



2017 ANNUAL MEETING

OCTOBER 11-14
VANCOUVER
CONVENTION
CENTRE



20+
AMA PRA CATEGORY I
CREDITS™

PRELIMINARY PROGRAM

PRE-MEETING
EVENTS
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Orthopaedic Trauma Association

2016 RESEARCH AND EDUCATION DONORS

The Orthopaedic Trauma Association (OTA) gratefully acknowledges the 2016 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 its sincere appreciation to these contributors for their generous financial support.

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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 health care 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

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 for a maximum of 20 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

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

- E&M and CPT Coding for Trauma Surgeons (6 CME Credits)
- Basic Science Focus Forum (11.75 CME Credits)
- Orthopaedic Trauma Boot Camp (11.75 CME Credits)
- International Trauma Care Forum (10.50 CME Credits)
- PA/NP Course (14.50 AAPA Category 1 CME Credits)
- Young Practitioners Forum (6 CME Credits)



ORTHOPAEDIC
— TRAUMA —
ASSOCIATION

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OTA 2017 ANNUAL MEETING WELCOME



Michael D. McKee MD, Chair,
Annual Meeting Program Committee



Michael J. Gardner MD, Co-Chair,
Annual Meeting Program Committee



Pierre Guy, MD
Local Host



Kelly A. Lefavre, MD, FRCSC
Local Host



Peter J. O'Brien MD
Local Host

The OTA Program Committee invites you to attend the Annual Meeting of the Orthopaedic Trauma Association that will be held this fall in beautiful Vancouver, British Columbia, on October 11 to 14. The Committee reviewed a record 950 abstracts and 60 symposia submissions this year in order to present a program that will be truly “cutting-edge” for those interested in learning innovative new techniques, confirming established ones, or networking with friends and colleagues. The paper presentations will begin with a “High Impact” session of a dozen original studies (primarily randomized controlled trials) presented for the first time, a session other sub-specialty meetings would be hard-pressed to duplicate. Multiple break-out sessions (over 35) will enable the attendee to focus on his or her chosen sub-specialty field, reinforce an established practice, or investigate a new one. For those with an interest in research, the Basic Science Fracture Forum (chaired by Edward J. Harvey, MD) preceding the meeting will address a number of hot topics in the research realm.

This year’s Guest Nation is the United Kingdom, and many of the trauma leaders of that country will present a Symposium on their progress with a national network of lower case level-I trauma centres, including attempts to improve the care of isolated complex open fractures. Other main symposia topics will address the “Infected Fracture” in terms of prevention, detection, and treatment and for those who want to stay up to date with the orthopaedic trauma literature, a “Hot Off the Press” session will examine how recent evidence-based fracture research has changed clinical practice. The 2017 Border lecture will be delivered by Roy Sanders, MD, Editor-in-Chief of the Journal of Orthopaedic Trauma. A dynamic speaker with tremendous insight into the world of research, publishing, and impact factors, Dr. Sanders’ lecture promises to be a “must-see” part of the meeting.

The Annual Meeting promises to be one of the most dynamic and comprehensive meetings of the year, with 96 podium presentations, 38 breakouts, 3 main symposia, and 180 posters. The meeting will take place at the Convention Centre, known for its spectacular views from the downtown waterfront and its environmentally-friendly design. Following your day’s events, we confess, you might easily be distracted by what Vancouver can offer. It will start close by with the fine dining and microbreweries of the downtown core and [Gastown](#) district, or with a walk/run/ride along the [Sea Wall](#) that covers the city’s waterfront for 13 1/2 miles (22 km). Vancouverites pride themselves in the ways they enjoy their local mountains, the ocean, or the city’s many parks and they like to share. We hope you take advantage. Want to explore a bit? Extend the trip 10 more minutes to [Granville Island’s](#) shopping and dining or [Kitsilano neighbourhood’s](#) eateries, boutiques and beach. Have a bit more time? Consider bringing the family “a few days early” or stay once it’s all done –[Victoria](#) is a short float plane ride away starting a few steps from the Convention Centre and [Whistler](#) is only a 90 minute highway drive. Book now!

WE LOOK FORWARD TO SEEING YOU THERE.

GENERAL INFORMATION

2017 PROGRAM COMMITTEE

MICHAEL D. MCKEE, MD
Program Chair

MICHAEL J. GARDNER, MD
Program Co-Chair

BRETT D. CRIST, MD
GREGORY J. DELLA ROCCA, MD, PHD, FACS
DAVID J. HAK, MD
STEPHEN A. KOTTMEIER, MD
GILBERT R. ORTEGA, MD
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 highlight recently presented prospective clinical trials in orthopaedic trauma
- Summarize evidence - based recommendations for the treatment of common fractures
- Knowledge transfer to initiate practice change to include treatment strategies based on evidence - based medicine
- Describe the benefits of an integrated national trauma network
- Identify consensus opinions on many current issues and controversies regarding the treatment of infected fractures.

DISCLAIMER

The material presented at the 33rd 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 the 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.

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. The intent is solely informational.

FDA

All drugs and medical devices used in the United States are administered in accordance with the 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 OTA educational materials or program 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 s/he wishes to use in clinical practice.

VENUE

The Orthopaedic Trauma Association's 33rd Annual Meeting, all pre-meeting courses and the Resident Comprehensive Fracture Course will be held at the Vancouver Convention Centre in Vancouver, British Columbia, Canada. All hotels in the OTA room block are within walking distance of the Vancouver Convention Centre.

ACCOMMODATIONS

Discounted room rates have been secured at area hotels for OTA attendees. Please make your housing arrangements through the OTA official housing bureau, Conference Direct.

Reservations: www.ota.org or by calling (877) 632-8165, Monday-Friday, 8:30am - 9:00pm Eastern

Marriott Vancouver Pinnacle Downtown

- Single/Double \$199 + tax

Hyatt Regency

- Single/Double \$219 + tax
- Triple \$254 + tax
- Quad \$289 + tax

Pan Pacific Vancouver

- Deluxe Room \$229 + tax
- Deluxe Harbor \$249 + tax

The Fairmont Waterfront

- Single/Double City view \$225 + tax
- Single/Double Water view \$245 + tax

All hotels above are listed in CAD dollar.

Rooms at the discounted OTA rates can sell quickly so be sure to book your hotel early for the best selection and price. OTA rates will be available until September 30th, 2017 or until the group block is sold out. Whichever comes first.

GROUND TRANSPORTATION

Taxis and public transportation are available from the Vancouver International Airport

Taxi Service

From the airport to the Convention Center and OTA designated hotels: \$31–\$40

PLEASE NOTE:

Uber and Lyft are not currently available in Vancouver.

Public Transportation

Vancouver has an efficient transit system in place with several options to get to and from the airport and around the city.

Trans Link: Find all the schedules, route maps, station locations, travel times and connections for every mode of public transit — Bus, SkyTrain, SeaBus and West Coast Express — in Metro Vancouver at <http://www.translink.ca/>.

INTERNATIONAL TRAVEL

Passports and Visas

Traveling and do not know what the requirements are for your country? Find out if you need a visa at <http://www.cic.gc.ca/english/visit/visas.asp>. Should you require a letter of invitation in order to attend the meeting and obtain a Visa, contact OTA at ota@ota.org, or download a letter from the OTA website.

US Citizens, if you plan on flying to Canada you will need a valid passport with one blank passport page and the passport must not have an expiration date within six months of October dates of travel. Check your expiration date now and renew immediately if necessary.

Please visit the OTA Annual Meeting page at www.ota.org for detailed information on travel to Canada.



THANK YOU TO OUR PROGRAM COMMITTEE
AND ABSTRACT REVIEWERS FOR THEIR
CONTRIBUTION TO THE 2017 ANNUAL MEETING

MEETING AT A GLANCE

WEDNESDAY, OCTOBER 11

7:00am – 4:30pm	ORTHOPAEDIC TRAUMA BOOT CAMP
7:00am – 5:30pm	ORTHOPAEDIC TRAUMA FOR PAs AND NPs
7:15am – 5:10pm	RESIDENT COMPREHENSIVE FRACTURE COURSE
7:30am – 4:55pm	BASIC SCIENCE FOCUS FORUM
7:30am – 4:30pm	INTERNATIONAL ORTHOPAEDIC TRAUMA CARE FORUM
9:00am – 4:00pm	E&M AND CPT CODING FOR TRAUMA SURGEONS
4:45pm – 6:30pm	INTERNATIONAL RECEPTION
5:30pm – 6:30pm	PA/NP RECEPTION
6:30pm – 8:00pm	INDUSTRY SYMPOSIA
7:00pm – 8:00pm	YOGA

THURSDAY, OCTOBER 12

6:30am – 10:50am	YOUNG PRACTITIONERS FORUM
7:00am – 10:00am	BICYCLING EVENT: THIRD ANNUAL “TOUR DE BONE”
7:00am – 11:00am	ORTHOPAEDIC TRAUMA BOOT CAMP
7:00am – 11:00am	ORTHOPAEDIC TRAUMA FOR PAs AND NPs
7:15am – 5:10pm	RESIDENT COMPREHENSIVE FRACTURE COURSE
7:30am – 11:00am	BASIC SCIENCE FOCUS FORUM
7:30am – 11:00am	INTERNATIONAL ORTHOPAEDIC TRAUMA CARE FORUM
11:15am – 12:45pm	INDUSTRY LUNCH SYMPOSIA
1:00pm – 5:10pm	OPENING OF THE ANNUAL MEETING PROGRAM
2:30pm – 6:00pm	EXHIBIT HALL OPENS
5:10pm – 6:10pm	BUSINESS MEETING (MEMBERS ONLY)
5:10pm – 6:10pm	PRE-RECEPTION WITH EXHIBITORS (ALL MEETING ATTENDEES INVITED)
6:10pm – 8:10pm	WELCOME RECEPTION

FRIDAY, OCTOBER 13

6:00am – 7:00am	YOGA
6:30am – 5:30pm	ANNUAL MEETING PROGRAM
7:00am – 10:00am	EXHIBIT HALL OPEN
7:15am – 4:15pm	RESIDENT COMPREHENSIVE FRACTURE COURSE
8:00am – 3:00pm	STOP THE BLEED
12:10pm – 1:10pm	EXHIBIT HALL OPEN
12:10pm – 1:10pm	NEW MEMBER LUNCH
	WOMEN IN TRAUMA LUNCH
12:25pm – 1:10pm	GUIDED POSTER AND VIDEO TOURS Foot/Ankle – Stephen A. Kottmeier, MD Knee/Tibia – Paul Tornetta III, MD Video Tour
3:00pm – 6:15pm	EXHIBIT HALL OPEN
4:30pm – 6:00pm	SPEED MENTORING SESSION
5:30pm – 6:30pm	MILITARY RECEPTION
5:35pm – 6:20pm	SUDS N’ SCIENCE GUIDED POSTER AND VIDEO TOURS Upper Extremity – Michael D. McKee, MD General Interest – Michael J. Gardner, MD Video Tour

SATURDAY, OCTOBER 14

6:00am – 7:00am	TAI CHI
6:30am – 4:00pm	ANNUAL MEETING PROGRAM
7:00am – 1:45pm	EXHIBIT HALL OPEN
8:00am – 12:00pm	STOP THE BLEED
12:55pm – 1:40pm	GUIDED POSTER TOURS Hip/Femur – Brett D. Crist, MD International – Peter V. Giannoudis, MD, FACS, FRCS Video Tour
4:00pm	MEETING ADJOURNS

SEE YOU NEXT YEAR IN ORLANDO! OTA 34th Annual Meeting October 17-20, 2018

NEW THIS YEAR!

Join your fellow colleagues on a guided tour of the Annual Meeting Video Showcase



**PRE-MEETING
EVENT
DIRECTORY**

**register
online
www.OTA.org**

**E&M AND CPT CODING
FOR TRAUMA SURGEONS**

**BASIC SCIENCE FOCUS
FORUM**

**ORTHOPAEDIC TRAUMA
BOOT CAMP**

**INTERNATIONAL ORTHOPAEDIC
TRAUMA CARE FORUM**

**ORTHOPAEDIC TRAUMA
FOR PAs and NPs**

**RESIDENT COMPREHENSIVE
FRACTURE COURSE**

**YOUNG PRACTITIONERS
FORUM**

INDUSTRY SYMPOSIA



E&M AND CPT CODING FOR TRAUMA SURGEONS

WEDNESDAY, OCTOBER 11

E&M AND CPT CODING FOR TRAUMA SURGEONS

MARGARET MALEY, BSN, MS

Senior Consultant

KarenZuko and Associates, Inc.

PAUL T. APPLETON, MD

Course Chair

WEDNESDAY, OCTOBER 11

Attendees of this activity can earn up to **6 AMA PRA Category I Credits™**

OVERVIEW

Margaret Maley from KarenZupko & Associates, Inc. is back to address the biggest coding conundrums facing orthopaedic trauma surgeons. Staged procedures, bone grafts, external fixation and fracture care are just a few of the issues addressed in the workshop. Maley will discuss Evaluation & Management coding and documentation including the correct codes to use in the ER, and the documentation required for a consultation. Level of service documentation and medical necessity, currently hot topics for audits and take backs, will also be discussed. You will not want to miss this opportunity to attend a coding course developed strictly for orthopaedic trauma surgeons and their staff. Using concrete examples and practical tools, this course offers a terrific value investment in terms of time and money. Each attendee will receive a copy of KZA's popular workbook full of specific trauma examples. Attend this course to get the answers to your most confounding coding questions.



ABOUT THE SPEAKER

Margaret Maley brings 35 years of orthopaedic experience to her clients working with KarenZupko and 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.

LEARNING OBJECTIVES

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

- Explain how medical necessity determines the physical exam performed
- Describe the requirements for using the consultation codes
- Define what is included in global fracture care
- Demonstrate the proper use of the modifier 25
- Describe the difference between coding rules in CPT, the AAOS GSDG, and Medicare CCI edits (used by many private payers)
- Explain the difference between modifier 58 and modifier 78

COURSE AGENDA

9:00am – 12:00pm

What is medical necessity?

How do payers use it to deny claims?

How do you document it?

Brief overview of Relative Value Units (RVU's)

How they create a fee schedule

How they work for employed physicians

E/M DOCUMENTATION

Categories of Service

What do I use when I go to the ER?

What if the patient is sent to my office by the ER physician, is it different?

What if the patient has a new problem?

Documentation of the Key Components

History, Physical Examination, Medical Decision Making

Non-Physician Providers: reporting their services

1:00pm – 4:00pm

CPT CURRENT PROCEDURAL TERMINOLOGY

CPT, AAOS GSDG, and Medicare CCI Edits:

What is the difference and what should we use?

Global Period– Tracking post-operative care

Modifier 25: significant separate service

Can you report an E&M with a joint injection?

Modifier 57: How and When to use it.

Fracture Care

Itemized vs Global reporting

Are you being paid for casting supplies and replacement casts?

Medicare rule for fractures treated with a single cast

CPT Changes 2017–Closed treatment of pelvic fractures

Modifier 58: Staged procedures used to report complicated fracture treatment

Modifier 78: Return to the OR to treat a complication

Modifier 59 VS 51: Finally explained so you can understand it.



BASIC SCIENCE FOCUS FORUM

WEDNESDAY, OCTOBER 11
THURSDAY, OCTOBER 12

BASIC SCIENCE FOCUS FORUM

Basic Science Committee

EDWARD J. HARVEY, MD

Chair

MICHAEL T. ARCHDEACON, MD

MOHIT BHANDARI, MD, PhD, FRCS

JOSEPH BORRELLI JR., MD

BRETT CRIST, MD

TODD O. MCKINLEY, MD

TYLER MORRIS, MD

AARON NAUTH, MD

EMIL H. SCHEMITSCH, MD

WEDNESDAY, OCTOBER 11

THURSDAY, OCTOBER 12

Attendees of this activity can earn up to
11.75 AMA PRA Category I Credits™

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.

LEARNING OBJECTIVES

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

- Outline the biomechanical principles of injury
- Understand the implications of joint impact injuries
- Comprehend the clinical outcome scores used in orthopaedic research
- Discover new options for treatment of infection
- Explore the basic science and clinical outcomes of pain medication and their prescriptions
- Understand current concepts in tissue engineering



WEDNESDAY, OCTOBER 11

7:30am

INTRODUCTION

Edward J. Harvey, MD

7:35am – 8:45am

SYMPOSIUM I: BIOMECHANICS

Injury Biomechanics of Fractures

Pierre Guy, MD and Peter Cripton, PhD

Moderators:

7:35am

Introduction

Pierre Guy, MD

7:40am

Injury Biomechanics Primer

Peter Cripton, PhD

7:53am

Finite Element Modeling

Benedikt Helgason, PhD

8:06am

Fracture Models

Luca Cristofolini, PhD

8:19am

Biofidelic Models

Ingmar Fleps, MSc

8:32am – 8:45am

Discussion

8:45am – 9:24am

**PAPER SESSION 1:
APPLIED BIOMECHANICS**

Moderators:

Pierre Guy, MD and Peter Cripton, PhD

8:45am

Overview

Pierre Guy, MD

8:50am

Paper 1

Do Promising Biomechanical Research Studies Lead to Clinically Meaningful Results?

Jason Kang, MD; **Grace Xiong**; Julius A. Bishop, MD

8:56am

Paper 2

Validation of the Radiographic Union Score for Tibial Fractures (RUST) using Medical Imaging and Biomechanical Testing in an In-Vivo Rat Model

Sandra Fiset, MSc; Meghan Crookshank, MD; Charles Godbout, PhD; Radovan Zdero, PhD; Aaron Nauth, MD; **Emil H. Schemitsch, MD**

9:02am

Paper 3

Long Segment Blocking Screws (LSBS) Increase Stability of Retrograde Nail Fixation in Geriatric Supracondylar Femur Fractures: Eliminating the “Bell-Clapper Effect”

David Donohue; Darryl Auston; Kyle Stoops; Miguel Diaz, MS; Brandon Santoni, PhD; Hassan Mir, MD

9:08am

Paper 4

Bridge Plating Ostosynthesis: Effect of Bridge Span on Interfragmentary Motion

Michael Bottlang; Julia Henschel, MS; Stanley Tsai, MS; Daniel Fitzpatrick; Steven Madey

9:14am –9:24am **Discussion**

9:24am –9:35am **Refreshment Break**

9:35am –10:50am **SYMPOSIUM II: INFECTION**
**Prevention of the Infected Fracture:
Evidence Based Strategies for Success!**

Moderators: Emil H. Schemitsch, MD and
Cyril Mauffrey, MD, FACS, FRCS

9:35am **Introduction**
Emil H. Schemitsch, MD

9:40am **The Open Fracture: Are There Evidence
Based Standards for Antibiotic Therapy?**
David J. Hak, MD

9:50am **How I Debride a High Energy Open Fracture**
Michael T. Archdeacon, MD

10:00am **The Induced Membrane Technique:
How to Optimize Outcome**
Cyril Mauffrey, MD, FACS, FRCS

10:10am **Management of Soft Tissue Defects:
From Minor to Extreme**
Martin I. Boyer, MD

10:20am **Beyond the Fracture:
Can the Patient be Optimized?**
Michael D. McKee, MD

10:30am **Adjuncts to Prevent Infection:
Is Anything Ready for Prime Time?**
Peter V. Giannoudis, MD, FACS, FRCS

10:40am –10:50am **Discussion**

10:50am –11:24am **PAPER SESSION II: INFECTION**
Moderators: Emil H. Schemitsch, MD and
Cyril Mauffrey, MD, FACS, FRCS

10:50am **Overview**
Emil H. Schemitsch, MD

10:55am **Paper 5**
**Immune-dysregulation in a Rat Model of
Infected Femoral Segmental Bone Defect**
Hyunhee Ahn; **Mara Schenker, MD;**
Rishin Kadakia; Pallab Pradhan; Laura Weinstock;
Levi Wood; Krishnendu Roy; Robert Guldberg;
Nick Willett

11:01am **Paper 6**
**Intrawound Vancomycin Powder Reduces
Staph Aureus Surgical Site Infections in a
Rabbit Model**
James Paul Hovis, MD; Robert O'Toole, MD;
Theodore Manson, MD; Mark Shirtliff, PhD;
Manjari Joshi, MD; Roman Natoli, MD

11:07am **Paper 7**
**Intrawound Vancomycin Powder Reduces
Bacterial Load in Contaminated Open
Fracture Model**

