae-Joon Cho, MD; Hee-Soo Kyung, MD; Hee-June Kim, MD*

**Poster 3** Possible Predictors for Difficult Removal of Locking Plates: A Case-Control Study  
*Yang Lv, MD; Fang Zhou, MD; Yun Tian, MD; Hongquan Ji, MD; Zhishan Zhang, MD; Yan Guo, MD; Yunfei Hou, MD*

**Poster 4** Long-Term Analysis (10 Versus 20 Years) After Severe Trauma: What are the Effects on Quality of Life?  
*Roman Pfeifer, MD; Hagen Andruszkow, MD; Klemens Horst, MD; Frank Hildebrand, MD; Hans-Christoph Pape, MD*

**Poster 5** The Global Burden of Spine Fractures: A Pilot Prospective Multicenter Evaluation  
*Ilyas Aleem, MD; Dylan Demarco, BHSc; Brian Drew, MD; Sohail Shariff, BSc; C.J. Foote, MD; Nathan Evaniew, MD; Vijay Shetty, MD; Mandeep Dhillon, MD; Raman Mundi, MD; Mohit Bhandari, MD*

**Poster 6** Functional Results After Fracture Dislocations of the Elbow  
*Kaare Midtgaard, MD; Ida Sletten, MD; Jørgen Michelsen, MD; Jan Erik Madsen, MD; Gunnar Flugsrud, MD*

**Poster 7** Closed Reduction and Internal Fixation with MIPPO Technique for Calcaneal Fractures  
*Yan Guo, MD; Fang Zhou, MD; Yun Tian, MD; Yang Lv, MD*

**Poster 8** Is Polyaxial Plating Technology Effective for Fixation of Distal Femoral Fractures?  
*Kalliopi Lampropoulou-Adamidou, MD; Theodoros Tosounidis, MD; Nikolaos Kanakaris, MD; Peter Giannoudis, MD*

**Poster 9** Does Operative Restoration of the Clavicle Portion of the Floating Shoulder Injury Affect Scapular Deformity?  
*Alex Glide, MD; Debra Sielsema, PhD; Christiane Kruppa, MD; Martin Hoffmann, MD; Clifford Jones, MD*

**Poster 10** Blood Glucose in Multiply Injured Patients – A Reliable Parameter for Haemorrhagic Shock and Outcome?  
*Philipp Mommsen, MD; Christian Schröter, MD; Christian Zeckey, MD; Mohamed Omar, MD; Christian Krettek, MD; Marcel Winkelmann, MD*

**Poster 11** Entrapment – A Risk Factor for Outcome In Multiple Trauma Patients?  
*Christian Zeckey, MD; Philipp Mommsen, MD; Marika Sarakintsis; Marcel Winkelmann, MD; Christian Schröter, MD; Christian Krettek, MD; Christian Macke, MD*

# ICD-10 CODING FOR TRAUMA SURGEONS

**Wednesday,  
October 7, 2015**

Margaret Maley, BSN, MS, Senior Consultant,  
KarenZupko & Associates, Inc.

J Scott Broderick, MD, Course Chair

Attendees of this activity can earn up to

**6 AMA PRA Category 1 Credits™**

## Course Description

Margaret Maley from KarenZupko & Associates, Inc. is back to ease the ICD-10-CM transition! Take this opportunity to attend an ICD-10 course specifically for orthopaedic trauma surgeons and their staff. With more documentation and technology tools to assist trauma surgeons who must navigate the use of over 65% of all ICD-10 codes. In addition to a workbook filled with valuable key documentation tables for providers and anatomy illustrations for coding and billing staff, every workshop participant will receive the ICD-10 Zupko Slim Guide for Orthopaedic ICD-10. This "cheat sheet" is modified for common sense, and condensed to include the codes most commonly used to report musculoskeletal diseases, chronic problems and complications. The guide also includes the popular KZA "Injury Guy" offering a streamline strategy for identifying the category (first three characters) for every diagnosis from the injury chapter of ICD 10. The 7th character tables required for all injuries are color coded for your convenience in the guide.

*Be Inspired  
Not Intimidated about  
Implementing ICD-10*

## About the Speaker

Margaret Maley brings 30 years of orthopaedic experience to her clients working with KarenZupko & Associates as a consultant and speaker for 20 years. With a B.S.N. from The University of Illinois and Master's degree from Rush University, Ms. Maley began her career in Chicago as a clinical nurse specialist managing several FDA studies. Moving to Houston in 1986, she transitioned to the business side of orthopaedics. "Front-line" experience managing orthopaedic practices gives her unique insight into the challenges facing orthopaedic surgeons and their staff on a daily basis. She is acutely aware of the importance of correct coding and accurate documentation for proper reimbursement and to minimize the risk of audit. She is recognized by her peers as a skilled communicator and for being able to sort out difficult orthopaedic coding and reimbursement issues. Ms. Maley's fast paced humorous presentations make her a favorite of surgeons, non-physician providers, administrators and staff.



## Areas of coding and reimbursement expertise:

- ◆ Adult reconstruction
- ◆ Sports Medicine
- ◆ Trauma
- ◆ Arthroscopy
- ◆ Pediatric Orthopaedics
- ◆ Tumor
- ◆ Medical necessity
- ◆ Evaluation & Management
- ◆ Individualized E&M documentation and review education via the internet
- ◆ EOB analysis
- ◆ ICD-10 CM for Orthopaedics

Margaret is an instructor for the national coding and reimbursement workshops sponsored by the American Academy of Orthopaedic Surgeons with extensive experience working with private practices, employed physicians, academic orthopaedic departments, state orthopaedic societies, and as a featured speaker for: AAOS Annual Meeting, Orthopaedic Trauma Association Musculoskeletal Tumor Society, The American Association of Hip and Knee Surgeons, Pediatric Orthopaedic Society of North America, The Western Orthopaedic Association, Gait and Clinical Movement Analysis Society



# ICD-10 CODING FOR TRAUMA SURGEONS, continued

## Learning Objectives

Upon successful completion of the Evaluation and Management (E&M) Section, participants will be able to:

- ♦ Identify the category (first 3 characters) of ANY ICD-10 code to describe a traumatic injury on a specific body area
- ♦ Describe what is required for proper coding of a traumatic fracture using the mnemonic Leo C. Far
- ♦ Demonstrate the correct use of the 7<sup>th</sup> character for active treatment of a fracture
- ♦ Define the use of pathologic vs traumatic fracture codes
- ♦ List 3 things you will do to review and improve your documentation.

## Course Agenda

8:00 am Registration

9:00 am - 12:00 pm

- Comparing ICD-9 to ICD-10
- What about the chapter on External Causes?
  - Does it matter if the patient was bitten by a duck or struck by a duck?
- ICD-10 Format and Structure
- Complete reorganization of the injury chapter
- 7th Character Extension for Injuries and Traumatic Fractures
- Classification of Fractures and Fracture Documentation: Leo C Far
- Delayed healing, Non-union and Malunion- It's All New!
- Dislocations
- Complications

12:00 pm - 1:00 pm Lunch

1:00 pm - 4:00 pm

- Reporting Co-morbid Conditions – Why this is so important to you
- Introduction to the Zupko slim guide (see description)
- Diseases of the Musculoskeletal System
  - Architecture and Organization of the Musculoskeletal Chapter
- The “Musculoskeletal Block”
- Pathologic fractures and 7th characters – What if there is some trauma?
- In-depth look at – Arthritis
- Pain – If we are not sure of the diagnosis, can we just use this?
- What about unspecified codes? Learn when to use and when not to use.



# RESIDENTS COMPREHENSIVE FRACTURE COURSE

**Wednesday - Friday,  
October 7 - 9, 2015**

Kyle J Jeray, MD & Toni M McLaurin, MD,  
Program Chairs

## Course Description

The Residents Comprehensive Fracture Course will be presented in six (6) separate small group modules, with 22 - 24 residents and 5 experienced faculty educators per module.

The modules will have a rapid-fire series of mini-lectures, an extensive open case-based discussion, video demonstrations of techniques, and hands-on skills lab exercises. Modules will cover fundamental principles of fracture care distributed among six topics: articular, diaphyseal, foot & ankle, geriatrics, pediatrics, and pelvis/polytrauma/acetabulum, plus a lunch-time spine session.

This course offers pre-course educational on-demand video materials. Details will be sent with registration confirmation as well as an online basic science pre-test and an onsite clinical post test.

## Target Audience

This course is targeted for PGY2 – PGY4's, others who feel they will benefit will not be excluded. Attendance is limited, so early registration is recommended.



## Modules

### Module One

#### Articular Fractures

Module Leaders: **Frank A Liporace, MD**  
**Timothy S Achor, MD**

### Topics

#### Distal Humerus

*Anatomy/Approaches (incl. Osteotomy)*  
*Reduction and Implant Techniques*  
*Post-Operative Treatment*  
*Total Elbow Arthroplasty*

#### Elbow

*Anatomy and Radiographs*  
*Monteggia Fractures*  
*Olecranon Fractures*  
*Terrible Triad*

#### Tibial Plateau

*Fragment Specific Fixation*  
*Medial/Posteromedial Fragment*  
*Treatment Algorithms: Low Energy - High Energy*  
*Classification*  
*Lateral Articular Fragment*

#### Supracondylar Femur

*Anatomy*  
*Implant Position and Surgical Techniques*  
*ORIF - Intramedullary Nailing*  
*Radiography*

### Case-Based Discussions

Intra-articular Distal Humerus Fracture	Monteggia Fracture
Olecranon Fracture	Terrible Triad
Intercondylar Femur Fracture	Lateral Plateau Fracture
Bicondylar Plateau Fracture	B3 Distal Femur Fracture

### Hands-on Skills Labs

Olecranon Tension Banding and Plating	Tibial Plateau
Supracondylar Femur	

### Module Two

#### Diaphyseal Fractures

Module Leaders: **Michael P Leslie, DO**  
**David B Weiss, MD**

### Lectures/Case-Based Discussions

Primary Bone Healing vs. Callus	Plating Mechanics
Intramedullary Nail Mechanics	Failed Fixation

### Hands-on Skills Labs

Intramedullary Nailing Proximal Tibia Fracture  
Lag Screw / Compression Plating Radius and Bridge Plating Ulna  
(Open Reduction Internal Fixation Forearm Fracture)

## RESIDENTS COMPREHENSIVE FRACTURE COURSE, continued

### Module Three

#### Foot and Ankle

Module Leaders: **S Andrew Sems, MD**  
**William H Harvin, MD**

#### Topics

Ankle Fractures	Talus Fractures
Tibial Pilon Fractures	Calcaneus

#### Lectures/Case-Based Discussions

Classic Maissonneuve Injury  
Trimalleolar with Displaced Posterior Malleolus  
Low Energy - Partial Articular Fracture  
High Energy - AO/OTA 43.C3 with Staged External/Internal Fixation  
Definitive Treatment with External Fixation  
Hawkins II Talar Neck Fracture  
Hawkins III Talar Neck Fracture with Involvement of Talar Body  
LisFranc  
Sanders II Joint Depression  
Sanders IV Fracture with Blood-filled Blisters in  
60 Year Old Roofer who Smokes  
Mid-Foot/Tarso-Metatarsal  
*Divergent Lisfranc Injury*  
*Subtle Lisfranc Injury*  
*Multiple Displaced Metatarsal Shaft Fractures*

#### Hands-on Skills Labs/Videos

Trimalleolar Ankle Fracture with Unstable Syndesmosis  
External Fixation of a Comminuted Pilon Fracture

### Module Four

#### Geriatric

Module Leaders: **Charisse Y Sparks, MD**  
**Carla S Smith, MD**

#### Lectures

Periprosthetic Fracture Management	Femoral Neck
Intertrochanteric Hip Fractures	Locked Plating Basics
Osteoporosis Evaluation and Management	

#### Case-Based Discussions

Femoral Neck	Intertrochanteric
Periprosthetic Femur Fractures	Distal Humerus
Distal Radius	Proximal Humerus

#### Surgical Video

Proximal Humerus Fracture Locked Plating

#### Hands-on Skills Labs

Sliding Hip Screw	IM Hip Nail
Distal Radius	

### Module Five

#### Pediatrics

Module Leaders: **Anthony I Riccio, MD**  
**R Lane Wimberly, MD**

#### Lectures

Unique Aspects of Children's Fractures  
Timing of Children's Fractures

#### Case-Based Discussions

Distal Humerus  
Forearm  
Femur  
Intra-articular

#### Videos

Forearm Fracture Reduction  
Spica Casting

#### Hands-on Skills Labs/Videos

Closed Reduction and Percutaneous Pinning of  
Supracondylar Humerus Fracture  
Flexible Elastic Nailing of Femoral Shaft Fracture

Presented in partnership with OTA and POSNA



### Module Six

#### Polytrauma, Pelvis and Acetabulum

Module Leaders: **Marcus F Sciadini, MD**  
**Ryan P Finnan, MD**  
**Raymond D Wright Jr, MD**

#### Lectures

Damage Control and Hemodynamic Stabilization  
Open Fractures  
Pelvic Ring Injuries – Stability and Reduction  
Stable LCI Type Injury - Nonoperative Principles  
Pelvic Radiographs & SI Screws  
Radiograph & Model Interpretation Session

#### Case-Based Discussions

Polytrauma Patient  
Vertical Shear or Unstable Pelvis  
Open Fractures

#### Surgical Video

Sheet Wrap / Pelvic Binder

#### Hands-on Skills Labs

Supra-acetabular & Iliac Crest Pelvic Ex Fix  
Pubic Diastasis with Symphyseal Plate



# YOUNG PRACTITIONERS FORUM

**Thursday,  
October 8, 2015**

Jodi A Siegel, MD, &  
Lisa K Cannada, MD, Program Co-Chairs

Attendees of this activity can earn up to  
**4 AMA PRA Category 1 Credits™**

## Target Audience

This course is designed for orthopaedic residents, fellows and young practitioners to promote career planning and development during residency and selection of best practice environment.

## Objectives

Attendees of the Young Practitioners Forum will:

- ◆ Increase knowledge and understanding of the fellowship application process and maximize the fellowship year experience
- ◆ Learn important strategies for building your career
- ◆ Develop an understanding of skills to succeed in a Trauma Practice

## Program

- 6:00 am Registration & Continental Breakfast
- 6:30 am Introduction:  
What's Different Now?  
Trauma Stats from 2015 Match and Post Fellow Survey  
*Jodi A Siegel, MD*
- 6:36 am **My Fellowship Year-Tips from an Attending on Being a Good Fellow**  
PANEL: *Robert V O'Toole, MD*  
*H Claude Sagi, MD*  
*Timothy S Achor, MD*
- 6:57 am **Taking Notes That Will Help in the Future**  
*Paul S Whiting, MD*
- 7:06 am **Fellow's Perspective**  
PANEL: **Do's and Don'ts in Making a Good First Impression**  
*Jason C Tank, MD*  
**How to Work With Residents**  
*Timothy Craft, MD*  
**Be Open to Learning New Ways**  
*Daniel J Stinner, MD*
- 7:27 am **Now I am the Teacher:  
Taking Your Role Seriously**  
*Kenneth A Egol, MD*

- 7:38 am **Common Sense Lessons for Your Career & Life**  
*Roy Sanders, MD*
- 7:59 am **The Little Things that Matter**  
*J Tracy Watson, MD*
- 8:16 am Questions
- 8:27 am Break
- 8:41 am **The Challenges of Balance when Both of You Work**  
*Scott P Ryan, MD*
- 8:52 am **Do Politics Matter to an Orthopaedic Surgeon? (They Should!)**  
*A Alex Janghir, MD*
- 9:01 am **The Job Interview: Expectations from the Interviewee and Interviewer**  
*Douglas R Dirschl, MD*  
*Gregory J Della Rocca, MD, PhD*
- 9:22 am **Defining the Road Ahead**  
TBA
- 9:35 am **Social Media in Your Practice**  
*Jeffrey M Smith, MD*
- 9:50 am **Maximizing Opportunities for Involvement in the OTA and AAOS**  
*Kyle J Jeray, MD*
- 9:57 am **The Business Savvy Orthopaedic Surgeon: How to Become One**  
*Peter L Althausen, MD*
- 10:08 am **ABOS Part II**  
*Shepard R Hurwitz, MD*
- 10:20 am **Speed Mentoring**  
*Lisa K Cannada, MD*

**This Speed Mentoring session will have six 5 minute sessions at different tables run by the faculty.**

**Take this home to get your questions answered on multiple topics!**

**TOPICS:** –Research: Getting Started and Finding Time to Do It  
–I am Overwhelmed- How Do I Appear Organized  
–What Do I do with a PA/NP/Residents  
–My Home Life Is Affecting my Job  
–I Want to Get Better: How Can I Prepare & Critically Review my Cases  
–Is the Grass Always Greener on the Other Side?

**FACULTY:** *Paul Tornetta III, MD*  
*David C Templeman, MD*  
*Laura S Phieffer, MD*  
*Robert P Dunbar Jr., MD*  
*Daniel S Horowitz, MD*  
*Robert A Hymes, MD*

- 10:50 am **Wrap up**
- 11:00 am **Adjourn to Industry Symposia**  
**Registration Required**  
(Boxed lunch available)

# 2015 OTA ANNUAL MEETING

**Thursday, October 8, 2015**

1:00 pm Welcome and Donor Awards

1:20 pm - 2:50 pm **Symposium I**  
**Anxious, Addicted and Alone:**  
**It is more than just the X-rays!**

Moderator: *William Obremskey, MD, MPH, MMHC*  
Faculty: *Kristin Archer, PT, PhD; Basam Attum, MD;*  
*Renan Castillo, PhD; Hassan R Mir, MD;*  
*Stephen Wegner, PhD*

## Objectives

- to educate orthopaedic trauma surgeons on the variety issues facing us today with regard to patient outcomes
- to demonstrate the impact of transdisciplinary and collaborative care on orthopaedic practice
- to encourage surgeons to utilize strategies that have been found effective in improving outcomes in various musculoskeletal patient populations.

**Description:** This Symposium is a discussion of the opioid epidemic and the problem of alcohol and nicotine addiction and the personal and societal costs of addiction. We also examine chronic pain and the prevalence and impact of both psychological distress and cognitive dysfunction. The second part of the Symposium will focus on evidence-based management and interventions, with sections on multimodal pain treatment, collaborative care models, cognitive-behavioral and self-management strategies, and referral and rehabilitation interventions to improve psychological health and cognitive and vocational outcomes. The aim of our Symposium is not only to educate orthopaedic trauma surgeons on the issues facing us today with regard to patient outcomes, but also to demonstrate the impact of transdisciplinary and collaborative care on orthopaedic practice. By providing a comprehensive view of patient care, we hope to encourage surgeons to utilize strategies that have been found effective in improving outcomes in various musculoskeletal patient populations.

