

Ready to face the threats of today and tomorrow

January 16-17, 2024
Mayflower Hotel • Washington, DC











EXTREMITY WAR INJURIES XVII SYMPOSIUM

January 16-17, 2024
The Mayflower Hotel • Washington, DC



Symposium Co-Chairs: Lt Col Andrew J. Sheean, MD & Joseph R. Hsu, MD

Scientific Director: LTC Daniel Song, MD

Trauma Co-Chairs: David Teague, MD, COL Daniel J. Stinner, MD,

& LCDR Michelle Gosselin, MD

Sports/Readiness Co-Chairs: Asheesh Bedi, MD, Maj Travis Dekker, MD,

& Kurt Spindler, MD

Hand/Upper Extremity

Co-Chairs: CAPT Scott M. Tintle, MD & Jennifer Wolf, MD

Scientific Review Committee: LCDR Ashley B. Anderson, MD,

LTC Joseph W. Galvin, DO, Maj Sarah N. Pierrie, MD, LTC Daniel Song, MD, & MAJ David J. Tennent, MD

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 Society of Military Orthopaedic Surgeons. 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 approximately 12 AMA PRA Category 1 Credits.™ Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Monday, January 15, 2024

9:00 am - 5:00 pm	Meetings (STaR)
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3:00 pm - 5:30 pm **EWI Symposium Check In** (Foyer)

	Tuesday, Jan	uary 16, 2024	
6:30 am	EWI Symposium Check In (Foyer)	_	Samuel Adams, MD
6:30 am – 7:00 am	Breakfast with Exhibitors		Duke University
7:30 am – 7:35 am	Symposium Welcome Lt Col Andrew J. Sheean, MD and	9:57 am – 10:03 am	Biomarkers in Nerve Injuries David M. Brogan, MD, MSc Washington University
7:35 am – 7:45 am	Joseph R. Hsu, MD EWI 2024: Why Are We Here? Lt Col Andrew J. Sheean, MD Con Antonio Military Madical Contact	10:03 am – 10:09 am	Biomarkers and Osteoporosis CAPT Scott M. Tintle, MD Walter Reed National Military Medical Center
7:45 am – 7:55 am	San Antonio Military Medical Center	10:09 am – 10:15 am	Questions/Panel Discussion
7.43 diii – 7.33 diii	METRC Update Robert V. O'Toole, MD University of Maryland Medical Center	10:15 am – 10:30 am	BREAK
7:55 am – 8:05 am	ANCHOR Update	Session III: Addressing (
7.55 am 6.65 am	John C. Clohisy, MD Washington University	Moderators: COL Kenneth N 10:30 am – 10:36 am	lelson, MD and CDR (sel) Christopher H. Renninger, MD Fundamentals for Initial Evaluation and
8:05 am – 8:15 am	MOON Knee Update Kurt Spindler, MD Cleveland Clinic	10.50 am = 10.50 am	Management MAJ Shawn E. Boomsma, DO Ryder Trauma Center/Jackson Memorial Hospital
8:15 am – 8:25 am	MOON Shoulder Update Carolyn M. Hetterich, MD North County Orthopedics	10:36 am – 10:42 am	Are there Limits to the Masquelet Technique? COL Daniel J. Stinner, MD, PhD <i>Vanderbilt University</i>
8:25 am - 8:30 am	Questions/Panel Discussion	10:42 am – 10:48 am	Tips and Tricks of Distraction Osteogenesis
8:30 am – 8:45 am	BREAK		Geoffrey S. Marecek, MD Cedars-Sinai Medical Center
•	ics Across the Spectrum of MSK Disease y B. Anderson, MD and Lt Col Andrew J. Sheehan, MD	10:48 am – 10:54 am	How to Address the Challenges of Articular Defects
8:45 am – 8:51 am	Orthobiologics in Trauma Surgery: Current Uses and Applications in Acute Interventions		Timothy S. Achor, MD McGovern Medical School at UTHealth Houston
	Phillip Leucht, MD <i>NYU Langone</i>	10:54 am – 11:15 am	Questions/Panel Discussion n Ukraine: Lessons Learned and Future Directions
8:51 am – 8:57 am	Orthobiologics in Trauma Surgery: Strategies for Addressing Non-Unions		tinner, MD and Joseph R. Hsu, MD
	Christopher Lee, MD University of California, Los Angeles	11:15am – 11:55 am	Panel Discussion COL (ret) James R. Ficke, MD
8:57 am – 9:03 am	Point of Care Blood Products: Is this the Future?		Johns Hopkins University COL (ret) Roman A. Hayda, MD
	Adam Anz, MD Andrews Institute for Orthopaedics and Sports Medicine		Rhode Island Hospital Michael Beltran, MD
9:03 am – 9:09 am	Bone Marrow Aspirate: Current Indications		University of Cincinnati
	in Sports Medicine and Future Uses Don Buford, MD	12:00 pm – 12:45 pm	Israeli Conflict Update with Lunch
	Texas Orthobiologics Institute	(12:00 pm - 12:05 pm)	Overview of the Current Conflict
9:09 am – 9:15 am	An Update from the Benchtop Johnny Huard, PhD	(12:05 pm - 12:25 pm)	Shachar Shapira, MD, MHA, MA Sheba General Hospital Complex Limb Injuries
	Steadman Philippon Research Institute	(12.03 pm 12.23 pm)	Ido Tilbor, MD
9:15 am – 9:30 am	Questions/Panel Discussion		Chaim Sheba Medical Center
9:30 am – 9:45 am	BREAK	(12:25 pm - 12:40 pm)	Complex Case Presentations
Session II: Biomarkers A Moderator: LCDR Michel	Across Orthopaedics le Gosselin and LCDR Ashley B. Anderson, MD		Leo BarOn, MD Chaim Sheba Medical Center
9:45 am – 9:51 am	Utility of Biomarkers at Point of Injury Michael P. Kelly, MD Rady Children's Hospital, San Diego	(12:40 pm - 12:45 pm)	Future Research and Collaboration Shachar Shapira, MD, MHA, MA Sheba General Hospital