Cyrus Caroom, MD; Dustin Moore, MD;
Nithya Mudaliar, MS; Craig Winkler, MD;
Jefferson Murphree, MD; Ian Ratheal, MD;
Michael Fry, BS; Jessica Tullar, PhD MPH;
Abdul Hamood, PhD

11:13am **Paper 8**
**Release of Vancomycin and Tobramycin
from PMMA Cements Impregnated with
Calcium Polyphosphate Hydrogel**
David C. Markel, MD; Wei Song, PhD;
Weiping Ren

11:19am –11:24am **Discussion**

11:30am –12:30pm **International Industry Lunch Symposium**
(No CME credits offered)
West Ballroom CD
Moderators: Steven A. Olson, MD
Peter V. Giannoudis, MD, FACS, FRCS

11:30am –11:55pm  ZIMMER BIOMET

Zimmer Biomet N-Force Fixation Solutions
Speaker: TBD

12:00pm –12:25pm **TBD**

12:35pm –1:50pm **SYMPOSIUM III:
JOINT SESSION WITH
INTERNATIONAL SURGICAL GROUP**
**Joint Impact Injuries of the
Lower Extremity**
West Ballroom CD
Moderators: Peter V. Giannoudis, MD, FACS, FRCS and
Joseph Borrelli Jr., MD

12:35pm **Introduction**
Peter V. Giannoudis, MD, FACS, FRCS

12:40pm **The Basic Science/Molecular
Make-up and Response to Injury
of Articular Cartilage**
Joseph Borrelli Jr., MD

12:48pm **The Role of Residual Articular
Incongruity and Joint Instability
in the Progression of PTOA?**
Steven A. Olson, MD

12:56pm **Modulation of Cartilage's Response
to Injury: Can Chondrocyte Apoptosis
be Reversed?**
Peter V. Giannoudis, MD, FACS, FRCS

1:04pm **Effectiveness of Cellular and Growth
Factors for the Treatment of Injured
Articular Cartilage**
Emil H. Schemitsch, MD

1:12pm **Current Tissue Engineering Approaches to Regenerate Cartilage**
James P. Stannard, MD

1:40pm – 1:50pm **Discussion**

1:50pm – 2:00pm **Break / Walk Back to BSFF Room**
West Meeting Room 109-110

2:00pm – 2:40pm **PAPER SESSION III:
GENERAL TRAUMA**
Moderators: Peter V. Giannoudis, MD, FACS, FRCS and Joseph Borrelli Jr., MD

2:00pm **Overview**
Joseph Borrelli, MD

2:05pm **Paper 9
Synovial Fluid Analysis Reveals a Novel Panel of Vascular and Inflammatory Biomarkers that are Altered following Articular Fracture**
Steven A. Olson, MD; Bridgette Furman; Janet Heubner, MS; Farsh Guilak, PhD; Yi-Ju Li, PhD; Kelly Kimmerling; Yi-Hung Wu, PhD; Virginia Kraus, MD, PhD

2:11pm **Paper 10
Hemorrhagic Shock and Surgical Strategy (Nailing versus External Fixation) affect the Microcirculation in Soft Tissues**
Roman Pfeifer, MD; Klemens Horst; Zhi Qiao; Michel Teuben; Frank Hildebrand; Hans-Christoph Pape, MD

2:17pm **Paper 11
The Gut Microbiome: What Effect Does Our Diet Play in Fracture Healing?**
Ashlee MacDonald, MD; Christopher Farnsworth, PhD Student; Eric Schott, PhD Student; Alex Grier; Steven Gill, PhD; Hani Awad, PhD; Michael Zuscik, PhD; Robert Mooney, PhD; John Ketz, MD

2:23pm **Paper 12
Can Intramuscular pH Levels Diagnose Acute Compartment Syndrome?**
Christopher Doro, MD; David Hennessy, MD; Robert O'Toole, MD; Thomas Higgins, MD

2:29pm – 2:40pm **Discussion**

2:40pm – 3:55pm **SYMPOSIUM IV:
TISSUE ENGINEERING—
FACT OR FICTION?**
Moderators: Brett D. Crist, MD, FACS and Mark Lee, MD

2:40pm **Introduction**
Brett D. Crist, MD, FACS

2:45pm **How to Make a Bone in 2017**
J. Tracy Watson

3:00pm **Can We Get a Scaffold to Really Work?**
Harrie Weinans, MD

3:15pm **What are the Cartilage Options for Trauma Applications?**
Brett D. Crist, MD

3:30pm **Have We Made Any Head Way in Soft Tissue Engineering?**
Mark Lee, MD

3:45pm – 3:55pm **Discussion**

3:55pm – 4:56pm **PAPER SESSION IV:
MANIPULATING HEALING**
Moderators: Brett D. Crist, MD, FACS and Mark Lee, MD

3:55pm **Overview**
Mark Lee, MD

4:00pm **Paper 13
Designer Chieric Protein BC-265/ Composite Matrix Demonstrates Efficacy in Nonhuman Primate Bone Repair Models at Substantially Lower Concentrations than INFUSE®**
Howard Seeherman, PhD, VMD; Stephen Berasi, PhD; Marc Bohner, PhD; Christopher Brown, PhD; Orly Grinberg, PhD; Pablo Morales, DVM; Eric Vanderploeg, PhD; Christopher Wilson, PhD; John Wozney, PhD

4:06pm **Paper 14
Adjunctive Immunomodulation Improves Efficacy of Autologous Minced Muscle Graft in a Porcine Model of Volumetric Muscle Loss**
Benjamin Corona, PhD; Jessica Rivera, MD; Joseph Wenke, PhD; **Sarah Greising, PhD**

4:12pm **Paper 15
Effect of Cold Therapy on Bone Healing**
Daniel Castano, MD; Jose Ramirez-GarciaLuna, MD MsC; Geraldine Merle, PhD; Edward Harvey, MD, MsC

4:18pm – 4:28pm **Discussion**

4:28pm **Paper 16
Hypoxic Preconditioning of Mesenchymal Stem Cell Spheroids Stimulates Segmental Bone Defect Repair**
Nasser Heyrani, MD; Steve Ho; Ben Hung, PhD; Mark Lee; Jonathan Leach, PhD

4:34pm **Paper 17
Platelet Rich Plasma as a Vehicle for Endothelial Progenitor Cell Delivery in Critical Sized Bone Defects**
David Ramnarain, MSc; Charles Godbout, PhD; Brent Bates; Emil H. Schemitsch, MD; Aaron Nauth, MD

4:40pm **Paper 18**
Aminocaproic Acid Inhibits Periosteal Chondrogenesis and Promotes Periosteal Osteogenesis during Fracture Healing
Dalibel Bravo, MD; Anna Josephson, MS; Vivian Bradaschia Correa, PhD; Jason Huo, BS; Philipp Leucht

4:46pm –4:56pm **Discussion**

4:56pm **Adjourn for the Day**

THURSDAY, OCTOBER 12

7:30am **Introduction**
Edward J. Harvey, MD

7:35am – 8:30am **SYMPOSIUM V: PATIENT OUTCOMES IN ORTHOPAEDICS**
How to Evaluate if Your Treatment is Really Working
Moderators: Mohit Bhandari, MD, PhD, FRCSC and Aaron Nauth, MD

7:35am **Lower Extremity Outcomes in Trauma Patients**

7:45am **Upper Extremity Outcomes in Orthopaedic Trauma**

7:55am **How Big of a Difference is Clinically Important? Using MCID in Orthopaedic Trauma**

8:05am **General Health Outcomes and Economic Analysis: How to Determine if the Cost Treatment is Worth It**

8:15am **The Impact of Psychosocial Factors on Outcomes in Orthopaedic Trauma**

8:25am –8:30am **Discussion**

8:30am –9:27am **PAPER SESSION V: DOING IT BETTER**
Moderators: Mohit Bhandari, MD, PhD, FRCSC and Aaron Nauth, MD

8:30am **Overview**
Aaron Nauth, MD

8:35am **Paper 19**
Negative Effects of Age-Related Chronic Inflammation on Skeletal Stem Cells
Anna Josephson, MS; Vivian Bradaschia Correa, PhD; Shane Neibart, BS; **Philipp Leucht, MD**

8:41am **Paper 20**
Effect of Nifedipine and Ketotifen on Joint Capsule Cell Based Collagen Gel Contraction
Kristi Billard, BSc; Mei Zhang, MD; Prism Schneider, MD, PhD; Dave Hart, PhD; Paul Salo, MD; Kevin Hildebrand, MD, FRCSC

8:47am **Paper 21**
Reduction in Angiogenic Support is the Primary Defect of Mesenchymal Stromal Cells Resident at the Site of Long Bone Non-Union
Richard James Cuthbert; Sarah Churchman; Penelope Castana, PhD; Hiang Boon Tan; Dennis McGonagle; Evangelia Papadimitriou, PhD; Elena Jones; Peter Giannoudis, MD

8:53am –9:01am **Discussion**

9:01am **Paper 22**
An Evaluation of Bone Marrow Aspirate Concentrate in Osteointegration of Fresh Osteochondral Allografts
James P. Stannard, MD; James Cook, PhD; Brett Crist, MD

9:07am **Paper 23**
Femoral Neck Exposure for the Smith-Peterson Versus the Watson
Paul Lichstein, MD, MS; John Kleimeyer, MD; Michael Githens; John Vorhies, MD; Michael Gardner; Michael Bellino; Julius A. Bishop, MD

9:13am **Paper 24**
The Effect of Smoking Cessation on Serum Biomarkers of Fracture Healing
Justin Kleiner, BS; Joseph Johnson, MD; Jeremy Truntzer; Scott McAllister; Matthew Deren; Mursal Gardezi; Olivia Cummings; Melanie Ambler; Dioscaris Garcia; Christopher Born

9:19am – 9:27am **Discussion**

9:27am – 9:40am **Refreshment Break**

9:40am –10:35am **SYMPOSIUM VI: SCIENCE BEHIND PAIN MANAGEMENT**
Moderator: Todd O. McKinley, MD
William T. Obremskey, MD

9:40am **Overview**
Presenter: Todd O. McKinley, MD

9:45am **Current Epidemiology and Extent of Our Problems**
Hassan Mir, MD

9:55am **Pain Control - Pharmacology and Different Mechanisms of Pain**

10:05am **Clinical Management - Blocks, Multimodal, Medication Protocols and Contracts**
Joseph Hsu, MD

10:15am **Health Policy - State, Federal, Insurer and Pharmacy Regulations**
A. Alex Jahangir, MD

10:25am –10:35am **Discussion**

10:35am – 11:05am **PAPER SESSION VI:**
Moderator:
Todd O. McKinley, MD
William T. Obremskey, MD

10:35am **Overview**
Todd O. McKinley, MD

10:40am **Paper 25**
Reliability of Proxy-Based PROMIS Physical Function and Pain Interference to Measure Outcomes in Elderly Patients Following Musculoskeletal Trauma
Maria Loreto Alvarez-Nebreda, MD, PhD;
Marilyn Heng, MD MPH; Bernard Rosner, PhD;
Michael McTague, MPH; Houman Javedan, MD;
Mitchel Harris, MD; Michael Weaver, MD

10:46am **Paper 26**
Over-Prescription of Opioids at Discharge in Patients After Fracture Surgery
Eric Chen, MD, PhD; Lulu Li, BS;
Paul Tornetta III, MD

10:52am **Paper 27**
Prescription Reporting with Immediate Medication Utilization Mapping (PRIMUM): Impact of an Alert on Controlled Substance Prescribing
Rachel Seymour, PhD; Meghan Wally, MPH;
Sharon Schiro, PhD; Joseph Hsu, MD;
PRIMUM Group

10:58am – 11:05am **Discussion**

11:05am **ADJOURN TO INDUSTRY LUNCH SYMPOSIA**





ORTHOPAEDIC TRAUMA BOOT CAMP

WEDNESDAY, OCTOBER 11
THURSDAY, OCTOBER 12

ORTHOPAEDIC TRAUMA BOOT CAMP

ERIK KUBIAK, MD
ROBERT P. DUNBAR JR, MD
Program Chairs

WEDNESDAY, OCTOBER 11
THURSDAY, OCTOBER 12

Attendees of this activity can earn up to
11.75 AMA PRA Category I 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.

LEARNING OBJECTIVES

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

- Review current indications for operative and non-operative treatment of fractures and dislocation
- Summarize the intraoperative techniques and complications related to simple and complex fracture management
- Demonstrate appropriate surgical techniques, approaches and implant selections for fracture care medication and their prescriptions

INVITED FACULTY

Timothy S. Achor, MD
Jeffrey O. Anglen MD, FACS
Stephen K. Benirschke, MD
Eben A. Carroll, MD
Brett D. Crist, MD
Robert P. Dunbar Jr., MD
Jonathan G. Eastman, MD
James A. Goulet, MD
Pierre Guy MD, MBA
Daniel S. Horwitz, MD
Kyle J. Jeray, MD
Clifford B. Jones, MD, FACS
Erik Kubiak, MD
Joshua Langford, MD
Frank A. Liporace, MD
Geoffrey Marecek, MD
Christopher M. McAndrew, MD, MSc

Michael D. McKee, MD
Samir Mehta, MD
Amer J. Mirza, MD
Steven J. Morgan, MD
Robert F. Ostrum, MD
Saqib Rehman MD
William M. Ricci, MD
Bruce J. Sangeorzan, MD
Mark Sommers, MD
Paul Tornetta, III MD
Thomas F. Varecka, MD
J. Tracy Watson, MD
Philip R. Wolinsky, MD
Brad J. Yoo, MD

DAY 1 AGENDA WEDNESDAY, OCTOBER 11

7:05am - 7:25am
Plating Clavicle Fractures
When and How, or Even Why?

7:25am - 7:45am
Nailing and Plating Proximal Humerus
Fractures - How About a Sling?

7:45am - 8:05am
Distal Humerus Fractures Plating
When and How

8:05am - 8:25am
Distal Radius Fractures
When to Span, When to Plate, When to Cast

8:35am - 9:00am
Case Presentations

9:00am - 9:20am
Refreshment Break

9:20am - 10:00am
LABS

- Proximal Humerus (Plating)
- Distal Humerus (Plating)

10:00am - 10:20am
Pelvis: Binders, Ex-Fixes, Infix, Perc Screws, Post Fixation

10:20am - 10:40am
Acetabular Fractures: Indications for Perc,
Consolidation and Deferred THA, Acute THA

10:40am - 11:00am
Femoral Neck Fractures: Young

10:40am - 11:00am
Femoral Neck Fractures: Elderly

11:00am - 11:20am
Intertrochanteric Fractures
When to Plate? When to Nail Short?

11:20am - 12:00pm
Q&A

12:00pm - 1:00pm
Lunch and Cases

WEDNESDAY, OCTOBER 11
CONTINUED

1:00pm - 1:20pm
Femoral Shaft

1:20pm - 1:40pm
Distal (Supracondylar) Femur

1:40pm - 2:00pm
Periprosthetic Fractures of the Femur

2:00pm - 2:20pm
Q&A

2:20pm - 3:00pm
LABS

- Pilon Plating
- Semi-Extended Tibial Nailing

3:00pm - 3:20pm
Spanning Ex-Fix:
Multiplanar vs Uniplanar Constructs

3:20pm - 3:40pm
Extensor Mechanism Injuries:
Patella, Quad and Patella Tendon

3:40pm - 4:00pm
Tibial Plateau Fractures

4:00pm - 4:20pm
Q&A

DAY 2 AGENDA
THURSDAY, OCTOBER 12

7:00am - 7:20am
Tibia Shaft Fractures

7:20am - 7:40am
Pilon Fractures

7:40am - 8:00am
Ankle: When Is It Worse than It Looks?

8:00am - 8:20am
Problems (Infection, Nonunion, Malunion)

8:20am - 8:40am
Hindfoot: Calcaneus, Talus

8:40am - 9:00am
Midfoot: Lisfranc, Temporizing
the Midfoot Crush

9:00am - 9:20am
Refreshment Break

9:20am - 9:40am
Forefoot: When Do You Need to Do Something?
Pie-Crusting, Pinning MTs

9:40am - 10:00am
Getting Through the Night: Fractures with Vascular
Injury, Compartment Syndrome, Completion
Amputations, Limb Salvage

10:00am - 10:20am
Open Fractures

10:20am - 10:40am
Evolving Nerve Palsies: Skin at Risk?

10:40am - 11:00am
Acute Management vs Staged Management
of Fractures: Evolving Dogma

11:00am
Adjourn to Industry Lunch Symposia





INTERNATIONAL TRAUMA CARE FORUM

WEDNESDAY, OCTOBER 11
THURSDAY, OCTOBER 12

INTERNATIONAL TRAUMA CARE FORUM

International Committee

PETER V. GIANNOUDIS, MD, FACS, FRCS
Chair

NEY AMARAL, MD

FERNANDO DE LA HUERTA, MD

THEODORE TOAN LE, MD

AMIR M. MATITYAHU, MD

CYRIL MAUFFREY, MD, FACS, FRCS

HANS-CHRISTOPH PAPE, MD, FACS

SARA M. PUTNAM, MD

WEDNESDAY, OCTOBER 11 THURSDAY, OCTOBER 12

Attendees of this activity can earn up to
10.50 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.

INTERNATIONAL OBJECTIVES

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

- Distinguish different methods of treating fracture and trauma complications from around the world
- Describe unique approaches to manage thromboprophylaxis of lower limb fractures between North America and UK
- Explain increased knowledge and understating of international clinical research
- Discuss different techniques of fracture reduction and managing complications of pelvic and acetabular reconstruction techniques
- Recognize and avoid complications when treating complex patella fractures
- Describe ways to manage avascular necrosis of talus
- Acquire knowledge on minimal invasive approaches to fixation of calcaneal fractures
- Explain the impact of joint impaction injuries to cartilage vitality and approaches to reverse the damage sustained.

WEDNESDAY, OCTOBER 11

7:30am

Welcome

Peter V. Giannoudis, MD, FACS, FRCS

7:35am –8:15am

SYMPOSIUM I:

Surgical Techniques: How I do it

Moderators:

Cyril Mauffrey, MD, FACS, FRCS

Tim Chesser, FRCS

7:35am

Overview

Cyril Mauffrey, MD, FACS, FRCS

7:37am

Spino-Pelvic Injuries

Enrique Guerado, MD, PhD

7:47am

Acetabulum Articular Impaction

Peter V. Giannoudis, MD, FACS, FRCS

7:57am

Pipkin Fracture

Amir M. Matityahu, MD

8:07am –8:15am

Discussion

8:15am –8:47am

PAPER SESSION I:

PELVIS/ACETABULUM

Moderators:

Christopher G. Moran, MD, FRCS

Fernando De La Huerta, MD

8:15am

Paper 1

Haemorrhage Control and Transfusion Requirements of Pelvic Ring Fractures Attending a Major Trauma Centre for Emergency and Definitive Care. Does Early Aggressive Resuscitation Influence Mortality at 1-year?