1:20 pm **The Opioid Epidemic**  
*Hassan R Mir, MD*

1:30 pm **Alcohol and Nicotine Addiction and the Personal and Societal Cost of Addiction**  
*Basam Attum, MD*

1:40 pm **Chronic Pain Burden and Predictors**  
*Kristin Archer, PT, PhD*

1:50 pm **Incidence and Impact of Psychological Distress (PTSD and Depression) and Cognitive Dysfunction**  
*Renan Castillo, PhD*

2:05 pm **Multimodal Pain Treatment and Strategies to Improve Shared Decision-Making and Patient Engagement in Care Collaborative Care Models**  
*Stephen Wegner, PhD*

2:20 pm **Referral and Management to Improve Cognitive-Behavioral and Self-Management Strategies for the Clinician**  
*William Obremskey, MD, MPH, MMHC*

2:35 pm **Psychological Health Q and A**

2:50 pm Break

3:20 pm - 4:11 pm **Paper Session 1**  
**Program Committee Highlight Papers: High Level Randomized Controlled Trials**

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

3:20 pm **Paper 30**  
**A Prospective, Randomised, Controlled Trial Comparing The Fibular Nail vs. Standard ORIF for Fixation of Ankle Fractures in Patients Under 65 Years of Age**  
*Timothy White, MD, FRCS;*  
*Kate Bugler, Mb ChB, MRCS;*  
*Margaret McQueen, MD FRCS;*  
*Charles Court-Brown, MD*

3:26 pm **Paper 31**  
**An Equivalence Randomized Controlled Trial Comparing Close Contact Casting (CCC) with Internal Fixation Surgery for Unstable Malleolar Fractures in Patients Over 60 Years**  
*Keith Willett, FRCS; David Keene, DPhil;*  
*Robert Handley, FRCS; Elizabeth Tutton, PhD;*  
*Tim Chesser, FRCS; Ian Pallister, FRCS, MD;*  
*Dipesh Mistry, PhD; Julian Nam, MSc;*  
*Ranjit Lall, PhD; Andrew Briggs, DPhil;*  
*Sallie Lamb, DPhil*

3:32 pm Discussion

3:37 pm **Paper 32**  
**Proximal Fracture of the Humerus: Evaluation by Randomisation (ProfHER) Trial**  
*Amar Rangan, FRCS; Stephen Brealey, PhD;*  
*Helen Handoll, PhD; Ada Keding, MSc;*  
*Laura Jefferson, PhD;*  
*Belen Corbacho-Martin, MSc;*  
*Lorna Goodchild, MSc;*  
*Ling-Hsiang Chuang, PhD; Nigel Rossiter, FRCS;*  
*Catherine Hewitt, PhD; David Torgerson, PhD*

## OTA ANNUAL MEETING, continued

### Thursday, October 8, 2015

- 3:43 pm **Paper 33**  
**A Multi-Centre RCT Comparing the InterTAN Device Versus the Sliding Hip Screw in the Treatment of Geriatric Hip Fractures: Results depend on Pre-Injury Functional Level**  
*David Sanders, MD; Dianne Bryant, PhD; Abdel-Rahman Lawendy, MD, PhD, FRCSC; Mark MacLeod, MD; Kevin Gurr, MD; Tim Carey, MD; Christina Tieszer, BSc, MSc; Steven Papp, MD FRCPC; Allan Liew, MD, FRCSC; Wade Gofton, MD, FRCPC; Julia Foxall; Chad Coles, MD; Ross Leighton, MD, FRCSC, FACS; Kelly Trask, MSc; Darius Viskontas, MD; Trevor Stone, MD; Mauri Zomar; Andrew Trenholm, MD; Tracy Adams*

3:49 pm Discussion

- 3:54 pm **Paper 34**  
**The Supra-Patellar Variant of the Semi-Extended Surgical Approach Improves Intramedullary Nail Position Compared with the Conventional Medial Parapatellar Approach - A Prospective Multi Centre RCT**  
*Alan Johnstone, MD; Christopher Munro, MD; Pedro Caba, MD; Ismael Escriba, MD; Daren Forward, MD; Markus Graf, MD*

- 4:00 pm **Paper 35**  
**Low Intensity Pulsed Ultrasound in Acute Tibial Shaft Fractures Treated with IM Nails: The Results of the TRUST Trial**  
*Paul Toretta, MD; Jason Busse, DC, PhD/ Assistant Prof; Mohit Bhandari, MD, FRCSC, PhD; Thomas Einhorn, MD; Emil Schemitsch, MD; James Heckman, MD; Kwok-Sui Leong, MD; Diane Heels-Ansdell, MSc; Sun Kallyth, PhD; Gordon Guyatt, MD*

4:06 pm Discussion

- 4:11 pm **Symposium II**  
**Results of the FLOW Study: A Multi-national, Randomized Trial Evaluating Irrigating Solutions and Pressures in Patients with Open Fractures**  
 Introduction: *Robert V O'Toole, MD*  
 Moderator: *Mohit Bhandari, MD, PhD*

4:30 pm – 5:00 pm

### President's Message

The \$500 Check

*Theodore Miclau III, MD*  
 OTA President



5:00 pm – 6:00 pm **OTA Business Meeting**

6:00 pm – 8:00 pm **Welcome Reception**  
**Manchester Grand Hyatt Pool Deck**  
 Join your colleagues for cocktails and a generous assortment of hors d'oeuvres while taking in the magnificent views of downtown, San Diego Bay and the Pacific Ocean from the pool deck of the Manchester Grand Hyatt.



### Friday, October 9, 2015

6:30 am – 7:30 am **Concurrent Breakouts**  
 (Descriptions on pages 50 - 53)

**Skill Labs** – No Charge.  
 Seating available first come, first-served.

6:30 am (SL1) **SIGN Fracture Care International**  
 Lab Leader: *Lewis G Zirkle Jr, MD*

6:30 am (SL2) **Periprosthetic Fracture (Femur)**  
 Lab Leader: *Erik Kubiak, MD*

**Case Presentations** – No Charge.  
 Seating available first come, first-served.

6:30 am **Periarticular Fractures of the Tibia: The Case for Going Prone**  
 Moderator: *Lisa K Cannada, MD*  
 Faculty: *Stephen Kottmeier, MD; J Tracy Watson, MD*

6:30 am **Treatment Strategies for Tibial Plateau Fractures**  
 Moderator: *Marcus F Sciadini, MD*  
 Faculty: *Michael T Archdeacon, MD; Stephen H Sims, MD; Nirmal C Tejwani, MD; Philip R Wolinsky, MD*



## Friday, October 9, 2015

### 6:30 am Pelvis and Acetabulum Fractures

Moderator: **Paul Tornetta III, MD**

Faculty: *Robert V O'Toole, MD;*

*Robert F Ostrum, MD;*

*H Claude Sagi, MD;*

*Jodi Siegel, MD*

### 6:30 am Don't Be Scared! Evaluation and Management of Complex Pediatric Elbow Fractures

Moderator: **David A Podeszwa, MD**

Faculty: *Christine A Ho, MD;*

*Anthony I Riccio, MD;*

*R Lane Wimberly, MD*

### 7:45 am - 9:24 am Paper Session 2

#### Tibia/Knee

Moderators: **Michael D McKee, MD**

**Raymond R White, MD**

### 7:45 am Paper 37

Can Electromagnetic Navigation for Distal Locking of Intramedullary Nail Reduce Procedure Time and Radiation Exposure?

*Takashi Miyamoto, MD; Shu Obara, MD;*

*Shuji Isefuku, MD; Takeshi Doi, MD;*

*Atsuhiko Mogami, MD; Yoshihisa Anraku, MD;*

*Kensuke Sakai, MD; Masayuki Ito, MD;*

*Ryouchi Kawakami, MD;*

*Masahiro Shirahama, MD;*

*Mitustoshi Sagara, MD; Tomohiro Yasuda, MD;*

*Haruyosi Yamashita, MD*

### 7:51 am Paper 38

Suprapatellar Intramedullary Nail Technique Lowers Rate of Malalignment of Distal Tibia Fractures

*Frank Avilucea, MD; Kostas Triantafyllou, MD;*

*Paul Whiting, MD; Ed Perez, MD;*

*Hassan Mir, MD, MBA*

### 7:57 am Paper 39

Clinical and Functional Results of 117 Patients with Knee Dislocations

*Nicholas Scarcella, BS;*

*Stephen Bowen; Heather Vallier, MD*

### 8:03 am Discussion

### 8:08 am Paper 40

Superior Outcomes after Operative Fixation of Patella Fractures using a Novel Cage Plate Construct:

A Prospective Cohort Study

*Stephen Warner, MD, PhD;*

*Lionel Lazaro, MD; Ryan Thacher, BA;*

*Matthew Garner, MD; Gina Sauro, PT, DPT;*

*David Helfet, MD; Dean Lorch, MD*

### 8:14 am Paper 41

Function and Knee Range of Motion Plateau 6 Months Following Tibial Plateau Fractures

*Anthony Christiano, BA;*

*Christian Pean, MS; Kenneth A Egol, MD*

### 8:20 am Paper 42

Is Early Total Care of Bicondylar Tibial Plateau Fractures Safe?

*Florence Unno, MD;*

*Kelly Lefavre, MD;*

*Georg Osterhoff, MD;*

*Henry Broekhuysen, MD;*

*Pierre Guy, MD;*

*Peter O'Brien, MD, FRCSC*

### 8:26 am Discussion

### 8:31 am Paper 43

A Novel PTH based Bone Graft Substitute Demonstrates Non-Inferiority to Autograft in a Large Phase IIb Study of Tibial Plateau Fractures

*Jason Schense, PhD*

### 8:37 am Paper 44

Functional and Clinical Outcomes of Non-operatively Managed Tibial Plateau Fractures

*Christian Pean, MS; Anthony Christiano, BA;*

*Sanjit Konda, MD; Roy Davidovitch, MD;*

*Kenneth A Egol, MD*

### 8:43 am Paper 45

Acute in Vivo Metrics of Joint Incongruity Following Articular Fracture Predict Post-Traumatic Arthritis in Mice

*Tyler Vovos, BS; Bridgette Furman, BS;*

*Kelly Kimmerling, MS; Janet Huebner, MS;*

*Gangadhar Utturkar, MS; Virginia Kraus, PhD;*

*Louis DeFrate, ScD; Farshid Guilak, PhD;*

*Steven A Olson, MD*

### 8:49 am Paper 46

Decreased Bone Density in Geriatric Patients Does Not Lead to Inferior Outcomes After Open Reduction and Internal Fixation of Tibial Plateau Fractures

*Matthew Garner, MD; Elizabeth Gausden, MD;*

*Stephen Warner, MD, PhD; Andre Shaffer, MD;*

*Dean Lorch, MD*

### 8:55 am Discussion

### 9:00 am Paper 47

Tibial Plateau Diminished Outcome Score Identifies Patients at Risk of Poor Functional Outcome

*Sanjit Konda, MD; Arthur Manoli, BS;*

*Roy Davidovitch, MD;*

*Kenneth A Egol, MD*

## OTA ANNUAL MEETING, continued

### Friday, October 9, 2015

- 9:06 am **Paper 48**  
Objective Metric of Energy Absorbed in Tibial Plateau Fractures Corresponds Well to Clinician Assessment of Fracture Severity  
*Laurence Kempton, MD; Kevin Dibbern, BS; Donald Anderson, PhD; Saam Morshed, MD; Thomas Higgins, MD; Larry Marsh, MD; Todd McKinley, MD*
- 9:12 am **Paper 49**  
The Effect of Soft Tissue Injuries on Clinical Outcomes Following Tibial Plateau Fracture Fixation  
*Stephen Warner, MD, PhD; Matthew Garner, MD; Patrick Schottel, MD; Peter Fabricant, MD, MPH; Ryan Thacher, BA; David Helfet, MD; Dean Lorch, MD*
- 9:18 am Discussion
- 9:24 am Break
- 8:00 am – 9:30 am **Concurrent Breakouts**  
(Descriptions on pages 50 - 53)  
**Mini Symposia** – No Charge.  
Seating available first come, first-served.
- 8:00 am **Critical Aspects of Orthopaedic Trauma in 2015 that Can Impact your Financial Future**  
Moderator: *Peter Althausen, MD, MBA*  
Faculty: *Timothy Bray, MD; Austin Hill, MD, MPH; Chris McBride, MBA; Justin Walker, MD; Anthony Williams ChFC, RFC, CLU*
- 8:00 am **NSAIDs and Bone Healing: Clinical Practice and Understanding the Discrepancies in the Literature**  
Moderator: *Steven A Olson, MD*  
Faculty: *Kamal Ajam, MD; Farshid Guilak, PhD; Alejandro Marquez-Lara, MD*
- 8:00 am **Educating in Fracture Surgery**  
Moderator: *Samir Mehta, MD*  
Faculty: *Tim Achor, MD; Jaimo Ahn, MD; Matthew Graves, MD*

### 9:55 am - 11:15 am Symposium III Acetabular Fractures in Patients Older than 60

Moderator: *Theodore T Manson, MD*

#### Objectives

- The participant will learn the relative effectiveness of various treatments for this patient population
- Surgical Techniques of Percutaneous fixation, open reduction and internal fixation and hip replacement in this population
- Choosing the best option for your particular patient

**Description:** This symposium will focus on surgical techniques for the management of acetabular fractures in patients older than 60. A literature review will be included, but the heavy emphasis will be on actual surgical techniques. Reduction and fixation strategies including anterior ORIF, percutaneous fixation and fixation with concomitant THA. The participant should hopefully leave with improved surgical strategies for management of these complex patients.

9:55 am **Comparative Effectiveness of ORIF, Percutaneous Fixation and THA for the Management of Acetabular Fractures in Patients Older than 60**  
*Robert V O'Toole MD*

10:10 am **Approach, Reduction and Fixation of Acetabular Fractures through the Anterior Approach**  
*David L Helfet MD*

10:25 am **Techniques for the Percutaneous Reduction and Fixation of Acetabular Fractures in Older Patients**  
*Adam J Starr MD*

10:40 am **ORIF plus Concomitant THA for Older Patients with Acetabular Fractures**  
*Theodore T Manson MD*

10:55 am Case Review-Discussion

11:15 am - 11:45 am **Guest Nation Introduction**  
Theodore Miclau III, MD, OTA President



### Guest Nation Presentation

2015 Guest Nation - GERMANY  
It is a great honor to welcome **Professor Michael L Nerlich, MD**, 2015 President of both the German Society for Trauma Surgery and German Society for Orthopaedics and Trauma Surgery. We look forward to his enlightening presentation: **The German Trauma Network Initiative - Challenges and Advantages.**

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

**Best International Forum Paper**  
TBD

## Friday, October 9, 2015

11:45 am - 12:15 pm

### John Border, MD Memorial Lecturer



*Christian Krettek, MD, FRACS, FRCSEd,  
Professor and Chair Hannover School  
of Medicine Trauma Department  
Hannover, Germany*

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**

12:30 pm - 1:15 pm **Guided Poster Tours**

(PT1) **International**

Guide: **Peter V Giannoudis, MD**

(PT2) **Hip, Femur, Geriatric**

Guide: **Thomas F Higgins, MD**

1:15 pm - 2:45 pm **Concurrent Breakouts**  
(Descriptions on pages 50 - 53)

1:15 pm - 2:15 pm **Skill Labs** - No Charge.  
Seating available first come, first-served.

1:15 pm (SL3) **IM Nailing Proximal Tibia Fractures**  
Lab Leader: **Paul Tornetta III, MD**

1:15 pm (SL4) **Fixation of Proximal Humerus Fractures**  
Lab Leader: **Andrew R Fras, MD**

1:15 pm - 2:45 pm **Mini Symposia** - No Charge.  
Seating available first come, first-served.

1:15 pm **Pelvic Ring Disruption Decision Making:  
Assessment of Stability, Strategies of  
Fixation, and Determining What Needs  
To Be Fixed**

Moderator: **Jason Nascone, MD**

Faculty: **Joshua L Gary, MD; Pierre Guy, MD;  
Conor P Kleweno, MD;  
H Claude Sagi, MD;  
Adam J Starr, MD**

1:15 pm **Developing a Successful Clinical  
Research Program**

Moderator: **Heather A Vallier, MD**

Faculty: **Mary Breslin, MD;  
William T Obrebsky, MD**

1:15 pm **Rib Fracture Fixation and the  
Surgical Management of Flail Chest  
Injuries: State of the Art**

Moderator: **Michael D McKee, MD**

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

1:15 pm - 3:05 pm **Paper Session 3  
General Interest I:  
Pediatrics/Non-union/Spine/  
Compartment Syndrome**

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

1:15 pm **Paper 50**  
**Operative Versus Conservative  
Management of Displaced Tibial  
Shaft Fractures in Adolescents**  
**Matthew Kinney, MD; David Nagle, BA;  
Tracey Bastrom, MA; Michael Linn, MD;  
Alexandra Schwartz, MD;  
Andrew Pennock, MD**

1:21 pm **Paper 51**  
**Fracture Classification Predicts  
Functional Outcomes in  
Supracondylar Humerus Fractures:  
A Prospective Study**  
**Anthony Riccio, MD; Justin Ernat, MD;  
Robert Wimberly, MD; David Podeszwa, MD;  
Christine Ho, MD**

1:27 pm **Paper 52**  
**Factors that Predict Instability in  
Pediatric Diaphyseal Both Bone Forearm  
Fractures**  
**Jeffrey Kutsikovich, MD;  
Christopher Hopkins, MD; Edwin Gannon, BS;  
Derek Kelly, MD; Jeffrey Sawyer, MD**

1:33 pm **Paper 53**  
**Best Trauma Paper  
of the 2015 POSNA  
Annual Meeting**  
**Implementation of a Standardized Clinical  
Assessment and Management Plan  
(SCAMP) for Pediatric Distal Radius  
Fractures: Effect on Quality and Care**  
**Donald S Bae, MD; Rachel L DiFazio, MS, RN;  
Marie Harris, MPH; Dionne Graham, PhD;  
Rose Hamershock, MA; Susan Mahan, MD;  
Peter M Waters, MD**

1:39 pm **Discussion**





## OTA ANNUAL MEETING, continued

### Friday, October 9, 2015

- 1:44 pm **Paper 54**  
Factors Associated with Development of Non-Union or Delayed Healing following Open Fracture: A Prospective Cohort Study of 736 Subjects  
*Don Weber, MD; Joseph Westgeest, BSc; Sukhdeep Dulai, MD, MSc; Joseph Bergman, MD; Richard Buckley, MD; Lauren Beaupre, PT, PhD*
- 1:50 pm **Paper 55**  
Can Tibial Shaft Non-unions Be Predicted at the Time of Nail Fixation?  
*Kevin O'Halloran, MD; Max Coale, BA; Timothy Costales, BS; Timothy Zerhusen, BS; Renan Castillo, MD; Jason Nascone, MD; Robert O'Toole, MD*
- 1:56 pm **Paper 56**  
Prospective Prediction of Tibial and Femoral Shaft Fracture Nonunion at Four Months  
*Sarah Foyil, BA; Brett Schiffman, BA; Frank DiSilvio, BS; Mitchell Bernstein, MD, FRCSC; Hobie Summers, MD; William Lack, MD*
- 2:02 pm Discussion
- 2:07 pm **Paper 57**  
Ketorolac Administered in the Recovery Room for Acute Pain Management Does Not Affect Healing Rates of Femoral and Tibial Fractures  
*David Donohue, MD; Drew Sanders, MD; Rafael Serrano-Riera, MD; Charles Jordan, MD; H Claude Sagi, MD*
- 2:13 pm **Paper 58**  
Posttraumatic Tibial Defects Treated By The Ilizarov Method: Comparison of Classic Versus Integrated Technique  
*Mitchell Bernstein, MD, FRCSC; Austin Fragomen, MD; Samir Sabharwal, BA; Jonathan Barclay, BA; S Rozbruch, MD*
- 2:19 pm **Paper 59**  
Is this Autograft Worth It? The Blood Loss and Transfusion Rates Associated with RIA Bone Graft Harvest  
*Lucas Marchand, MD; David Rothberg, MD; Erik Kubiak, MD; Thomas Higgins, MD*
- 2:25 pm **Paper 60**  
Treatment of Hypovitaminosis D in an Orthopaedic Trauma Population  
*Brendan Andres; Benjamin Childs, BS; Anna Wallace, MD; Heather Vallier, MD*
- 2:31 pm Discussion

- 2:36 pm **Paper 61**  
Incidence of Complications After Therapeutic Anticoagulation in the Postoperative Spine Trauma Patient  
*Brian Shiu, MD; Elizabeth Le, MD; Timothy Costales, BS; Nicholas Caffes, BS; Ehsan Jazini, MD; Daniel Gelb, MD; Eugene Koh, MD, PhD; Bizhan Aarabi, MD; Steven Ludwig, MD*
- 2:42 pm **Paper 62**  
Can Thrombelastography Predict Venous Thromboembolic Events in Patients with Spine Trauma?  
*Mark Prasarn, MD; Zayde Radwan, MD; Prism Schneider, MD, PhD, FRCSC; Joshua Gary, MD*
- 2:48 pm **Paper 63**  
Narcotic Requirements is Not Predictive of Adult Traumatic Compartment Syndrome  
*Ehsan Jazini, MD; Ebrahim Paryavi, MD, MPH; Christine Helou, MD; Joshua Abzug, MD*
- 2:54 pm **Paper 64**  
Microdialysis Detects Ischemic Change Early in Acute Compartment Syndrome: An Improvement over Standard Intra-Compartmental Pressure Monitoring  
*Alexander Crespo, BS; Sanjit Konda, MD; Abraham Goch, BS; Kenneth Egol, MD*
- 3:00 pm Discussion
- 3:05 pm Break

### 3:35 pm - 4:32 pm **Paper Session 4** **Pelvis Acetabulum**

Moderator: **Stephen Kottmeier, MD**  
**Paul Tornetta III, MD**

- 3:35 pm **Paper 65**  
Anatomic Reduction of Acetabular Fractures – When is the Best Time to Operate?  
*Steven Dailey, MD; Michael Archdeacon, MD; Caleb Phillips, PhD; Joseph Radley, MD*
- 3:41 pm **Paper 66**  
The Effect of Three Dimension Printing Modeling for Treating Complex Acetabular Fractures-A Randomized Prospective Study  
*Kun Zhang, MD; Hu Wang, MD*
- 3:47 pm Discussion
- 3:52 pm **Paper 67**  
Does Injury Mechanism Influence Eventual Conversion to THA After Acetabular Fractures in Geriatric Patients?  
*Aaron Johnson, MD; Robert O'Toole, MD; Patrick Greenwell, BS; Theodore Manson, MD*