12:45 pm – 1:00 pm

Dessert in Exhibit Hall

Extremity War Injuries XVII

SYMPOSIUM AGENDA

Tuesday, January 16, 2024

Investigators Workshop Part 1: Hear from the Program Managers and Committee Chairs Moderators: Kurt Spindler, MD and Lt Col Andrew J. Sheean, MD		1:15 pm - 1:20 pm	Orthopaedic Research Foundation (OREF) COL (ret) James R. Ficke, MD Johns Hopkins University
1:00 pm - 1:05 pm	CDMRP: Peer Reviewed Orthopaedic Research	1:20 pm - 1:35 pm	Questions/Panel Discussion
	Program Akua Roach, PhD US Army Medical Research and Development Command	1:35 pm - 1:40 pm	OTA Research: Current Efforts and Priorities Saam Morshed, MD, PhD, MPH University of California, San Francisco
1:05 pm - 1:10 pm	National Institutes of Health: MSK/Orthopaedic Program Charles Washabaugh, PhD	1:40 pm - 1:45 pm	ASSH Research: Current Efforts and Priorities David Brogan, MD, MSc Washington University
1:10 pm - 1:15 pm Joint Warfighter Medical Readiness Program - Military Operational Medicine	1:45 pm - 1:50 pm	AOSSM Research: Current Efforts and Priorities C. Benjamin Ma, MD University of California, San Francisco	
	Elizabeth Esposito-Russell, PhD Military Operational Medicine Research Program	1:50 pm - 2:00 pm	Questions/Panel Discussion

2:00 pm - 2:20 pm

3:30 pm - 3:40 pm

Track A: Degenerative Shoulder Conditions Moderators: Maj Travis Dekker, MD and Jonathan F. Dickens, MD