James Bassett, MBBS; David Slattery, MBBS;
Greg Pickering, MBBS; Anthony Ward, MBBS;
Mehool Acharya; Tim Chesser, MBBS

8:21am

Paper 2

Native Hip Survival and Long Term Patient Reported Outcomes following Acetabular Fracture

Chloe Scott, MD MsC;

Timothy O. White, MD, FRCS;

Stuart Goudie, John Annan, MBBS;

Deborah MacDonald, BSc; John Keating, MD

8:27am

Paper 3

Reduced Survival for Uncemented Compared to Cemented Total Hip Arthroplasty after Failed Open Reduction and Internal Fixation for Acetabular Fractures

John Clarke-Jensen, MD;

Marianne Westberg, PhD; Olav Roise;

Tone Bere, PhD; Stein Ovre; Ingunn Silberg, MD;

Jan Erik Madsen

8:33am **Paper 4**
Navigated Screw Osteosynthesis For Pelvic Fractures Using A Hybrid-Operating Room
Peter Richter, MD; Florian Gebhard, MD; Konrad Schuetze, MD

8:39am –8:47am **Discussion**

8:47am –8:56am **SIGN SCHOLAR PRESENTATION**
The Impact of the SIGN Pelvic Fracture Care Program in the Southern Philippines Medical Center
Kristoffer Roland U. Roa, MD

8:56am –9:05am **Treatment of the Intra-Articular and Extra-Articular Distal Femoral Fractures Using SIGN Nail at Kumi Orthopaedic Center in Uganda**
John Ekure, MD

9:00am –9:40am **PAPER SESSION II: BEST OF THE BEST**
Moderators: William M. Ricci, MD
Thomas A. (Toney) Russell, MD
Ian Winson, MD

9:00am **Paper 5**
An Algorithm to Predict Haemorrhage in Major Pelvic Trauma: What Factors Best Predict Blood Product Transfusion Requirements And Mortality In The First 24 Hours? An Experience Of 420 Patients In A Major Trauma Centre
Pierre Pechon, MBBS; Luke Rothwell, MBBS; John Hardman, MBBS; Angus Lewis, MBBS; Jasvinder Daurka, MBBS

9:06am **Paper 6**
Managing Soft Tissues in Severe Lower Limb Trauma in an Ageing Population
Tim Noble; Phillipa Jackson; Patrick Foster, MBBS; Martin Taylor, MBBS; Paul Harwood, MBBS;
Jay Wiper

9:12am **Paper 7**
3D Printed Titanium Truss Cages Combined with the Masquelet Technique for Reconstruction of Segmental Bone Defects
Kevin D. Tetsworth, MD, FRCAS;
Vaida Glatt, PhD

9:18am **Paper 8**
Management and Outcomes of the Treatment of Intra-capsular Neck of Femur Fractures in Young Patients
Michalis Panteli, MD; Ippokratis Pountos; Anthony Howard; Peter Giannoudis, MD

9:24am **Paper 9**
Risk Factors for Fibular Nail Failure in the Management of Unstable Fractures of the Ankle Joint
Tom Carter, BSC (HONS), MBCHB, MRCS (ED); Katrina Bell, MBBS; Samuel Mackenzie, MBBS; Marcus Hollyer, BSc; Emma Gill, BSc; Andrew Duckworth, MD PhD; Timothy White, MD

9:30am –9:40am **Discussion**

9:40am –9:50am **Refreshment Break**

9:50am –10:40am **SYMPOSIUM II: GUEST NATION (UNITED KINGDOM)**
Thromboprophylaxis an Update of Current Practice: Can We Reach a Consensus?
Moderators: William M. Ricci, MD
Keith Willett, MD, FRCS

9:50am **Overview**
William M. Ricci, MD

9:55am **Thromboprophylaxis after Pelvic/Acetabulum Fractures**
David C. Teague, MD

10:05am **Thromboprophylaxis after Hip Fractures**
Ney Amaral, MD

10:15am **Thromboprophylaxis after Knee Fractures**
John F. Keating, FRCSEd

10:25am **Thromboprophylaxis after Ankle/ Foot Fractures**
Timothy O. White, MD, FRCS

10:35am –10:40am **Discussion**

10:40am –11:12am **PAPER SESSION III: FOOT AND ANKLE**
Moderators: Victor A. de Ridder, MD, PhD and Hans-Christoph Pape, MD, FACS

10:40am **Paper 10**
Channel-Assisted Minimally Invasive Repair of Acute Achilles Tendon Rupture
Hua Chen, MD PhD; Peifu Tang, MD

10:46am **Paper 11**
Clinical and Functional outcome following Distal Tibial fracture treated by Circular External Fixation
Vasileios Giannoudis; Emma Ewins; Patrick Foster, MBBS; Martin Taylor, MBBS;
Paul J. Harwood, MBBS


10:52am **Paper 12**
Medial Malleolus Fixation in Combination with Fibular Intramedullary Nailing – Are We Wasting our Time?
Tom Carter, BSC (HONS), MBCHB, MRCS (ED); Samuel Mackenzie, MBBS; Katrina Bell, MBBS; Emma Gill, BSc; Marcus Hollyer, BSc; Andrew Duckworth, MD PhD; Timothy White, MD

10:58am **Paper 13**
Clinical and Radiographic Outcomes of 66 Talar Fractures
Paul Stirling, MBBS; Samuel Mackenzie, MBBS; Robbie Ray; Nicholas Clement; John Keating, MD

11:04am – 11:12am **Discussion**

11:12am – 11:25am **SPECIAL INTEREST LECTURE**
Minimal Invasive Approaches to Calcaneal Fractures: What Have We Learned?
 Ian Winson, MD

11:30am – 12:30pm **International Industry Lunch Symposium**
 West Ballroom CD (No CME credits offered)
 Moderators: Steven A. Olson, MD
 Peter V. Giannoudis, MD, FACS, FRCS

11:30am – 11:55pm  **ZIMMER BIOMET**
Zimmer Biomet N- Force Fixation Solutions
 Speaker: TBD

12:00pm – 12:25pm **Industry Lunch Symposium: TBD**

12:35pm – 1:50pm **JOINT COLLABORATION WITH BASIC SCIENCE FOCUS FORUM**
Joint Impact Injuries of the Lower Extremity
 Moderators: Peter V. Giannoudis, MD, FACS, FRCS and Joseph Borrelli Jr., MD

12:35pm **Overview**
 Peter V. Giannoudis, MD, FACS, FRCS

12:40pm **The Basic Science/Molecular Make-up and Response to Compression of Articular Cartilage**
 Joseph Borrelli Jr., MD

12:52pm **The Role of Residual Joint Instability in the Progression of PTOA?**
 Steven A. Olson

1:04pm **Modulation of Cartilage's Response to Injury: Can Chondrocyte Apoptosis be Reversed?**
 Peter V. Giannoudis, MD, FACS, FRCS

1:16pm **Effectiveness of Cellular and Growth Factors for the Treatment of Injured Articular Cartilage.**
 Emil H. Schemitsch, MD

1:28pm **Current Tissue Engineering Approaches to Regenerate Cartilage**
 James P. Stannard, MD

1:36pm – 1:50pm **Discussion**

1:50pm – 2:00pm **Break / Walk Back to ITCF Room**
 West Meeting Room | 118-120

2:00pm – 2:48pm **PAPER SESSION IV: FEMORAL FRACTURES**
 Moderators: Paul Duffy, MD
 Andrew David Duckworth, BSc, MSc, FRCSEd

2:00pm **Paper 14**
Validity of Utilizing the RUST Scoring System in Radiographic Evaluation of Femoral Shaft Fractures
Devin Conway, Doctoral Student; Billy Haonga, MD; Edmund Eliezer, MD; Saam Morshed, MD PhD; David Shearer, MD MPH

2:06pm **Paper 15**
Consolidation in Femoral Fractures: A cohort study in patients exposed and not exposed to bisphosphonates
 Francisco Nally, MD; Guido Carabelli; **Jorge D. Barla, MD;** Carlos Sancineto, MD

2:12pm **Paper 16**
Healing of Atypical Subtrochanteric Femur Fractures after Cephalomedullary Nailing: Which Factors Predict Union?
Jae-Woo Cho, MD; Chang-Wug Oh; Frankie Leung, MD PhD; Kichul Park; Merng Wong; Ernest Beng Kee Kwek, MD; Jong-Keon Oh, MD PhD

2:18pm – 2:24pm **Discussion**

2:24pm **Paper 17**
Does the Choice of Antegrade or Retrograde Approach to IM Nailing of Diaphyseal Femur Fractures Affect Progression of Knee Range of Motion in Settings that Lack Formal Physiotherapy?
Devin Conway, Doctoral Student; Billy Haonga, MD; Edmund Eliezer, MD; Saam Morshed, MD PhD; David Shearer, MD MPH

2:30pm **Paper 18**
Management and Outcomes of Periprosthetic Fractures of the Femur
Gunasekaran Kumar, MD, FRCS; Amy Berger, MS

2:36pm **Paper 19**
Intramedullary Nailing for Atypical Femoral Fracture with Excessive Anterolateral Bowing
Young-Chang Park, MD; Hyung Keun Song; Xuan Zheng; Kyu-Hyun Yang

2:42pm –2:48pm **Discussion**

2:48pm –3:13pm **SYMPOSIUM III**
Patella Fractures—My Preferred Method of Treatment
Moderators: David J. Hak, MD
Sushrut Babhulkar, MS ORTH, MCh ORTH

2:48pm **Comminuted Patella Fractures**
Daniel S. Horwitz, MD

2:58pm **Periprosthetic Patella Fractures**
Nigel T. Rossiter, FRCSEd

3:08pm –3:13pm **Discussion**

3:13pm –3:33pm **KEY NOTE LECTURE**
Keith Willett, MD, FRCS
Universal Care in Trauma: The International Perspective
Moderators: William M. Ricci, MD
Peter V. Giannoudis, MD, FACS, FRCS

3:33pm –3:43pm **Refreshment Break**

3:43pm –4:30pm **PAPER SESSION V:**
HIP FRACTURES
Moderators: Christian Krettek, MD, FRACS
Brent L. Norris, MD

3:43pm **Paper 20**
Evolution of a Combined Orthopaedic/Orthogeriatric Hip Fracture Service in a District Hospital: Key Lessons Learnt
Sandeep Deo, MD, Kareem Elsofay, MBBS

3:49pm **Paper 21**
Marked Deterioration in Living Status and Use of Aids After Operative Management of Hip Fractures in the Elderly
Emil H. Schemitsch, MD; Sheila Sprague; Martin Heetveld; Sofia Bzovsky, BSc; Diane Heels-Ansdell, BSc; Qi Zhou; Marc Swiontkowski, MD; Mohit Bhandari, MD; FAITH Investigators

3:55pm **Paper 22**
Analysis of Itertrochanteric Hip Fractures Failure –What Do Trauma Surgeons Agree Upon?
Yoram A. Weil, MD; Mariano Codesido; Rami Mosheiff; Meir Liebergall; Amal Khoury

4:01pm –4:06pm **Discussion**

4:06pm **Paper 23**
Early Clinical Experience with the SIGN Hip Construct
Justin Roth, DO; Brian Goldman, DO; John Schlechter, DO; Lewis Zirkle; David Shearer, MD MPH

4:12pm **Paper 24**
Use of Fully Threaded Cannulated Screws Decreases Femoral Neck Shortening after Fixation of Femoral Neck Fractures
Yoram A. Weil, MD; Rami Mosheiff; Amal Khoury; Meir Liebergall

4:18pm **Paper 25**
Unstable Intertrochanteric Fractures - Is the Best Plate a Nail?
Adam Tucker, MBBS; Kevin Donnelly, MBBS; Sinead McDonald; Andrew Foster

4:24pm –4:30pm **Discussion**

4:45pm –6:30pm **International Reception/ International Posters**
Ocean Foyer Level I

THURSDAY, OCTOBER 12

7:25am **Welcome**
Peter V. Giannoudis, MD, FACS, FRCS

7:30am –8:10am **SYMPOSIUM IV**
(Pelvic /Acetabular Non Unions): How I Do It
Moderators: Pierre Guy, MD
Michael T. Archdeacon, MD

7:30am **Sacral Non-Union**

7:40am **Pelvic Non-Union**
Christian Krettek, MD, FRACS

7:50am **Acetabular Non-Union**
Tim Chesser, FRCS

8:00am –8:10am **Discussion**

8:10am –8:35am **PAPER SESSION VI:**
UPPER EXTREMITY
Moderators: Steven A. Olson, MD
Takashi Mashusita, MD

8:10am **Paper 26**
From A Patient's Perspective: Long-term Results After Plate Fixation And Nonoperative Treatment For Displaced Midshaft Clavicular Fractures
Sarah Woltz, MD; Pieta Krijnen, PhD; Inger Schipper, MD, PhD

8:16am **Paper 27**
Proximal Humerus Reintervention After Open Reduction and Internal Fixation for Fracture: a Survivorship Analysis and Report on Patient Outcomes
Jason Strelzow, MD; Paul Stirling, MBBS; C. Robinson

8:22am **Paper 28**
Long-term Follow Up after Implantation of a Bipolar Radial Head Prosthesis vs. Osteosynthesis to Treat Complex Radial Head Fractures - A Matched Pair Retrospective Study
David Steimer, MD; Martin Panzica; Christian Krettek

8:28am –8:35am **Discussion**

8:35am –9:00am **PAPER SESSION VII: GENERAL TRAUMA TOPICS**
Moderators: Nikolaos K. Kanakaris, MD, PhD
Bertil Bouillon, MD, PhD

8:35am **Paper 29**
Long Term Results And Quality Of Life After Thoracoscopic Anterior Stabilization For Thoracolumbar Fractures In Patients Without Spinal Cord Injury
Arjen Smits, MD; Arwin Noor; Fred Bakker, MD, PhD; Jaap Deunk, MD, PhD; Frank Bloemers

8:41am **Paper 30**
Osseointegrated Implants for Trans Femoral Amputees: Radiographic Evaluation of Bone Remodelling
Jiao Jiao Li, PhD; William Lu, PhD; Munjed Al Muderis, MBBS, FRACS, FRCS

8:47am **Paper 31**
Inappropriate Weight Bearing after Surgical Treatment of the Lower Extremity Doesn't Influence the Number and Severity of Complications
Alexander M. Eickhoff, MD; Carina Fiedler; Raffael Cinteau, MD; Florian Gebhard, MD

8:53am –9:00am **Discussion**

9:00am –9:40am **SYMPOSIUM V**
Avascular Necrosis of Talus: Biological based therapies? Fusion or Replacement?
Moderators: Theodore Miclau III, MD
Florian T. Gebhard, MD, PhD

9:00am **Biological Based Therapy**
Edward J. Harvey, MD

9:10am **Fusion**
Roy Sanders, MD

9:20am **Replacement**
Richard E. Buckley, MD

9:30am –9:40am **Discussion**

9:40am –9:53am **Refreshment Break**

9:53am –10:25am **PAPER SESSION VIII: LOWER LIMB RECONSTRUCTION**
Moderators: Yan Wang, MD
Ross K. Leighton, MD

9:53am **Paper 32**
The Results of Membrane-Induced Osteogenesis in Posttraumatic Bone Defects
Jin-Kak Kim, MD; Jae-Woo Cho, MD; Do-Hyun Yeo, MD; Gi-Ho Moon, MD; Beom-Soo Kim, MD; Jong-Keon Oh, MD PhD

9:59am **Paper 33**
The Treatment Of Complex Paediatric And Adolescent Tibial Fractures With The Ilizarov Method
Juergen Messner, MD; Louise Johnson, Clinical Psychologist; Namal Perera, MBBS; Paul Harwood, MBBS; Martin Taylor, MBBS; Simon Britten, MBBS; Patrick Foster, MBBS

10:05am **Paper 34**
Functional Outcome of Intra-Articular Tibial Plateau Fractures: The Impact of Posterior Column Fractures
Juriaan Van Den Berg; Maike Reul, MD; Menno Nunes Cardozo; Anastasiya Starovoyt; Eric Geusens; Stefaan Nijs, MD, PhD; Harm Hoekstra, MD, PhD

10:11am **Paper 35**
Clinical Outcomes of Mini Plate Augmented Fixation in Complex Patellar Fracture
Jae-Woo Cho, MD; Jin-Kak Kim, MD; Beom-Soo Kim, MD; Do-Hyun Yeo, MD; Gi-Ho Moon, MD; Jong-Keon Oh, MD, PhD

10:17am –10:25am **Discussion**

10:25am –11:00am **SYMPOSIUM VI**
My Worst Case: When Things Go Wrong, Then What?
Moderators: Malcom Smith, MD
Henry Broekhuysse, MD

10:25am **Overview**
Malcolm Smith, MD

10:30am Hans-Christoph Pape, MD, FACS

10:45am TBD

11:00am **Adjourn to Industry Lunch Symposia**



ORTHOPAEDIC TRAUMA FOR PAs AND NPs

WEDNESDAY, OCTOBER 11
THURSDAY, OCTOBER 12

ORTHOPAEDIC TRAUMA FOR PAs AND NPs

JOSHUA L. GARY, MD | LORI K. REED, MD | DANIEL J. COLL, MHS, PA-C | DENNIS C. GREGORY, PA-C
2017 Program Chairs

WEDNESDAY, OCTOBER 11
THURSDAY, OCTOBER 12

Attendees of this activity can earn up to
14.50 AAPA Category I CME Credits™

TARGET AUDIENCE

This course is intended for PAs and NPs who are early on 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. ALL levels of experience PAs and NPs are invited to register and attend.

PAs and NPs 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.



This program has been reviewed and is approved for a maximum of 14.50 AAPA Category I CME Credits by the AAPA Review Panel. PAs should claim only those credits actually spent participating in the CME activity.

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

LEARNING OBJECTIVES

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

- Discuss compartment syndrome monitoring and treatment options.
- Discuss recognition of open fracture patterns and initial stabilization.
- Discuss incidence of osteoporosis, at risk patient populations, their evaluation and treatment.
- Review concepts of primary and secondary bone healing.
- Recognize fracture patterns to optimize provisional and definitive fixation.
- Identify pediatric elbow fracture types with indications for operative vs. non-operative treatment.
- Understand best practices in perioperative infection risk management.
- Review fixation techniques and indications for fracture stabilization.
- Discuss current advances in treatment of clavicle and proximal humerus fractures.
- Review the known intraoperative and post-operative complications of various techniques for amputations.
- Identify and review various surgical approaches, multiple implant/fixation options, and controversies in managing hindfoot injuries.
- Identify and review various surgical approaches, multiple implant/ fixation options, and controversies in managing ankle injuries.



WEDNESDAY, OCTOBER 11

7:00am – 7:05am	INTRODUCTION Joshua L. Gary, MD
7:00am – 9:00am 7:05am – 7:20am	GENERAL TOPICS I Compartment Syndrome Michael J. Beltran, MD
7:20am – 7:35am	Open Fractures Michael J. Gardner, MD
7:35am – 7:50am	Osteoporosis Debra Sietsema, PhD, RN
7:50am – 8:00am	Discussion
8:00am – 8:25am	Fracture Healing John A. Scolaro, MD
8:25am – 8:50am	Fixation Theories Bryan W. Ming, MD
8:50am – 9:00am	Discussion
9:00am – 10:00am 9:00am – 9:20am	GENERAL TOPICS 2 Common Pediatric Fractures (SCH, BBFA, Femur) Christine Ho, MD
9:20am – 9:40am	Musculoskeletal Infection James Black, MD
9:40am – 10:00am	Shaft Fractures (Humerus, Femur, and Tibia) Patrick Schottel, MD
10:00am – 10:15am	Refreshment Break
10:15am – 11:45am 10:15am – 11:45am	SKILLS LABS 1 AND 2 Femoral Nail Skills Lab Eric T. Miller, MD
10:15am – 11:45am	Lower Extremity/External Fixation Skills Lab Patrick Schottel, MD
11:45am – 1:15pm	LUNCH: Rules, Reimbursement, and Realities Tricia Marriott, PA-C
1:15pm – 2:30am 1:15pm – 1:35pm	UPPER EXTREMITY Shoulder Girdle Fractures (Clavicle, Proximal Humerus) Stephen Warner, MD
1:35pm – 1:55pm	Elbow Fractures (Distal Humerus, Radial Head, Terrible Triad) Patrick F. Bergin, MD
1:55pm – 2:15pm	Both Bones Forearm Fractures and Distal Radius TBD
2:15pm – 2:30pm	Discussion

2:30pm – 3:45pm

2:30pm – 2:50pm

2:50pm – 3:10pm

3:10pm – 3:30pm

3:30pm – 3:45pm

3:45pm – 4:00pm

4:00pm – 5:30pm

4:00pm – 5:30pm

4:00pm – 5:30pm

5:30pm – 6:30pm

PELVIS, HIP, AND KNEE

Pelvic Ring Disruption/ Acetabular Fractures

Cory A. Collinge, MD

Proximal Femur Fractures (Femoral Neck and IT Femur)

Clay A. Spitler, MD

Articular Injuries about the Knee (Distal Femur and Tibial Plateau)

Joshua L. Gary, MD

Discussion

Refreshment Break

SKILLS LABS 3 AND 4

Suturing Skills Lab

Drew T. Sanders, MD

Distal Humerus Plating Skills Lab

Patrick F. Bergin, MD

RECEPTION

THURSDAY, OCTOBER 12

7:00am – 8:15am

7:00am – 7:20am

7:20am – 7:40am

7:40am – 8:00am

8:15am – 8:30am

8:30am – 11:00am

8:30am – 9:00am

9:00am – 9:30am

9:30am – 10:00am

10:00am – 10:30am

10:30am – 11:00am

FOOT AND ANKLE

Ankle Fractures (Pilon and Rotational Ankle Injuries)

Lori K. Reed, MD

Hindfoot Fracture (Calcaneus and Talus Fractures)