## Friday, October 9, 2015

- 3:58 pm **Paper 68**  
Long Term Hip Joint Survival and Clinical Results in Conservatively Treated Acetabular Fractures  
*John Clarke-Jenssen, MD; Anette Wikerøy, MD; Ingrid Eitzen, PhD; Jan Erik Madsen, MD, PhD, Professor*
- 4:04 pm Discussion
- 4:09 pm **Paper 69**  
Surgery for Unilateral Sacral Fractures: Are the Indications Clear?  
*Paul Tornetta, MD; Julie Agel, ATC; Sean Nork, MD; Clifford Jones, MD, FACS; Heather Vallier, MD; Brian Mullis, MD; Zachary Roberts, MD; James Goulet, MD; Anna Miller, MD, FACS; Andrew Schmidt, MD*
- 4:15 pm **Paper 70**  
Posterior Fixation in APC-2 Pelvic Ring Injuries Decreases the Rates of Anterior Plate Failure and Malunion  
*Frank Avilucea, MD; Paul Whiting, MD; Hassan Mir, MD, MBA*
- 4:21 pm **Paper 71**  
A Prospective Trial Comparing Magnetic Resonance Imaging-Detected Pelvic Ligament Injury to Displacement On Pelvic Stress Examination Under Anesthesia  
*Brendan O'Daly, MD FRCS(Tr&Orth); Lina Chen, MD; Derik Davis, MD; Joshua Gary, MD; Christopher Lebrun, MD; Christina Boulton, MD; Theodore Manson, MD; Jason Nascone, MD; Marcus Sciadini, MD; Michael Mulligan, MD; Robert O'Toole, MD*
- 4:27 pm Discussion
- 4:30 pm – 5:45 pm **Concurrent Breakouts**  
(Descriptions on pages 50 - 53)  
**Mini Symposia** – No Charge.  
Seating available first come, first-served.
- 4:30 pm **Getting Your Fragility Fracture Program Off the Ground: A Primer for the Orthopaedic Trauma Surgeon**  
Moderator: *James A Goulet, MD*  
Faculty: *Kyle J Jeray, MD; Clifford B Jones, MD; Joseph M Lane, MD; Debra Sietsema, MD*

- 4:30 pm **The Social Savvy Surgeon: Strategies to Manage Your Online Reputation and Enhance Patient Care**  
Moderator: *Lisa K Cannada, MD*  
Faculty: *Howard Luks, MD; Steven Mora; Jeffrey Smith, MD; Lisa Taitzman, MD*

### 4:32 pm - 5:48 pm **Paper Session 5** **Femur and Polytrauma**

Moderators: *Gilbert R Ortega, MD*  
*David H Chafey III, MD*

- 4:32 pm **Paper 72**  
Fixed-angle versus Polyaxial Locking Plate Fixation Systems for Periprosthetic and/or Osteoporotic Distal Femoral Fractures  
*Nikolaos Kanakaris, MD, PhD; Oghofori Obakponovwe, MRCS; Jerome Edet, MRCS; Matthew Costa, MD; David Shaw, MD, MSc, FRCS; Khitish Mohanty, MD, FRCS; Peter Giannoudis, MD, FRCS, MBBS, BS*
- 4:38 pm **Paper 73**  
The Effect of Knee Flexion Contracture on Outcomes of Distal Femur Fractures  
*Paul Tornetta, MD; Margaret Cooke, MD; Kenneth Egol, MD; Clifford Jones, MD, FACS; Janos Ertl, MD; Brian Mullis, MD; Ed Perez, MD; Cory Collinge, MD; Robert Ostrum, MD; Catherine Humphrey, MD; Robert Dunbar, MD; Michael Gardner, MD; William Ricci, MD; Laura Phieffer, MD; David Teague, MD; William Ertl, MD; Christopher Born, MD; Alan Zonno, MD; Jodi A Siegel, MD; H Claude Sagi, MD; Andrew Pollak, MD; Andrew Schmidt, MD; David Templeman, MD; Stephen Sems, MD; Darin Friess, MD*
- 4:44 pm **Paper 74**  
Malalignment after minimally Invasive Plate Osteosynthesis in the Distal Femoral Fractures  
*Chang-Wug Oh, MD, PhD; Joon-Woo Kim, MD, PhD; Jong-Keon Oh, MD, PhD; Kyeong-Hyeon Park, MD*
- 4:50 pm Discussion

## OTA ANNUAL MEETING, continued

### Friday, October 9, 2015

- 4:55 pm **Paper 75**  
**Trochanteric Entry Femoral Nails Yield Better Post-Operative Femoral Version and Lower Revision Rates Than Retrograde and Piriformis Entry Nails A Large Cohort Multivariate Regression Analysis**  
*Richard Yoon, MD; Mark Gage, MD; David Galos, MD; Derek Donegan, MD; Frank Liporace, MD*
- 5:01 pm **Paper 76**  
**Sagittal Femoral Bow is Dependent on Bone Density**  
*John Lee, MD, MS; Samuel Rosenbaum, MD; Manuel Schubert, MD; Stewart Wang, MD, PhD; James Goulet, MD*
- 5:07 pm **Paper 77**  
**Immediate Weight Bearing as Tolerated has Improved Outcomes Compared to Non-Weight Bearing after Intramedullary Fixation for Subtrochanteric Fractures**  
*Brian P Cunningham, MD; Brian Miller, MD; Anthony Rhorer, MD; Gilbert Ortega, MD, MPH; Hrayr Basmajian, MD; Justin Roberts, MD; Kelly Jackson, NP; Saif Zaman, MD*
- 5:13 pm **Paper 78**  
**Do We Really Understand the Patient Populations in Database Research: A Comparison of Femoral Shaft Fracture Patients in Three Commonly Used National Databases**  
*Andre Samuel, BBA; Adam Lukasiewicz, MSc; Matthew Webb, BA; Daniel Bohl, MPH; Bryce Basques, BS; Arya Varthi, MD; Michael Leslie, DO; Jonathan Grauer, MD*
- 5:19 pm Discussion
- 5:24 pm **Paper 79**  
**Patient Specific Injury Profiles Predict Organ Failure in Multiply Injured Patients**  
*Greg Gaski, MD; Travis Frantz, BS; Tyler McCarroll, BS; Scott Steenburg, MD; Todd McKinley, MD*
- 5:30 pm **Paper 80**  
**Limb Salvage Versus Transtibial Amputation: A Comparison of Functional Gait Outcomes**  
*Katharine Mangan, MD; Trevor Kingsbury, MA; Marilyn Wyatt, MA, PT; Kevin Kuhn, MD*

- 5:36 pm **Paper 81**  
**An Evaluation of the OTA-OFC System in Clinical Practice: A Multi-center Study with 90 Day Outcome**  
*Joseph Johnson, MD; Matthew Karam, MD; Julie Agel, ATC*
- 5:42 pm Discussion
- 5:48 pm Adjourn

- 5:48 pm - 6:45 pm **'Suds and Science' Guided Poster Tours**  
(PT3) **Foot and Ankle**  
Guide: *Paul Tornetta III, MD*  
(PT4) **Upper Extremity**  
Guide: *Michael D McKee, MD*  
Enjoy a poster tour, lively discussion, and a beverage with colleagues.

- 5:48 pm - 6:45 pm **Exhibit Reception**

### Saturday, October 10, 2015

- 6:30 am - 7:30 am **Concurrent Breakouts**  
(Descriptions on pages 50 - 53)
- 6:30 am - 7:30 am **Skill Labs** - No Charge.  
Seating available first come, first-served.
- 6:30 am (SL5) **Complex Ankle Fractures: Posterior Malleolus, Syndesmosis**  
Lab Leader: *John Alan Scolaro, MA, MD*
- 6:30 am (SL6) **Fixation of Intra-Articular Distal Humeral Fractures**  
Lab Leader: *Michael D McKee, MD*
- 6:30 am - 7:30 am **Case Presentations** - No Charge.  
Seating available first come, first-served.
- 6:30 am **Proximal Humerus Fractures: Optimizing Surgical Management and Technique in 2015**  
Moderator: *Emil H Schemitsch, MD*  
Faculty: *Pierre Guy, MD; Dean G Lorich, MD; Michael D McKee, MD; Aaron Nauth, MD; David C Ring, MD*
- 6:30 am **What Could Go Wrong Did: Getting Out of Trouble**  
Moderator: *Lisa K Cannada, MD*  
Faculty: *Clifford B Jones, MD; Matt Mormino, MD; Brian H Mullis, MD*
- 6:30 am **"Young" Femoral Neck Fractures - Why Do They Cause so Much Stress?**  
Moderator: *Brett D Crist, MD*  
Faculty: *Tania Ferguson, MD; Christopher Finkemeier, MD; Mark A Lee, MD*



## Saturday, October 10, 2015

6:30 am **Distal Femur Fractures –  
Not as Easy as You Think**  
Moderator: **Samir Mehta, MD**  
Faculty: *Timothy Achor, MD;*  
*Derek Donegan, MD;*  
*Hobie Summers, MD*

7:45 am - 9:00 am **Symposium IV  
Elbow Trauma: How to Improve  
Outcomes in 2015!**  
Moderator: **Michael D McKee, MD**

### Objectives

- When and how to optimize fixation of elbow fractures
- The role of arthroplasty in managing elbow fractures
- How to manage complications following elbow fracture surgery

**Description:** The management of elbow fractures remains difficult and controversial. 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 elbow injuries.

7:45 am **Distal Humerus Fractures:  
Evidence Based Management**  
*Emil H Schemitsch, MD*

7:55 am **Radial Head / Neck Fractures:  
When and How to Fix**  
*Kenneth A Egol, MD*

8:05 am **Terrible Triad Injuries:  
How to Improve Outcomes**  
*Aaron Nauth, MD*

8:15 am **Monteggia Fracture Dislocations:  
Timing and Techniques**  
*David C Ring, MD*

8:25 am **Complex Injuries:  
The Role of Arthroplasty**  
*Niloofar Dehghan, MD*

8:35 am **Managing Complications in Elbow  
Fracture Surgery**  
*Michael D McKee, MD*

8:45 am **Cases, Questions, Discussion,  
Consensus**

9:00 am Break

9:30 am - 11:00 am **Concurrent Breakouts**  
(Descriptions on pages 50 - 53)

**Mini Symposia** – No Charge.  
Seating available first come,  
first-served.

9:30 am **Management of Soft Tissue Defects  
in the Mangled Extremity**  
Moderator: **Raymond A Pensy, MD**  
Faculty: *H Michael Frisch, MD;*  
*Joseph Hsu, MD;*  
*Stephen J Kovach III, MD*

9:30 am **The Treatment of Periprosthetic  
Fractures in 2015:  
Can We Reach a Consensus?**  
Moderator: **Emil H Schemitsch, MD**  
Faculty: *George Haidukewych, MD;*  
*Michael D McKee, MD;*  
*Aaron Nauth, MD*

9:30 am - 11:08 am **Paper Session 6  
Foot and Ankle**  
Moderators: **Robert V OToole, MD**  
**Thomas F Higgins, MD**

9:30 am **Paper 82**  
**Can Long Acting Local Anesthetic  
Improve Outcomes in Ankle  
Fractures Requiring ORIF: A Prospective  
Randomized Pilot Study**  
*Roy Davidovitch, MD; Abraham Goch, BS;*  
*Sanjit Konda, MD; Christian Pean, MS;*  
*Kenneth Egol, MD*

9:36 am **Paper 83**  
**Association between Opioid Intake and  
Disability after Operative Treatment of  
Ankle Fractures**  
*Abigail Finger, BA; Teun Teunis, MD;*  
*Michiel Hageman, MD; Emily Thornton, BS;*  
*Malcolm Smith, MD; David Ring, MD, PhD*

9:42 am **Paper 84**  
**Incisura Morphology as a Risk Factor for  
Syndesmotic Malreduction**  
*Steven Cherney, MD;*  
*Amanda Spraggs-Hughes, MA;*  
*Christopher McAndrew, MD; William Ricci, MD;*  
*Michael Gardner, MD*

9:48 am Discussion

## OTA ANNUAL MEETING, continued

### Saturday, October 10, 2015

- 9:53 am **Paper 85**  
Does Physical Therapy Predict Outcomes after Ankle Fractures and Ankle Fracture-Dislocations?  
*Luke Harmer, MD, MPH, FRCSC;*  
*Chad Ferguson, MD;* *Rachel Seymour, PhD;*  
*J Kent Ellington, MD;*  
*CAPT (ret) Michael Bosse, MD*
- 9:59 am **Paper 86**  
Peroneal Irritation After Lateral Malleolar Fractures  
*Paul Tornetta, MD;* *Margaret Cooke, MD;*  
*Clifford Jones, MD, FACS;* *Janos Ertl, MD;*  
*Brian Mullis, MD;* *Michael Gardner, MD;* *Ken-neth Egol, MD;* *William Ricci, MD;*  
*David Teague, MD;* *William Ertl, MD;*  
*Laura Phieffer, MD;* *Cory Collinge, MD;*  
*Ross Leighton, MD, FRCSC, FACS*
- 10:05 am **Paper 87**  
Reduction Clamp Force Associated with Syndesmotic Over-Compression: A Pilot Study  
*Jacob Haynes, MD;* *Steven Cherney, MD;*  
*Amanda Spraggs-Hughes, MA;*  
*Christopher McAndrew, MD;* *William Ricci, MD;*  
*Michael Gardner, MD*
- 10:11 am Discussion
- 10:16 am **Paper 88**  
A Clinical Comparison of Treatment of Deltoid Ligament Injuries in Ankle Fracture: Repairing the Deep Deltoid or Superficial or NOT  
*Xu Sun, MD;* *Ting Li, MD;* *Yuneng Li, MD;*  
*Xie-Yuan Jiang, MD;* *Xinbao WU, MD;*  
*Manyi Wang, MD*
- 10:22 am **Paper 89**  
The Diagnostic Accuracy of Mortise Radiographs and MRI in Predicting Deltoid Ligament Ruptures in Supination External Rotation Ankle Fractures  
*Stephen Warner, MD, PhD;*  
*Matthew Garner, MD;* *Patrick Schottel, MD;*  
*David Helfet, MD;* *Dean Lorch, MD*
- 10:28 am **Paper 90**  
Medial Clamp Tine Positioning Using Intraoperative Fluoroscopy Affects Syndesmosis Malreduction  
*Christopher Cosgrove, MD;*  
*Sara Putnam, MD;* *Steven Cherney, MD;*  
*William Ricci, MD;* *Christopher McAndrew, MD;*  
*Amanda Spraggs-Hughes, MA;*  
*Michael Gardner, MD*
- 10:34 am Discussion
- 10:39 am **Paper 91**  
The Failed Pilon: Factors Associated with Delayed Amputation, Arthroplasty, or Arthrodesis after Open Reduction and Internal Fixation  
*Mara Schenker, MD;* *Daniel Patton, MD;*  
*Jonathan Kark, MD;* *David Barei, MD;*  
*Daphne Beingsner, MD*
- 10:45 am **Paper 92**  
Fixation of Tibial Pilon Fractures: Which Side of the Tibia Do I Plate?  
*Gennadiy Busel, MD;* *J Tracy Watson, MD;*  
*Heidi Israel, PhD, RN*
- 10:51 am **Paper 93**  
Predictors of Amputation in High-Energy Forefoot and Midfoot Injuries  
*Zachary Working, MD;* *Iain Elliott, MD;*  
*Lucas Marchand, MD;* *Lance Jacobson, MD;*  
*Angela Presson, PhD;* *Ami Stuart, PhD;*  
*Thomas Higgins, MD;* *Erik Kubiak, MD;*  
*David Rothberg, MD*
- 10:57 am **Paper 94**  
A Randomized, Prospective Comparison of Bioabsorbable and Steel Screw Fixation of Lisfranc Injuries  
*Jamal Ahmad, MD*
- 11:03 am Discussion
- 11:00 am – 12:15 pm **Concurrent Breakouts**  
(Descriptions on pages 50 - 53)
- Mini Symposia** – No Charge.  
Seating available first come, first-served.
- 11:00 am **From Good to Great: Improving your Treatment of Pelvic Trauma**  
Moderators: *Jaimo Ahn, MD* and *Derek Donegan, MD*  
Faculty: *Andrew R Burgess, MD;*  
*David L Helfet, MD;*  
*Milton L 'Chip' Routt, MD;*  
*H Claude Sagi, MD;*  
*Adam J Starr, MD*
- 11:00 am **Disaster Management: Are You Prepared?**  
Moderator: *Samir Mehta, MD*  
Faculty: *Paul T Appleton, MD;*  
*James C Krieg, MD;*  
*Christian N Mamczak, DO;*  
*Saqib Rehman, MD*
- 11:00 am **The 8 Practices of Highly Successful Surgeons**  
Moderator: *Jeffrey M Smith, MD*  
Faculty: *Virginia Aherin, CPC;*  
*Tambre Leighn, CPC;*  
*Chris Moody, CPC*

## Saturday, October 10, 2015

### 11:08 am - 12:22 pm **Paper Session 7** **Hip Fractures**

Moderators: *Michael J Gardner, MD*  
*Dean G Lorich, MD*

- 11:08 am **Paper 95**  
Femoral Neck Shortening Is Associated with Worse Functional Outcome: Analysis of The Prospective Multi-Center Study of Hip Fracture Outcomes in China (SHOC)  
*Gerard Slobogean, MD, MPH, FRCSC; David Stockton, MD; Bingfang Zeng, MD; Dong Wang, MD; Baotong Ma, MD; Andrew Pollak, MD*
- 11:14 am **Paper 96**  
A Case-Control Study of Total Hip Arthroplasty after Failed Proximal Femoral Fracture Fixation:  
*David Walmsley, MD; Zachary Morison, MSc; Aaron Nauth, MD, FRCSC; Michael McKee, MD; James Waddell, MD, FRCSC; Emil Schemitsch, MD*
- 11:20 am Discussion
- 11:25 am **Paper 97**  
Hip Fracture Treatment at Orthopaedic Teaching Hospitals: Better Care at a Lower Cost  
*Sanjit Konda, MD; Arthur Manoli, BS; Karan Patel, BS; Kenneth Egol, MD*
- 11:31 am **Paper 98**  
Is it Safe to Operate on Therapeutically Anticoagulated Hip Fractures?  
*David Saper, MD; Kyle Lybrand, MD; Kasey Bramlett, PA-C; Michael Kain, MD; Paul Tornetta, MD; Peter Althausen, MD, MBA; Andrew Marcantonio, DO, MBA*
- 11:37 am **Paper 99**  
Short vs Long Cephalomedullary Nails for Fixation of Stable vs. Unstable Intertrochanteric Femur Fracture at a Level I Trauma Center  
*Michael Beebe, MD; D Andrew Hulet, BS; Casey Whale, BS; Chong Zhang, MS; Jeremy Gililand, MD; David Rothberg, MD; Erik Kubiak, MD*
- 11:43 am Discussion

- 11:48 am **Paper 100**  
Myth or Taboo? Use of Long Threaded Screws in Femoral Neck Fractures  
*Hyung Keun Song, MD; Kyu Hyun Yang, MD; Jun Young Chung, MD; Dong Hyun Kang, MD; Xuanlin Zheng, MD*
- 11:54 am **Paper 101**  
Percutaneous Cannulated Screw Versus Dynamic Hip Screw Fixation for Intracapsular Femoral Neck Fracture: A Comparative Study  
*Girish Swamy, MRCS; Ali Shah, MRCS; Sami Hassan, MRCS; Abdul Aziz, MRCS; Christopher Moran, MD, FRCS; Daren Forward, MD*
- 12:00 pm Discussion
- 12:05 pm **Paper 102**  
Relationship between the Charlson Comorbidity Index and Cost of Treating Geriatric Hip Fractures: Implications for Bundled Payment  
*Daniel Johnson, BS; Vasanth Sathiyakumar, BA; Sarah Greenberg, BA; Rachel Thakore, BS; Jesse Ehrenfeld, MD, MPH; Hassan Mir, MD, MBA; Amir Jahangir, MD; Manish Sethi, MD; William Obremskey, MD, MPH*
- 12:11 pm **Paper 103**  
Missing Data May Invalidate Hip Fracture Database Studies  
*Bryce A Basques, MD, MHS; Adam Lukasiewicz, MSc; Andre Samuel, BBA; Matthew Webb, BA; Daniel D Bohl, MD, MPH; Jonathan Grauer, MD*
- 12:17 pm Discussion
- 12:22 pm - 1:22 pm **Lunch**
- 12:35 pm - 1:20 pm **Guided Poster Tours**  
(PT5) **Knee/Tibia**  
Guide: *J Tracy Watson, MD*  
(PT6) **Reconstruction/General Interest**  
Guide: *Michael J Gardner, MD*