Military Operational Medicine Research Program

2:20 pm – 2:26 pm	Focal Chondral Lesions About the Shoulder Lance E. LeClere, MD Vanderbilt University
2:26 pm – 2:32 pm	Joint Preservation and CAM Justin Arner, MD University of Pittsburgh Medical Center
2:32 pm – 2:38 pm	Arthroplasty in the Young Patient Stephen A. Parada, MD Augusta University
2:38 pm – 2:44 pm	Scaffolds and Augments for Rotator Cuff Repair Asheesh Bedi, MD University of Michigan Health
2:44 pm - 2:55 pm	Questions/Panel Discussion
RESEARCH HIGHLIGHTS	
3:00 pm – 3:05 pm	A Randomized Trial Comparing Anti- Gravity Treadmill Therapy versus Standard of Care: It's Safe and Patients Like It COL Daniel J. Stinner, MD, PhD Vanderbilt University
3:05 pm – 3:10 pm	Psychosocial Factors Predict Return to Work Status after Lower Extremity Fracture William M. Charlton, BS University of Kentucky
3:10 pm – 3:15 pm	Resiliency Instability in Patients Undergoing Shoulder Surgery Utilizing the Brief Resiliency Score CPT Emily McDermott, MD San Antonio Military Medical Center
3:15 pm – 3:20 pm	Minimal Clinical Important Differences Not Uniform in Service Members after Shoulder Surgery Capt Mikalyn T. DeFoor, MD San Antonio Military Medical Center
3:20 pm - 3:25 pm	Type V Acromioclavicular Joint Dislocation Reduction Loss After Acute Fixation LT Scott Feeley, MD Walter Reed National Military Medical Center
3:20 pm - 3:30 pm 3:30 pm - 3:40 pm	Questions BREAK

Track B: Distal Upper Extremity Trauma/Reconstruction

BREAK

Moderator: CAPT Scott M. Tintle, MD			
2:20 pm – 2:26 pm	Scapholunate Reconstruction LTC David Wilson, MD Brooke Army Medical Center		
2:26 pm – 2:32 pm	Scaphoid Non-union James Higgins, MD <i>Medstar Union Memorial</i>		
	Aviram M. Giladi, MD, MS MedStar Union Memorial		
2:32 pm – 2:38 pm	Metacarpal and Phalangeal Fractures - Is Intramedullary Fixation the Standard of Care? Aviram M. Giladi, MD, MS Medstar Union Memorial		
2:38 pm - 2:55 pm	Questions/Panel Discussion		
RESEARCH HIGHLIGHTS			
3:00 pm – 3:05 pm	SAVIT Risk Score Predicts Limb Salvage after Open Tibia Fractures MAJ Jefferson Lansford, MD Walter Reed National Military Medical Center		
3:05 pm – 3:10 pm	Impact of Surgeon Experience on Major Complications After Ring Fixator Treatment of Severe Open Tibial Fractures LT Conor F. McCarthy, MD Walter Reed National Military Medical Center		
3:10 pm – 3:15 pm	Management of Ballistic Metacarpal Fractures: A Restrospective Cohort Study Jordan C. Serotte, MD University of Chicago Medical Center		
3:15 pm – 3:20 pm	Ultrasound Tele-guidance for Forward Deployed Traumas ENS Eric M. Cal, BS University of North Carolina at Chapel Hill School of Medicine		
3:20 pm - 3:30 pm	Questions		