Brigham Au, MD

Amputations

Daniel Stinner, MD, MAJ

Refreshment Break

CASE DISCUSSIONS

Dysvascular Extremities/ Mangled Limb

Joshua L. Gary MD

Polytrauma/Hemodynamically Unstable Pelvic Ring Disruption

Dennis C. Gregory, PA-C

Foot and Ankle Injuries: Urgencies vs Outpatient Injuries

Lori K. Reed, MD

The Other Side: Being the Patient

Daniel Coll, PA-C

OPEN DISCUSSION/ ADJOURN TO INDUSTRY LUNCH SYMPOSIA



RESIDENT COMPREHENSIVE FRACTURE COURSE

WEDNESDAY, OCTOBER 11
THURSDAY, OCTOBER 12
FRIDAY, OCTOBER 13

RESIDENT COMPREHENSIVE FRACTURE COURSE

MARCUS F. SCIADINI, MD / CARLA S. SMITH, MD

Program Chairs

WEDNESDAY, OCTOBER 11

THURSDAY, OCTOBER 12

FRIDAY, OCTOBER 13

COURSE DESCRIPTION

The Resident 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 and 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

Module Leaders:
Jennifer L. Bruggers, MD
Frank A. Liporace, MD

LECTURES

Topics

Distal Humerus

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

Anatomy and Radiographs Monteggia Fractures	Olecranon Fractures Terrible Triad
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Tibial Plateau

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

ORIF - Intramedullary Nailing Implant Position and Surgical Techniques	Anatomy Radiography
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CASE-BASED DISCUSSIONS

B3 Distal Femur Fracture Bicondylar Tibial Plateau Fracture Femoral Head Fracture Intra-Articular Distal Humerus Requiring Osteotomy Intercondylar Femur Fracture	Lateral Split Depression Tibial Plateau Fracture Monteggia Fracture vs. Transolecranon Proximal Humerus Fracture Terrible Triad Injury
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HANDS-ON SKILLS LAB

Olecranon Tension Band Wiring	Supracondylar Femur ORIF
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MODULE TWO DIAPHYSEAL

Module Leaders:
David B. Weiss, MD
Michael Leslie, DO

CASE-BASED DISCUSSIONS

Failed Fixation Intramedullary Nail Mechanics	Plate Mechanics Primary Bone Healing vs. Callus
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HANDS-ON SKILLS LAB

Bridge Plating Ulna Intramedullary Nailing Proximal Third Tibia Fracture	Open Reduction Internal Fixation Forearm Fracture
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MODULE THREE FOOT AND ANKLE

Module Leaders:
John P. Ketz, MD
Patrick Yoon, MD

LECTURES

Topics

Ankle Fractures Tibial Pilon Fractures	Talus Fractures Calcaneus
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CASE-BASED DISCUSSIONS

Classic Maissonneuve Injury Divergent Lisfranc Injury Hawkins II Talar Neck Fracture Hawkins II Talar Neck Fracture with Involvement of Talar Body High Energy AO/OTA 43C3 with Staged Treatment Low Energy Partial Articular	Multiple Displaced Metatarsal Shaft Fractures Sanders II Joint Depression with Soft Tissue Swelling Sanders IV Fracture with Blood Filled Blisters in 60 Year Old Roofer Who Smokes Trimalleolar Fracture With DTFS Injury
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HANDS-ON SKILLS LAB

Bridge Plating Ulna Intramedullary Nailing Proximal Third Tibia Fracture	Open Reduction Internal Fixation Forearm Fracture
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MODULE FOUR GERIATRIC

Module Leaders:
Gillian Soles, MD
Charisse Y. Sparks, MD

LECTURES

Periprosthetic Fracture Management Intertrochanteric Hip Fractures Osteoporosis Evaluation and Management	Femoral Neck Locked Plating Basics
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CASE-BASED DISCUSSIONS

Distal Humerus Distal Radius Femoral Neck	Intertrochanteric Periprosthetic Femur Fracture
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HANDS-ON SKILLS LAB

Distal Radius (Volar Locking Plate)	HIP IMN Sliding Hip Screw
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MODULE FIVE PEDIATRICS

Module Leaders:
Anthony I. Ricco, MD
R. Lane Wimberly, MD

LECTURES

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

CASE-BASED DISCUSSIONS

Pediatric BBFA Fractures Pediatric Elbow Fractures	Pediatric Femoral Shaft Fractures Pediatric Intra-articular Fractures
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HANDS-ON SKILLS LAB

Femur Fracture ESIN	SCH Fracture CRPP
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VIDEOS

Femur Fracture ESIN	SPICA Casting
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Presented in Partnership with the Pediatric Orthopaedic Society of North America



MODULE SIX POLYTRAUMA, PELVIS, AND ACETABLULUM

Module Leaders:
Conor P. Kleweno, MD
Attila Poka, MD

LECTURES

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

CASE-BASED DISCUSSIONS

APC-2 Pelvic Injury Open Fractures	Polytrauma/Damage Control
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HANDS-ON SKILLS LAB

ORIF PSD	Pelvic Ex-Fix
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VIDEOS

Circumferential Sheet Placement
for Pelvic Ring Injury



YOUNG PRACTITIONERS FORUM

THURSDAY, OCTOBER 12

YOUNG PRACTITIONERS FORUM

Lisa K. Cannada, MD and Jodi A. Siegel, MD
Program Chairs

THURSDAY, OCTOBER 12

Attendees of this activity can earn up to
6 AMA PRA Category I 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.

LEARNING OBJECTIVES

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

- Illustrate the fellowship application process and maximize the fellowship year experience
- Identify important strategies for building your career
- Describe an understanding of skills to succeed in a trauma practice
- Apply effective communication techniques

6:00am **Registration and Continental Breakfast**

6:30am – 6:35 am **Introduction**
Jodi A. Siegel, MD

6:36am – 6:43am **How to Be a Good Colleague...
Transitioning into Your First “Real Job”**
Paul Spencer Whiting, MD

6:44am – 6:55am **The Non-Surgical Aspects of Your Practice**
Robert F. Ostrum, MD

6:56am – 7:05am **How to Get What You Want in the OR**
Brian Matthew Weatherford, MD

7:06am – 7:15am **How to Deal with OR and Office Personnel**
James R. Ficke, MD, FACS

7:16am – 7:25am **How to Avoid Being a Statistic: 50–60%
of Surgeons Change Jobs within Their First
Year of Practice**
Simon C. Mears, MD, PhD

7:26am – 7:35am **If You are a Statistic:
Finding a New Job:
How to Navigate the Process**
Aaron M. Perdue, MD

7:36am – 7:46am **Financial Decision Making on the Job:
It All Adds Up**
Hassan Mir, MD, MBA, FACS

7:47am – 7:57am **Financial Decision Making at Home**
Alan L. Jones, MD

7:58am – 8:18am **Panel: Lessons Learned**
My First Week in Practice: Eric Swart, MD
My First Month in Practice: Emily Wagstrom, MD
My First Year in Practice: Michael J. Beebe, MD

8:19am – 8:29am **Q&A**

8:30am – 8:45am **Refreshment Break**

8:46am – 8:56am **Family Life Balance:
My Home Life is Affecting My Job**
Laura S. Phieffer, MD

8:57am – 9:07am **What it’s Like as a Hospital
Employed Physician**
John Kurylo, MD

9:08am – 9:28am **What it’s Like as a Community Trauma
Surgeon without Residents**
Jennifer L. Bruggers, MD

9:29am – 9:34am **Mapping Out Community Involvement:
How to Get Involved**
John J. Wixted, MD

9:35am – 9:41am **Mapping Out Society and AAOS Involvement**
Douglas W. Lundy, MD

9:42am – 9:47am **What Happened in the Match Last Year?**
Lisa K. Cannada, MD

9:48am – 9:57am **How to Approach the Fellowship Match**
Thomas A. Krupko, MD

9:58am – 10:07am **Succeeding as a Fellow**
Michael Jason Beebe, MD

10:07am – 10:15 **Q&A**

10:16am – 10:43am **Panel: What You Can’t Leave Your
Fellowship Without**

Panel:
Paul T. Appleton, MD
Kyle J. Jeray, MD
Eric Scott Moghadamian, MD
Jonathan H. Quade, MD
Matthew Rudhoff, MD

**What is Not Taught Unless You Ask - You Might Not Know to
Ask - AND Wish You Knew More About**

- Don’t Forget the Basic Ortho Cases
- Billing/Coding
- Setting Up Your Equipment Trays
- Clinical Protocols—What Do I Do
 - Weight Bearing After Injuries
 - Physical Therapy
 - Post-Op Drainage – What to Do
 - X-Ray Protocols – When/How Often
 - Injection Protocols

10:44am – 10:50am **Questions and Wrap Up**

11:00am **Adjourn to Industry Lunch Symposia**



INDUSTRY SYMPOSIA

WEDNESDAY, OCTOBER 11
THURSDAY, OCTOBER 12

INDUSTRY SYMPOSIA

INDUSTRY SYMPOSIA REGISTRATION

Meeting and course participants are invited to attend Industry Symposia at no additional charge.

- No CME credits earned for Industry Symposia.
- Industry Symposia FILL QUICKLY and may not be available to on-site registrants. Ensure your space – register early.
- Choose the Symposia in order of your preference on the registration form (Page 61).
- Check for new sessions and updated descriptions online.

WEDNESDAY, OCTOBER 11

6:30pm – 8:00pm

(IS01) Zimmer Biomet Industry Session I



Please check the online preliminary program at www.ota.org for current Industry Symposia information.

(IS06) Medtronic Industry Session



Clinical Experience and Best Practices for Utilizing Stealth Navigation and O-arm 3D Imaging for Orthotrauma Procedures

Session Speaker(s): Jeremie Larouche, MD

Dr. Jeremie Larouche will discuss how his practice has benefited from utilizing 3D navigation in orthotrauma cases. Pelvic orthotrauma procedure case studies will be presented to highlight the best practices for navigating utilizing the O-arm Imaging and StealthStation Navigation Systems. Dr. Larouche will also provide sawbone demonstrations of these best practices as well as optional hands on time to navigate pelvic orthotrauma procedures with the StealthStation.

THURSDAY, OCTOBER 12

11:15am – 12:45pm

(IS05) Smith & Nephew Industry Session



Current Strategies for Periarticular Tibia and Fibula Fractures

Session Speaker(s): Paul Tornetta, MD and William Ricci, MD

Attendees will learn the most up to date fixation techniques for distal and proximal tibia fractures by utilizing the EVOS Small Plating System in a sawbones lab.

(IS10) NuVasive Specialized Orthopedics, Inc. Industry Session



Please check the online preliminary program at www.ota.org for current Industry Symposia information.

(IS02) DePuy Synthes Industry Session I



Please check the online preliminary program at www.ota.org for current Industry Symposia information.

(IS03) DePuy Synthes Industry Session II



Please check the online preliminary program at www.ota.org for current Industry Symposia information.

(IS08) SI-BONE Session



TRAUMA AND THE SI JOINT

Session Speaker(s): Craig S. Bartlett, MD

Discuss advances in minimally invasive techniques for the problematic sacroiliac joint.

(IS04) Zimmer Biomet Session II



Please check the online preliminary program at www.ota.org for current Industry Symposia information.

(IS09) Skeletal Dynamics Session



Advances in the Management of the Unstable Elbow

Session Speaker(s): Douglas P. Hanel, MD

Review and discuss the kinematics and biomechanics of the forearm, concentrating on the role of soft tissue structures and how they affect forearm and elbow function. During this session, we will feature the IJS Elbow stabilization system which provides temporary subcutaneous stability between the distal humerus and proximal ulna in patients who have elbow instability allowing for early active motion and function of the elbow.



2017 ANNUAL MEETING

THURSDAY,
OCTOBER 12

FRIDAY,
OCTOBER 13

SATURDAY,
OCTOBER 14

2017 OTA ANNUAL MEETING

THURSDAY, OCTOBER 12

GENERAL SESSION

1:00pm – 1:20pm

**WELCOME AND
DONOR AWARDS**
Michael D. McKee, MD
Program Committee Chair

Kelly A. Lefaiivre, MD, Peter J. O'Brien, MD
and Pierre Guy, MD
Local Hosts

1:20pm – 2:50pm

**SYMPOSIUM I: Hot Off The Press - How Evidenced Based
Medicine Has Changed Fracture Treatment in 2017**

Moderator: Niloofar Dehghan, MD

Objectives:

- Discuss and highlight recently presented clinical trials in orthopaedic trauma.
- Explain evidenced based recommendations for the treatment of common fractures.
- Explain how to help change practice based on historic trends, to updated treatment strategies based on evidenced based medicine.

Description

The aim of this symposium is to highlight practice changing clinical trials conducted in the recent years, and provide clear evidenced based recommendations for the treatment of common fractures.

Presentations:

Open Fractures: Which Type of Fluid and Pressure is Best?

Ross K. Leighton, MD

Distal Clavicle Fractures: Should We Fix Them?

Jeremy Alan Hall, MD

AC Joint Injuries: When to Fix and When to Treat With a Sling?

Michael D. McKee, MD

Treatment of the Ulnar Nerve after Distal Humerus Fractures: Transpose or Leave in Situ?

Emil H. Schemitsch, MD

Non-operative Treatment of Olecranon Fractures In Elderly: It is Possible!

Andrew D. Duckworth, MD, PhD

Hip Fracture ORIF: Cannulated Screws or DHS?

Michael Blankstein, MD

Don't Be Afraid to Allow Early Weight Bearing After Ankle and Tibia Fracture Fixation!

Niloofar Dehghan, MD

Syndesmotic Ankle Injuries: When Do You Remove the Screws? Should We Use Tightrope Instead?

David W. Sanders, MD

Questions

2:50pm – 3:20pm

Refreshment Break
Exhibit hall opens at 2:30

3:20pm – 4:29pm

**PAPER SESSION I:
PROGRAM HIGHLIGHTS**
Michael D. McKee, MD
Michael J. Gardner, MD

Moderators:

3:20pm – 3:26pm

Paper 1
Improved Reduction of the Tibio-Fibular Syndesmosis with Tightrope compared to Screw Fixation: Results of a Randomized Controlled Study (COTS) Canadian Orthopaedic Trauma Society; **David W. Sanders, MD**; Prism Schneider, MD, PhD; Christina Tieszer, BSc, MSc; Abdel-Rahman Lawendy, MD; Michel Taylor, MD

3:26pm – 3:32pm

Paper 2
Fixation of Distal Tibia Fractures (UK FixDT): A Randomised Controlled Trial of "Locking" Plate Fixation Versus Intramedullary Nail Fixation in the Treatment of Adult Patients with a Displaced Fracture of the Distal Tibia Matthew Costa, PhD

3:32pm – 3:38pm

Paper 3
UK Wound management of Open Lower Limb Fractures (UK WOLLF) – A Randomised Controll Trial of Standard Wound Management versus Negative Pressure Would Therapy in the Treatment of Adult Patients with an Open Wound Fracture of the Lower Limb Matthew Costa, PhD

3:38pm – 3:43pm

Discussion

3:43pm – 3:49pm

Paper 4
Operative vs. Non-operative Treatment of Acute Displaced Distal Clavicle Fractures: A Multicentre Randomized Controlled Trial (COTS) Canadian Orthopaedic Trauma Society; **Jeremy Hall, MD**; Niloofar Dehghan, MD; Emil H. Schemitsch, MD; Aaron Nauth, MD; Robert Korley, MDCM; Robert McCormack, MD; Pierre Guy, MD; Steven Papp, MD; Michael D. McKee, MD

GENERAL SESSION

3:49pm – 3:55pm

Paper 5
Does Motion at 8 Weeks Predict Nonunion in Nonoperatively Managed Humeral Shaft Fractures: A Prospective Multicenter Evaluation
Paul Tornetta, III, MD;

Lisa K. Cannada, MD; Robert Hymes, MD; Clifford B. Jones, MD; Brian Mullis, MD; Eben Carroll, MD; Raymond Wright, MD; Andrew Marcantonio, DO; David C. Teague, MD; Robert Ostrum, MD; Michael Tucker, MD; Dirk Kiner, MD; Lauren Germany; Michael Del Core, MD; Sarah Dawson; Heidi Israel, PhD

3:55pm – 4:01pm

Paper 6
Multicenter Retrospective Analysis of Humeral Shaft Fractures: Are Sarmiento's Results Widely Reproducible?
Rafael Serrano, MD; Hassan Mir, MD; H. Claude Sagi, MD; Daniel Horwitz, MD; John Tidwell, MD; John Ketz, MD; Brian Kistler, MD; Jonathan Quade, MD; Michael Beebe, MD; Anjan Shah, MD

4:01pm – 4:07pm

Paper 7
The FaB (Fractures and Bisphosphonates) Trial: A Multi-Centre Double-Blind, Randomised Controlled Trial On The Effect Of Alendronic Acid On Healing And Clinical Outcomes Of Wrist Fractures
Andrew Duckworth, MD PhD; Christopher Tuck, BSc; Aryelly Rodriguez, MSc; Gordon Murray, PhD; Stuart Ralston, MD

4:07pm – 4:12pm

Discussion

4:12pm – 4:18pm

Paper 8
Costs and Complications of Single Stage Fixation Versus Two-Stage Treatment of Select Bicondylar Tibial Plateau Fractures
Walter Virkus, MD; Jesse Caballero, BS; Laurence Kempton, MD; Matthew Cavallero, MD, Rich Rosales, BS; Todd O. McKinley, MD; Greg Gaski, MD

4:18pm – 4:24pm

Paper 9
Locking Plate Fixation of Bicondylar Tibial Plateau Fractures Raises Treatment Costs without Clinical Benefit
Matthew Cavallero, MD; Rich Rosales, BS; Jesse Caballero, BS; Walter Virkus, MD; Laurence Kempton, MD; Todd O. McKinley, MD; Greg Gaski, MD

4:24pm – 4:30pm

Discussion

4:30pm – 5:10pm

SESSION OF GENERAL INTEREST
Building Strong Public Health Care: The Dangers of Monopoly and Bureaucracy
 Brian Day, MD

5:10pm – 6:10pm

OTA BUSINESS MEETING
 (Members Only)

5:10pm – 6:10pm

PRE-RECEPTION WITH EXHIBITORS
 (All Meeting Attendees Invited)

6:10pm – 8:10pm

WELCOME RECEPTION



GENERAL SESSION

7:45am – 9:29am

**PAPER SESSION II:
FOOT AND ANKLE**

Moderator:

Brett D. Crist, MD

7:45am – 7:51am

Paper 10
Single Screw Fixation Compared With Double Screw Fixation For Treatment Of Medial Malleolar Fractures: A Prospective Randomized Trial
Richard Buckley, MD FRCPC; Ernest Beng Kee Kwek, MD; Paul Duffy, MD; Robert Korley, MDCM; Emilia Moller, MD; Andrew Buckley; Prism Schneider, MD, PhD

7:51am – 7:57am

Paper 11
Weight-Bearing Or Non-Weight-Bearing After Surgical Treatment of Ankle Fractures, The WOW! Study: A Multicenter Randomized Controlled Trial
Diederik Smeeing, MD; Roderick Houwert; Jan Briet; Koen Lansink, MD, PhD; Loek Leenen, MD, PhD; Peer Van der Zwaal; Stephan Van Zuthpen; Bas Twigt; Jochem Hoogendoorn; Egbert Verleisdonk; Michiel Segers; Falco Hietbrink

7:57am – 8:03am

Paper 12
The AIM Trial Extended Follow-up: Three-year Outcomes from an Equivalence Randomized Clinical Trial Comparing Close Contact Casting with Internal Fixation Surgery for Unstable Malleolar Fractures in Patients Over 60 Years
Keith Willett, MBBS; David Keene, PhD; Robert Handley, MB BS; Tim Chesser, MBBS; Ian Pallister, MD; Dipesh Mistry, PhD; Susan Wagland, PhD; Scott Parsons, Ranjit Lall; Sallie Lamb, PhD

8:03am – 8:08am

Discussion

8:08am – 8:14am

Paper 13
An Immediate Weight-bearing Protocol for the Determination of Ankle Stability In Patients with Isolated Distal Fibular Fractures
Eric Bonness, MD; **Justin Siebler, MD;** Lori Reed, MD; Matthew Mormino, MD

CONCURRENT SESSION

6:30am –7:30am

COMPLEX BICONDYLARTIBIAL PLATEAU FRACTURES

Moderator: John Scolaro, MD

Faculty: Timothy Achor, MD
David Barei, MD
Samir Mehta, MD
Gilbert Ortega, MD
J. Tracy Watson, MD

Objectives:

- Anticipate and identify common fracture characteristics
- Develop a strategy for surgical reduction and fixation
- Recognize common pitfalls of management

Bicondylar tibial plateau fractures are complex injuries. Join our panel of experts to discuss the various surgical techniques that can be utilized to reduce and fix these difficult fractures.