## OTA ANNUAL MEETING, continued

### Saturday, October 10, 2015

1:22 pm - **Paper Session 8**  
3:00 pm **Infection & General Interest II**

Moderator: **David Sanders, MD**  
**Brett D Crist, MD**

- 1:22 pm **Paper 104**  
Topical Vancomycin Powder Decreases the Incidence of S Aureus Infections in Operatively Treated Fractures  
*Rabah Qadir, MD; Timothy Costales, BS; Max Coale, BA; Timothy Zerhusen, BS; Manjari Joshi, MD; Robert O'Toole, MD*
- 1:28 pm **Paper 105**  
Topical Antibiotics for Infection Prophylaxis in Pelvic and Acetabular Surgery  
*Matthew Owen, MD; Jason Lowe, MD; Emily Keener, DO; Zane Hyde, MD; Reaves Crabtree, BS*
- 1:34 pm **Paper 106**  
Vancomycin Powder Reduces Infection in an Open Fracture Model  
*David Tennent, MD; Stefanie Shiels, PhD; Carlos Sanchez, PhD; Daniel Stinner, MD; Joseph Wenke, PhD*
- 1:40 pm Discussion
- 1:45 pm **Paper 107**  
Open Ankle Fractures: What Predicts Infection?  
*Paul Tornetta, MD; Margaret Cooke, MD; Douglas Weinberg, MD; Heather Vallier, MD; Reza Firoozabadi, MD; Timothy Alton, MD; Megan Shimota, MD; Jerald Westberg, BA; CAPT (ret) Michael Bosse, MD; Daniel Leas, MD; Michael Archdeacon, MD; Rafael Kakazu, MD; Robert O'Toole, MD; Timothy Costales, BS; Brian Mullis, MD; Kenneth Egol, MD; Stephen Kottmeier, MD; David Sanders, MD; Clifford Jones, MD, FACS; Anna Miller, MD, FACS*
- 1:51 pm **Paper 108**  
Fracture Union Following Infected Hardware Fixation – A Prospective Population Based Cohort Study  
*Daniel Benz, MBBS; Nick Fountas, MBBS; Reza Rahim, MBBS; Mark Loewenthal, FRACP; Khine Swe, MBBS; David Dewar, FRACS (Ortho)*

- 1:57 pm **Paper 109**  
Correlation between Routine Microbiology Results at Definitive Closure and Wound Infection in Type III Tibia Fractures: Results from a Multi-Center, Prospective Cohort Study  
*CAPT (ret) Michael Bosse, MD; METRC Bioburden*
- 2:03 pm Discussion
- 2:08 pm **Paper 110**  
Culture Negative Infection After Traumatic Injury  
*I Leah Gitajn, MD; Marilyn Heng, MD; Mitchel Harris, MD*
- 2:14 pm **Paper 111**  
Can MRSA Screening Swabs Help Predict Risk of Post-Operative Infection Following Open Fracture Treatment?  
*Cassandra Cardarelli, MD; Matt Vasquez, MD; Jacob Glaser, MD; Sarah Murthi, MD; Michelle Romero, BS; Kerry Campbell, BS; Michael McCusker, BS; Marcus Sciadini, MD; Robert O'Toole, MD; Manjari Joshi, MD;*
- 2:20 pm **Paper 112**  
Vancomycin and Cefepime Antibiotic Prophylaxis for Open Fractures as Effective As Cefazolin And Gentamicin, Avoids Potential Nephrotoxicity, Does Not Result in Antibiotic Resistance with MRSA  
*Benjamin Maxson, DO; Rafael Serrano-Riera, MD; Mark Bender, DC; H Claude Sagi, MD*
- 2:26 pm Discussion
- 2:31 pm **Paper 113**  
A Supply and Demand Analysis of the Orthopaedic Trauma Surgeon Workforce in the United States  
*John Sielatycki, MD; Hassan Mir, MD, MBA; Jeffrey Sawyer, MD*
- 2:37 pm **Paper 114**  
Effect of a Dedicated Orthopaedic Advanced Practice Provider in a Level I Trauma Center: Analysis of Length of Stay and Cost  
*Elise Hiza, MD; Michael Gottschalk, MD; Erica Umpierreze, BA; Patricia Bush, MS; William Reisman, MD*
- 2:43 pm **Paper 115**  
Does Nutritional Intervention Improve Nutritional Outcomes in Orthopaedic Trauma Patients, A Randomized Prospective Study  
*Reza Firoozabadi, MD; Benjamin Hamilton, BS, MS; Julie Agel, ATC; M Bradford Henley, MD, MBA, FACS*



## Saturday, October 10, 2015

2:49 pm **Paper 116**  
Do Patients know their Post-Operative Plan?: A Prospective Cohort Study of Orthopaedic Trauma Patients  
*Adam Jester, MD; Christopher Ruland, MS; Ebrahim Paryavi, MD, MPH; Max Coale, BA; Timothy Zerhusen, BS; Robert O'Toole, MD*

2:55 pm Discussion

1:30 pm – 3:00 pm **Concurrent Breakouts**  
(Descriptions on pages 50 - 53)

**Mini Symposia** – No Charge.  
Seating available first come, first-served.

1:30 pm **From the Operating Room to the Boardroom - Applying an MBA to Benefit Orthopaedic Traumatology**  
Moderator: *Hassan R Mir, MD, MBA*  
Faculty: *Peter L Althausen, MD, MBA; David J Hak, MD, MBA; M Bradford Henley, MD, MBA; Robert A Probe, MD; Craig S Roberts, MD, MBA; George V Russell, MD, MBA*

1:30 pm **ORIF Versus Acute Arthroplasty for Common Extremity Injuries: What Does Evidence-Based Medicine Tell Us?**  
Moderator: *Emil H Schemitsch, MD*  
Faculty: *Hans Kreder, MD; Michael McKee, MD; Aaron Nauth, MD; Andrew Schmidt, MD*

3:00 pm Break - NO EXHIBITS

3:15 pm - 5:10 pm **Paper Session 9**  
**Upper Extremity and Wrist**

Moderator: *Gerard P Slobogean, MD*  
*Raymond A Pensy, MD*

3:15 pm **Paper 117**  
Anterior-Inferior Plating Results in Fewer Secondary Interventions Compared to Superior Plating for Acute Displaced Mid-Shaft Clavicle Fractures  
*Rafael Serrano-Riera, MD; H Claude Sagi, MD; Roy Sanders, MD*

3:21 pm **Paper 118**  
Introducing the Surgical Therapeutic Index in Trauma Surgery: An Assessment Tool for the Benefits and Risks of Different Operative Fracture Treatment Strategies  
*Olivier Van Der Meijden, MD, PhD; Marijn Houwert, MD, PhD; Frans-Jasper Wijdicks, MD, PhD; Marcel Dijkgraaf, PhD; Luke Leenen, Prof. dr.; Michael Verhofstad, MD, PhD; Egbert JMM Verleisdonk, MD, PhD*

3:27 pm **Paper 119**  
Effects of Injury and Social Factors on Functional Outcomes After Clavicle Fracture  
*Joshua Napora, MD; Dominic Grimberg, BS; Benjamin Childs, BS; Heather Vallier, MD*

3:33 pm Discussion

3:38 pm **Paper 120**  
Results and Outcomes After Midshaft Clavicle Fracture: Matched Pair Analysis of Operative Versus Non-Operative Management  
*Joshua Napora, MD; Dominic Grimberg, BS; Benjamin Childs, BS; Heather Vallier, MD*

3:44 pm **Paper 121**  
Scapular Dyskinesis Following Displaced Fractures of the Middle Clavicle  
*Edward Shields, MD; Caleb Behrend, MD; Tanya Beiswenger, DPT; Benjamin Strong, MD; Michael Maloney, MD; Ilya Voloshin, MD*

3:50 pm **Paper 122**  
Proximal Humerus Fracture Fixation with Locking Plate: Screws with a Length of 45 mm or Longer Are Related to Increased Risk of Cut-Out  
*Julien Goulet, MD; Jérémie Ménard, Ing; Julien Chapleau, MD, MSc; Georges-Yves Laflamme, MD, FRCSC; Dominique Rouleau, MD, MSc, FRCSC*

3:56 pm Discussion

## OTA ANNUAL MEETING, continued

### Saturday, October 10, 2015

- 4:01 pm **Paper 123**  
The Impact of Residual Angulation on Patient Reported Functional Outcome Scores after Non-operative Treatment for Humeral Shaft Fractures  
*Edward Shields, MD; Leigh Sundem, BS; Sean Childs, BS; Michael Maceroli, MD; Catherine Humphrey, MD; John Ketzi, MD; Gillian Soles, MD; John Gorczyca, MD*
- 4:07 pm **Paper 124**  
Scoring Cortical Healing of Humeral Shaft Fractures Improves Interobserver Reliability  
*Anthony Christiano, BA; Abraham Goch, BS; Christopher Burke, MD; Philipp Leucht, MD, PhD; Kenneth Egol, MD; Sanjit Konda, MD*
- 4:13 pm **Paper 125**  
Optional Follow-Up Visits for Common, Low-Risk Arm Fractures  
*Abigail Finger, BA; Teun Teunis, MD; Michiel Hageman, MD; Emily Thornton, BS; Valentin Neuhaus, MD PhD; David Ring, MD PhD*
- 4:19 pm Discussion
- 4:24 pm **Paper 126**  
Impact of Olecranon Fracture Malunion: Study on the Importance of PUDA (Proximal Ulna Dorsal Angulation)  
*Julien Chapleau, MD, MSc; Frédéric Balg, MD, FRCSC; Edward Harvey, MD, MSc, FRCSC; Jérémie Ménard, Ing; Frédéric Vauclair, MD; George Laflamme, MD; Dominique Rouleau, MD, MSc, FRCSC*
- 4:30 pm **Paper 127**  
Surgical Treatment of Chronic Elbow Dislocation Allowing Early Range of Motion: Operative Technique and Early Clinical Results  
*Justin Haller, MD; Lucas Anderson, MD; Duane Anderson, MD*
- 4:36 pm **Paper 128**  
Posttraumatic Elbow Arthrofibrosis Incidence and Risk Factors: A Retrospective Review  
*Lucas Marchand, MD; Zachary Working, MD; J Williams, MD; Iain Elliott, MD; Ami Stuart, PhD; David Rothberg, MD; Thomas Higgins, MD; Erik Kubiak, MD*

- 4:42 pm **Paper 129**  
Early Mobilization Versus Plaster Immobilization of Simple Elbow Dislocations: A Cost Analysis of the (Blinded) Multicenter Randomized Clinical Trial  
*GIT Iordens, MD; Esther Van Lieshout, PhD, MSc; Suzanne Polinder, PhD; Denise Eygendaal, MD, PhD; Michael Verhofstad, MD, PhD; Niels Schep, MD, MSc, PhD; Dennis Den Hartog, MD, PhD*
- 4:48 pm Discussion
- 4:53 pm **Paper 130**  
Dorsal Tangential View: A Useful Tool for Assessment of Dorsal Screw Penetration in Distal Radius Fracture Fixation?  
*Devin Ganesh, MD; Ben Service, MD; Brian Zirgibel, MD; Kenneth Koval, MD*
- 4:59 pm **Paper 131**  
Timing of Treatment of Open Distal Radial Fractures in Adults  
*Jarid Tareen, MD; Adam Kaufman, MD; Raymond Pensy, MD; Robert O'Toole, MD; Andrew Eglseider, MD*
- 5:05 pm Discussion
- 5:10 pm Closing Remarks and Adjourn



# POSTER LISTING

## Poster 1

Posterior Facet Settling and Changes in Bohler's Angle in Operatively and Non-Operatively Treated Calcaneus Fractures: Implications for Management

*Tyler Gonzalez, MD MBA; Robert Lucas, BA; Timothy Miller, MD; I. Leah Gitajn, MD; David Zurakowski, PhD; John Kwon, MD*

## Poster 2

Functional Outcomes of Minimally Invasive Versus Extensile Lateral Approach for Intraarticular Calcaneus Fractures

*Seth Gengler, DO; Michael Swords, DO; Robert Zondervan, MS; Landon Fine, DO; Phillip Penny, DO, MA, BS; Andrew Sands, MD*

## Poster 3

Modification of the Distal Tibiofibular Relationship of the Normal Ankle in Plantar Flexion and Dorsiflexion Measured on MR images

*Marie-Lyne Nault, MD, PhD; Jonah Hebert-Davies, MD; Mélissa Marien; George Laflamme, MD; Dominique Rouleau, MD, MSc, FRCSC; Vincent Pelsser, MD; Stéphane Leduc, MD*

## Poster 4

Efficacy of Immediate Postoperative Pain Control Modalities after Ankle Fracture Fixation: A Multimodal Comparison

*David Ding, MD; Christian Pean, MS; Sudheer Jain, MD; Kenneth Egol, MD; Nirmal Tejwani, MD*

## Poster 5

Open Treatment of Ankle Fracture as an Inpatient Increases the Risk of a Complication

*Frank Avilucea, MD; Paul Whiting, MD; Sarah Greenberg, BA; Basem Attum, MD; Amir Jahangir, MD; Hassan Mir, MD, MBA; William Obremskey, MD, MPH; Manish Sethi, MD*

## Poster 6

Predictors of Adverse Events for Ankle Fractures: An Analysis of 6,800 Patients

*Sarah Greenberg, BA; Catherine Bulka, MPH; Amir Jahangir, MD; Hassan Mir, MD, MBA; Eduardo Burgos, MD; Ronald Baker, MD; William Obremskey, MD, MPH; Manish Sethi, MD*

## Poster 7

A Novel Method to Quantify Ankle Soft Tissue Envelope and its Association with Surgical Site Infections after Open Reduction Internal Fixation of Unstable Ankle Fractures

*Michael Chiu, MD; Stephen Yu, MD; Andrew Worden, BS; Matthew Steffes, BS; Stuart Guthrie, MD*

## Poster 8

Improving Outcomes in Patients with Ankle and Hindfoot Fusions Following Trauma

*Andrew Sheean, MD; David Tennent, MD; Johnny Owens, BS, MPT; Jason Wilken, PhD, MPT; Joseph Hsu, MD; Daniel Stinner, MD*

## Poster 9

Incidence of Preoperative Deep Venous Thrombosis in Isolated Calcaneal Fractures

*Joan Williams, MD; Milton Little, MD; Patricia Kramer, PhD; Stephen Benirschke, MD*

## Poster 10

Early Weight-Bearing After Fracture Fixation Does Not Affect Fracture Healing or Loss of Fixation Compared with Non-Weight-Bearing

*Brandon Horne, MD; Renn Crichlow, MD; Kathy Flint, MSN*

## Poster 11

Determinants of Functional Outcome after Operative Calcaneus Fractures

*Michael Hermelin, BA; Heather Vallier, MD*

## Poster 12

CT Assessment of Peroneal Tendon Displacement and Posteromedial Structure Entrapment in Pilon Fractures

*Alejandro Miranda, MD; Alex Fokin Jr, MD*

## Poster 13

Anatomic Syndesmotomic Reduction: Using Intraoperative Fluoroscopic Imaging to Ensure Accurate Clamp Position

*Sara Putnam, MD; Michael Linn, MD; Michael Gardner, MD; Christopher Cosgrove, MD; Steven Cherney, MD; Amanda Spraggs-Hughes, MA; Christopher McAndrew, MD; William Ricci, MD*

## Poster 14

Operative Repair of Proximal Humerus Fractures in Septuagenarians and Octogenarians: How Old is Too Old?

*Abraham Goch, BS; Christian Pean, MS; Kari Broder, BA; Sanjit Konda, MD; Philipp Leucht, MD, PhD; Kenneth Egol, MD*

## Poster 15

Bisphosphonate Associated Periprosthetic Fractures: A Multicentre Retrospective Review of a New Cause of Periprosthetic Stress Fractures

*Ross Leighton, MD, FRCSC, FACS; Juan De Dios Robinson, BA, MBBS, MSc, FRCS (Ortho); Kelly Trask, MSc; Yelena Bogdan, MD; Paul Tornetta, MD*

## Poster 16

Total Hip Arthroplasty for Femoral Neck Fractures: Does Hospital Arthroplasty Volume Influence Outcomes?

*Michael Maceroli, MD; Lucas Nikkel, MD; Bilal Mahmood, MD; John Elfar, MD*

## Poster 17

Does Admission to Medicine or Orthopaedics Impact a Geriatric Hip Patient's Hospital Length of Stay?

*Sarah Greenberg, BA; Jacob VanHouten, MS; Robert Boyce, MD; Craig Melbourne, BS; Amir Jahangir, MD; Hassan Mir, MD, MBA; William Obremskey, MD, MPH; Manish Sethi, MD*

## Poster 18

Cephalomedullary Nail vs. Sliding Hip Screw for Fixation of OTA 31A1/2 Intertrochanteric Femur Fractures – a 12-Year Comparison

*Casey Whale, BS; Michael Beebe, MD; David Hulet, BS; Chong Zhang, MS; Jeremy Gililland, MD; David Rothberg, MD; Erik Kubiak, MD*

## POSTER LISTING, continued

### Poster 19

**Utility of Advanced Imaging in Treating Pelvic Ring Insufficiency Fractures in the Geriatric Population**

*Harold Fogel, MD; Roman Natoli, MD; Daniel Holt, BS; Adam Schiff, MD; Mitchell Bernstein, MD, FRCSC; Hobie Summers, MD; William Lack, MD*

### Poster 20

**Helical Blade vs Lag Screw Fixation for Cephalomedullary Nailing of Low Energy Pertrochanteric Femur Fractures: Is there a difference in cutout?**

*Lorraine Stern, MD; John Gorczyca, MD; Stephen Kates, MD; John Ketz, MD; Gillian Soles, MD; Catherine Humphrey, MD*

### Poster 21

**What are the Risk Factors for a Delay of 48 Hours or More in the Surgical Management of Geriatric Hip Fractures?**

*Michael Weaver, MD; Marilyn Heng, MD; Adil Shah, MD; Mitchel Harris, MD; Adil Haider, MD, MPH*

### Poster 22

**Retrospective Analysis of Distal Ulna Fractures Associated with Distal Radius Fractures in Women 50 Years and Older: Clinical, Radiographic, and Patient Related Outcomes**

*Geoffrey Johnston, MD, MBA; Laura Sims, MD; Samuel Stewart, PhD*

### Poster 23

**Prevalence of Osteoporosis, Low and Normal Bone Density in Women Over Fifty with a Distal Radius Fracture, and their Relationship to Clinical and Radiographic Outcomes**

*Geoffrey Johnston, MD, MBA; Alexander Perreault, MD; Samuel Stewart, PhD*

### Poster 24

**Prophylactic Fixation of Contralateral Side is Cost-Effective After Bisphosphonate-Associated Atypical Femur Fracture**

*Bonnie Chien, MD; David Kaufman, MD; Michael Longoria; Ross Shachter, PhD; Julius Bishop, MD*

### Poster 25

**Retrospective Review of Completed Displaced Femoral Neck Stress Fractures in Young Adults**

*Gregory Staeheli, MD; Kevin Kuhn, MD; Grant Cochran, MD*

### Poster 26

**Outcome of Periprosthetic Femoral Fractures with Retained Total Hip Arthroplasty Treated with a Polyaxial Locking Plate**

*Martin Hoffmann, MD; Sebastian Lotzien, MD; Thomas Schildhauer, MD, PhD*

### Poster 27

**Extra-capsular Proximal Femoral Fractures (OTA/AO 31-A) in Young Adults Have Surprisingly Poor Outcomes**

*Darryl Ramoutar, MBBChir MA MSc FRCS (Tr&Orth); Preetham Kodumuri, MBBS MRCS; Jeremy Rodrigues, MBChB MRCS MSc; Simon Olewicz, MBBS; Christopher Moran, MD, FRCS; Daren Forward, MD*

### Poster 28

**Intraoperative Fluoroscopy Underestimates Malreduction of Displaced Femoral Neck Fractures**

*Garin Hecht, MD; Patrick Michelier, BS; Blythe Durbin-Johnson, PhD; Jonathan Eastman, MD*

### Poster 29

**Safety of Osseointegrated Prosthesis for Trans-femoral Amputees**

*Munjed Al Muderis, FRACS, FRCS (Ortho), MB, ChB; Aditya Khemka, MBBS, MS Orthopedics, PhDc; Sarah Lord, MBBS, MSc; Henk Van de Meent, MD, PhD; Jan Paul Frolke, MD*

### Poster 30

**Return to Duty in Military Members Following Surgical Treatment of Incomplete Femoral Neck Fractures**

*Clare Griffiths, MD; Vanna Rocchi, DO; Kevin Kuhn, MD*

### Poster 31

**The Trochanteric Fixation Nail and Axial Migration: Tip-Apex Distance Revisited**

*Stephen Flores, MD; Adam Wooldridge, MD, MPH; Dylan Homen, BS; Mark Jenkins, MD; Terrance Rodrigues, BS; Cyrus Caroom, MD*

### Poster 32

**Impact of Increasing Fracture Comminution and Severity on Achieving Optimal Femoral Version: An Analysis of 307 Intramedullary Femoral Nails**

*Richard Yoon, MD; David Galos, MD; Neeraj Patel, MD, MPH, MBS; Kenneth Egol, MD; Frank Liporace, MD*

### Poster 33

**Fewer Complications Performing Total Hip Arthroplasty Through a Direct Anterior Approach for Femoral Neck Fracture**

*Justin Haller, MD; Zachary Working, MD; Jeremy Gililand, MD; David Rothberg, MD; Erik Kubiak, MD*

### Poster 34

**Impact of Surrounding Canal Size on Union Following Limited Reamed Intramedullary Nailing of Femur Fractures**

*Mark Gage, MD; Richard Yoon, MD; Daniel Seigerman, MD; Derek Donegan, MD; Philip Lim, BS, MD; John Koerner, MD; Frank Liporace, MD*