BREAK

Tuesday, January16, 2022

Session V: Topics in Advanced Reconstruction Moderators: MAJ Shawn Boomsma, MD and CDR Louis Lewandowski, MD		Breakout Sessions	
		4:30 pm - 5:15 pm	Breakout Group A: Antibiotic Coated
3:40 pm - 3:46 pm	Orthoplastics: When to Do It Yourself and When to Call for Help Jana M. Davis, MD Penn State Health Center		Implants Moderators: Joseph R. Hsu, MD and COL Daniel J. Stinner, MD, PhD
3:46 pm - 3:52 pm	What's New in Amputation Optimization? COL (ret) B. Kyle Potter, MD Walter Reed National Military Medical Center		Breakout Group B: Strategies and Controversies Regarding the Management of Critical Bone Defects Moderators: Timonthy Achor, MD and
3:52 pm - 3:58 pm	Osseointegration in 2024 and Beyond COL (ret) Joseph Alderete, MD University of Texas Health, San Antonio		LCDR Michelle Gosselin, MD Breakout Group C: Orthobiologics - Where Do We Need to Go?
3:58 pm - 4:04 pm	Hand Transplantation: Fact or Fiction? David Leonard, MD, PhD, FRCS		Moderators: CDR Robert Waltz, MD and MAJ Michael Donohue, MD
	Leeds Teaching Hospitals NHS Trust		Breakout Group D: Post-Traumatic
4:04 pm - 4:10 pm	Future Directions in Advanced Prosthetic Design and Use Lee Childers, PhD		Osteoarthritis: Are We Making Progress? Moderators: Lt Col Aaron Barrow, MD and Kurt Spindler, MD
	DoD/VA Extremity Trauma and Amputation Center of	5:20 pm - 5:50 pm	Breakout Group Reports
	Excellence	5:50 pm - 7:00 pm	Reception/Scientific Poster Session

Wednesday, January 17, 2024

7:30 pm

EWI Faculty Dinner

6:30 am 6:30 am – 7:00 am 7:30 am – 7:35 am	EWI Symposium Check In (Foyer) Breakfast with Exhibitors Welcome/Review of Day Two	8:21 am - 8:27 am	How to Collaborate with a Scientist: Do's and Don'ts Joseph C. Wenke, PhD University of Texas Medical Branch Galveston
Moderators: CDR Louis L	th and Stress Fractures ewandowski, MD and LCDR Erica Crump, MD	8:27 am - 8:33 am	My Journey as a Military Clinical Scientist Jonathan F. Dickens, MD <i>Duke University</i>
7:35 am – 7:41 am	Stress Fractures in the Military: Burden of Disease and Readiness Threats LCDR Ashley B. Anderson, MD Fort Belvoir/Walter Reed National Military Medical Center	8:33 am - 8:39 am 8:39 am - 8:50 am	MOTION Update Matthew Bradley, MPH The Geneva Foundation Questions/Panel Discussion
7:41 am – 7:47 am	Bone Health: The Basics Anna N. Miller, MD	8:50 am - 9:10 am	BREAK



A Primer on Machine Learning and Artificial Intelligence: What Do You Need to Know Right Now?

Washington University School of Medicine

CDR James H. Flint, MD Naval Medical Center San Diego

LCDR Benjamin W. Hoyt, MD

Lessons Learned

Therapeutics in Current Clinical Practice

Implementing a Bone Health Program:

Mark P Cote, PT, DPT, MS, CTR Harvard University

Questions/Panel Discussion

BREAK

4:10 pm - 4:20 pm

4:20 pm - 4:30 pm

7:47 am – 7:53 am

7:53 am – 7:59 am

8:15 am - 8:21 am

Wednesday, January 17, 2024

Track A: Distal Upper Extremity Trauma/Reconstruction Moderator: Maj Casey Sabbag, MD

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9:10 am – 9:16 am	Ballistic Injuries of the Upper Extremity Jeffrey G. Stepan, MD, MSc <i>University of Chicago</i>
9:16 am – 9:22 am	Cubital Tunnel Syndrome Advances in Diagnostics Daniel A. Osei, MD, MSc Hospital for Special Surgery
9:22 am – 9:28 am	Carpal Tunnel Syndrome Advances in Diagnostics John Fowler, MD University of Pittsburgh
9:28 am – 9:34 am	Elbow Instability Advances Maj Casey Sabbag, MD Brooke Army Medical Center
9:34 am – 9:40 am	Advances in Distal Radius Fractures Tamara D. Rozental MD Beth Israel Deaconess Medical Center
9:40 am - 9:50 am	Questions/Panel Discussion
RESEARCH HIGHLIGHTS	
9:55 am – 10:00 am	Porcine Whole Joint Biomechanics after Bioprinted Meniscus Repair ENS Andrew F. Nelson, BS Uniformed Services University of the Health Sciences
10:00 am –10:05 am	Physiological Production of Specialized Pro-resolving Mediators Does Not Prevent Posttraumatic Osteoarthritis after Anterior Cruciate Ligament Transection Chilan Bou Ghosson Leite, MD Brigham and Women's Hospital
10:05 am – 10:10 am	Do 2-Year Radiographs Predict Pain 6 Years after ACL Reconstruction? Morgan H. Jones, MD, MPH Brigham and Women's Hospital
10:10 am – 10:15 am	Transcriptomics of Anterior Shoulder Instability: Differences in Gene Expression in the Blood of Patients with and without Significant Glenoid Bone Loss Zachary Colburn, PhD, MBA, MS Madigan Army Medical Center
10:15 am - 10:20 am	Hip-Spine Relationship in Femoroacetabular Impingement: Does Arthroplasty Affect Pelvic Mobility? CDR Brian Barlow, MD Naval Medical Center San Diego
10:20 am - 10:35 am	Questions/Panel Discussion
10:35 am - 11:00 am	BREAK