6:30am –7:30am

REGISTRIES: WHAT CAN WE LEARN FROM THEM?

Moderator: Pierre Guy, MD

Faculty: Matthew Costa, FRCS, PhD
Brad Petrisor, MD
Cecilia Rogmark, MD
Boris Sobolev, MD

Objectives:

- Review the definition of a Registry
- Contrast the results of Registries vs RCTs in guiding clinical practice
- Integrate results of Registry data into clinical, economic, and administrative decision making

Registries are becoming an increasingly important part of the reported Orthopedic Trauma research landscape. This session will serve as a primer for Registries and will contrast them with RCTs.

6:30am –7:30am

EXPEDITED HIP FRACTURE MANAGEMENT

Moderator: Kyle Judd, MD, MS

Faculty: Damien Billow, MD
John T. Gorczyca, MD
Catherine Humphrey, MD
A. Alex Jahangir, MD
Daniel Mendelson, MD
Gillian Soles, MD

Objectives:

- Appropriate patient selection for expedited hip fracture care and principles of pre operative evaluation
- Effect of expedited hip fracture care on patient outcome
- Financial impact of expedited hip fracture care

A discussion of expedited hip fracture management and its impact on geriatric fracture care, including: financial implications for health care system, appropriate patient selection and how to operationalize an expedited hip fracture program.

8:00AM-9:00AM SKILLS LABS**DISTAL FEMUR PLATING****Lab Leader: Gerard P. Slobogean, MD****Lab Description**

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

Learning Objectives

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

SIGN FRACTURE CARE INTERNATIONAL**Lab Leader: Lewis G. Zirkle Jr., MD****Lab Description**

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

Learning Objectives

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

PILON FRACTURE PLATING**Lab Leader: John Scolaro, MD****Lab Description**

Pilon fractures are difficult to treat definitively. The unique bone topography often makes implant application challenging. In this lab, participants will review common fracture fragments and appropriate stabilization techniques

Learning Objectives

1. Recognize the typical fracture fragments associated with pilon fractures
2. Understand general potential reduction strategies for pilon fractures
3. Review currently available periarticular plating options available and the nuances associated with their application

1:15PM-2:15PM SKILLS LABS**DISTAL HUMERUS PLATING****Lab Leader: Lisa K. Cannada, MD****Lab Description**

In this lab, participants will review the relevant bony and soft tissue anatomy with respect to treating distal humerus fractures, and will cover common plating applications and pitfalls.

Learning Objectives

1. Understand the various common fracture patterns regarding distal humerus fractures.
2. Familiarize with the biomechanical data regarding plate type and position
3. Understand common plating applications with periarticular contoured plates

ANKLE SPANNING EXTERNAL FIXATION**Lab Leader: Julius A. Bishop, MD****Lab Description**

In this lab, participants will discuss indications and techniques for delta-frame ankle-spanning external fixator application

Learning Objectives

1. Understand the indications for ankle spanning external fixation
2. Recognize the pertinent soft tissue anatomy when placing pins
3. Understand mechanical factors to maximize strength of external fixator

IM NAILING OF PROXIMAL TIBIAL FRACTURES**Lab Leader: Paul Tornetta III, MD****Lab Description**

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

Learning Objectives

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

GENERAL SESSION

8:14am – 8:20pm

Paper 14
Rate of Syndesmotic Instability Following Anatomic Posterior Malleolar Fracture Open Reduction and Internal Fixation
 Matthew Miller, MD; Clay Spitler, MD; Matt Graves, MD; William Replogle, PhD; Josie Hydrick, BS; LaRita Jones, PhD;
Patrick Bergin, MD

8:20am – 8:26am

Paper 15
Posterior Malleolar Fracture Morphology Determines Outcome in Rotational Type Ankle Fractures: A Prospective Clinical Trial
Robin Blom, PhD Candidate;
 Diederik Meijer, MD; Robert-Jan De Muinck Keizer MD, PhD; Inger Sierevelt, MSc; Tim Schepers, MD, PhD; Sjoerd Stufkens, MD, PhD; Gino Kerkhoffs, MD, PhD; J.C. Goslings, MD, PhD; Job Doornberg, MD, PhD

8:26am – 8:31am

Discussion

8:31am – 8:37am

Paper 16
The Major Extremity Trauma Research Consortium– Multi-site Evaluation of a Custom Energy-Storing Carbon Fiber Orthosis for Lower Limb Trauma Patients with Residual Disability
Benjamin Potter, MD; Kevin Kuhn, MD; John Ferguson, Joseph Hsu, MD; Wade Gordon, MD; Johnny Owens, Jessica Rivera, MD; Robert Sheu, MD; Daniel Stinner, MD; Jason Wilken, PhD; Michael Bosse, MD; Jennifer DeSanto, RN MPH; Daniel Scharfstein, PhD; Yanjie Huang, MS; Ellen MacKenzie, PhD

8:37am – 8:43am

Paper 17
Limb Salvage and Amputation Outcomes Following Severe Distal Tibia and Hindfoot Injuries: A Multi-center Prospective Evaluation
Michael Bosse, MD; Lisa Reider, PhD; Joshua Gary, MD; Wade Gordon, MD; Daniel Scharfstein, PhD; Saam Morshed, MD PhD; Eben Carroll, MD; Reza Firoozabadi, MD; Jason Luly, MS; Clifford Jones, MD; Ellen MacKenzie, PhD; METRC OUTLET Study Team

CONCURRENT SESSION

6:30am –7:30am

MANAGING COMPLICATIONS IN FRACTURE SURGERY: A TRAUMA SURGEON'S GUIDE!

Moderator: Emil H. Schemitsch, MD

Faculty: Niloofar Dehghan, MD
 Michael D. McKee, MD
 Theodore Manson, MD
 Aaron Nauth, MD
 Benjamin Potter, MD

Objectives:

- When and how to restore function when complications occur after fracture surgery fails
- Evaluate the evidence around management of common complications of fracture surgery
- How to manage acute infection, nonunion, malunion, broken hardware, heterotopic ossification and arthritis after fracture fixation

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of complications following fracture management.

6:30am – 7:30am

PELVIS AND ACETABULUM FRACTURES

Moderator: Paul Tornetta, III, MD

Faculty: Reza Firoozabadi, MD
 David C. Templeman, MD
 Joshua Layne Gary, MD
 Cory A. Collinge, MD

Objectives:

Summarize initial management, identify operative treatment options, and outline expected outcomes of pelvic and acetabular fractures.

Description:

Cases presented highlight the initial management, operative treatment options, and expected outcomes of pelvic and acetabular fractures. Expert panel will provide personal insight and varying options for these injuries.

8:00am –9:30am

MANAGEMENT OF SCAPULAR FRACTURE

Moderator: William T. Obremsky, MD

Faculty: Clifford B. Jones, MD
 Paul Tornetta III, MD
 Peter Cole, MD

Objectives:

- Understand associated injuries with scapular fractures
- Comprehend and occasions for operative and nonoperative management
- Review technique for fixation of fractures and malunion of the scapula

We will discuss associated injuries and initial evaluation for associated injuries. Indications for operative and nonoperative treatment as well as techniques for fixation and results of malunion will be discussed.

GENERAL SESSION

8:43am – 8:49am	Paper 18 Calcaneal Avulsion Fractures in 34 Consecutive Patients Treated Over 16 Years at a Level One Trauma Center: An Injury Pattern Fraught with Soft-tissue and Bony Complications Phillip Mitchell, MD; David O'Neill, BA; Cory Collinge, MD
8:49am – 8:54am	Discussion
8:54am – 9:00am	Paper 19 Syndesmotic Disruption in Tibial Plafond Fractures: What Are The Risk Factors For Missing the Diagnosis? Justin Haller, MD; Michael Githens, MD; David Rothberg, MD; Thomas Higgins, MD; David Barei, MD; Sean Nork, MD
9:00am – 9:06am	Paper 20 Computerized Adaptive Testing for Patient Reporting Outcomes in Ankle Fracture Surgery Elizabeth Gausden, MD; Benedict Nwachukwu, MD; Ashley Levack, MD; Danielle Sin, MS; David Wellman, MD; Dean Lorich, MD
9:06am – 9:12am	Paper 21 Measuring Outcomes Over Time in Tibial Plafond Fractures: A Comparison of Generic, Musculoskeletal Specific and Foot and Ankle Specific Outcome Measures. Aresh Sepehri, MD; Kelly Lefavre, MD; Peter O'Brien, MD; Henry Broekhuysse, MD; Abdullah Mamun; Pierre Guy, MD
9:12am – 9:18am	Paper 22 Prophylaxis of Venous Thromboembolism in Patients With a Nonsurgical Fracture of the Lower Extremity Immobilized in a Below-Knee Plaster Cast; A Randomized Controlled Trial Marlieke Bruntink, MD; Yannick Groutars; Roelf Breederveld, MD, PhD; Wim Tuinebreijer; Robert Jan Derksen MD, PhD
9:18am – 9:24am	Paper 23 Determinants of Functional Outcomes following Ankle Fracture Megan Audet, BA; Chang-Yeon Kim, MD; Heather Vallier, MD
9:24am – 9:29am	Discussion
9:30am – 10:00am	Refreshment Break

CONCURRENT SESSION

8:00am –9:30am
AN OUTCOMES BASED APPROACH TO DISTAL RADIUS FRACTURE MANAGEMENT

Moderator: Raymond Pensy, MD

Faculty: Asif Ilyas, MD;
Jesse Jupiter, MD
David Ring, MD**Objectives:**

- Review rationale for operative criteria
- Review best RCTs in the treatment of distal radius fractures
- Managing complications of operative and non-operatively treated distal radius fractures

The distal radius fracture is among the most common and best studied fractures, with a growing number of RCT's available to better guide treatment.

8:00am –9:30am
MENTAL HEALTH IN ORTHOPAEDIC TRAUMA-PATIENTS AND PROVIDERS

Moderator: Anna N. Miller, MD

Faculty: Joseph Hsu, MD
Hassan Mir, MD
Jeffrey M. Smith, MD
Heather Vallier, MD**Objectives:**

- Understand mental health aspects that can affect patient care in orthopaedic trauma
- Understand mental health aspects that can affect providers and physician burnout in orthopaedic trauma
- Understand mental health aspects that can affect residents in orthopaedic trauma

Mental health has a strong influence on patient care at all levels of orthopaedic trauma. This symposium explores mental health research from caring for traumatized patients to avoiding physician burnout.

8:00am –9:30am
PERIPROSTHETIC FEMUR FRACTURES

Moderator: John T. Gorczyca, MD

Faculty: Catherine Humphrey, MD
Matthew Jimenez, MD
Kyle Judd, MD**Objectives:**

- To understand the basic principles of periprosthetic femur fracture treatment
- To understand when the basic principles won't work
- To learn innovative techniques for addressing complex periprosthetic fractures

A variety of simple and complex periprosthetic femur fractures will be presented and discussed to review basic principles and to learn when to use alternative techniques.

GENERAL SESSION

10:00am – 11:30am

SYMPOSIUM II: Changing the System: Can We Improve Trauma Care? Experience From the Guest Nation**Moderator:** Tim Chesser, MBBS**Objectives:**

- To describe the benefits of an integrated major trauma network.
- To explain how audit has been used to change standards and improve care in a nation for hip fractures and open fractures.
- To outline how a national trauma research network has been established and report on early results.

To describe the reorganisation of trauma care in the UK and the impact on patient outcome. Exploring the similarities and differences between health care systems of UK and North America.

Presentations:**Introduction**

John F. Keating, MD

Comparisons and Differences of Health Care Systems and Trauma Care Between UK and North America

Keith Willett, MBBS

Can We Improve The Outcome of Major Trauma Patients With a Trauma Network?

Christopher G. Moran, MD

Hip Fractures - Does Standardisation and Audit Make a Difference?

Tim Chesser, MBBS

Open Fractures - Centralisation of Care, What We Have Learnt

Michael Kelly, MBBS

Establishing a Multicentre Trauma Research Network - Early Results

Matthew L. Costa, PhD

Questions

11:30am – 12:00pm

JOHN BORDER, MD
MEMORIAL LECTURER
“OBSERVATIONS IN
INNOVATION”
 Roy Sanders, MD

12:10am – 1:10pm

LUNCH
New Member Luncheon
Women in Orthopaedic
Trauma Luncheon

12:25pm – 1:10pm

LUNCHTIME GUIDED
POSTER AND VIDEO TOURS
Foot/Ankle
 Guide: Paul Tornetta III, MD
Knee/Tibia
 Guide: Stephen A. Kottmeier, MD
Video
 Guide: TBD

CONCURRENT SESSION

8:00am –9:30am

MULTI-CENTER TRIALS IN ORTHOPAEDIC TRAUMA: LESSONS LEARNED**Moderator:** Gregory J. Della Rocca, MD, PhD, FACS**Faculty:** Mohit Bhandari, MD

Richard E. Buckley, MD, FRCPC

Robert V. O'Toole, MD

Paul Tornetta III, MD

Emil H. Schemitsch, MD

Objectives:

- Explain how to contemplate organization of multi-center trials for orthopaedic trauma
- Summarize how, as a new investigator or an investigator at a non-research institution, one can participate or lead a multi-center trial in orthopaedic trauma
- Describe the pitfalls encountered during the organization of multi-center trials in orthopaedic trauma

Multi-center clinical trials in orthopaedic trauma are needed for adequately powered results that can change practice. This symposium will discuss logistics and potential pitfalls of organizing such trials.

8:00am –9:30am

DISTAL HUMERUS FRACTURES: TIPS AND TRICKS**Moderator:** Utku Kandemir, MD**Faculty:** Milan Sen, MD

Michael J. Gardner, MD

Michael D. McKee, MD

Objectives:

- Understand pros and cons of different surgical approaches
- Summarize tips of reduction and fixation techniques
- Describe postoperative rehabilitation

Knowledge of surgical approaches, reduction and fixation techniques, and postoperative management is critical in order to achieve best outcome in distal humerus fractures.

1:15pm –2:45pm

THE COMING BUNDLE**Moderator:** Kenneth A. Egol, MD**Faculty:** Joseph Bosco, MD,

Roy Davidovitch, MD

A. Alex Jahangir, MD

Sanjit Konda, MD

Objectives:

- Understand the era of value based medicine and the current state of “bundle payments”
- Understand the impact of the “bundle payment” system on the trauma community particularly hip and femur fracture patients
- Summarize strategies to help prepare for continued changes in reimbursement for hip and femur fracture Medicare patients

This session will discuss the coming era of VBM and outline strategies for orthopaedic trauma surgeons to prepare for the coming changes in reimbursement for hip and femur fractures.

GENERAL SESSION

1:15pm – 2:24pm

Moderators:

**PAPER SESSION III:
PELVIS AND ACETABULUM**David W. Sanders, MD
David J. Stephen, MD

1:15pm – 1:21pm

Paper 24
Assessing Quality of Reduction after Acetabular Fracture Surgery: Importance of Gap versus Step Displacement
Diederik Verbeek, MD;
Jelle van der List, MD;
Camden Tissue, MD; David Helfet, MD

1:21pm – 1:27pm

Paper 25
Acetabular Fractures with a Posterior Dislocation: A 20 year Prospective Cohort Study
John Keating, MD; Issaq Ahmed, MD

1:27pm – 1:33pm

Paper 26
The Longitudinal Short, Medium, and Long Term Functional Recovery after Unstable Pelvic Ring Injuries
Michael Neufeld, MD; Kelly Lefavre, MD;
Peter O'Brien, MD; Pierre Guy, MD;
Abdullah Mamun; Henry Broekhuysen, MD

1:33pm – 1:38pm

Discussion

1:38pm – 1:44pm

Paper 27
Preperitoneal Pelvic Packing for Acute Hemorrhage Control is Not Associated With an Increased Risk of Infection After Anterior Pelvic Ring Fixation
Philip Stahel, MD; Clay Cothren Burlew, MD; Corey Henderson, MS;
Fredric Pieracci, MD; Ernest Moore, MD

1:44pm – 1:50pm

Paper 28
Contrast Blush on CT is a Poor Predictor of Active Bleeding on Pelvic Angiography
Andrew Do, BS; Benjamin Childs, BS;
Sarah Gael, MD; Heather Vallier, MD

1:50pm – 1:56pm

Paper 29
Does Reduction Technique for Pelvic and Acetabular Injuries Affect Trauma-Induced Coagulopathy? A Prospective, Cohort Study
Zackary Byrd, MD; Elizabeth Davis, MD;
Prism Schneider, MD PhD; Anabel Acuna, BS; April Vanderslice; Bryan Cotton, MD MPH; Milton Routt, MD;
Joshua Gary, MD

CONCURRENT SESSION

1:15pm – 2:45pm

COMPARTMENT SYNDROME: WHAT YOU NEED TO KNOW TO STAY OUT OF TROUBLE.

Moderator: Cyril Mauffrey, MD, FACS, FRCS

Faculty: David J. Hak, MD
Mark Hake, MD
Alan Johnstone, MD
Andrew Schmidt, MD**Objectives:**

- To understand the pathophysiology of compartment syndrome
- To review and discuss diagnostic modalities and their accuracies and pitfalls
- To discuss best practices and treatment strategies

The decision to take a patient to the OR is an inexact science. We focus on established research and experience of the speakers to review the topic and current practices.

1:15pm – 2:45pm

CONTROVERSIES IN PATIENT SAFETY AND ETHICS

Moderator: Douglas W. Lundy, MD

Faculty: Michael T. Archdeacon, MD;
John Campbell, MD
Samir Mehta, MD
Douglas Roger, MD, JD
Jeffrey M. Smith, MD
Wade R. Smith, MD
Philip Stahel, MD;
Todd Swenning, MD
Nirmal Tejwani, MD**Objectives:**

- Better understand the concepts and controversies concerning patient safety and advocacy.
- Better understand the legal ramifications of power of attorney, end of life issues and consent.
- Develop a better understanding of alternative views on the specific topics of concurrent room surgery, resident work hour restrictions, and conflict of interest disclosure as they pertain to your practice.

Regulatory and administrative hurdles raise challenges for surgeons in terms of patient safety and advocacy. This symposium takes an in depth look at the controversial topics related to patient safety.

1:15pm – 2:45pm

HOW TO USE RING FIXATORS (TSF AND ILIZAROV) FOR TIBIA FRACTURES

Moderator: Theodore Manson, MD

Faculty: Joseph Hsu, MD
Stephen Quinnan, MD
J. Tracy Watson, MD**Objectives:**

- Learn the basics of ring fixator application
- Summarize how to treat tibial plateau and pilon fractures using a ring fixator
- Describe how to use ring fixators to treat tibial bone loss

This course will allow the trauma surgeon to incorporate Ring Fixators (TSF and Ilizarov) into their practice for the treatment of tibial plateau, pilon and shaft fractures with bone loss.