### Poster 35

**Intramedullary Nailing of Femoral Shaft Fractures: Does Size Matter?**

*Rafael Serrano-Riera, MD; Roy Sanders, MD*

### Poster 36

**Morphological Variations and Regional Radii of Curvature of the Femur**

*John Lee, MD, MS; Samuel Rosenbaum, MD; Manuel Schubert, MD; Stewart Wang, MD, PhD; James Goulet, MD*



## POSTER LISTING, continued

### Poster 37

#### The Stability of Fixation of Proximal Femoral Fractures: A Radiostereometric Analysis

*Daphne van Embden, MD; Guido Stollenwerck, MD; Lennard Koster, BS; Bart Kaptein, MD PhD; Rob Nelissen, MD PhD; I.B. Schipper, MD PhD*

### Poster 38

#### The Effect of Helmet-Use on Motorcycle Trauma Outcomes

*Daniel Wiznia, MD; Chang-Yeon Kim, BS, MS; Alex Goel, BS; Michael Leslie, DO*

### Poster 39

#### Multi-Disciplinary Malnutrition Screening Program in Orthopaedic Trauma Patients

*Michael Willey, MD; Nathan Nicholson, MD; Matthew Karam, MD; Larry Marsh, MD*

### Poster 40

#### Risk of Second Hip Fracture Persists for Years After Initial Trauma

*Katie Sheehan, PT PhD; Boris Sobolev, PhD; Lisa Kuramoto, MSc; Pierre Guy, MD*

### Poster 41

#### Extensor Mechanism Injuries of the Knee: Patient Demographics and Comorbidities from a Review of 726 Patients

*Matthew Garner, MD; Elizabeth Gausden, MD; Marschall Berkes, MD; Joseph Nguyen, MPH; Dean Lorch, MD*

### Poster 42

#### Does Partial Patellectomy Lead to Patella Baja?

*Brooke Crawford, MD; David Leenan, BS; Lisa Cannada, MD*

### Poster 43

#### Clinical and Radiographic Predictors of Acute Compartment Syndrome in Tibial Plateau Fractures

*Axel Gamulin, MD; Anne Lübbecke, MD, DSc; Patrick Belinga, MD; Pierre Hoffmeyer, MD; Gregory Cunningham, MD*

### Poster 44

#### The Treatment of Difficult Patella Fractures with the Multiple Wire and Tension Band Technique

*Dustin Hambright, MD; Kempland Walley, BS; Amber Hall; Paul Appleton, MD; Edward Rodriguez, MD*

### Poster 45

#### Posttraumatic Total Knee Arthroplasty Continues to Have Worse Outcome than Total Knee Arthroplasty for Osteoarthritis

*Matthew Houdek, MD; Eric Wagner, MD; Steven Shannon, MD; Chad Watts, MD; Stephen Sems, MD; Rafael Sierra, MD*

### Poster 46

#### Early Posteromedial Incision Does Not Increase Wound Complications or Total Operative Time in AO/OTA 41 Type C Tibial Plateau Fractures

*Darryl Auston, MD/PhD; Matthew Albanese, BS; Emil Azer, MD; Robert Simpson, MD*

### Poster 47

#### Risk Factors for Infection after Operative Fixation of Tibial Plateau Fractures

*Jimmy Hlavacek, MD; Amit Momaya, MD; Brian Etier, MD; David Johannesmeyer, MD; Lasun Oladeji, MS; Emily Keener, DO; Jason Lowe, MD*

### Poster 48

#### Indirect Medial Reduction and Endosteal Strut Graft Support of Complex Tibial Plateau Fractures with Diaphyseal Extension

*Lionel Lazaro, MD; Stephen Warner, MD, PhD; Jeremy LaMothe, MD; Jason Halvorson, MD; David Helfet, MD; Dean Lorch, MD*

### Poster 49

#### Prospective, Multi-Center, Observational Study Evaluating the Augmentation with Calcium Phosphate Cement (chronOS Inject) for Bone Defect after Internal Fixation of Proximal Tibial Fractures

*Ki-Chul Park, MD, PhD; Chang-Wug Oh, MD, PhD; Ji-Wan Kim, MD; Jung-Jae Kim, MD, PhD; Hyun Joong Cho*

### Poster 50

#### Traumatic Knee Dislocations in the Obese and Morbidly Obese from 2000 to 2010: Increased Incidence and Rate of Vascular Intervention

*Stephen Klinge, MD; Philip McClure, MD; Joseph Johnson, MD; Dominic Kleinhenz, MD; COL (ret) Roman Hayda, MD; Christopher Born, MD*

### Poster 51

#### Rate of Total Knee Arthroplasty after Tibial Plateau Fracture

*Erin Donohoe, MB, BCh, BAO; Abdel Lawendy, MD, PhD; James Howard, MD; David Sanders, MD*

### Poster 52

#### Incidence and Location of Articular Malreductions of the Tibial Plateau Identified on Post-Operative CT Scan

*Brad Meulenkamp, MD; Desy Nicholas, MD; Ryan Martin, MD; Richard Buckley, MD*

### Poster 53

#### BMI as a Predictor of Perioperative Complications Following Orthopaedic Trauma Surgery: An ACS-NSQIP Analysis

*Paul Whiting, MD; Gabrielle White-Dzuro, BA; Sarah Greenberg, BA; Frank Avilucea, MD; Hassan Mir, MD, MBA; Amir Jahangir, MD; William Obremskey, MD, MPH; Manish Sethi, MD*

### Poster 54

#### Pre-operative Labs: Wasted Dollars or Predictors of Post-Operative Cardiac and Septic Events in Orthopaedic Trauma Patients?

*Vasanth Sathiyakumar, BA; Sarah Greenberg, BA; Hassan Mir, MD, MBA; Amir Jahangir, MD; William Obremskey, MD, MPH; Manish Sethi, MD*

### Poster 55

#### Are 2.7 mm Recon Plates Stable Enough for Anteroinferior Plating of Displaced Midshaft Clavicle Fractures?

*Martin Hoffmann, MD; Alex Glide, MD; Clifford Jones, MD, FACS; Debra Sietsema, PhD*

## POSTER LISTING, continued

### Poster 56

#### Severity Weighting of Adverse Events in Orthopaedic Trauma Surgery

*Daniel Bohl, MPH; Junyoung Ahn, BS; Adam Lukasiewicz, MSc; Andre Samuel, BBA; Matthew Webb, BA; Bryce Basques, BS; Nicholas Golinvaux, BA; Kern Singh, MD; Jonathan Grauer, MD*

### Poster 57

#### Compartment Syndrome Training Assessment and Education Tool

*Andrea Spiker, MD; Johnathan Bernard, MD, MPH; Jonathan Dattilo, MD; Robert Sterling, MD; Greg Osgood, MD; Dawn LaPorte, MD*

### Poster 58

#### Establishing Radiographic Guidelines in Postoperative Fracture Care: Articular Fractures in the Lower Extremity

*Kevin Phelps, MD; Michelle Phelps, MD; Rachel Seymour, PhD; CAPT (ret) Michael Bosse, MD*

### Poster 59

#### Risk Factors for Deep Venous Thrombosis in Orthopaedic Trauma: An Analysis of 56,000 patients

*Paul Whiting, MD; Sarah Greenberg, BA; Jacob VanHouten, MS; Gabrielle White-Dzuro, BA; Frank Avilucea, MD; Hassan Mir, MD, MBA; Amir Jahangir, MD; Manish Sethi, MD; William Obremskey, MD, MPH*

### Poster 60

#### Humeral Shaft Fractures Treated with Lag Screw Fixation Heal with Callus

*Giuliana Rotunno, BS; Marcus Sciadini, MD; Christina Sebastian, BS; Robert O'Toole, MD; W Eglseider, MD*

### Poster 61

#### Ultra Low Dose CT Scans For Fracture Evaluation:

#### All of the Efficacy with an Improved Patient Safety Profile

*Sanjit Konda, MD; Abraham Goch, BS; Philipp Leucht, MD, PhD; Anthony Christiano, BA; Gideon Yoeli, MD; Soterios Gyftopoulos, MD; Kenneth Egol, MD*

### Poster 62

#### An Ultra Low Dose CT Protocol Generates Three Dimensional Reconstructed Images: A Pilot Study Demonstrating Proof of Concept

*Abraham Goch, BS; Sanjit Konda, MD; Gideon Yoeli, MD; Soterios Gyftopoulos, MD; Devan Mehta, BS; Kenneth Egol, MD*

### Poster 63

#### Long-term Implantation of Polymethylmethacrylate Antibiotic Beads at a Fracture Site

*Shawn Werner, MD; Reza Firoozabadi, MD*

### Poster 64

#### When are CT Angiograms Indicated for Lower Extremity Fractures?

*Shafagh Monazzam, MD; Parker Goodell, BS; Edgardo Salcedo, MD; Philip Wolinsky, MD*

### Poster 65

#### Wide Variation of Surgical Cost between 6 Fellowship-trained Trauma Surgeons in the Treatment of Peri-articular Lower Extremity Injuries

*Robert Wetzel, MD; Edwin Lee, PT, MBA, CPHQ; Laurence Kempton, MD; Anthony Sorkin, MD; Michael Zlowodzki, MD; Todd McKinley, MD; Walter Virkus, MD*

### Poster 66

#### Hip and Pelvic Fracture Patients Incur Significantly Different Inpatient Costs, Despite Being Reimbursed Under the Same Medicare Diagnosis Related Group

*Andre Samuel, BBA; Matthew Webb, BA; Adam Lukasiewicz, MSc; Arya Varthi, MD; Bryce Basques, BS; Daniel Bohl, MPH; Jonathan Grauer, MD*

### Poster 67

#### Does Primary Wound Closure following Open Fracture affect Development of Deep Infection or Non-Union? A Prospective Cohort Study of 83 Subjects with 84 Open Fractures

*Angela Scharfenberger, MD; Khaled Al-Abbasi, MD; Stephanie Smith, MD; Don Weber, MD; Sukhdeep Dulai, MD, MSc; Joseph Bergman, MD; Lauren Beaupre, PT, PhD*

### Poster 68

#### Correlation of NIRS and Histological Muscle Damage in a Prolonged Trauma/infusion Model of Extremity Compartment Syndrome (ECS)

*Steven Budsberg, DVM*

### Poster 69

#### Does Resident Involvement Increase Complications in Orthopaedic Trauma?

*Sarah Greenberg, BA; Catherine Bulka, MPH; Frank Avilucea, MD; Amir Jahangir, MD; Hassan Mir, MD, MBA; William Obremskey, MD, MPH; Manish Sethi, MD*

### Poster 70

#### Prospective Randomized Controlled Trial using Telemedicine for Follow-up Visits in an Orthopaedic Trauma Population: A Pilot Study

*Vasanth Sathiyakumar, BA; Jordan Apfeld, BS; Sarah Greenberg, BA; Rachel Thakore, BS; William Obremskey, MD, MPH; Manish Sethi, MD*

### Poster 71

#### Identifying Clusters of Orthopaedic Trauma Patients At Risk for Poor Outcomes: Results from a Prospective, Multi-Center Study

*Renan Castillo, MD; METRC TCCS*

### Poster 72

#### Physician Confidence in Managing Psychosocial Sequelae of Trauma: Impact of the Trauma Collaborative Care Initiative

*Stephen Wegener, PhD; METRC TCCS Investigators, PhD, MD*

### Poster 73

#### Culture-Independent Measures of The Traumatic Open Fracture Microbiome to Predict Clinical Outcomes

*Geoff Hannigan, BS; Patrick Hesketh, BS; Evan Bannister, BS; Joseph Horwinski, BS; Amanda Tyldsley, BS; Annamarie Horan, PhD; Elizabeth Grice, PhD; Samir Mehta, MD*

## POSTER LISTING, continued

### Poster 74

**Rate and Risk Factors for Delayed Healing Following Surgical Treatment of Lateral Condyle Humerus Fractures in Children**

*Lisette Salgueiro Canetti, MD; Joanna Roocroft, MA; Tracey Bastrom, MA; Eric Edmonds, MD; Andrew Pennock, MD; Vidyadhar Upasani, MD; Burt Yaszay, MD*

### Poster 75

**Closed Reduction and Percutaneous Pinning Vs Open Reduction Internal Fixation of Mildly Displaced Humeral Lateral Condyle Fractures**

*Andrew Pennock, MD; Lisette Salgueiro Canetti, MD; Vidyadhar Upasani, MD; Tracey Bastrom, MA; Burt Yaszay, MD*

### Poster 76

**Cervical Spine Trauma Immobilization Protocols in Young Children: How Often are These Protocols Followed?**

*Jeffrey Sawyer, MD; Eric Weldy, BS; Derek Kelly, MD; James Beaty, MD; David Spence, MD; William Warner Jr, MD*

### Poster 77

**Pelvic Ring Injuries in the National Trauma Data Bank: Miscoded, Misclassified, or Misunderstood?**

*Brittany Haws, BS; Scott Wuertzer, MD; Leon Lenchik, MD; Anna Miller, MD, FACS*

### Poster 78

**APC Injuries with Symphyseal Fixation: What Affects Outcome?**

*Paul Tornetta, MD; Kyle Lybrand, MD; David Templeman, MD; Deirdre Rodericks, BS; Anthony Bell, MD*

### Poster 79

**The Incidence of and Factors Affecting Iliosacral Screw Loosening in Pelvic Ring Injury**

*Joon-Woo Kim, MD, PhD; Chang-Wug Oh, MD, PhD; Jong-Keon Oh, MD, PhD; Jong-Chul Lee, MD; Jong-Uk Moon*

### Poster 80

**Reduction of Symphyseal Diastasis During CT Scan**

*Peter Gibson, MD; Mark Adams, MD; Kenneth Koury, MD; Mohamad Shaath, MD; John S. Hwang; Michael Sirkin, MD; Mark Reilly, MD*



### Poster 81

**Does Pelvic Embolization Increase Infection Rates in Patients Who Undergo Open Treatment of Acetabular Fractures?**

*Reza Firoozabadi, MD; Milton Little, MD; Timothy Alton, MD; Mathew Kogut, MD*

### Poster 82

**The Risk Factors of Neurological Deficit after Fixation of Zone 2 Sacral Fractures**

*Amir Herman, MD, PhD; Emily Keener, DO; Candice Dubose, MD; Jason Lowe, MD*

### Poster 83

**Bilateral Sacral Fractures are Highly Associated with Lumbopelvic Instability**

*Tiffany Castillo, MD; Sean Dangelmajer, BA; Ian Corcoran-Schwartz, MD; Julius Bishop, MD*

### Poster 84

**Risk Factors for Conversion to Total Hip Arthroplasty after Posterior Wall Acetabular Fracture**

*Reza Firoozabadi, MD; David Shearer, MD, MPH; Benjamin Hamilton, BS, MS; Paul Toogood, MD*

### Poster 85

**Clinical and Radiological Outcomes of the Anterior Subcutaneous Internal Pelvic Fixator**

*Rahul Vaidya, MD; Adam Martin, BSc; Frederick Tonnos, DO; Bryant Oliphant, MD; Anil Sethi, MD*

### Poster 86

**The Value of 'Binder-off' Imaging for Identifying Occult and Unexpected Pelvic Ring Injuries**

*James Fagg, MBChB, MRCS (Ed), FRCS (Tr&Orth); Mehool Acharya, BSc(Hons), MBChB, MRCS, FRCS(Tr&O); Tim Chesser, FRCS; Anthony Ward, BMedSc (Hons), BM BS, FRCS*

### Poster 87

**Does Transsacral-Transiliac Screw Fixation of An Uninjured Sacroiliac Joint Affect Pain and Functional Outcomes at One Year Follow Up?**

*John Heydemann, MD; Mary Gibson, BS; Braden Hartline, MD; John Munz, MD; Mark Prasarn, MD; Timothy Achor, MD; Matthew Galpin, RC; Joshua Gary, MD*

### Poster 88

**Evaluation and Effects of Perioperative Low Molecular Weight Heparin Administration in Patients Treated with ORIF of the Acetabulum: Are Patients Getting Their Medicine?**

*Cory Collinge, MD; Michael Archdeacon, MD; George Lebus, MD*

### Poster 89

**Complications are Reduced with Appropriate Resuscitation, Measured by Correction of Metabolic Acidosis**

*Douglas Weinberg, MD; Arvind Narayanan, BBA; Timothy Moore, MD; Heather Vallier, MD*

### Poster 90

**Pelvic Injury Predicts Shock Severity and Systemic Inflammation**

*Greg Gaski, MD; Travis Frantz, BS; Tyler McCarroll, BS; Scott Steenburg, MD; Todd McKinley, MD*



## POSTER LISTING, continued

### Poster 91

Management of Diaphyseal Humerus Fractures in Patients with ISS > 17

*Cassandra Dielwart, MD, FRSCS; Jeremy Thompson, BS; Luke Harmer, MD, MPH, FRCSC; Madhav Karunakar, MD*

### Poster 92

Complications of Enoxaparin use in Orthopaedic Trauma Patients

*Herman Johal, MD MPH; Timothy Costales, BS; Matthew Christian, MD; Bryce Haac, MD; Max Coale, BA; Robert O'Toole, MD; Theodore Manson, MD*

### Poster 93

Posterior Bone Grafting for Tibial Nonunions

*Theodore Manson, MD; Michael Foster, BS; Robert O'Toole, MD*

### Poster 94

The Power of a Swab: Can Pre-Operative Nasal Culture Predict Complications or Outcomes Following Repair of Fracture Nonunion?

*David Taormina, MD; Sanjit Konda, MD; Frank Liporace, MD; Kenneth Egol, MD*

### Poster 95

Indications and Timing of Tracheostomy after Cervical Spine Injury: Implications for Hospital Stay and Recovery

*Benjamin Childs, BS; Timothy Moore, MD; John Como, MD, MPH; Heather Vallier, MD*

### Poster 96

Percutaneous Lumbopelvic Fixation for Sacral Fractures with Spino-Pelvic Dissociation

*Seth Williams, MD; Stephen Quinnan, MD*

### Poster 97

Risk Factors for Pulmonary Complications Among Patients with Operative Spine Fractures

*Brian Hedges, BS; Timothy Moore, MD; Heather Vallier, MD*

### Poster 98

Spinal Fracture Patterns in Patients with Ankylosing Spondylitis

*Adam Lukasiewicz, M.Sc.; Matthew Webb, BA; Andre Samuel, BBA; Bryce Basques, BS; Daniel Bohl, MPH; Jonathan Grauer, MD*

### Poster 99

Dynamic Screw Configuration and Fibular Osteotomy Decrease Healing Time in Tibia Nonunion Exchange Nailing

*Bryan Abadie, BA; Daniel Leas, MD; Peter Malm, BS, MS; Lisa Cannada, MD; Michael Morwood, MD; Cameron Howes, MD; Robert Zura, MD; Kaitlin Healy, MPH; Matthew Avery, MD; Anna Miller, MD, FACS*

### Poster 100

Baseline RUST Score Predicts Success with Operative Treatment of Tibial Nonunion

*Anthony Christiano, BA; Abraham Goch, BS; Philipp Leucht, MD, PhD; Kenneth Egol, MD; Sanjit Konda, MD*

### Poster 101

Active Smoking is a Risk Factor for Greater Pain Following Nonunion Repair of The Extremities

*Anthony Christiano, BA; Christian Pean, MS; Kenneth Egol, MD*

### Poster 102

Validation for the "Six Hour Rule" for the Severe Open Tibia Fracture

*Karl Henrikson, MD; Dana Farrell, BS; Stuti Patel, BS; Ivan Tarkin, MD*

### Poster 103

Surgical Approaches to Intramedullary Nailing of the Tibia: Comparative Analysis of Knee Pain and Functional Outcomes

*Wajeeh Bakhsh, BA; Steven Cherney, MD; Christopher McAndrew, MD; William Ricci, MD; Michael Gardner, MD*

### Poster 104

Risk Factors for Wound Failure after Primary Closure of Type IIIA Open Tibia Fractures

*Brian Weatherford, MD; Andrew Dubina, BS; Solomon Hayon, BS; Ebrahim Paryavi, MD, MPH; Robert O'Toole, MD*

### Poster 105

Intramedullary Devices for Diaphyseal Femur and Tibia Fractures: A Comparison Analysis of Different Generations of Intramedullary Fixation

*Garland Gudger, MD; Stephanie Tanner, MS; Timothy McHenry, MD; Robert Teadall, BS; Thomas Schaller, MD*

### Poster 106

Semi-extended versus Standard Nailing for Treatment of Distal Third Tibia Fractures: A Multi Center Study

*Scott Ryan, MD; Vito Pugliano, MD; Shane Morris, MS; Robert French, MD; Robert Ward, MD; Andrew Marcantonio, DO, MBA*

### Poster 107

How Scary is this? Characterizing Antibiotic Use for Type III Tibia Fractures

*CAPT (ret) Michael Bosse, MD; METRC Bioburden*

### Poster 108

Metaphyseal Distal Tibia Fractures: Cohort Study Comparing Outcomes of Patients Treated with Minimally-Invasive Plating vs. Intramedullary Nailing

*Eric Barcak, DO; Cory Collinge, MD*

### Poster 109

Outcome after Olecranon Fracture Repair: Does Construct Type Matter?