Track B: Infection in Musculoskeletal TraumaModerators: CDR (sel) Christopher H. Renniger, MD and Maj R. Bradley Kessler, MD

9:10 am – 9:16 am	What's On the Horizon? COL Daniel J. Stinner, MD, PhD Vanderbilt University
9:16 am – 9:22 am	Fundamentals of Diagnosis Mark R. Brinker, MD Texas Orthopedic Hospital
9:22 am – 9:28 am	Utility of Topical Antibiotics Robert V. O'Toole, MD <i>University of Maryland Medical Center</i>
9:28 am – 9:34 am	Antibiotic Coated Implants Rahul Vaidya, MD <i>Wayne State University</i>
9:34 am – 9:50 am	Questions/Panel Discussion
RESEARCH HIGHLIGHTS	
9:55 am – 10:00 am	The VANCO Trial Findings Are Generalizable to a North American Trauma Registry Joseph T. Patterson, MD Keck Medicine of the University of Southern California
10:00 am –10:05 am	Microorganisms and Infection Epidemiology after Gunshot Orthopaedic Trauma Vikranth Mirle, BS The University of Chicago
10:05 am – 10:10 am	Evaluating the Impact of Nutrition Deficiencies on Body Composition and Complication Rates after High-Energy Musculoskeletal Trauma John Davison, MPH University of Iowa Hospitals
10:10am - 10:35 am	Questions/Panel Discussion
10:35 am - 11:00 am	BREAK



Extremity War Injuries XVII

SYMPOSIUM AGENDA

Wednesday, January 17, 2024

	n Nelson, MD and MAJ Archie Overmann, MD
11:00 am – 11:10 am	Experience at a Military Level 1 Trauma Center Maj R. Bradley Kessler, MD San Antonio Military Medical Center
11:10 am – 11:20 am	Military-Civilian Partnerships: Utilizing Local Resources James A. Blair, MD Emory University/Grady Memorial Hospital
11:20 am – 11:30 am	Lessons Learned from Transitioning an MTF to a Civilian Trauma Center CDR Louis R. Lewandowski, MD Naval Medical Center Camp Lejeune
11:30 am – 11:40 am	MAST Update LTC Kelly Kilcoyne, MD Walter Reed National Military Medical Center
11:40 am - 11:55 am	Discussion
11:55 am – 12:25 pm	Lunch/Industry Update *CME Credit Not Available
12:25 pm – 12:45 pm	Dessert in Exhibit Hall
	natic Osteoarthritus and the Knee Donohue, MD and Jonathan F. Dickens, MD
12:45 pm – 12:51 pm	Pathogenesis of PTOA: What Do We Know in 2024? Christian Latterman, MD Brigham and Women's Hospital
12:51 pm – 12:57 pm	Cartilage Restoration in 2024 and Beyond Drew Lansdown, MD
	University of California, San Francisco
12:57 pm – 1:03 pm	,
12:57 pm – 1:03 pm 1:03 pm – 1:09pm	University of California, San Francisco Optimizing Biologics by Biorepository Analysis Jason Dragoo, MD
	University of California, San Francisco Optimizing Biologics by Biorepository Analysis Jason Dragoo, MD University of Colorado Osteochondral Allografts: Optimizing Clinica Outcomes Clayton Nuelle, MD