GENERAL SESSION

1:56pm – 2:01pm	Discussion
2:01pm – 2:07pm	Paper 30 Percutaneous Transiliac–Transsacral Fixation of Sacral Insufficiency Fractures Improves Ambulation and Rate of Disposition to Home Joseph Walker, MD; Sean Mitchell, MD; Sean Karr, MD; Jason Lowe; Clifford Jones
2:07pm – 2:13pm	Paper 31 Fixation Strategy using Sequential Intraoperative Examination Under Anesthesia for Unstable LC Pelvic Ring Injuries Reliably Predicts Union with Minimal Displacement Frank Avilucea, MD; Michael Archdeacon, MD; Cory Collinge, MD; Marcus Sciadini, MD; H. Claude Sagi; MD; Hassan Mir, MD
2:13pm – 2:19pm	Paper 32 Unstable Pelvic Ring Fixation: How Soon Can Patients Safely Bear Weight? Lucas Marchand; Zachary Working, MD; Ajinkya Rane, MD; Abby Howenstein, MD; Iain Elliott, MD; Justin Haller, MD; David Rothberg, MD; Thomas Higgins, MD
2:19pm – 2:24pm	Discussion
2:24pm – 3:16pm	PAPER SESSION IV: UPPER EXTREMITY Moderators: Gregory J. Della Rocca, MD, PhD, FACS David C. Ring, MD, PhD
2:24pm – 2:30pm	Paper 33 Comparison of PROMIS to Legacy Patient Reported Outcome Scores in Upper Extremity Trauma Elizabeth Gausden; Danielle Sin, MS; Ashley Levack, MD; Andrew Nellestein, MS; Peter Fabricant, MD; David Wellman, MD; Dean Lorich, MD
2:30pm – 2:36pm	Paper 34 Randomized, Placebo–controlled Clinical Trial Evaluating Ketotifen Fumarate in Reduction of Post-traumatic Elbow Joint Contracture Prism Schneider, MD PhD; Nicholas Mohtadi MD, MSc; Tolulope Sajobi; Meng Wang; Neil White; Alexandra Garven, BSc; Kevin Hildebrand, FRCSC, MD

CONCURRENT SESSION

1:15pm –2:45pm
COMPLEX ELBOW FRACTURE DISLOCATIONS

Moderator: William T. Obremsky, MD

Faculty: Lisa K. Cannada, MD

Chad Corrigan, MD

Nilooofar Dehghan, MD

Michael D. McKee, MD

Emil H. Schemitsch, MD

Objectives:

- Recognize EBM principles of distal humerus fracture fixation
- Define how to improve fixation of proximal radius and ulna fractures
- Recognize and manage complex elbow dislocations

We will review complex elbow dislocations of the distal humerus, proximal radius and ulna as well as dislocations.

1:15pm –3:10pm
PEARLS AND PITFALLS IN ORIF OF PROXIMAL HUMERUS FRACTURES

Moderator: Utku Kandemir, MD

Faculty: Michael J. Gardner, MD

John T. Gorczyca, MD

Michael D. McKee, MD

Milan Sen, MD

Objectives:

- Illustrate of nonoperative vs operative treatment
- Review and pitfalls in simple and complex fracture patterns
- Review management and dealing with complications

While ORIF is the most common type of treatment when surgery is indicated in proximal humerus fractures, it is prone to complications associated with the surgical technique.

A case-based panel discussion will be held specifically addressing the indication of nonoperative and operative treatment, pearls and pitfalls of ORIF of simple and complex fracture patterns, intraoperative problems, and postoperative management.

GENERAL SESSION

2:36pm – 2:42pm

Paper 35
Radial Nerve Injury and Recovery After Humeral Nonunion Surgery
 Paul Tornetta, III, MD; **Justin Koh, MD**; Clifford B. Jones, MD; Joseph Walker, MD; Andrew Sems, MD; Sharul Saxena; Henry Boateng, MD; Kathleen Ringenbach, PhD; Clay Spitler, MD; Hassan Mir, MD; Shaan Patel; Reza Firoozabadi, MD; Kate Bellevue, MD; Daniel Horwitz, MD; Lisa K. Cannada, MD; Michael Bosse, MD; J. Stewart Buck, MD; Jerald Westberg, BA; Andrew Schmidt, MD; Laurence Kempton, MD; Andrew Marcantonio, DO; Peter Krause, MD; Matthew Delarosa, MD; Tayseer Shamaa, MD; Brian Mullis, PhD; Andrew Gudeman; Ross K. Leighton, MD Amro Alhoukail, MD; Saam Morshed, MD PhD; Abigail Cortez, BA; David W. Sanders, MD; Christina Tieszer, BSc, MSc

2:42pm – 2:47pm

Discussion

2:47pm – 2:53pm

Paper 36
Minimally Displaced, Isolated Radial Head Fractures Do Not Require Formal Physical Therapy: Results of a Prospective Randomized Trial
Jack Haglin, BS; Ariana Lott, BA; Rebekah Belayneh, MD; David Kugelman, BS; Abdullah Qatu, BS; Sanjit Konda, MD; Kenneth Egol, MD

2:53pm – 2:59pm

Paper 37
The Influence of Shortening on Clinical Outcome in Healed, Displaced, Midshaft Clavicle Fractures After Nonoperative Treatment
Ewan Goudie, MD; Nicholas Clement, MBBS; Iain Murray, PhD; C. M. Robinson, FRCS

CONCURRENT SESSION

3:45pm – 5:15pm

**WHAT TO DO WITH THE FRONT:
 ANTERIOR PELVIC RING MANAGEMENT**

Moderator: John Scolaro, MD
 Faculty: Jonathan Eastman, MD
 Reza Firoozabadi, MD
 Geoffrey Marecek, MD
 Milton Routt, MD
 Rahul Vaidya, MD
 Raymond Wright, MD

Objectives:

- Demonstrate how to determine anterior pelvic ring instability
- Define options and rationale for stabilization modalities of the anterior pelvic ring
- Summarize options and rationale for modality of stabilization
- Demonstrate techniques utilized for anterior pelvic ring fixation

The management of pelvic ring instability continues to elicit discussion and debate. Learn how to diagnose and stabilize the anterior pelvic ring from our experienced panel.

3:45pm – 5:15pm

**THE BLASTED DISTAL FEMUR FRACTURE:
 HOW TO IMPROVE OUTCOMES**

Moderator: Lisa K. Cannada, MD
 Faculty: Cory Collinge, MD
 Robert Hymes, MD
 Kyle Jeray, MD
 Thomas Jones, MD
 Erik Kubiak, MD

Objectives:

- Identify complications which can occur after Distal Femur Intraarticular Fractures
- Discuss techniques of fixation of severe distal femur fractures
- Summarize how to control the stiffness of the fixation construct

High energy distal femur fractures can present with severe comminution and bone loss. This symposia will discuss traditional and novel fixation techniques for this difficult fracture to minimize complications.

GENERAL SESSION

2:59pm – 3:05pm **Paper 38**
Proximal Humeral Fracture Fixation Using the PH Cage – A Retrospective Study of 125 Patients to a minimum of 6 months Post Treatment
 Eric Fulkerson, MD; Paul Paterson, MD

3:05pm – 3:11pm **Paper 39**
Reliability, Validity, Responsiveness, and Minimal Important Change of the Disabilities of the Arm, Shoulder and Hand and Constant-Murley Scores in Patients with a Humeral Shaft Fracture
 Kiran Mahabier, MD; Dennis Den Hartog, MD PhD; Nina Theyskens; Michael Verhofstad, MD PhD; Esther Lieshout, MSc; On behalf of HUMMER Investigators

3:11pm – 3:16pm **Discussion**

3:16pm – 3:46pm **Refreshment Break**
 Exhibit hall open 3:00pm–6:15pm

3:46pm – 5:30pm **PAPER SESSION V:
 WRIST, HAND, TIBIA
 AND PEDIATRIC**
 Moderator:
 David J. Hak, MD

3:46pm – 3:52pm **Paper 40**
Volar Internal Plate Fixation versus Plaster in Displaced Extra-Articular Distal Radius Fractures: a Randomized Controlled Trial
 Marjolein Mulders, MD;
 Monique Walenkamp, MD, PhD;
 J. Carel Goslings, MD, PhD;
 Niels Schep, MD, PhD

3:52pm – 3:58pm **Paper 41**
The Efficacy of Mini-C-Arm Fluoroscopy for the Closed Reduction of Distal Radius Fractures in Adults: A Randomized Controlled Trial
 Steven Dailey, MD; Ashley Miller, MD;
 Rafael Kakazu, MD; John Wyrick, MD;
 Peter Stern, MD

3:58pm – 4:04pm **Paper 42**
Vehicle Steering Errors and Reaction Time Following Distal Radius Fracture Surgical Fixation
 Lyle Jackson, MD; Michael Koerner, MD;
 Stephanie Tanner; Rebecca Snider;
 Jennifer McKay, OT; Johnell Brooks, PhD;
 Kyle J. Jeray, MD

CONCURRENT SESSION

3:45pm –5:15pm
DEVELOPING AND MAINTAINING A SUCCESSFUL CLINICAL RESEARCH PROGRAM

Moderator: Heather Vallier, MD
 Faculty: Mary Breslin, BA
 Julie Agel, ATC
 William T. Obrebsky, MD

Objectives:

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

This 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.

3:45pm –5:15pm
ORTHOAEDIC TRAUMA CODING

Moderator: Paul T. Appleton, MD
 Faculty: J. Scott Broderick, MD
 William R. Creevy, MD
 Brett D. Crist, MD
 M. Bradford Henley, MD

Objectives:

- Identify ICD10 updates
- Summarize CPT changes (closed fracture codes)
- Explain RVUs update committee(RUC)–valuation process
- Describe how CPT codes are created.

The seminar will be divided into several sections related to orthopaedic coding in trauma, including case presentations.



GENERAL SESSION

4:04pm – 4:10pm

Paper 43
Effectiveness of Postoperative Analgesic Immobilization in Patients with Distal Radius Fracture Treated with Volar Locking Plating: a Prospective, Randomized Clinical Trial
Fernando Andrade-Silva, MD PhD;
 Joao Rocha, MD; Adriana Carvalho, BSc;
 Kodi Kojima; Jorge Silva, MD PhD

4:10pm – 4:15pm

Paper 44
A Prospective Randomized Controlled Trial Comparing Open Reduction and Internal Fixation, Non-Spanning External Fixation, and Closed Reduction With Percutaneous Fixation for Dorsally Displaced Distal Radius Fractures
 Stephane Bergeron, MD MPH; Rudolf Reindl, MD; Edward Harvey, MD MsC;
 Hans Kreder, MD; Elham Rahme, PhD;
Gregory Berry, MD; Canadian Orthopaedic Trauma Society

4:16pm – 4:21pm

Discussion

4:21pm – 4:27pm

Paper 45
Role of the Fibula in Predicting Tibial Nonunions after Intramedullary Nailing
Robert Wojahn, MD;
 Amanda Spraggs-Hughes; Michael J. Gardner, MD; William M. Ricci, MD;
 Christopher McAndrew, MD, MS

4:27pm – 4:33pm

Paper 46
Incidence of Rotational Malalignment After Intramedullary Nailing of Tibial Fractures: Efficacy of Routine Post-Operative Computed Tomography
 Job Doornberg, MD PhD;
 Ruurd Jaarsma, MD PhD;
Nils Jan Bleeker, MSc

4:33pm – 4:39pm

Paper 47
Suprapatellar versus Infrapatellar Approach to IMN of Tibia Fractures: An Objective Measure of Knee Cartilage
Derek Donegan, MD;
 Kevin D'Aquilla, BS; Thomas Rose;
 Annamarie Horan, PhD; Patrick Hesketh, BS;
 Ravinder Reddy, PhD; Samir Mehta

4:39pm – 4:44pm

Discussion

CONCURRENT SESSION

3:45pm – 5:15pm

THE SMOOTH HIP FRACTURE ADMISSION – TOP 15 IN BEST EVIDENCE TO AVOID COMPLICATIONS

Moderator: Pierre Guy, MD
 Faculty: Stephen Kates, MD
 Eric Meinberg, MD
 Daniel Mendelson, MD

Objectives:

- At the end of this session participants will be able to:
- Explain the true medical reasons to delay a case
 - Discuss what implant should be used
 - Summarize the best models of care
 - Describe Ortho-geriatrics co-management?

This case-supported session will proactively address pre and post-op medical and surgical issues surrounding a hip fracture admission, promoting best practices and efficient models of care.



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GENERAL SESSION

4:44pm – 4:50pm

Paper 48
Is Continuous Near Infrared Spectroscopy a Reliable Method to Monitor Development of Acute Compartment Syndrome in Patients with Lower Leg Injuries?
Andrew Schmidt, MD; Michael Bosse, MD; Robert V. O'Toole, MD; Raymond Wright, MD; Vadim Zipunnikov, PhD; Junrui Di, PhD Candidate; Katherine Frey, MPH; Ellen MacKenzie, PhD; The Major Extremity Trauma Research Consortium

4:50pm – 4:56pm

Paper 49
Does Early Administration of Antibiotics After Open Tibia Fractures Really Decrease Infection Rates?
Steven Shannon, MD; Daniel Mascarenhas, BS; Manjari Joshi, MD; Daniel Connelly, BA/BS; Robert V. O'Toole, MD

4:56pm – 5:01pm

Discussion

5:01pm – 5:07pm

Paper 50
Best Trauma Paper at the 2017 POSNA Annual Meeting
What is an "Acceptable Reduction" for Supracondylar Humerus Fractures in Children?
Unni Narayanan FRCSC; William Wood MD; Tony Tan; James Turner; Anshika Gangwar MD, Martin Gargan, MD



5:07pm – 5:13pm

Paper 51
Single versus Both Bone Fixation: A Retrospective Review of 10 Years of Pediatric Forearm Fractures
Ashley Miller, MD; Tyler Keller; Kevin Little, MD

GENERAL SESSION

5:13pm – 5:19pm

Paper 52
The Utility of Intra-Operative Arthrogram in the Management of Pediatric Lateral Condyle Fractures of the Humerus
John Vorhies, MD; Shawn Funk, MD; Marilyn Elliott, BS; Anthony Riccio, MD; Brandon Ramo, MD

5:19pm – 5:25pm

Paper 53
Is Less More? Assessing the Value of Early Clinical and Radiographic Follow-Up for Operative Supracondylar Humerus Fractures
Rachel Thompson, MD; Elizabeth Hubbard, MD; Marilyn Elliott, BS; Anthony Riccio, MD; Daniel Sucato, MD, MS

5:25pm – 5:30pm

Discussion

4:30pm – 6:00pm

SPEED MENTORING

Lisa K. Cannada, MD
 Michael T. Archdeacon, MD

This session is geared towards young practitioners, residents and fellows that would benefit from the knowledge of OTA faculty that have been practicing for a number of years.

- 15 minute Panel to discuss work-life balance
- Followed by the 6 round table discussion topics:
 1. Contract Negotiations
 2. Building a Clinical Practice
 3. Research
 4. Organization / Time
 5. How to Allocate your Time-Clinical
 6. Being a Boss

Registration for this event is free.

5:30pm – 6:30pm

MILITARY RECEPTION

5:35pm – 6:20pm

SUDS N' SCIENCE GUIDED POSTER AND VIDEO TOURS

Upper Extremity
 Guide: Michael D. McKee, MD

General Interest

Guide: Michael J. Gardner, MD

Video Tour

Guide: TBD

GENERAL SESSION

7:30am – 9:00am

SYMPOSIUM III: Managing Infection in Orthopaedic Trauma: Reaching Consensus and the Role of Emerging Technologies

Moderators: Robert V. O'Toole, MD
Emil H. Schemitsch MD

Objective:

- Generate consensus around standard definitions of the infected fracture
- Develop agreement regarding best evidence for management of infected fractures
- Assess best evidence for the use of adjuncts to eradicate infection after fracture fixation

Description

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of infected fractures. There are a host of technologies on the horizon or nearing clinical application that show great promise for the future of diagnosing and treating orthopaedic trauma infections.

Presentations:

Introduction

Emil H. Schemitsch, MD

The Infected Fracture: Can We Agree on Standard Definitions?

Cyril Mauffrey, MD, FACS, FRCS

Diagnosing Infection in Orthopaedic Trauma: We Have a Problem!

Robert V. O'Toole, MD

Infection Diagnosis, Treatment, and Prevention Technologies on the Horizon

Mark E. Shirliff, PhD

Hardware Considerations: When and How to Remove or Revise the Fixation!

Paul Tornetta III, MD

Acute and Chronic Infection: Is There a Gold Standard for Management of the Wound and Bone Defect?

Peter V. Giannoudis, MD, FACS, FRCS

Question, Answer and Case Discussion

CONCURRENT SESSION

6:30am –7:30am

MANAGEMENT OF DISTAL TIBIA FRACTURES: PEARLS AND PITFALLS

Moderator: Derek Donegan, MD
Faculty: Frank Liporace, MD
Stephen Quinnan, MD
John Scolaro, MD
Heather Vallier, MD

Objectives:

- Recognize common challenges of distal tibia fractures
- Learn to evaluate and select the most appropriate fixation strategy
- Acquire surgical pearls for successful reduction and fixation

Join our panel of experts as they address the current controversies regarding fixation of distal tibia fractures. Learn the surgical techniques used to maximize successful management of these injuries.

6:30am –7:30am

STAY OUT OF TROUBLES IN OPERATIVE PEDIATRIC FRACTURES

Moderator: Stephen Heinrich, MD
Faculty: Amir Abdelgawad, MD
Ahmed Thabet Hagag, MD
Enes Kanlic, MD

Objectives:

- Summarize how to stay out of troubles in pediatric elbow fractures
- Describe tips and tricks in management pediatric femur fractures
- Compare operative vs nonoperative treatment for pediatric forearm fractures

Description

Our goal is to discuss the indications for operative treatment of pediatric fractures. We will present tips and pitfalls in operative management of pediatric fractures including elbow, femur and forearm.

6:30am –7:30am

CHALLENGES IN INTERTROCHANTERIC HIP FRACTURES

Moderator: Theodore Manson, MD
Faculty: Eben Carroll, MD
Cyril Mauffrey, MD, FACS, FRCS

Objectives:

- Describe the latest controversies in implant selection for intertrochanteric hip fracture management
- Summarize techniques for improving the reduction of intertrochanteric and pertrochanteric fractures.
- Recommend salvage techniques should initial fracture fixation fail

This course will address implant selection and reduction techniques for both routine and challenging intertrochanteric and pertrochanteric fractures. In addition, salvage options should fracture fixation fail will be addressed.

GENERAL SESSION

9:00am – 10:38am

**PAPER SESSION IV:
POLYTRAUMA AND POST
TRAUMATIC RECONSTRUCTION**

Moderator:

Michael D. McKee, MD

9:00am – 9:06am

Paper 54
Incidence of Complications and Mortality in Polytrauma Patients Managed Either with ETC or DCO: Lessons Learned
Siddharth Shah, MBBS;
Michael McArdle,
Peter V. Giannoudis, MD, FACS, FRCS

9:06am – 9:12am

Paper 55
Extremity Trauma Results in Severe Coagulopathy and Impaired Fibrinolysis Based on Serial Rapid Thrombelastography
Prism Schneider, MD PhD;
Ioannis Liras; Ellie Rahbar, PhD;
Mark Prasarn, MD; Joshua Gary, MD;
Bryan Cotton, MD, MPh

9:12am – 9:18am

Paper 56
The Early Immunologic Response in Multiply Injured Patients with Orthopaedic Injuries is Associated with Organ Dysfunction
Greg Gaski, MD; Cameron Metzger, BS;
Robert Wessel, MD; Jeremy Adler, BS;
Tyler McCarroll, BS; Andrew Cutshall, BS;
Yoram Vodovotz, PhD; Timothy Billiar, MD;
Todd O. McKinley, MD

9:18am – 9:23am

Discussion

9:23am – 9:29am

Paper 57
Significant Reduction of Pulmonary Embolism in Orthopaedic Trauma Patients
Adam Starr, MD; **Zachary Shirley, MD;**
Michael Cripps, MD; Patrick Sutphin,
MD PhD; Gene Hu, BS; Drew Sanders, MD;
Brigham Au, MD; Ashoke Sathy, MD;
Aaron Gebrelul, MD;
Alexander Eastman, MD

9:29am – 9:35am

Paper 58
Limitations in Upper Extremity Weight-bearing Increase Length of Stay in Polytraumatized Patients
Ida Leah Gitajn, MD; Nicole Krum, OT;
Nathan O'Hara; Gerard P. Slobogean, MD;
Robert V. O'Toole, MD, MD;
Raymond Pency, MD

CONCURRENT SESSION

6:30am –7:30am

SOFT TISSUE MANAGEMENT OF THE MANGLED UPPER AND LOWER EXTREMITY

Moderator: Raymond Pency, MD

Faculty: John Ingari, MD

Asif Ilyas, MD

Daniel A. Osei, MD

Objectives:

- Outline Temporizing and Definitive Skeletal Fixation
- Understand Methods and Timing for Temporizing and Definitive Vascular Reconstruction
- Outline Techniques for Soft Tissue Coverage and Management

The mangled upper extremity is a daunting surgical challenge. A solid foundation in the methods for acute and definitive fixation, revascularization, and soft tissue coverage are integral to functional recovery.