*Edward Delsole, MD; Christian Pean, MS; Nirmal Tejwani, MD; Kenneth Egol, MD*

### Poster 110

Regional Anesthesia Only for Clavicle Fracture ORIF is Safe and Effective

*Devon Ryan, BA; Natalia Iofin, MD; Kenneth Egol, MD*

### Poster 111

Incidence of Iatrogenic Radial Nerve Palsy Following Repair of Humeral Shaft Nonunion

*Rafael Kakazu, MD; Steven Dailey, MD; John Wyrick, MD; Michael Archdeacon, MD*



## POSTER LISTING, continued

### Poster 112

Radial Head Replacements for Elbow Trauma:  
Functional Outcomes and Complications  
*Kari Broder, BA; Abraham Goch, BS; Kenneth Egol, MD*

### Poster 113

Narcotic Requirements is Not a Predictor of Adult Upper Extremity  
Compartment Syndrome in the Trauma Patient  
*Ehsan Jazini, MD; Ebrahim Paryavi, MD, MPH; Christine Helou, MD;  
Joshua Abzug, MD*

### Poster 114

Immediate Sarmiento Bracing for the Treatment of Humeral Shaft  
Fractures  
*Benjamin Sandberg, MD; Kyle Bohm, MD; Julie Switzer, MD;  
Brian Hill, MD; Joshua Olson, BS; Paul Lafferty, MD*

### Poster 115

Scoring of Cortical Healing Predicts Union in Humeral Shaft  
Fractures  
*Anthony Christiano, BA; Christian Pean, MS; Sanjit Konda, MD;  
Philipp Leucht, MD, PhD; Kenneth Egol, MD*

### Poster 116

Complications of Locked Intramedullary Nail Treatment of Proximal  
Humerus Fractures  
*Armodios Hatzidakis, MD; Thomas D'Ollonne, MD; Tara Hawkes, BS;  
Philippe Clavert, MD, PhD; Pascal Boileau, MD*

### Poster 117

WITHDRAWN

### Poster 118

Small-Fragment Plate Fixation of Humeral Shaft Fractures  
*Giuliana Rotunno, BS; Marcus Sciadini, MD; Christina Sebastian, BS;  
Robert O'Toole, MD; W Eglseder, MD*

### Poster 119

Predictors of Persistent Pain after Distal Clavicle Fracture Fixation  
in an Active Military Population  
*Paul Lanier, DO; Logan Koehler, MD; Joshua Speirs, BS;  
Amr Abdelgawad, MD; Brian Waterman, MD*

### Poster 120

Elbow Release in Patients Following Elbow Contracture:  
An Effective Modality  
*Anthony Christiano, BA; Kari Broder, BA; Nader Paksima, DO, MPH;  
Kenneth Egol, MD*

### Poster 121

Predictors of Nonunion after Operative and Nonoperative  
Management of Humeral Shaft Fractures in a Level I  
Trauma Center  
*Vahid Entezari, MD; Jeffrey Olson, BA; Heather Vallier, MD*

### Poster 122

Is a Postoperative Chest X-ray Necessary after Open  
Reduction and Internal Fixation of a Clavicle Fracture in a  
Trauma Population?  
*Ben Service, MD; Geoffrey Hancy, MD; Joshua Langford, MD;  
Kenneth Koval, MD; George Haidukewych, MD*

### Poster 123

Does Indomethacin Cause Nonunion When Used for HO  
Prophylaxis after ORIF of Distal Humerus Fractures ?  
*Utku Kandemir, MD; Alexander Theologis, MD*

### Poster 124

Nerve Injury and Recovery after Traumatic Humeral Shaft  
Fractures in a Level I Trauma Center  
*Vahid Entezari, MD; Jeffrey Olson, BA; Heather Vallier, MD*

### Poster 125

Continual Near Infrared Spectroscopy Monitoring in Acute  
Compartment Syndrome: Lessons Learned from a Decade of  
War  
*Michael Shuler, MD; Mellisa Roskosky, MSPH;  
William Reisman, MD; Charles Ogburn, MD;  
Tracy Kinsey, MSPH; Brett Freedman, MD*

### Poster 126

Outcomes after Operative Management of Combat-Related  
Low Lumbar Burst Fractures  
*Peter Formby, MD; Scott Wagner, MD; Daniel Kang, MD;  
Ronald Lehman, MD*

### Poster 127

Outcomes of Open Acetabular Fractures in Combat  
Related Trauma  
*Louis Lewandowski, MD; Matthew Kluk, MD;  
Richard Purcell, MD; Steven Grijalva, MD; Wade Gordon, MD*

### Poster 128

Outcomes of Open Pelvic Ring Fractures in Combat  
Related Trauma  
*Louis Lewandowski, MD; Matthew Kluk, MD;  
Richard Purcell, MD; Steven Grijalva, MD; Wade Gordon, MD*

### Poster 129

Risk factors for Amputation in Combat-Related Tibia Injuries  
*Matthew Hanley, MD; Benjamin Chi, MD; Richard Purcell, MD;  
Wade Gordon, MD; Daniel Kang, MD*

### Poster 130

Combat Periarticular Tibia Injury Outcome Study (CAPTIIOUS):  
Risk Factors For Reoperation and Amputation After Open  
Periarticular Tibia Fractures  
*Mark Fleming, DO; Husain Bharmal, MD; Korboi Evans, MD;  
Louis Lewandowski, MD*

### Poster 131

The Minimal Clinically Important Difference of the Patient-Rated  
Wrist Evaluation Score for Patients with Distal Radius Fractures:  
A Prospective Cohort Study  
*Monique Walenkamp, MD, MSCE; Lara Vos, MD;  
Robert-Jan de Muinck Keizer, MD; J.C. Goslings, MD, PhD;  
Niels Schep, MD, MSc, PhD*

## POSTER LISTING, continued

### Poster 132

Assessment of Pronator Quadratus Repair Integrity using Dynamic Ultrasonography Following Volar Plate Fixation for Distal Radius Fractures

*John Capo, MD; Ronald Adler, MD, PhD; Richard Hinds, MD; Nicole Montero-Lopez, MD; Katharine Criner, MD; Kenneth Brock, BS; Anthony Sapienza, MD; Nader Paksima, DO, MPH*

### Poster 133

Bier Block Anesthesia for Distal Radius Fracture Reduction in the ER: Is It Safe?

*Lucas Marchand, MD; Lance Jacobson, MD; Zachary Working, MD; Iain Elliott, MD; Erik Kubiak, MD; Thomas Higgins, MD; David Rothberg, MD*

### Poster 134

Can the Visual Analog Scale be Used as a Long-Term Outcome Instrument to Track Pain Severity in Orthopedic Patients?

*Peter Noback, BA; Derly Cuellar, MD; Joseph Lombardi, MD; Melvin Rosenwasser, MD*



## GUIDED POSTER TOURS

### Friday, October 9, 2015

12:30 pm - 1:15 pm (PT1) **International**  
Guide: *Peter V Giannoudis, MD*

12:30 pm - 1:15 pm (PT2) **Hip, Femur, Geriatric**  
Guide: *Thomas F Higgins, MD*

### 'Suds and Science' Poster Tours

Enjoy a poster tour, lively discussion, and a beverage with colleagues.

5:48 pm - 6:45 pm (PT3) **Foot and Ankle**  
Guide: *Paul Tornetta III, MD*

5:48 pm - 6:45 pm (PT4) **Upper Extremity**  
Guide: *Michael D McKee, MD*

### Saturday, October 10, 2015

12:35 pm - 1:20 pm (PT5) **Knee/Tibia**  
Guide: *J Tracy Watson, MD*

12:35 pm - 1:20 pm (PT6) **Reconstruction/General Interest**  
Guide: *Michael J Gardner, MD*

**Don't miss the opportunity to attend a guided poster tour. Registration is required and space is limited.**

### Poster Viewing Hours:

**Thursday, 10/8, 2:30 pm thru**

**Saturday, 10/10, 1:30 pm**

# ORTHOPAEDIC TRAUMA FOR PAs and NPs

Cory A Collinge, MD, Michael J Gardner, MD  
Daniel J Coll, MHS, PA-C  
& Dennis C Gregory, PA-C, Program Chairs

## Target Audience

This course is intended for PAs and NPs who are earlier in their careers or experience of treating orthopaedic trauma while practicing in general orthopaedics, taking acute orthopaedic call with inpatient/outpatient or caring for orthopaedic injuries in ER/UC/General Trauma services.

Presenters will discuss the foundations of acute care and evaluation of various skeletal injuries, operative positioning and fixation, and postoperative care and course of healing.

ALL levels of experience PA's and NP's are welcome and in order to allow attendees to find the most appropriate curriculum for their experience. With PA and NP course registration attendees can attend general session courses, morning case and clinical presentations, and workshops.

PA's and NP's focused in orthopaedic trauma will find this a good foundation but we also highly recommend attending our other OTA course options of Resident Comprehensive Fracture and Advanced Trauma Courses, Boot Camp, and the Annual Meeting General Session.



This program has been reviewed and is approved for a maximum of **19.5 hours** of **AAPA Category 1 CME credit** by the Physician Assistant Review Panel. Physician assistants should claim only those hours actually spent participating in the CME activity.

This program was planned in accordance with AAPA's CME Standards for Live Programs and for Commercial Support of Live Programs.

## Objectives

Attendees of the Orthopaedic Trauma for PAs and NPs course will:

- ◆ Identify injury characteristics and integrate treatment strategies for multiple injury patients
- ◆ Demonstrate and apply surgical skills for the application of external fixators for provisional stabilization
- ◆ Compare and contrast fractures and treatment strategies for fractures about the knee
- ◆ Employ and critique surgical skills involved in distal femoral and proximal tibia open reduction and internal fixation
- ◆ Discuss the management algorithms and controversies encountered with the care of complex foot and ankle trauma
- ◆ Treat and evaluate osteoporosis and bone healing problems
- ◆ Recognize and review common complications encountered in the care of fractures and injuries
- ◆ Examine and evaluate the operative treatment of upper extremity fractures
- ◆ Apply and practice techniques for fixation of common upper extremity fractures.

## Thursday, October 8, 2015

12:45 pm **Overview**  
Cory A Collinge, MD;  
Michael J Gardner, MD;  
Daniel J Coll, PA-C;  
Dennis C Gregory, PA-C

### Membership

Cory A Collinge, MD

### Objectives & Overview

Daniel J Coll, PA-C

### 12:55 pm - 2:25 pm **Ortho Emergencies**

Moderator: **Hans-Christophe Pape, MD**

12:55 pm **Polytrauma, ABC, Damage Control ABC, 1° & 2° Assessment, Damage vs Provisional Fixation**

1:10 pm **Pelvic Ring Injuries**  
Eval, Phys Exam, Imaging, Binders

1:25 pm **Open Fractures**  
Abx, Infection Prevention, Assessment

1:40 pm **Compartment Syndrome**  
Physiology, Exam, Treatment

1:55 pm **Cases, Questions, Discussion**

### 2:25 pm - 3:25 pm **General Orthopaedic Issues I**

Moderator: **Dennis C Gregory, PA-C**

2:25 pm **Perioperative Infection Risk Management**

2:40 pm **Pain Management**  
IV Tylenol, NSAIDS, Narcotics, PCA, Regional Blocks

2:55 pm **Osteoporosis Evaluation & Treatment**  
Prevalence, Who, Evaluation, Initial Treatment

3:10 pm **Cases, Questions, Discussion**

# ORTHOPAEDIC TRAUMA FOR PAs and NPs, continued

## Thursday, October 8, 2015

3:25 pm - **Pelvic Binder Discussion**

3:40 pm

3:40 pm Transition to Skills Lab

3:45 pm - **Skills Lab**

4:30 pm **Spanning Knee Ex Fix**

Lab Leaders: *Theodore Toan Le, MD*  
*Charles Moon, MD*

4:30 pm - **Presidential**

5:00 pm **Message**

The \$500 Check

*Theodore Miclau III, MD*  
OTA President



(This session runs concurrent to the  
General Orthopaedic Issues II Session.

Attendees may choose to attend either session.)

4:30 pm - **General Orthopaedic Issues II**

5:00 pm

4:30 pm **Fracture Healing**

4:40 pm **Fixation Theories**

4:50 pm **Discussion**

6:00 pm – 8:00 pm **Welcome Reception**

**Manchester Grand Hyatt Pool Deck**

Join your colleagues for cocktails and a  
generous assortment of hors d'oeuvres while  
taking in the magnificent views of downtown,  
San Diego Bay and the Pacific Ocean from the  
pool deck of the Manchester Grand Hyatt.

## Friday, October 9, 2015

6:30 am – 7:30 am **Case Presentations** – No Charge.  
Seating available first come, first-served.

**Periarticular Fractures of the Tibia:  
The Case for Going Prone**

Moderator: *Lisa K. Cannada, MD*  
Faculty: *Stephen Kottmeier, MD;*  
*J Tracy Watson, MD*

**Treatment Strategies for Tibial Plateau  
Fractures**

Moderator: *Marcus F. Sciadini, MD*  
Faculty: *Michael Archdeacon, MD;*  
*Stephen H Sims, MD;*  
*Nirmal Tejwani, MD;*  
*Philip Wolinsky, MD*

**Pelvis and Acetabulum Fractures**

Moderator: *Paul Tornetta III, MD*

Faculty: *Robert V O'Toole, MD;*  
*Robert Ostrum, MD;*  
*H Claude Sagi, MD;*  
*Jodi Siegel, MD*

**Don't Be Scared! Evaluation and  
Management of Complex Pediatric Elbow  
Fractures**

Moderator: *David A Podeszwa, MD*

Faculty: *Christine A Ho, MD;*  
*Anthony I Riccio, MD;*  
*R Lane Wimberly, MD*

8:00 am – 9:30 am **Upper Extremity Fractures I**

Moderator: *Michael J Gardner, MD*

8:00 am **Clavicle Fractures**  
**Who to Fix and Who to Not**

8:15 am **Proximal Humeral Fractures**  
**Op vs Nonop, Options of ORIF, Hemi, IMN**

8:30 am **Humeral Diaphyseal Fractures**  
**Sarmiento, ORIF, IMN, Rehab**

8:45 am **Humeral Supracondylar Fractures**  
**Approach, Reduction, Fixation, Rehab**

9:00 am **Cases, Questions, Discussion**

9:30 am - 11:30 am **Foot and Ankle Injuries**

Moderator: *Dolfi Herscovici Jr, DO*

9:30 am **Ankle Fractures – Type and Fixation,**  
**Syndesmosis, Deltoid Ligament, WB, Rehab**

9:45 am **Tibial Pilon Fractures – Distinguish Pilon**  
**from Ankle, Timing of Surgery, Approaches**

10:00 am **Calcaneal Fractures – Injury,**  
**Associated Injuries, Timing**

10:15 am **Talus Fractures – Mechanism, Reduction,**  
**Timing**

10:30 am **Lisfranc Injuries – Evaluation and**  
**Diagnosis, Treatment**

11:00 am **Cases, Questions, Discussion**



# ORTHOPAEDIC TRAUMA FOR PAs and NPs, continued

## Friday, October 9, 2015

11:30 am - 12:15 pm **Pediatrics**

(This session runs concurrent to the John Border Memorial Lecture. Attendees may choose to attend either session.)

11:30 am Pediatric Elbow

11:45 am Pediatric Femur

12:00 pm Question and Answer

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



*Christian Krettek, MD, FRACS, FRCSED,  
Professor and Chair Hannover School  
of Medicine Trauma Department  
Hannover, Germany*

12:15 pm - 1:15 pm **Lunch and Guided Poster Tours**

(PT1) **International**

Guide: *Peter V Giannoudis, MD*

(PT2) **Hip, Femur, Geriatric**

Guide: *Thomas F Higgins, MD*

1:15 pm - 3:00 pm **Skills Labs**

2 labs with 45 min. rotating sessions.  
15 min break in between.

**Hip Nailing**

Lab Leader: *Christopher McAndrew, MD*

**Ankle ORIF**

Lab Leader: *Lori K Reed, MD*

3:00 pm - 4:15 pm **Upper Extremity Fractures II**

3:00 pm Olecranon Fractures  
TBW, Plate, IMN

3:15 pm Forearm Fractures  
Galeazzi Fractures, Timing,  
Approaches, Complications

3:30 pm Distal Radius Fx  
Closed Reduction, Failure of Closed  
Reduction, Volar vs Dorsal, Ex Fix

3:45 pm Cases, Questions, Discussion

4:15 pm - 5:15 pm **PA NP Reception**

PA NP Leaders to answer questions  
and relay suggestions, suggest  
collaboration, ideas for future meetings

5:48 pm - 6:45 pm **'Suds and Science' Poster Tours**

(PT3) **Foot and Ankle**

Guide: *Paul Tornetta III, MD*

(PT4) **Upper Extremity**

Guide: *Michael D McKee, MD*

Enjoy a poster tour, lively discussion,  
and a beverage with colleagues.



## Saturday, October 10, 2015

6:30 am - 7:30 am **Skill Labs** – No Charge.

(Seating available first come, first-served.)

(SL5) **Complex Ankle Fractures:**  
Posterior Malleolus,  
Syndesmosis

Lab Leader: *John Alan Scolaro, MA, MD*

(SL6) **Fixation of Intra-Articular**  
Distal Humeral Fractures

Lab Leader: *Michael D McKee, MD*

6:30 am - 7:30 am **Case Presentations** – No Charge.

(Seating available first come, first-served.)

**Proximal Humerus Fractures:**  
Optimizing Surgical Management and  
Technique in 2015

Moderator: *Emil H Schemitsch, MD*

Faculty: *Pierre Guy, MD; Dean G Lorch, MD;  
Michael D McKee, MD;  
Aaron Nauth, MD; David C Ring, MD*

**What Could Go Wrong Did:**  
Getting Out of Trouble

Moderator: *Lisa K Cannada, MD*

Faculty: *Clifford B Jones, MD;  
Matt Mormino, MD; Brian H Mullis, MD*

# ORTHOPAEDIC TRAUMA FOR PAs and NPs, continued

## Saturday, October 10, 2015

6:30 am – “Young” Femoral Neck Fractures –  
7:30 am Why Do They Cause so Much Stress?

Moderator: **Brett D Crist, MD**

Faculty: *Tania Ferguson, MD;*  
*Christopher Finkemeier, MD;*  
*Mark A. Lee, MD*

**Distal Femur Fractures –  
Not as Easy as You Think**

Moderator: **Samir Mehta, MD**

Faculty: *Timothy Achor, MD;*  
*Derek Donegan, MD;*  
*Hobie Summers, MD*

7:45 am - Symposium IV

9:00 am Elbow Trauma: How to Improve  
Outcomes in 2015!

Moderator: **Michael D McKee, MD**

7:45 am Distal Humerus Fractures:  
Evidence Based Management  
*Emil H Schemitsch, MD*

7:55 am Radial Head / Neck Fractures:  
When and How to Fix  
*Kenneth A Egol, MD*

8:05 am Terrible Triad Injuries:  
How to Improve Outcomes  
*Aaron Nauth, MD*

8:15 am Monteggia Fracture Dislocations:  
Timing and Techniques  
*David C Ring, MD*

8:25 am Complex Injuries:  
The Role of Arthroplasty  
*Nillofar Dehghan, MD*

8:35 am Managing Complications in Elbow  
Fracture Surgery  
*Michael D McKee, MD*

8:45 am Cases, Questions, Discussion,  
Consensus

9:00 am Break and Transition to Lectures

9:30 am - 11:00 am **Fractures about the Hip and Thigh**

Moderator: **Laura S Phieffer, MD**

9:30am Femoral Neck Fractures -  
ORIF versus Hemi versus THA

9:45am IT/ST Fx ORIF  
OHS versus Locked Plate

10:00am IT/ST Fx IMN Reconstruction versus  
Cephalomedullary IMN

10:15am Femoral Shaft Fractures  
Approaches, Prox and Distal Third Fx

10:30am Cases, Questions, Discussion

11:00 am - 12:15 pm **Fractures about the Knee**

Moderator: **David Leu, MD**

11:00 am Femoral Supracondylar Fractures -  
ORIF versus IMN

11:15 am Tibial Plateau Fractures -  
Single versus Dual Incisions

11:30 am Tibial Diaphyseal Fractures - Approaches,  
Proximal and Distal Third Fractures

11:45 am Cases, Questions, Discussion

12:20 pm - 1:20 pm **Lunch and Guided Poster Tours**

12:35 pm - 1:20 pm (PT5) **Knee/Tibia**  
Guide: **J Tracy Watson, MD**

12:35 pm - 1:20 pm (PT6) **Reconstruction/General Interest**  
Guide: **Michael J Gardner, MD**

1:30 pm - 3:15 pm **Skills Labs**  
2 labs with 45 min rotating sessions.  
15 min break in between.