Track B: Shoulder Instability Moderators: Maj Travis Dekker, MD and Justin Arner, MD			
11:00 am – 11:06 am	Current Refinements to the Glenoid Track Paradigm Albert Lin, MD University of Pittsburgh Medical Center		
11:06 am – 11:12 am	Criteria-Based Return to Duty/Play Decision Making Dean C. Taylor, MD Duke University		
11:12 am – 11:18 am	Remplissage: Indications and Limitations Brian R. Waterman, MD <i>Wake Forest University</i>		
11:18 am – 11:24 am	Posterior Instability: How Can We Get Better? Lt Col Andrew J. Sheean, MD San Antonio Military Medical Center		
11:24 am – 11:30 am	Bone Grafting in 2024: Current Indications and Limitations Matthew T. Provencher, MD The Steadman Clinic		
11:30 am - 11:55 am	Discussion		
1:36 pm – 1:42 pm	STABILITY Trial: Maximizing Success of ACL Reconstruction Bryson P. Lesniak, MD University of Pittsburgh		
1:42 pm – 1:48 pm	Strategies for Addressing Rotatory Knee Instability Bruce A. Levy, MD Orlando Health Medical Group		
1:48 pm – 1:54 pm	ACL Repair: When to Do It and How to Do It Joseph J. Ruzbarsky, MD <i>The Steadman Clinic</i>		
1:54 pm – 2:05 pm	Questions/Panel Discussion		
2:05 pm – 2:20 pm	Closing Comments and Adjourn		

Session VIII: Ligamentous Knee Injuries

Moderators: Lt Col Andrew J. Sheean, MD and Clayton, Nuelle, MD $\,$

1:30 pm – 1:36 pm STaR Trial: What We've Learned So Far

Jay Irrgang, PT, PhD University of Pittsburgh

Posters

Poster 01	Infection Rate and Antibiotic Administrarion for Urban Gunshot Wounds Hayden P. Baker, MD The University of Chicago	Poster 07	Resilience Inconclusively Affects Clinical Outcomes after Arthroscopy: A Systemic Review Capt Mikalyn T. DeFoor, MD
Poster 02	Predicting Motor Deficit in Civilian Ballistic Spine Fractures Jordan C. Serotte, MD University of Chicago Medical Center	Poster 08	San Antonio Military Medical Center Optimization of a Novel Tissue Preservation System for Point-of-Care Storage of Nerve Allografts
Poster 03	Return to Duty after High Tibial Osteotomy: A Radiographic Analysis		Bryce T. Fletcher, BS <i>University of Missouri-Columbia</i>
	LT Scott Feeley, MD Walter Reed National Military Medical Center	Poster 09	Management of ACL Injuries: Comparing ChatGPT Recommendations with AAOS
Poster 04	Revolutionizing Acute Compartment Syndrome Management: Role of Continuous Pressure Monitoring		Clinical Practice Guidelines Jamie Frost Icahn School of Medicine at Mount Sinai
	Edward Harvey, HBSc, MDCM, MSc, FRCSC McGill University	Poster 10	Hyaluronic Acid Stabilizes Therapeutic Mechanically-Activated Microcapsules for
Poster 05	Imaging and Machine Learning Tool for Post- Fracture Animal Model Pain Chelsea Bahney, PhD		Field Deployment 1stLt Austin C. Jenk, BS University of Pennsylvania
	University of California, San Francisco	Poster 11	Nonunion & Complication Rates in Ballistic
Poster 06	Socioeconomic Status is not a Predictor of Bony Complication in Nonoperatively Managed Mid-Shaft Clavicle Fractures		vs. Blunt Petrochanteric Femur Fractures Jordan C. Serotte, MD University of Chicago Medical Center
	Lauren Simonian, BS University of Pittsburgh School of Medicine	Poster 12	Decreased Failure after Military Shoulder Stabilization Procedures with Suture Tape LT Scott Feeley, MD Walter Reed National Military Medical Center

Exhibitors & Grantors

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