6:30am –7:30am

PELVIC RING DISRUPTION CASE CONTROVERSIES: DIAGNOSIS AND TREATMENT

Moderator: Jason Nascone, MD

Faculty: Pierre Guy, MD

Robert V. O'Toole, MD

H. Claude Sagi, MD

Adam Starr, MD

Objectives:

- Improve understanding of current diagnostic techniques to assess pelvic stability and level of injury
- Increase appreciation of management controversies of pelvic ring disruptions
- Increase understanding of current literature with regards to pelvic ring disruptions

Case-based discussion emphasizing diagnostic and management controversies of pelvic ring disruptions. Experts in management of these injuries will discuss diagnosis and management in an interactive case-based panel discussion.

GENERAL SESSION

- 9:35am – 9:41am **Paper 59**
Extra-articular Malunions and Nonunions of the Scapula: A Comparison of Functional Outcome Before and After Reconstruction
Joseph Schirmers, MD; Jeff Gilbertson; Lisa Schroder; Joscelyn Tatro; Peter Cole, MD
- 9:41am – 9:46am **Discussion**
- 9:46am – 9:52am **Paper 60**
Timing of Definitive Fixation With Respect to Flap Coverage in Open Tibia Fractures
Paul Tornetta, III, MD; **Casey Kuripla, MD;** Justin Koh, MD; Andrew Sems, MD; Tayseer Shamaa; Hassan Mir, MD; Benjamin Streufert; Clay Spitler, MD; Heather Vallier, MD; Debi Sorg; Brian Mullis, MD PhD; Brian McGowan; John Weinlein, MD; Lisa K. Cannada, MD; Jonathan Charlu; Jerald Westberg, BA; Emily Wagstrom; Saam Morshed, MD PhD; Abigail Cortez, BA; Peter Krause, MD; Andrew Marcantonio, DO; Gillian Soles, MD; Jason Lipof, MD
- 9:52am – 9:58am **Paper 61**
Rates of surgical site infection after open fractures: findings of the UK Wound management of Open Lower Limb Fractures (WOLLF) trial.
James Masters, MB, BS; Julie Bruce, PhD; Nick Parsons; Matthew Costa, PhD
- 9:58am – 10:04am **Paper 62**
Impact of Management on Reoperation Rates in Gustillo-Anderson Grade III Open Fractures of the Lower Limb
Pieter Vermaak, Luke Parsons; Fergus Liggins; Miguel Fernandez, MBBS; Joseph Hardwicke, Jayne Ward, MBBS
- 10:04am – 10:09am **Discussion**
- 10:09am – 10:15am **Paper 63**
NURD 2.0: Prediction of Tibial Non-Union at Any Time within 3 Months of Injury
Robert V. O'Toole, MD; Josef Jolissaint, BS; Kevin O'Halloran, MD; Anthony Carlini, MS; Keir Ross, BS; Justin Fowler, MD; Renan Castillo, PhD

CONCURRENT SESSION

- 9:00am – 10:30am**
SHOULDER GIRDLE INJURIES: OPTIMIZING DECISION MAKING AND SURGICAL MANAGEMENT IN 2017
Moderator: Emil H. Schemitsch, MD
Faculty: Peter Cole, MD
Niloofer Dehghan, MD
Clifford B. Jones, MD
Frank Liporace, MD
Aaron Nauth, MD

Objectives:

- Conclude which clavicle fractures and shoulder girdle injuries need surgery
- Summarize how to optimize fixation of shoulder girdle injuries when surgery is indicated
- Explain how to manage complications following shoulder girdle surgery

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of shoulder girdle injuries.

9:00am – 10:30am
FRAGILITY FRACTURES AND BONE HEALTH: CURRENT STATE OF THE ART

Moderator: Michael J. Gardner, MD
Faculty: Kenneth A. Egol, MD
Kyle J. Jeray, MD
Clifford B. Jones, MD
Joseph Lane, MD

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

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.

GENERAL SESSION

10:15am – 10:21am **Paper 64**
Delay in Flap Coverage For Type IIIB/C Open Tibia Fractures Increases Complications: A Cohort Study from the Trauma Quality Improvement Program
Daniel Pincus, MD; James Byrne, MD; Avery Nathens; Anna Miller, MD; Philip Wolinsky, MD; David Wasserstein, MD; Bheeshma Ravi; Steven Borland; Richard Jenkinson, MD

10:21am – 10:27am **Paper 65**
Treatment of Bone Defects in Open Tibia Fractures Treated with an IMN
Raymond Wright, MD; Paul Tornetta, III, MD; Saam Morshed, MD PhD; Robert V. O'Toole, MD; Joseph Hsu, MD; Ellen MacKenzie, PhD; Katherine Frey, MPH; Michael Bosse, MD; Jason Luly, MS

10:27am – 10:33am **Paper 66**
Predictors of Complications in Severe Open Fractures
Ida Leah Gitajn; Sheila Sprague, PhD; Brad Petrisor, MD; Kyle Jeray, MD; Nathan O'Hara; Jason Nascone, MD; Mohit Bhandari, MD; Gerard P. Slobogean, MD

10:33am – 10:38am **Discussion**

10:38am – 11:08am **Refreshment Break**

11:08am – 12:40pm **PAPER SESSION VII: GENERAL INTEREST**
Moderators: Michael J. Gardner, MD
Stephen A. Kottmeier, MD

11:08am – 11:14am **Paper 67**
Wound Infections Following Implant Removal Below the Knee: the Effect of Antibiotic Prophylaxis; Results of the WIFI-trial, a Multi-center Randomized Controlled Trial.
Siem Dingemans, MD; Manouk Backes, MD; J. Carel Goslings, MD PhD; Tim Schepers, MD, PhD

CONCURRENT SESSION

9:00am – 10:30pm **DISPLACED FEMORAL NECK FRACTURES – WHAT IS THE EVIDENCE?**

Moderator: John T. Gorczyca, MD
Faculty: Catherine Humphrey, MD
Robert Dunbar, MD
Kyle Judd, MD
Gillian Soles, MD
David Stephen, MD

Objectives:

- Summarize how to evaluate the femoral neck fracture patient for lifestyle and expectations
- Explain when best to use each of the various treatment options
- Outline some tips and tricks for treating displaced femoral neck fractures

This symposium will critically review the science available regarding displaced femoral neck fractures in patients of all ages and mechanisms.

9:00am – 10:30am **ANTERIOR APPROACHES TO THE ACETABULUM: CAN WE ALL JUST GET ALONG?**

Moderator: Jason Nascone, MD
Faculty: Pierre Guy, MD
Keith Mayo, MD
Marcus F. Sciadini, MD

Objectives:

- Explain the evolution of the ilioinguinal and anterior intrapelvic approaches
- Summarize Ways to Increase Visualization and Access with Both Iliioinguinal and Anterior Intrapelvic Approach

Much debate exists regarding optimal approach to anterior acetabular fracture patterns. The evolution of the ilioinguinal and anterior intrapelvic approach brings these two exposures much closer together yet differences remain.

10:40am – 12:10pm **NEXT LEVEL: 8 PRACTICES FOR SURGEON WELLNESS**

Moderator: Jeffrey M. Smith, MD
Faculty: James Ficke, MD
Wade R. Smith, MD
Philip Stahel, MD
Todd Swenning, MD

Objectives:

- Summarize the 8 PRACTICES of Highly Successful Surgeons and understand why knowledge of these are your empowerment to create a sustainable and fulfilling surgical practice.
- Demonstrate specific strategies to deal with common challenges in a surgical practice.
- Discuss interactively the process of goal setting for fairly complex problems, so that attendees will have proactive plans for implementing their performance improvement plan.

This is an advanced format progressing some of the critical skills for creating a highly successful lifestyle-friendly practice.

GENERAL SESSION

- 11:14am – 11:20am **Paper 68**
Screening For and Treating Intranasal Staphylococcus Carriage Correlates with Reduced Surgical Site infections Complicating Operative Fracture Repair
Abigail Cortez, BA; James Burns, MS; Moses Lee, BA; Mariya Samoylova, BS; Eleni Berhaneselase, BA; Pouriya Ghayoumi, MD; Alexander Theologis, MD; Saam Morshed, MD PhD
- 11:20am – 11:26am **Paper 69**
Decreased Time to Antibiotic Prophylaxis for Open Fractures at a Level One Trauma Center
Joseph Johnson, MD; Avi Goodman, MD; Adam Haag, MD; Roman Hayda, MD
- 11:26am – 11:32am **Paper 70**
Diagnostic Accuracy of Various Modalities Relative to Open Bone Biopsy for Detection of Long Bone Posttraumatic Osteomyelitis
Vivek Chadayammuri, BS; Herbert Benoit; Jiandong Hao; Juan Quispe; Ji-Wan Kim, MD; Heather Young; Mark Hake, MD;
Cyril Mauffrey, MD , FACS, FRCS
- 11:32am – 11:37am **Discussion**
- 11:37am – 11:43am **Paper 71**
Significant Reduction of Intraoperative Material Costs Through Surgeon Intervention
Laurence Kempton, MD;
Todd O. McKinley, MD; Greg Gaski, MD; Anthony Sorkin, MD; Walter Virkus, MD
- 11:43am – 11:49am **Paper 72**
Operative Treatment Of Tibial Plateau Fractures: Does A Sub-meniscal Arthrotomy Improve Long Term Patient Outcome? A Prospective Surgeon Randomized Clinical Trial
Richard Buckley, MD FRCPC;
Paul Duffy; Robert Korley, MDCM; Emilia Moller, MD; C. Ryan Martin, MD; Rafael Gallino, MD;
Prism Schneider, MD, PhD
- 11:49am – 11:54am **Discussion**

CONCURRENT SESSION

10:40am – 12:10pm
LIMB RECONSTRUCTION AND AMPUTATION IN CRISIS AND CONFLICT RELATED INJURIES

Moderator: Daniel Stinner, MD
Faculty: Michael Beltran, MD
Jowan Penn-Barwell, MBBS
Joseph Hsu, MD

Objectives:

- Describe the orthopaedic surgeon's role in resuscitation and basic principles of the physiology following penetrating trauma.
- Apply new tips and tricks for soft tissue management to minimize infection following severe extremity trauma.
- Summarize the principles in decision making when pursuing either limb salvage or amputation following crisis or conflict injuries.

High-energy injuries continue to be the primary source of morbidity in survivors of crisis and conflict. We will demonstrate techniques to limit infection and reconstruct bone defects when possible.

10:40am – 12:10pm
THE TREATMENT OF PERI-PROSTHETIC FRACTURES IN 2017: CAN WE REACH A CONSENSUS?

Moderator: Emil H. Schemitsch, MD
Faculty: George Haidukewych, MD
Michael D. McKee, MD
Aaron Nauth, MD
William M. Ricci, MD
Andrew Schmidt, MD

Objectives:

- Describe the advantages and disadvantages of various fixation strategies for peri-prosthetic fractures of the lower extremity.
- Explain the role of revision arthroplasty in managing peri-prosthetic fractures about a THA and TKA.
- Define how to manage peri-prosthetic fractures of the upper extremity.

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.

10:40am – 12:10pm
FEMORAL NECK FRACTURES IN THE YOUNG ADULT: ARE WE GETTING BETTER?

Moderator: Cory Collinge, MD
Faculty: Hassan Mir, MD
Christopher McAndrew, MD
John Scolaro, MD

Objectives:

- Explain the pathoanatomy and mechanics of this injury
- Describe how to create a treatment plan that may maximize chances for clinical success
- Discuss complications of this injury and how to deal with them

The mechanics of the vertical neck fracture create treatment problems and unique complications. Solutions are just now evolving that appear to be improving clinical results.

GENERAL SESSION

11:54am – 12:00pm	<p>Paper 73 Sleep Disturbance in Orthopaedic Trauma Patients Matthew Swann, MD; Miles Batty, BS; Gene Hu, BS; Thomas Mitchell, BS; Hayden Box, MD; Adam Starr, MD</p>
12:00pm – 12:06pm	<p>Paper 74 Inpatient Compliance with Venous Thromboembolism Prophylaxis in Orthopaedic Trauma: A Pragmatic Randomized Controlled Trial of Aspirin vs. Low Molecular Weight Heparin Bryce Haac, MD; Richard Van Besien, BA; Nathan O'Hara; Gerard Slobogean, MD; Deborah Stein, MD MPH; Robert V. O'Toole, MD; Theodore Manson, MD</p>
12:06pm – 12:12pm	<p>Paper 75 Tranexamic Acid Use in High Energy Pelvic, Acetabular, and Femoral Fractures Clay Spitler, MD; Elliot Row, MD; Warren Gardner, MD; Michael Hankins; Rachel Swafford, MPH; Peter Nowotarski, MD; Dirk Kiner, MD</p>
12:12pm – 12:17pm	<p>Discussion</p>
12:17pm – 12:23pm	<p>Paper 76 How to Best Measure Changes in Clinical Status over Time: An Analysis of the Performance of Generic and Musculoskeletal Specific Functional Outcome Measures in Single Injury and Multiple Injury Patients Graham Sleat, Kelly Lefavre, MD; Pierre Guy, MD; Henry Broekhuysse, MD; Abdullah Mamun; Peter O'Brien, MD</p>
12:23pm – 12:29pm	<p>Paper 77 Early Effects of the Trauma Collaborative Care Intervention: Results from a Prospective Multicenter Cluster Clinical Trial Stephen Wegener, PhD; Kristin Archer, P; Michael Bosse, MD; Eben Carroll, MD; Joshua Gary, MD; Clifford Jones, MD; Anna Newcomb, PhD; Andrew Pollak; Debra Sietsema, PhD; Heather Vallier, MD; Renan Castillo, PhD; Susan Collins, MSc; Katherine Frey, MPH; Yanjie Huang, MS; Daniel Scharfstein, PhD; Ellen MacKenzie, PhD; METRC Major Extremity Trauma Research Consortium</p>

CONCURRENT SESSION

1:40pm –3:10pm
COMPLEX KNEE DISLOCATIONS
Moderator: William T. Obremskey, MD
Faculty: John Adams, MD
Frank Avilucea, MD
William Harvin, MD

Objectives:

- Define emergent treatment and associated injuries
- Review acute, staged, and delayed treatment options for knee dislocation
- Summarize complications and long-term results of knee dislocations

Participants will understand emergent management as well as options of acute staged and delayed treatment of this complex injury. We will also review complications and expected long-term outcomes.

1:40pm –3:10pm
CONTROVERSIES IN ANKLE FRACTURES
Moderator: John T. Gorczyca, MD

Faculty: John Ketzer, MD
Raymond Wright, MD
Gillian Soles, MD
Kevin Pugh, MD

- To review basic principles of ankle fracture fixation
- To analyze the evidence on emerging controversies in ankle fractures
- To summarize technical tips for difficult ankle problems

This symposium will concentrate on reviewing controversies in ankle fracture surgery and will provide an analysis of the evidence that will guide the surgeon in treating ankle fractures.

1:40pm –3:10pm
THE JOINT IS A MESS, NOW WHAT? HOW TO RESTORE FUNCTION WHEN INTRA-ARTICULAR FRACTURE SURGERY FAILS

Moderator: Emil H. Schemitsch, MD
Faculty: Michael D. McKee, MD
Chad Myeroff, MD
Aaron Nauth, MD
David W. Sanders, MD

Objectives:

- When and how to restore function when fracture surgery fails
- The role of arthroplasty and fusion in managing post-traumatic arthritis
- How to manage failed fracture surgery of the upper extremity and lower extremity

A primary goal of the symposium will be to achieve consensus opinions on many current issues and controversies regarding the treatment of post-traumatic arthritis.

GENERAL SESSION

12:29pm – 12:35pm **Paper 78**
Predicting Completion of a Follow-up in Long Term Prospective Orthopedic Trauma Research
Graham Sleat; Kelly Lefaivre, MD; Pierre Guy, MD; Henry Broekhuysse, MD; Abdullah Mamun; Peter O'Brien, MD

12:35pm – 12:40pm **Discussion**

12:40pm – 1:40pm **LUNCH**
 Exhibit hall closes at 1:45pm

12:25pm – 1:10pm **LUNCHTIME GUIDED POSTER AND VIDEO TOURS Hip/Femur**
 Guide: Brett D. Crist, MD

International
 Guide:
 Peter V. Giannoudis, MD, FACS, FRCS

Video Tour
 Guide: TBD

1:40pm – 3:59pm **PAPER SESSION VIII: HIP, FEMUR AND GERIATRIC**
 Moderators:
 Gilbert R. Ortega, MD
 Gerard P. Slobogean, MD

1:40pm – 1:46pm **Paper 79**
A Randomised Controlled Trial Comparing the Thompsons versus the Exeter® Polished Taper Stem and Unitrax® Head in the Treatment of Displaced Intracapsular Fractures of the Hip: The WHITE 3: HEMI Trial
Alex Sims; Nick Parsons; Juul Achten; Xavier Griffin; Matthew Costa, PhD; Mike Reed

1:46pm – 1:52pm **Paper 80**
THR Versus Hemiarthroplasty for Displaced Intracapsular Fractures: Predicting Outcomes and Selecting Patients
Julie Craig, MB BS; Sinead McDonald; R. John Barr, MB, BS

1:52pm – 1:58pm **Paper 81**
Continuous Femoral Nerve Catheters Decrease Opioid Related Side Effects and Increase Home Disposition Rates among Geriatric Hip Fracture Patients
Diren Arsoy, MD; Michael J. Gardner, MD; Stuart Goodman, MD PhD; William Maloney, MD; James Huddleston, MD; Derek Amanatullah, MD PhD; Julius A. Bishop, MD

GENERAL SESSION

1:58pm – 2:03pm **Discussion**

2:03pm – 2:09pm **Paper 82**
A Novel Tool to Predict Inpatient Triage and Hospital Quality Measures in the Geriatric Trauma Population at Time of Admission
Sanjit Konda, MD; Ariana Lott, BA; Hesham Saleh, BS; Thomas Lyon, MD; Kenneth A. Egol, MD

2:09pm – 2:15pm **Paper 83**
Any Femoral Neck Shortening Post Fracture Fixation Negatively Impacts Functional Outcomes
Gerard P. Slobogean, MD; Gregory J. Della Rocca, MD, PhD, FACS; Susan Liew; Robert Haverlag; Sheila Sprague, PhD; Nathan O'Hara; Marc Swiontkowski, MD; Mohit Bhandari, MD; FAITH Investigators

2:15pm – 2:21pm **Paper 84**
Gait Analysis Following Intertrochanteric Hip Fractures: Does Shortening Result in Gait Impairment?
Elizabeth Gausden, MD; Ashley Levack, MD; Lauren Wessel, MD; Gele Moloney, MD; Danielle Sin, MS; Joseph Lane, MD; Dean Lorich, MD

2:21pm – 2:26pm **Discussion**

2:26pm – 2:32pm **Paper 85**
Hip Fracture Patients on Non-Warfarin Anticoagulants: Is Surgical Delay Warranted?
Ariana Lott, BA; Jack Haglin, BS; Rebekah Belayneh; Sanjit Konda, MD; Philipp Leucht, MD; Kenneth A. Egol, MD

2:32pm – 2:38pm **Paper 86**
Prognostic Factors for Predicting Revision Surgery after Operative Management of Hip Fractures
 Sheila Sprague, PhD;
Emil H. Schemitsch, MD; Gregory J. Della Rocca, MD, PhD, FACS; Kyle J. Jeray, MD; Susan Liew; Gerard P. Slobogean, MD; Diane Heels-Ansdell, BS; Marc Swiontkowski, MD; Mohit Bhandari, MD; FAITH Investigators

GENERAL SESSION

2:38pm – 2:44pm

Paper 87
Short versus Long InterTAN Fixation for Geriatric Intertrochanteric Hip Fractures: A Prospective, Multi-Centre Head-to-Head Comparison.
Michael Sellan, MD; Christina Tieszer, BSc; Diane Bryant; Steven Papp, MD; Abdel-Rahman Lawendy; Timothy Carey, MD; J. Andrew Trenholm; Mark MacLeod; Darius Viskontas; Chad Coles; Wade Gofton; Trevor Stone; Allan Liew; Ross Leighton, MD; David W. Sanders, MD

2:44pm – 2:49pm

Discussion

2:49pm – 2:55pm

Paper 88
Fixation Failure and Time to Reoperation After Internal Fixation of Young Femoral Neck Fractures: A Population-Based Study
David Stockton, MD; Lyndsay O'Hara, PhD; Nathan O'Hara; Kelly Lefavre, MD; Peter O'Brien, MD; Gerard P. Slobogean, MD