**Distal Femoral Locked Plating**  
Lab Leader: **Kevin D Grant, MD**

**Proximal Tibial Locked Plating**  
Lab Leader: **Daniel L Stahl, MD**

3:15 pm - 4:15 pm **Complication Treatment**

**Cory A Collinge, MD; Michael J Gardner, MD;**  
**Daniel J Coll, MHS, PA-C;**  
**Dennis C Gregory, PA-C**

4:15 pm Course Review, Evaluation,  
Adjournment

# SPECIAL OFFERINGS AND EVENTS

## 2015 Guest Nation: Germany

It is a great honor to welcome  
Professor Michael L Nerlich, MD,



Michael L Nerlich, MD

2015 President of both the German Society for Trauma Surgery and German Society for Orthopaedics and Trauma Surgery. We look forward to his enlightening presentation:  
**The German Trauma Network Initiative - Challenges and Advantages.**



## International Poster Reception

Wednesday, October 7, 2015  
5:30 pm – 6:30 pm



All International attendees  
are welcome to attend.

Peter V. Giannoudis, MD, FRCS  
International Committee Chair

Saqib Rehman, MD  
Humanitarian Chair



## Women in Orthopaedic Trauma Luncheon Kathy Cramer Memorial Luncheon

Friday, October 9,  
12:15 pm – 1:15 pm

Lisa M. Truchan, MD, Chair  
Alexandra Schwartz, MD, Co-Chair

(Registration / ticket required)



## New Member Luncheon

Friday, October 9, 2015  
12:15 pm – 1:15 pm

All new and prospective  
members invited.

Peter A Cole, MD  
Membership Committee Chair



## PA/NP Reception

Friday, October 9, 2015  
4:15 pm – 5:15 pm

All PA/ NP Course attendees invited.

Cory A Collinge, MD  
PA/NP Course Chair

## Military Reception

Friday, October 9, 2015  
5:48 pm – 6:45 pm

All Active Duty Military, Retired Military,  
and Landstuhl Distinguished Visiting  
Scholar participants are welcome to attend.



COL Mark E Fleming, DO  
Military Committee Chair

## Exhibit Hours

Thursday: 2:30 pm – 5:00 pm  
Friday: 9:00 am – 5:30 pm  
Saturday: 9:00 am – 1:00 pm

## Poster Viewing Hours

Thursday, October 10, 2:30 pm thru  
Saturday, October 12, 1:30 pm

Don't miss the opportunity for a guided poster tour at this  
year's Annual Meeting. Registration required and space is  
limited. See page 44 for details.

## E-Posters

Run out of time for the posters? No problem...  
visit the OTA website following the meeting to view  
2015 Annual Meeting E-Posters.

Please share the following excellent educational  
opportunity with your residents.

## Comprehensive Fracture Course for Residents

Chair: Kyle J Jeray, MD

Co-Chair: Toni M. McLaurin, MD Kyle J. Jeray, MD



*"It would be difficult to match the collective  
knowledge, experience, and commitment to  
teaching of this year's outstanding faculty!"*

Registration required and space is limited.  
See page 20 for details.

Toni M. McLaurin, MD



## Industry Symposia - Registration Required

Wednesday, October 7, 6:30 pm - 8:00 pm  
DJO Global

Thursday, October 8, 11:15 am - 12:45 pm - Boxed lunch available

Acelity Acumed  
Ellipse Technologies  
Stryker Trauma

DePuy Synthes (2)  
Siemens  
Zimmer Biomet

# CASE PRESENTATIONS

No Charge. Seating available first come, first-served.

## Friday, October 9, 2015

6:30 am – 7:30 am

### Periarticular Fractures of the Tibia: The Case for Going Prone

Moderator: **Lisa K Cannada, MD**

Faculty: *Stephen Kottmeier, MD; J Tracy Watson, MD*

Prone positioning in the OR can be a hassle. In addition, the perception of more dangerous structures and less familiarity with the approach makes this plan less popular. By review of periarticular tibial fractures with cases, including surgical video, you will leave this session eager to choose prone, when appropriate.

6:30 am – 7:30 am

### Treatment Strategies for Tibial Plateau Fractures

Moderator: **Marcus F Sciadini, MD**

Faculty: *Michael Archdeacon, MD; Stephen H Sims, MD; Nirmal Tejwani, MD; Philip Wolinsky, MD*

This case-based symposium will focus on recognizing and overcoming challenges associated with the treatment of tibial plateau fractures. Treatment strategies and techniques for provisional and definitive external fixation as well as internal fixation for unicondylar and bicondylar fractures will be covered with an emphasis on particularly challenging variants of common fracture patterns. Effective management

of associated soft-tissue injuries and avoidance of common pitfalls will be emphasized and direct participation by attendees encouraged.

6:30 am – 7:30 am

### Pelvis and Acetabulum Fractures

Moderator: **Paul Tornetta III, MD**

Faculty: *Robert V O'Toole, MD; Robert Ostrum, MD; H Claude Sagi, MD; Jodi Siegel, 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.

6:30 am – 7:30 am

### Don't Be Scared! Evaluation and Management of Complex Pediatric Elbow Fractures

Moderator: **David A Podeszwa, MD**

Faculty: *Christine A Ho, MD; Anthony I Riccio, MD; R Lane Wimberly, MD*

This symposium is an interactive, case-based review of the complex variations of commonly presenting pediatric elbow fractures. Open discussion will cover the evaluation and pearls of managing the pulseless supracondylar humerus fracture, medial epicondyle fractures and acute and delayed presenting Monteggia fractures.

A short didactic review will highlight the most current literature regarding outcomes.

## Saturday, October 10, 2015

6:30 am – 7:30 am

### Proximal Humerus Fractures: Optimizing Surgical Management and Technique in 2015

Moderator: **Emil H Schemitsch, MD**

Faculty: *Pierre Guy, MD; Dean G Lorich, MD; Michael D McKee, MD; Aaron Nauth, MD; David C Ring, 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.

6:30 am – 7:30 am

### What Could Go Wrong Did: Getting Out of Trouble

Moderator: **Lisa K Cannada, MD**

Faculty: *Clifford B Jones, MD; Matt Mormino, MD; Brian H Mullis, MD*

Oftentimes a "simple" fracture turns out to be much more than that. This symposium covers the complications which could go wrong with fracture stabilization and how to avoid these problems to optimize results. The participant will learn strategies to correct the errors in the OR when recognized through tips in this symposium.

6:30 am – 7:30 am

### "Young" Femoral Neck Fractures – Why Do They Cause so Much Stress?

Moderator: **Brett D Crist, MD**

Faculty: *Tania Ferguson, MD; Christopher Finkemeier, MD; Mark A Lee, MD*

An evidence-based session that will work through the main controversies in managing young adult femoral neck fractures with short didactic summaries, interactive panel debates and case discussion with audience participation. Operative techniques and complication management will also be included. The goal is to provide the participant with the confidence to deal with these fractures using an evidence-based approach, and provide them with the operative techniques to minimize risk of complications but also equip them with the knowledge on how to treat them when complications occur.

6:30 am – 7:30 am

### Distal Femur Fractures – Not as Easy as You Think

Moderator: **Samir Mehta, MD**

Faculty: *Timothy Achor, MD; Derek Donegan, MD; Hobie Summers, MD*

Fractures of the distal femur continue to be problematic in part due to the variability of fracture patterns and patient ages affected. The purpose of this case-based session is to review elementary and complex fractures to review diagnosis, treatment strategies, and technical considerations.



## Friday, October 9, 2015

8:00 am – 9:30 am

### Critical Aspects of Orthopaedic Trauma in 2015 that Can Impact your Financial Future

Moderator: **Peter Althausen, MD, MBA**

Faculty: *Timothy Bray, MD; Austin Hill, 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.

8:00 am – 9:30 am

### NSAIDs and Bone Healing: Clinical Practice and Understanding the Discrepancies in the Literature

Moderator: **Steven A Olson, MD**

Faculty: *Kamal Ajam, MD; Farshid Guilak, PhD;  
Alejandro Marquez-Lara, MD*

The purpose of this session is to discuss the value of various pain management modalities around the time of orthopaedic surgery or trauma, with an emphasis on the use of NSAIDs. Additionally, participants will be able to critically analyze the quality of the published literature that evaluates the impact of NSAIDs on bone healing as well as to highlight possible causes for the variability in the interpretation of these reports. The clinical scenarios where it is considered safe and effective to use NSAIDs for the management of postoperative pain will be discussed.

8:00 am – 9:30 am

### Educating in Fracture Surgery

Moderator: **Samir Mehta, MD**

Faculty: *Tim Achor, MD; Jaimo Ahn, MD;  
Matthew Graves, MD*

Education is a critical component of our obligation as orthopaedic surgeons. With the decrease in work hours, increase in fellows, and utilization of advanced providers, optimizing educational opportunities is critical.

1:15 pm – 2:45 pm

### Pelvic Ring Disruption Decision Making: Assessment of Stability, Strategies of Fixation, and Determining What Needs To Be Fixed

Moderator: **Jason Nascone, MD**

Faculty: *Joshua L Gary, MD; Pierre Guy, MD; Conor P Kleweno, MD;  
H Claude Sagi, MD; Adam J Starr, MD*

This session will provide case based examples with audience interaction to help the participant understand stability as it relates to pelvic ring disruptions. In addition the participants will learn strategies as to when fixation is needed and in what locations of the pelvis.

Panel will also discuss individual indications for fixation as well as decision making process.

1:15 pm – 2:45 pm

### Developing a Successful Clinical Research Program

Moderator: **Heather A Vallier, MD**

Faculty: *Mary Breslin, MD; 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. Opportunities for collaboration will be demonstrated.

1:15 pm – 2:45 pm

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

Moderator: **Michael D McKee, MD**

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

4:30 pm – 5:45 pm

### Getting Your Fragility Fracture Program Off the Ground: A Primer for the Orthopaedic Trauma Surgeon

Moderator: **James A Goulet, MD**

Faculty: *Kyle J Jeray, MD; Clifford B Jones, MD;  
Joseph M Lane, MD; Debra Sietsema, 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.

4:30 pm – 5:45 pm

### The Social Savvy Surgeon: Strategies to Manage Your Online Reputation and Enhance Patient Care

Moderator: **Lisa K Cannada, MD**

Faculty: *Howard Luks, MD; Steven Mora;  
Jeffrey Smith, MD; Lisa Taitzman, MD*

This session will arm attendees with the knowledge necessary to understand and skillfully navigate the

## MINI SYMPOSIA, continued

No Charge. Seating available first come, first-served.

social media healthcare realm. The emphasis will be on WHY this may be a necessity and will educate surgeons on the use of health care social media.

Attendees will walk away with an understanding of the benefits and risks associated with social media use and how it can affect their on-line reputation. This session will also explore how physician use of social media can enhance the care and improve outcomes of patients.

### Saturday, October 10, 2015

9:30 am - 11:00 am

#### Management of Soft Tissue Defects in the Mangled Extremity

Moderator: **Raymond A Pensy, MD**

Faculty: *H Michael Frisch, MD; Joseph Hsu, MD; Stephen J Kovach III, MD*

This "Orthoplastics" Mini-Symposia will cover recent data regarding extremity (lower and upper) salvage vs amputation, covering and expanding upon the METAL-PeriS data. This symposia will cover non-microsurgical (muscle flap expansion, propeller / perforator flaps) and advanced micro-surgical options for recalcitrant non-unions (e.g. medial femoral condyle) Finally, this, symposia will cover the current concepts of further promoting the integration of the micro-vascular and orthopaedic surgeon.

9:30 am - 11:00 am

#### The Treatment of Periprosthetic Fractures in 2015: Can We Reach a Consensus?

Moderator: **Emil H Schemitsch, MD**

Faculty: *George Haidukewych, MD; Michael D McKee, MD; Aaron Nauth, MD*

Peri-prosthetic fractures are increasing in frequency and complexity as the number patients with a joint replacement, and their activity levels post-surgery, steadily rise. 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 peri-prosthetic fractures.

11:00 am - 12:15 pm

#### From Good to Great: Improving your Treatment of Pelvic Trauma

Moderators: **Jaimo Ahn, MD and Derek Donegan, MD**

Faculty: *Andrew R Burgess, MD; David L Helfet, MD; Milton L 'Chip' Routt, MD; H Claude Sagi, MD; Adam J Starr, MD*

So you think you're an pelvic trauma surgeon. You're on the steep part of the learning curve and feeling like you're doing okay. Sometimes, things go great in the OR and your CTs look right on. Sometimes they don't quite go so perfect 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 pelvis surgeons to help get you from good to great.

11:00 am - 12:15 pm

#### Disaster Management: Are You Prepared?

Moderator: **Samir Mehta, MD**

Faculty: *Paul T Appleton, MD; James C Krieg, MD; Christian N Mamczak, DO; Saqib Rehman, MD*

Given the nature of geo-politics as well as the changing environment, orthopaedic trauma needs to be on the forefront in disaster management and acts of terror. The goal of this symposia is to provide concrete examples of disaster scenarios and management techniques. In addition, the goal is to provide the participant with tools to develop a local plan to address a catastrophic event.

11:00 am - 12:15 pm

#### The 8 Practices of Highly Successful Surgeons

Moderator: **Jeffrey M Smith, MD**

Faculty: *Virginia Aherin, CPC; Tambre Leighn, CPC; Chris Moody, CPC*

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.)

# SKILLS LABS

## MINI SYMPOSIA, continued

1:30 pm – 3:00 pm

### From the Operating Room to the Boardroom - Applying an MBA to Benefit Orthopaedic Traumatology

Moderator: **Hassan R Mir, MD, MBA**

Faculty: *Peter L Althausen, MD, MBA; David J Hak, MD, MBA;  
M Bradford Henley, MD, MBA; Robert A Probe, MD;  
Craig S Roberts, MD, MBA; George V Russell, MD, MBA*

Due to the increasing complexities of modern healthcare, a growing number of physicians are obtaining a formal business education to help deal with a variety of challenges. Several members of the OTA who have gone through Masters of Business Administration (MBA) programs will present their experiences on how they have utilized their business skills sets while maintaining active surgical practices. The emphasis will be on how the speakers are actively applying their business degrees to benefit their clinical practices and the field of orthopaedic traumatology.

1:30 pm – 3:00 pm

### ORIF Versus Acute Arthroplasty for Common Extremity Injuries: What Does Evidence-Based Medicine Tell Us?

Moderator: **Emil H Schemitsch, MD**

Faculty: *Hans Kreder, MD; Michael McKee, MD;  
Aaron Nauth, MD; Andrew Schmidt, MD*

Increasingly, evidence based medicine (EBM) is being promoted by various groups as the standard to define clinical care. This symposia 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.

# SKILLS LABS

No Charge. Seating available first come, first-served.

## Friday, October 9, 2015

6:30 am – 7:30 am

### (SL1) **SIGN Fracture Care International**

Lab Leader: **Lewis G Zirkle Jr, MD**

The SIGN IM nail interlocking screw system is designed for use in developing countries and for surgeons everywhere who would 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 150,000 fractures of long bones. The goal of SIGN nail sawbones skills lab is to learn SIGN technique for stabilization of tibia and femur fractures. Table instructors will include surgeons who are OTA-SIGN Scholars.



### NEW THIS YEAR!

No pre-registration and no tickets!  
No more waiting lists.

All attendees will have an equal opportunity at attending the skills labs.

- ♦ Skills Labs will FILL QUICKLY
- ♦ Arrive EARLY to insure your space at a lab table
- ♦ Door monitors will close lab door when room reaches maximum

6:30 am – 7:30 am

### (SL2) **Periprosthetic Fracture (Femur)**

Lab Leader: **Erik Kubiak, MD**

The incidence of periprosthetic fractures of the femur is increasing. This practical lab will demonstrate the modern principles of fixation of these fractures, and the contemporary implants available. Included will be a brief description of the role of allograft strut or additional plate augmentation of the fracture at high risk for fixation failure.

1:15 pm – 2:15 pm

### (SL3) **IM Nailing Proximal Tibia Fractures**

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, start point, reduction maneuvers, blocking screws and nail choice to enhance the ability to obtain and maintain a satisfactory reduction.

1:15 pm – 2:15 pm

### (SL4) **Fixation of Proximal Humerus Fractures**

Lab Leader: **Andrew R Fras, MD**

This lab will demonstrate a number of technical principles that are within the surgeon's control (i.e. accurate reduction, no varus malalignment, placement of a calcar screw) that can minimize mechanical failure after proximal humeral fracture fixation.

## Saturday, October 10, 2015

6:30 am – 7:30 am

### (SL5) **Complex Ankle Fractures: Posterior Malleolus, Syndesmosis**

Lab Leader: **John Alan Scolaro, MA, MD**

The functional outcome of complex ankle fractures is dependent on the accurate restoration of the posterior malleolus and the syndesmosis. This lab will focus on intra-operative techniques that facilitate anatomic reduction and stable fixation of these structures.

6:30 am – 7:30 am

### (SL6) **Fixation of Intra-Articular Distal Humeral Fractures**

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

This lab will demonstrate the advantages of parallel versus perpendicular plate fixation of these difficult to treat fractures. Attendees will also be able to familiarize themselves with features of modern plating systems that can maximize outcomes.



# INDUSTRY SYMPOSIA

## Wednesday, October 7, 2015

6:30 pm - 8:00 pm – *Registration Required*

### DJO Global (IS8)

- ◆ 6:30 - 7:15 pm – **Eliminating Cost Variation on the Treatment of Distal Radius Fractures**

Guest Speaker: Foundation of Orthopedic Trauma (FOT) Surgeon

- ◆ 7:15 - 8:00 pm – **New, Efficient and Cost Effective Treatment for Ankle Fractures**

Guest Speaker: Kenneth J. Koval, MD,  
Orlando Regional Medical Center, Orlando, FL

Participating surgeons will have the opportunity to learn more about this disruptive, innovative implant & instrumentation delivery system while reviewing the clinical appropriateness in both Distal Radius and Ankle fractures. The sawbone labs will be lead by renowned trauma surgeons and supported by Lab Instructors. All are encouraged to participate in this DJO Sponsored Symposium.

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## Thursday, October 8, 2015

11:15 am - 12:45 pm – *Registration Required*  
(Boxed lunch available)

### DePuy Synthes Trauma (IS1)

### DePuy Synthes Trauma (IS2)



### Stryker Trauma (IS3)

#### Current Trends, Clinical Applications and Case Studies of Orthobiologics in Orthopaedic Trauma

Faculty: Peter Giannoudis, MD, FRCS;  
Kenneth Koval, MD; Charles Moon, MD

Attendees will be introduced to the landscape of orthobiologics in Orthopedic Trauma. Professor Giannoudis, Dr Koval and Dr Moon will address the Current Trends, Clinical Applications and Case Studies of Orthobiologics in Orthopaedic Trauma. Topics discussed will include Masquelet, Synthetics Bone Graft Substitutes, Allografts and Next Generation Cellular Bone Allografts.

### Zimmer Biomet (IS4)

#### Surgical Treatment Options for Challenging Hip Fractures

### Acumed (IS5)

#### Posterior Malleolus Fracture Fixation: Tips and Pearls

Faculty: TBA

Lecture and sawbones lab session on posterior malleolus fracture management with the new Acumed Ankle Plating System 3.

### Ellipse Technologies (IS6)

#### Revolutionary Intramedullary Limb Lengthening Solution for the Orthopaedic Trauma Surgeon

Moderator/Faculty: Austin Fragomen, MD;  
Robert Rozbruch, MD (HSS) & Mitchell Bernstein, MD

Discussion on the latest advancement in limb lengthening surgery with a completely internal device. This session will include tips and tricks to help improve patient outcomes and avoid complications with this state-of-the-art device. The PRECICE is 100% internal and precisely adjusted with a remote control based on the patients individual needs.

### Siemens (IS7)

#### Artis Zeego - Zero Malpositions with 3D Imaging, Vision or Reality? Take Imaging in Orthopedic Trauma Surgery to a New Level!

Moderator: Ina Schwabenland, MD, Siemens Healthcare GmbH, Therapy Systems, Forchheim, Germany

Faculty: Prof. Florian Gebhard, MD, PhD,  
Director Orthopedic Traumatology, Hand, Plastic, and Reconstructive Surgery,  
University Hospital of Ulm, Ulm, Germany  
David M. Kaehler, MD, Prof. Dept. of Orthopedic Surgery,  
University of Virginia, Charlottesville, VA, USA

Exciting experiences fresh from the Hybrid OR for 3D imaging-empowered alignment with Siemens Artis zeego.

Gain a fresh perspective and learn from two pioneers in the field.

### Acelity (IS9)

CME credits are not available.

Absolutely no recording (audio or video) or photography is permitted.



# REGISTRATION and ADDITIONAL INFORMATION

## Disclaimer

The material presented at the 31st Annual Meeting has been made available by the Orthopaedic Trauma Association for educational purposes only. The material is not intended to represent the only, nor necessarily best, method or procedure appropriate for the medical situations discussed, but rather is intended to present an approach, view, statement or opinion of the faculty which may be helpful to others who face similar situations.

The Orthopaedic Trauma Association disclaims any and all liability for injury or other damages resulting to any individual attending the Annual Meeting and for all claims which may arise out of the use of the techniques demonstrated therein by such individuals, whether these claims shall be asserted by physician or any other person.

## Disclosure

Presenters are required to disclose whether or not they, or their department, received something of value from a commercial or other party which related directly or indirectly to the subject of their presentation.

This disclosure is indicated in the final program. The OTA does not intend this identification to decrease the value of the presentation or to imply bias. It is intended solely for information.

## FDA

All drugs and medical devices used in the United States are administered in accordance with Food and Drug Administration (FDA) regulations. These regulations vary depending on the risks associated with the drug or medical device, the similarity of the drug or medical device to products already on the market, and the quality and scope of clinical data available.

Some drugs or medical devices described or demonstrated in Orthopaedic Trauma Association educational materials or programs have not been cleared by the FDA or have been cleared by the FDA for specific uses only. The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or device he or she wishes to use in clinical practice.

## Course Location

### The Manchester Grand Hyatt Hotel San Diego

The Orthopaedic Trauma Association's 31st Annual Meeting and all pre-meeting and concurrent courses will be held at the Manchester Grand Hyatt Hotel in beautiful, sunny San Diego, California.

## About San Diego

San Diego, California's second largest city, is known for its idyllic climate, 70 miles of pristine beaches and a wide array of attractions. The average temperature for October is 75 degrees with a low of 60 degrees. Popular attractions include the world-famous San Diego Zoo and Wild Animal Park, Sea World San Diego and LEGOLAND California.

In San Diego's East County, the terrain varies from gentle foothills to mile-high mountains, down to the 600,000-acre Anza Borrego Desert State Park. Along the west, 70 miles of Pacific Ocean coastline supports outdoor recreation such as surfing, boating, sailing and swimming.

San Diego's arts and culture is booming. Balboa Park, the largest urban cultural park in the U.S., is home to 15 museums, numerous art galleries, beautiful gardens, and the Tony Award-winning The Globe Theatres.

San Diego County also features 92 golf courses, a variety of participatory and spectator sports, gaming, a dynamic downtown district, and annual special events.

To learn more about San Diego, check out these websites:

- ♦ San Diego Convention and Visitors Bureau: <http://www.sandiego.org/>
- ♦ The City of San Diego: <http://www.sandiego.gov/>
- ♦ Gaslamp District: [www.gaslamp.org](http://www.gaslamp.org)



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## REGISTRATION and ADDITIONAL INFORMATION, continued

### Accommodations

#### The Manchester Grand Hyatt Hotel San Diego



The OTA has secured discounted room rates at the Manchester Grand Hyatt San Diego. **Hotel reservations should be made no later than September 30th.**

The Annual Meeting will take place at the Manchester Grand Hyatt Hotel.

Rates: Single/Double = \$287.00 + 12.5 % tax

- ♦ Online reservations are recommended. Reservations can be made on-line via the OTA website [www.ota.org](http://www.ota.org). Be sure to mention you are with the OTA.

**Hotel rooms may sell out quickly - don't delay!**

### Welcome Reception

**Thursday, October 8, 2015 • 6:00 pm - 8:00 pm**  
**Manchester Grand Hyatt Pool Deck**

Join your colleagues for cocktails and a generous assortment of hors d'oeuvres while taking in the magnificent views of downtown, San Diego Bay and the Pacific Ocean from the pool deck of the Manchester Grand Hyatt.

### Airline Reservations

**NEW IN 2015** – AmTrav is OTA's preferred travel agency. To welcome OTA travelers to AmTrav, all attendees booking via the OTA personalized travel link, will be entered into a drawing for your choice of: • 2016 Complimentary Dues or • 2016 Complimentary Annual Meeting Registration.

**NEW!**

AmTrav's goal is to make traveling for OTA attendees as easy as possible. No one airline company is preferred. The lowest airline rates on all airlines, including Southwest, are provided to you. You choose and you keep all airline points. AmTrav provides 24/7 in-house support through a team of highly experienced travel agents and a convenient, online OTA specialized booking tool at <http://www.amtrav.com/ota>.

#### Service Fees:

1. Website: <http://www.AmTrav.com> \$9 charge for airline booking; no fee for hotel or car online booking.
2. Phone: 800-795-8371 or 312-629-0590 \$29 charge to book travel via phone call.
3. Email: [TravelerSupport@AmTrav.com](mailto:TravelerSupport@AmTrav.com) Never a charge for email support.
4. Live Chat: See the "Live Chat" icon on the <http://www.amtrav.com/ota> website No charge for live chat.

### Ground Transportation

#### To/From San Diego International Airport (SAN)

It is approximately a 10-minute drive from the San Diego International Airport to the Manchester Grand Hyatt. A cab ride from the airport to the hotel costs approximately \$10 - \$13. There are several companies who provide taxicab service at the airport; simply follow the signs leading to the Transportation Plazas.

Shuttle service is also available from the airport to the hotel. There are a number of shuttle service companies who provide transportation. Shuttles are available at the Transportation Plazas across from Terminals 1 and 2, and curbside at the Commuter Terminal. SuperShuttle offers one-way transportation between the airport and the hotel for \$8.



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## REGISTRATION and ADDITIONAL INFORMATION, continued

### Registration Information – Register Early!

- ♦ Register online at [www.ota.org](http://www.ota.org) using your OTA username. E-mail [ota@aaos.org](mailto:ota@aaos.org) for your OTA username.
- ♦ FAX completed form directly to: (847)430-5140
- ♦ Check made payable to OTA and drawn from a US bank in US dollars. Mail form and check by September 15 to: OTA 9400 W. Higgins Rd, Suite 305, Rosemont, IL 60018, USA
- ♦ Registrations postmarked after September 15 will not be processed; on-site registrations will require an additional \$100 USD late fee.
- ♦ All pre-registrations will receive confirmation by E-mail. Badges will NOT be mailed; but rather picked up on-site. Attendees will be able to pre-register online until September 30, 2015.
- ♦ The pre-registration form may be photocopied as needed.

### Cancellations and Refunds

- ♦ Submit cancellation in writing to OTA office via fax: (847)430-5140 or E-mail: [OTA@ota.org](mailto:OTA@ota.org)
- ♦ Refunds less a \$100 USD processing fee per registration will be made in a timely basis by OTA after the close of the OTA Annual Meeting, if cancelled prior to October 7th.
- ♦ No refunds after October 7, 2015.

### Annual Meeting Posters

Annual Meeting Scientific Posters will be available for viewing at all times during the meeting beginning at 2:30 pm on Thursday through 1:30 pm on Saturday in the exhibit hall.

### Guided Poster Tours and Industry Lunch Symposia

- ♦ Ensure your space in Guided Poster Tours and Industry Lunch Symposia - register early.
- ♦ Poster and Industry Symposia FILL QUICKLY and may not be available to on-site registrants.
- ♦ Choose the Symposia in order of your preference.

### On-site Registration

- ♦ Registrations received after September 30 will be accepted on-site plus an additional \$100 USD late fee.
- ♦ On-site Registration available:  
Tuesday, October 6:  
3:00 – 6:00 pm;  
Wednesday - Saturday, Oct. 7-10:  
6:15 am – 5:00 pm

### Skills Labs



#### NEW THIS YEAR!

No pre-registration and no tickets!  
No more waiting lists.

All attendees will have an equal opportunity at attending the skills labs.

- ♦ Skills Labs will FILL QUICKLY
- ♦ Arrive EARLY to insure your space at a lab table
- ♦ Door monitors will close lab door when room reaches maximum



**NOTE: All Badges will be picked up at the Registration Desk in San Diego.**



# 31<sup>st</sup> Annual Meeting Check List

- ☐ Completed the Meeting Registration Form?
- ☐ Indicated your preferences for Industry Lunch Symposia and Guided Poster Tours (page 59)?
- ☐ Included your Payment with the Registration Form?
- ☐ Made your hotel reservation with The Manchester Grand Hyatt Hotel online at [www.ota.org](http://www.ota.org)?

Secure on-line registration at [www.ota.org](http://www.ota.org) or Fax Registration Forms with Credit Card payment to (847)430-5140

## Mail Registration with USD Check Payment to the OTA staff office:

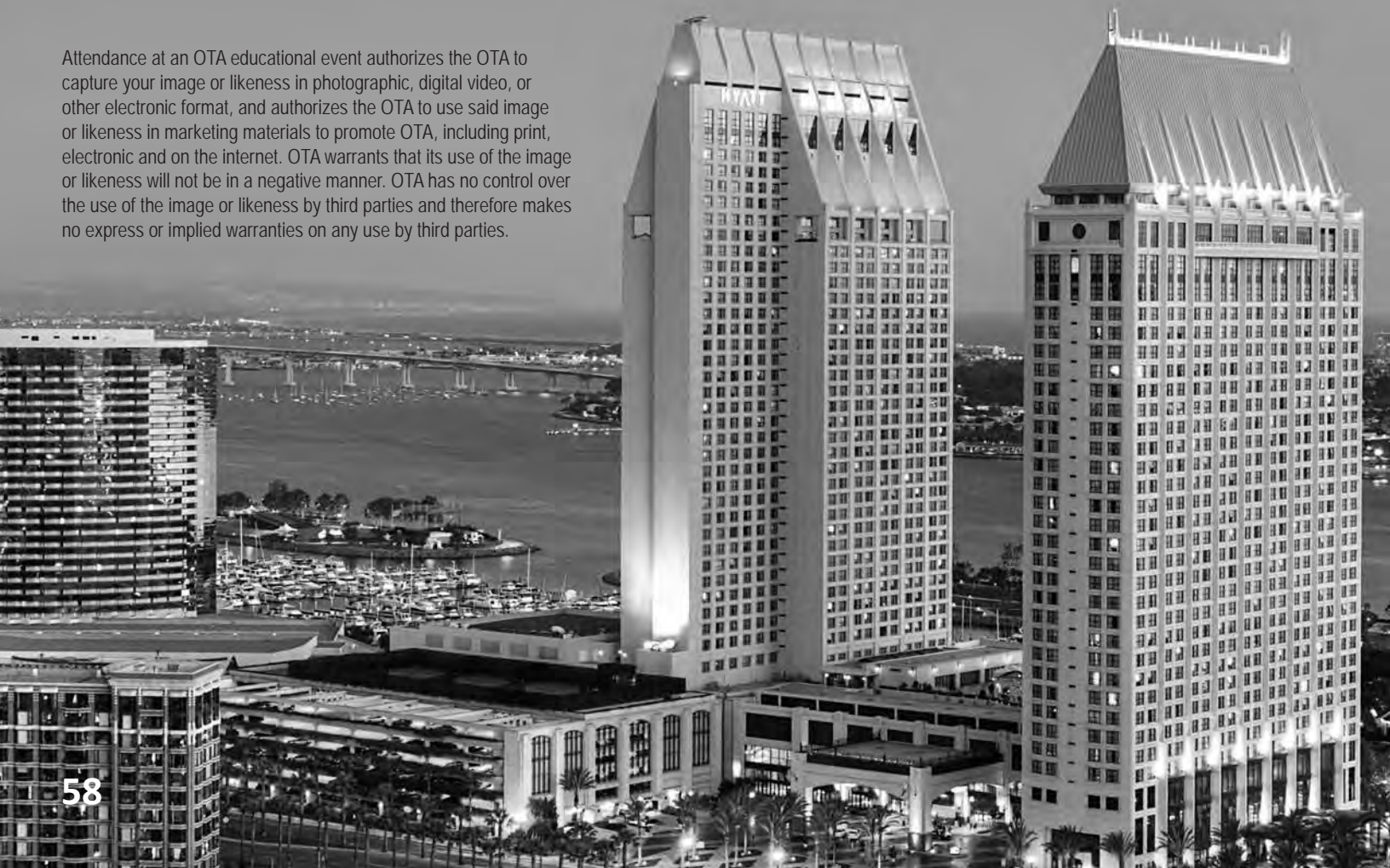
Orthopaedic Trauma Association  
9400 W. Higgins Road, Suite 305  
Rosemont, IL 60018 USA

- ◆ All Badges will be picked up at the Registration Desk in San Diego - none will be mailed.
- ◆ Pre-registrations will receive confirmation via E-mail. Badges will be printed and picked up in the Express Registration line in San Diego.
- ◆ Please REMEMBER to bring your meeting registration confirmation.

**Registration faxed or post-marked by September 15, 2015.**

**Register on-line by September 30, 2015**

Attendance at an OTA educational event authorizes the OTA to capture your image or likeness in photographic, digital video, or other electronic format, and authorizes the OTA to use said image or likeness in marketing materials to promote OTA, including print, electronic and on the internet. OTA warrants that its use of the image or likeness will not be in a negative manner. OTA has no control over the use of the image or likeness by third parties and therefore makes no express or implied warranties on any use by third parties.





# Registration Form

REGISTRATION DEADLINE (ONLINE or FAX) SEPTEMBER 30, 2015

MAILED REGISTRATIONS MUST BE POSTMARKED ON or PRIOR TO SEPTEMBER 15, 2015  
REGISTER ONSITE AFTER SEPTEMBER 30, 2015 – \$100 FEE WILL APPLY

## PERSONAL INFORMATION (PLEASE PRINT CLEARLY)

FIRST NAME	FAMILY (LAST) NAME	DEGREE	AAOS #
ADDRESS <input type="checkbox"/> Home <input type="checkbox"/> Office Address			
CITY	STATE/PROVINCE	POSTAL CODE	COUNTRY
( )	( )		
TELEPHONE <input type="checkbox"/> Home <input type="checkbox"/> Office <input type="checkbox"/> Cell	FAX	E-MAIL <input type="checkbox"/> Office <input type="checkbox"/> Personal	

## ANNUAL MEETING REGISTRATION FEES U.S. FUNDS

Postmarked by: September 15, 2015. Fees increased \$100 USD on site.

<input type="checkbox"/> OTA Member	\$250.00 USD
<input type="checkbox"/> Non-member	\$750.00 USD
<input type="checkbox"/> Medical Resident Non-member* or Non-member Health Care Personnel*	\$450.00 USD
Please provide Residency Program Director: _____	

## WEDNESDAY, OCTOBER 7

	Non-member	OTA Member
<input type="checkbox"/> Basic Science Focus Forum	\$350.00 USD	\$250.00 USD
<input type="checkbox"/> Orthopaedic Trauma Boot Camp	\$350.00 USD	\$250.00 USD
<input type="checkbox"/> International Orthopaedic Trauma Care Forum	\$75.00 USD	\$75.00 USD
<input type="checkbox"/> International Reception (All International Participants Welcome)	FREE	FREE
<input type="checkbox"/> ICD-10 Coding for Trauma Surgeons	\$300.00 USD	\$200.00 USD
<input type="checkbox"/> Residents Comprehensive Fracture Course 10/7/15 – 10/10/15	\$725.00 USD	\$725.00 USD

## THURSDAY, OCTOBER 8

<input type="checkbox"/> Young Practitioners Forum	\$75.00 USD	\$75.00 USD
<input type="checkbox"/> *Orthopaedic Trauma for PAs and NPs 10/8/15 – 10/10/15	\$400.00 USD	\$275.00 USD
<input type="checkbox"/> Welcome Reception	FREE	FREE
<input type="checkbox"/> Guest Reception Ticket(s) _____ # of persons attending _____ X \$65.00 USD	_____	_____

\*NOTE: Do not register for the Annual Meeting if you are attending the Orthopaedic Trauma for PAs and NPs Course

## FRIDAY, OCTOBER 9

<input type="checkbox"/> Women in Orthopaedic Trauma Luncheon	FREE	FREE
<input type="checkbox"/> New Member Luncheon	FREE	FREE
<input type="checkbox"/> Military Reception	FREE	FREE
<input type="checkbox"/> PA/NP Reception	FREE	FREE

TOTAL \$ \_\_\_\_\_

## RESERVED SESSIONS | TICKETS REQUIRED

1st Choice # (Only check one)

2nd Choice # (Only check one)

### Industry Symposia

Wednesday Evening 6:30 pm – 8:00 pm

☐ IS8

Thursday Lunch 11:15 am – 12:45 pm

☐ IS1 ☐ IS2 ☐ IS3 ☐ IS4 ☐ IS5 ☐ IS6 ☐ IS7 ☐ IS9

☐ IS1 ☐ IS2 ☐ IS3 ☐ IS4 ☐ IS5 ☐ IS6 ☐ IS7 ☐ IS9

### Poster Tours

Friday Lunch 12:30 pm – 1:15 pm

☐ PT1 ☐ PT2

☐ PT1 ☐ PT2

Friday Evening 5:48 pm – 6:45 pm

☐ PT3 ☐ PT4

☐ PT3 ☐ PT4

Saturday Lunch 12:35 pm – 1:20 pm

☐ PT5 ☐ PT6

☐ PT5 ☐ PT6

### Skills Labs

Friday Morning 6:30 am – 7:30 am

Friday Afternoon 1:15 pm – 2:15 pm

Saturday Morning 6:30 am – 7:30 am

**NEW THIS YEAR! No pre-registration and no tickets! No more waiting lists.**  
Skills Labs will FILL QUICKLY • Arrive EARLY to insure your space at a lab table  
Door monitors will close lab door when room reaches maximum

## METHOD OF PAYMENT

☐ Check Enclosed ☐ VISA ☐ MasterCard ☐ American Express

CARD NUMBER EXP. DATE CVV #

NAME (AS IT APPEARS ON CARD)

SIGNATURE (I AGREE TO PAY ACCORDING TO THE CREDIT CARD ISSUER AGREEMENT)

REFUNDS: OTA office must receive written notice of cancellation for a refund less a \$100.00 USD processing fee.

NO refunds after October 7, 2015.

Make checks payable to: Orthopaedic Trauma Association, 9400 W. Higgins Rd, Suite 305, Rosemont, IL 60018, USA

REGISTER ON-SITE AFTER SEPTEMBER 30, 2015 - AN ADDITIONAL \$100 USD FEE WILL APPLY.

All company representatives must use Exhibitor Registration Form (email OTA@ota.org).



## Member Services

Take advantage of the many OTA member services...

- JOT Subscription
- Meeting Discounts
- Fellowship Match
- Discussion Forum and Listserv
- Mentor Programs
- Career Resources
- Coding and Practice Management Resources (Academic and Community)



## Education

Learn the latest techniques for the management of complex orthopaedic trauma patients from leading orthopaedic trauma educators.

The OTA offers educational opportunities for:

- Residents
- Young Practitioners
- Mid - Senior Level Orthopaedic Surgeons
- Fellows

Scholarships offered for most resident and fellows programs.



## Research

- Research Grants
- Trauma Registry
- Multicenter Studies
- Conduct and Access OTA Member Surveys

## Professional Development and Leadership Opportunities

- 25+ Committees and Project Teams
- Resident and Fellow Education and Research Grants



## Health Policy and Practice Management

- Shape Health Policy
- Evaluate Current Practice Management Issues
- Develop Position Statements and Incorporate Thoughtful Solutions



# SAVE THE DATE...

## Membership Application Deadline

(Apply Online)

**November 1, 2015**

## 2016 OTA Events

**January 29 - 30, 2016**

Residents Advanced Trauma Techniques Course  
Orlando, Florida

**February, 2016**

AAOS/OTA Trauma Update  
Orlando, Florida

**March 5, 2016**

OTA Specialty Day  
Orlando, Florida

**April 13 - 16, 2016**

OTA Spring Residents Comprehensive Fracture Course  
Chicagoland, Illinois

**April, 2016**

OTA Fellows Course  
Boston, Massachusetts

**October 5 - 8, 2016**

OTA Annual Meeting

*Annual Meeting Abstract Deadline: February 1, 2016*

## Webinars

Please visit the OTA website for exact dates:

(September) **Pilon Fractures: Strategies to Optimize Outcomes**

Moderator: *David P Barei, MD*

(November) **A Patient's Guide to Atypical (Bisphosphonate Related) Femur Fractures:**

**Who's at Risk, How and When to Treat, and Recovery**

Moderator: *William M Ricci, MD*

Orthopaedic Trauma Association

9400 W. Higgins Road, Suite 305, Rosemont, IL 60018-4975

Tel: (847) 698-1631 | Fax: (847) 430-5140 | E-mail: [OTA@ota.org](mailto:OTA@ota.org)



Future Events



Register Today at [www.ota.org](http://www.ota.org)



**Pre-registration Deadlines:**  
**Registration faxed or post-marked**  
**by September 15, 2015.**  
**Register on-line by September 30, 2015**  
**Hotel Deadlines: September 30, 2015**

## CME Credits

**23.5 AMA PRA Category 1 Credits™**  
for attending the Annual Meeting.  
Additional credits are also available  
if you attend premeeting events:

Basic Science Focus Forum (11.5 AMA PRA Category 1 Credits™)  
ICD-10 Coding for Trauma Surgeons (6 AMA PRA Category 1 Credits™)  
International Trauma Care Forum (8.75 AMA PRA Category 1 Credits™)  
Orthopaedic Trauma Boot Camp (12.75 AMA PRA Category 1 Credits™)  
Young Practitioners Forum (4 AMA PRA Category 1 Credits™)  
PA/NP Course (19.5 AAPA Category 1 CME Credits™)