2:55pm – 3:01pm

Paper 89
Open Reduction is Associated with Greater Propensity-Adjusted Odds of Reoperation at 6 Months and 2 Years after Internal Fixation of Femoral Neck Fractures in Adults 18–65 Years
Joseph Patterson, MD; Keisuke Ishii, MD; Paul Tornetta, III, MD; Darin Friess; Clifford Jones; Ross K. Leighton, MD; Ari Levine; Brian Mullis, MD; Raymond Wright, MD; Robert Ostrum, MD; Anas Saleh; Andrew Schmidt, MD; David C. Teague; Antonios Tsismenakis; J. Spence Reid; Theodore Miclau III, MD; Saam Morshed, MD, PhD

3:01pm – 3:07pm

Paper 90
Femoral Neck Stress Fractures: Clinical Course and MRI Risk Factors for Progression
Clarence Steele, MD; Grant Cochran, MD; Bradley Deafenbaugh, MD; Chris Renninger, MD; Kevin Kuhn, MD

3:07pm – 3:12pm

Discussion

3:12pm – 3:18pm

Paper 91
Treatment of Femoral Neck Fractures in Patients 45 to 64 Years of Age
Joseph Johnson, MD; Justin Kleiner, BS; Avi Goodman, MD; Joseph Gil, MD; Alan Daniels; Roman Hayda, MD

GENERAL SESSION

3:18pm – 3:24pm

Paper 92
Is Distal Locking Necessary In Long Cephalomedullary Nailing of Intertrochanteric Fractures?
Hamid Mostafavi, MD; Arianna Caruso, BS; Margaret Cooke, MD; Andrew Lee, MD MS; Nicholas Teri, BS; Paul Tornetta, III, MD

3:24pm – 3:30pm

Paper 93
Early Comparative Outcomes of of Continuous Carbon Fiber Reinforced Polymer Plate in Fixation of Distal Femur Fractures
Adam Lee, MD; Phillip Mitchell, MD; Bruce Ziran, MD; A Jahangir, MD

3:30pm – 3:36pm

Discussion

3:36pm – 3:42pm

Paper 94
New versus Old. A Prospective, Randomized Controlled Trial Comparing the 95 Degree Angled Blade Plate with the Locking Condylar Plate for Distal Femur Fractures
Brendan Patterson, MD MBA; Mary Breslin, BA; Leanne Wadenpfehl, BA; Heather Vallier, MD

3:42pm – 3:48pm

Paper 95
A Prospective Randomized Control Trial comparing Immediate Weight Bearing as Tolerated versus Touch Down Weight Bearing in Extraarticular Supracondylar Distal Femur Fractures
Daniel Bravin, MD; David Hubbard, MD; Lindsey Bravin, MD; John C. France, MD; Michelle Bramer, MD

3:48pm – 3:54pm

Paper 96
Radiographic Healing of Far Cortical Locking Constructs in Distal Femur Fractures: A Comparative Study with Standard Locking Plates
Yanin Plumarom, MD; Michael Willey, MD; Yubo Gao, PhD; Brandon Wilkinson, MD; J. Lawrence Marsh, MD; Matthew Karam, MD

3:54pm – 3:59pm

Discussion

4:00pm

Meeting Adjourns

OPTIONAL EVENTS AND ADDITIONAL INFORMATION

STOP THE BLEED

Providing first responders and civilian bystanders the skills and basic tools to stop uncontrolled bleeding in an emergency can save lives. Civilians need basic training in Bleeding Control principles so they are able to provide immediate, frontline aid until first responders are able to take over care of an injured person. The American College of Surgeons Committee on Trauma is leading the effort to save lives by teaching the civilian population to provide vital initial response to stop uncontrolled bleeding in emergency situations. The OTA is collaborating with many trauma associations to address domestic preparedness, spread the word on the Stop the Bleed campaign, train trainers and take the message back to our many home cities. Please stop by for a quick 10-minute or less information session to learn about the program and pick up website materials.

Friday, October 13 8:00am– 3:00pm
Saturday, October 14 8:00am–12:00pm

OTA VIDEO SHOWCASE

Visit the OTA Video Showcase and learn new or evolving techniques! View and evaluate selected peer reviewed videos from your colleagues. The showcase will be in the exhibit hall during exhibit hours, beginning Thursday afternoon.

OTA NEW MEMBERS LUNCHEON

Friday, October 13 12:10pm – 1:10 pm
Chair: Kyle J. Jeray, MD
OTA Board of Directors Guest Speakers:
Michael D. McKee, MD and David C. Teague, MD

All 2017 new OTA Members and those interested in applying for membership are invited to attend.

Fee: No charge but registration is required.

WOMEN IN ORTHOPAEDIC TRAUMA

Kathy Cramer Memorial Luncheon
Friday, October 13 12:10 pm – 1:10 pm
Chair: Carla Smith, MD

Fee: No charge but registration is required.

WELCOME RECEPTION

Join your colleagues at the Vancouver Convention Centre for cocktails and hors d'oeuvres while enjoying breathtaking floor to ceiling views of the mountains and harbor.

Thursday, October 12 6:00pm – 8:00pm
Fee: No charge for meeting attendees. Guest ticket: \$65 USD

SOCIAL EVENTS

Guests of meeting attendees are invited but must register.

YOGA: Surgeon Fitness, Mindfulness and Recharge

Event Coordinators: Jeffrey M. Smith, MD
Faculty: Todd A. Swenning, MD

Wednesday, October 11 7:00pm – 8:00pm
Friday, October 13 6:00am – 7:00am
Fee: \$20 USD

Join your fellow surgeons looking to recharge for a more positive learning experience at the annual meeting. Research shows that exercise and the practice of mindfulness are helpful reducing stress and burnout. Yoga is a great opportunity for the combination. Guests are welcome, but must register. We will provide a trained instructor in hatha/vinyasa yoga, towel or yoga mat, and one-hour class. Instruction will be provided for the span of beginning to advanced levels.

Tai Chi for Surgeons

Event Coordinator: Jeffrey M. Smith, MD
Faculty: Jeffrey O. Anglen, MD
Wade R. Smith, MD

Saturday, October 14 6:00am – 7:00am
Fee: \$20 USD

Join your fellow surgeons looking to recharge for a more positive learning experience at the annual meeting. Research shows that exercise and the practice of some form of mindfulness is a helpful approach to reducing stress and burnout. Tai Chi is a great opportunity for the combination! Guests are welcome, but must register. Instruction for 50–60 minutes provided for the span of beginner to advanced levels.

Bicycling Event (2.5hr ride):

Third Annual "TOUR de BONE"

Event Coordinator: Jeffrey M. Smith, MD
Faculty: Craig S. Bartlett, MD
Steven J. Morgan, MD

Thursday, October 12 7:00am – 10:00am

Can you think of a better way to start off your 2017 OTA educational experience than a bike ride with friends? Multiple studies show the benefits of aerobic exercise on learning capacity and memory. Attendees will be referred to a local rental company to reserve bikes and accessories. Attendees can choose between a guided tour of Vancouver or an organized ride with colleagues and friends. Take 15% off your bike rental by using promo code **OTA2017** online at: <http://cyclevancouver.com/sample-private-tour/>

SPEED MENTORING

Moderator: Lisa K. Cannada, MD
Michael T. Archdeacon, MD

This session is geared towards young practitioners, residents and fellows. See page 50 for full details.

Friday, October 13 4:30pm - 6:00pm
Fee: No charge but registration is required.

POSTERS

Annual Meeting Scientific Posters

Available for viewing in the exhibit hall during exhibit hall hours beginning at 2:30pm on Thursday and ending at 1:45pm on Saturday.

Guided Poster Tours

Friday Lunch

12:25pm – 1:10pm

- (PT1) Knee/Tibia – Paul Tornetta III, MD
- (PT2) Foot/Ankle – Stephen A. Kottmeier, MD
- (PT3) Video Tour*

Friday Evening Suds n' Science

5:35pm – 6:20pm

- (PT4) Upper Extremity – Michael D. McKee, MD
- (PT5) General Interest – Michael J. Gardner, MD
- (PT6) Video Tour*

Saturday Lunch

12:55pm – 1:40pm

- (PT7) Hip/Femur – Brett D. Crist, MD
- (PT8) International – Peter V. Giannoudis, MD, FACS, FRCS
- (PT9) Video Tour*

*New this year! Join your fellow colleagues on a guided tour of the Annual Meeting Video Showcase.

OTA ANNUAL MEETING ON DEMAND

Can't Attend Every Session?

Watch Sessions Anytime, Anywhere

Order the Gold Registration package and receive exclusive attendee discounts on OTA Annual Meeting **On Demand**.

With so many sessions occurring simultaneously, your **On Demand** program gives you the opportunity to participate in all key presentations, helping you maximize the investment you've made in attending the live meeting.

OTA Annual Meeting On Demand features online access to over 60 hours of break-outs, pre-meeting events and podium presentations from any computer or mobile device.

ON DEMAND GOLD REGISTRATION PACKAGE FEE

(U.S. Funds)

(Gold Registration includes Annual Meeting Registration and Annual Meeting On Demand)

OTA Member	\$550 / \$650
Non-member	\$1050 / \$1150
Non-member Medical Resident, Fellow**	\$750 / \$850
Non-member Health Care Professional**	\$750 / \$850

Order the Gold Registration package today online at www.ota.org or with the meeting registration form on page 61! Special offer ends October 1, 2017

EXHIBIT HALL HOURS:

Thursday, October 12 2:30pm – 6:30pm

Friday, October 13 7:00am – 10:00am
12:10pm – 1:10pm
3:00pm – 6:15pm

Saturday, October 14 7:00am – 1:45pm

REGISTRATION INFORMATION

Registration Options Register early to avoid \$100 USD surcharge

Online: www.ota.org – available through October 1

Fax: Fax completed registration form to:
(847) 430-5140

Mail: All registrations must be postmarked by **October 1**.

Mail form and payment to

OTA

9400 W. Higgins Rd, Suite 305

Rosemont, IL 60018, USA.

Make check payable to OTA and drawn from a US Bank in US Dollars.

Mailed forms and payment will not be accepted after October 1.

All registrations will receive confirmation by e-mail. Badges will be picked up on-site and NOT mailed.

Cancellations and Refunds

Written requests must be received at the OTA Office by email or fax by **October 10**.

All refunds are subject to a \$100 USD processing fee.

Email: ota@ota.org

Fax: (847)430-5140

No refunds after October 10 on any registration fees.

On-site Registration in the Ballroom Lobby

On-site registration is available for an additional charge of \$100 USD plus the registration fee.

Hours:

Tuesday, October 10 4:00pm – 6:00pm

Wednesday, October 11 thru

Saturday, October 14 6:15am – 4:00pm

2017 ANNUAL MEETING REGISTRATION FORM

ENTER AAOS ID NUMBER
(required for CME Credit)

FIRST NAME _____ LAST NAME/FAMILY NAME/SURNAME _____ DEGREE(S) _____

HOME OFFICE _____ STREET MAILING ADDRESS _____

CITY _____ STATE/PROVINCE _____ POSTAL CODE _____ COUNTRY _____

HOME OFFICE CELL PHONE _____ OFFICE PERSONAL EMAIL _____

ON DEMAND GOLD REGISTRATION PACKAGE
ANNUAL MEETING REGISTRATION + ANNUAL MEETING ON DEMAND
(see page 60 for detail)

OTA MEMBER \$ 550
NON-MEMBER 1,050
**NON-MEMBER MEDICAL RESIDENT/FELLOW 750
**NON-MEMBER HEALTH CARE PROFESSIONAL 750

**ON/BEFORE
10/1/17** **AFTER
10/1/17**

SUB-TOTAL \$ _____

ANNUAL MEETING (ONLY) REGISTRATION

OTA MEMBER \$ 250
NON-MEMBER 750
**NON-MEMBER MEDICAL RESIDENT/FELLOW 450
**NON-MEMBER HEALTH CARE PROFESSIONAL 450

**ON/BEFORE
10/1/17** **AFTER
10/1/17**

SUB-TOTAL \$ _____

WEDNESDAY, OCTOBER 11th EVENTS

	OTA MEMBER ON/BEFORE 10/1/17	OTA MEMBER AFTER 10/1/17	NON-MEMBER ON/BEFORE 10/1/17	NON-MEMBER AFTER 10/1/17
BASIC SCIENCE FOCUS FORUM	<input type="checkbox"/> \$ 250	<input type="checkbox"/> \$ 350	<input type="checkbox"/> \$ 350	<input type="checkbox"/> \$ 450
E&M & CPT CODING FOR TRAUMA SURGEONS	<input type="checkbox"/> 250	<input type="checkbox"/> 350	<input type="checkbox"/> 350	<input type="checkbox"/> 450
ORTHOPAEDIC TRAUMA BOOT CAMP	<input type="checkbox"/> 275	<input type="checkbox"/> 375	<input type="checkbox"/> 400	<input type="checkbox"/> 500
INTERNATIONAL ORTHO TRAUMA CARE FORUM	<input type="checkbox"/> 150	<input type="checkbox"/> 200	<input type="checkbox"/> 200	<input type="checkbox"/> 250
INTERNATIONAL RECEPTION	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE
ORTHOPAEDIC TRAUMA FOR PAs and NPs	<input type="checkbox"/> 250	<input type="checkbox"/> 350	<input type="checkbox"/> 400	<input type="checkbox"/> 500
**RESIDENT COMPREHENSIVE FRACTURE COURSE	<input type="checkbox"/> 725	<input type="checkbox"/> 725	<input type="checkbox"/> 725	<input type="checkbox"/> 725

***(circle one)* PGY1 PGY2 PGY3 PGY4 PGY5

SUB-TOTAL \$ _____

THURSDAY, OCTOBER 12th EVENTS

	OTA MEMBER ON/BEFORE 10/1/17	OTA MEMBER AFTER 10/1/17	NON-MEMBER ON/BEFORE 10/1/17	NON-MEMBER AFTER 10/1/17
YOUNG PRACTITIONERS FORUM	<input type="checkbox"/> \$ 75	<input type="checkbox"/> \$ 100	<input type="checkbox"/> \$ 75	<input type="checkbox"/> \$ 100
WELCOME RECEPTION	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE
GUEST WELCOME RECEPTION	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE

PERSONS _____ X \$65/ea.

SUB-TOTAL \$ _____

FRIDAY, OCTOBER 13th EVENTS

	OTA MEMBER ON/BEFORE 10/1/17	OTA MEMBER AFTER 10/1/17	NON-MEMBER ON/BEFORE 10/1/17	NON-MEMBER AFTER 10/1/17
MILITARY RECEPTION	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE
NEW MEMBER LUNCHEON	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE
WOMEN IN ORTHOPAEDIC TRAUMA LUNCHEON	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE	<input type="checkbox"/> FREE

- All Fees in US Dollars - TOTAL \$ _____ TOTAL \$ _____

RESERVED SESSIONS
NO ADDITIONAL CHARGE / TICKETS REQUIRED

INDUSTRY SYMPOSIA
(please select only 1 per day - see page 36 for detail)

WEDNESDAY EVENING 6:30 PM - 8:00 PM
THURSDAY LUNCH 11:15 AM - 12:45 PM

1st CHOICE **2nd CHOICE**

IS01 IS02 IS01 IS02
 IS03 IS04 IS05 IS03 IS04 IS05
 IS06 IS07 IS08 IS06 IS07 IS08
 IS09 IS10 IS09 IS10

POSTER & VIDEO TOURS
(please select only 1 per day - see page 59 for detail)

FRIDAY LUNCH 12:25 PM - 1:10 PM
FRIDAY EVENING 5:35 PM - 6:20 PM
SATURDAY LUNCH 12:55 PM - 1:40 PM

PT1 PT2 VT PT1 PT2 VT
 PT3 PT4 VT PT3 PT4 VT
 PT5 PT6 VT PT5 PT6 VT

SKILLS LABS
(see page 41 for detail)

FRIDAY MORNING 8:00 AM - 9:00 AM
FRIDAY AFTERNOON 1:15 PM - 2:15 PM

ARRIVE EARLY!
Skills Labs fill quickly and door monitors will close the lab door when the room reaches maximum capacity.

SPECIAL EVENTS
(see page 60 for detail)

YOGA
3rd ANNUAL TOUR de BONE BIKE EVENT
YOGA
SPEED MENTORING
TAI CHI

WEDNESDAY, OCTOBER 11th 7:00 PM - 8:00 PM \$20
THURSDAY, OCTOBER 12th 7:00 AM - 10:00 AM \$25
FRIDAY, OCTOBER 13th 6:00 AM - 7:00 AM \$20
FRIDAY, OCTOBER 13th 4:30 PM - 6:00 PM FREE
SATURDAY, OCTOBER 14th 6:00 AM - 7:00 AM \$20

REGISTRATION, REFUNDS/CANCELLATIONS & QUESTIONS

REGISTRATION:

REGISTER ONSITE (ONLY) AFTER OCTOBER 1, 2017

ONLINE www.OTA.org
 BY FAX 1.847.430.5140
 BY MAIL ORTHOPAEDIC TRAUMA ASSOCIATION
9400 W. Higgins Road, Suite 305
Rosemont, IL 60018
USA

REFUNDS: OTA office must receive written notice of cancellation for refund for refund less a \$100 processing fee. NO REFUNDS after October 10, 2017

QUESTIONS: Contact OTA at 1.847.698.1631 or email ota@ota.org

METHOD OF PAYMENT

Check Enclosed
 VISA
 MasterCard
 American Express

CREDIT CARD NUMBER _____ EXP. DATE _____ CVV _____

NAME AS IT APPEARS ON CARD _____

SIGNATURE *(I agree to pay according to the credit card issuer agreement)* _____

**REQUIRED OF RESIDENTS AND HEALTH CARE PROFESSIONALS:

CHIEF, CHAIR OR SUPERVISOR'S NAME

NAME _____

EMAIL _____

NOTE: All company representatives must use exhibitor registration form (email ota@ota.org)

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MEMBERSHIP



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
 - Multi-Center Studies
 - Conduct and Access OTA Member Surveys

Professional Development and Leadership Opportunities

- 25+ Committees and Project Teams
- Resident/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

Visit <http://ota.org/about/membership/> for more information

UPCOMING ANNUAL MEETINGS

OTA 2018 Annual Meeting

October 17–20, 2018
Orlando, FL

OTA 2019 Annual Meeting

September 25–28, 2019
Denver, CO

OTA 2020 Annual Meeting

September 30 – October 03, 2020
Nashville, TN

UPCOMING EVENTS

Membership Application Deadline (apply online)
November 1, 2017

Resident Grant Deadline (apply online)
December 2017

Full Grant Pre-proposal Deadline (apply online)
February 2018

Resident Advanced Trauma Techniques Course

May 4–5, 2017
Nashville, TN

OTA Specialty Day

March 10, 2018
New Orleans, LA

Spring Resident Comprehensive Fracture Course

April 4–7, 2018
Rosemont, IL

AAOS/OTA Joint Course

Get the Call - Save the Night
April 19-21, 2018
Miami, FL

Fellows Course

April 26–29, 2018
Boston, MA

Resident Comprehensive Fracture Course

October 17–19, 2018
Orlando, FL

Visit www.ota.org for details.

JOIN TODAY!



9400 W. Higgins Rd, Ste 305
Rosemont, IL 60018

CME CREDITS

20 AMA PRA Category I Credits™ for attending the Annual Meeting. Additional credits are also available if you attend pre-meeting events:

- **E&M AND CPT CODING FOR TRAUMA SURGEONS**
6 AMA PRA Category I Credits™
- **BASIC SCIENCE FOCUS FORUM**
11.75 AMA PRA Category I Credits™
- **ORTHOPAEDIC TRAUMA BOOT CAMP**
11.75 AMA PRA Category I Credits™
- **INTERNATIONAL ORTHOPAEDIC TRAUMA CARE FORUM**
10.50 AMA PRA Category I Credits™
- **ORTHOPAEDIC TRAUMA FOR PAs and NPs**
14.50 AAPA Category I CME Credits™
- **YOUNG PRACTITIONERS FORUM**
6 AMA PRA Category I Credits™

 Find us on Facebook: Orthopaedic Trauma Association |  #OTA2017

PRE-REGISTRATION DEADLINES:

REGISTRATION FAXED
or **POSTMARKED** by
OCTOBER 1, 2017

REGISTER ONLINE
by **OCTOBER 1, 2017**

HOTEL Deadline
SEPTEMBER 30, 2017

**REGISTER
ONLINE TODAY**
www.OTA.org