***Robert D. Zura, MD***

***Professor & Chair, Orthopaedics, LSU Health***

***2021 Perdido St., Room 7202***  ***New Orleans, LA 70112***

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**Professor & Chair & MSK Service Line Director**

**Curriculum Vitae**

**ACADEMIC & CAREER APPOINTMENTS**

Professor & Chair | Louisiana State University | Department of Orthopaedic Surgery | New Orleans, LA | 2016-Present

MSK Service Line Director | UMC Hospital | New Orleans, LA | 10/23-Present

Tenured Professor | Duke University Medical Center | Durham, NC | 10/01/2012-12/31/2015

Associate Professor | Duke University Medical Center | Durham, NC | 02/01/2012-12/31/2015

Assistant Professor | Duke University Medical Center | Durham, NC | 2004-2012

Private Practice | Orthopaedic Specialty Clinic-Mary Washington Hospital | Fredericksburg, VA | 2003-2004

Assistant Professor | Medical College of Georgia | Augusta University | Augusta, GA | 2001-2003

**EDUCATIONAL CREDENTIALS**

Doctor of Medicine-M.D. | Johns Hopkins School of Medicine | Baltimore, MD | 1994

Bachelor of Arts-B.A. | University of Virginia | Charlottesville, VA | 1990

High School Diploma | Gilman School | Baltimore, MD | 1986

**LicenSURE**

Louisiana Medical License | MD #300724 | 12/11/2015 | Active

North Carolina Medical License | MD #200400787 | Inactive as of 08/25/2016

American Board of Orthopaedic Surgery | Specialty Certification | 07/11/2003 | Recertification: 2013 and 2023

**POSTGRADUATE TRAINING**

Orthopaedic Trauma Fellow (ACGME)| Carolinas Medical Center | Charlotte, NC | 2000-2001

Chief Resident Orthopaedics | University of Virginia | Charlottesville, VA | 1999-2000

Resident Orthopaedics | University of Virginia | Charlottesville, VA | 1995-1999

Intern Surgery | University of Virginia | Charlottesville, VA | 1994-1995

**HONORS & ACTIVITIES**

Louisiana State University Athletics Research Steering Committee | LSU-OLOL Championship Health Partnership | 2022-Present

Louisiana State University Medical School | Admissions Committee | 2022-2023

Louisiana State University Board of Supervisors | Health Care Network-HCN Board Member | 2017-present

Louisiana State University Medical School | Vice Chancellor for Financial Affairs Search Committee | 2017

Louisiana State University Medical School | Associate Dean for Academic Affairs Search Committee | 2017

Louisiana State University Medical School | Chair of General Surgery-Search Committee | 2017

Louisiana State University Medical School | Chair of Anesthesia-Search Lead | 2017-present

University of Virginia | Alpha Omega Alpha Honor Medical Society (AΩA) | 1997

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**ORGANIZATIONS, ASSIGNMENTS & OFFICES**

* AO ASIF Orthopaedic Faculty | 2002-2018
* Orthopaedic Trauma Association-OTA | 2005-Present
* OTA Membership Committee | 2009-2013
* OTA Research Committee | 2011-2014
* OTA International Relations Committee | 2018-2021
* OTA Task Force Educational Outreach for Developed & Developing Countries | 2020-2021
* American Academy of Orthopaedic Surgeons-AAOS | Fellow 2006
* AAOS Member Trauma Evaluations Committee | 2006-2012
* AAOS Member Evaluations Committee | 2011-2014
* AAOS Chair Trauma Instructional Course Lectures | 2016-2021
* AAOS Liaison to Trauma Content Committee Dec 2106 – 2021
* Eastern Orthopaedic Association – 2005-2013
* Southeastern Fracture Consortium-SEFC| 2005-2017
* SEFC Member Research Committee | Completed
* Piedmont Orthopaedic Society | 2006-Present
* Southern Orthopaedic Association-SOA | 2008-2018
* SOA Councilor NC | 2011-2018
* SOA Nominating Committee | 2013-2014
* SOA Board Member | 2014-2018
* SOA Program Chair | 2017 Annual meeting
* American Orthopaedic Association-AOA | 2010-Present
* AOA Development Committee 2013-2014
* Kuntscher Society | 2010-Present
* Kuntscher Board Member | 2011-Present
* Kuntscher Vice President | 2017-Present
* Limb Lengthening Reconstruction Society | 2010-2015
* Musculoskeletal Infection Society | 2012-2015
* *Journal of Orthopaedic Trauma* | Consultant Reviewer
* *Injury* | Consultant Reviewer
* *CORR* | Consultant Reviewer
* *Knee* | Consultant Reviewer
* *Orthopedics* | Board of Editors | 2017-Present
* Consultant Reviewer | *Journal of Environmental Pathology, Toxicology & Oncology* | Completed
* *Journal of Long-Term Effects of Medical Implants* | Editorial Board | Completed
* Louisiana Orthopaedic Association (LOA) | Board Member | 2020-2021
* 20th Century Orthopaedic Association | 2017-2023

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**MEDICAL TEXT CHAPTERS**

* **Zura RD** and Kahn M. Chapter 41: “Fractures of the Tibial Plateau”, OKU 6: Orthopaedic Knowledge Update – Trauma. Ricci, WM and Mehta S (eds), AAOS, Chicago, IL. 2022.
* Terhoeve C, King A, **Zura R**, Reach J. Part III: The Techniques and Merit of Ultrasound in Orthopaedics. Ultrasound Fundamentals: An Evidence-Based Guide for Medical Practitioners. Li J, Ming-Der Chow R, Vadivelu N, Kaye AD (eds), Springer Nature, Switzerland. 2021.
* **Zura RD** and Kahn M. Chapter 43: “Fractures of the Tibial Plateau”, OKU 5: Orthopaedic Knowledge Update – Trauma. Ricci, WM and Ostrum RF (eds), AAOS, Chicago, IL. 2016.
* Olson, SA; Reilly, MC; **Zura, RD**. Chapter 2: “ Treatment considerations for Surgical and Nonsurgical Management of Pelvic Ring Injuries.” Monograph Series 35. Acetabular and Pelvic Fractures. Olson, SA and Reilly, MC (eds). AAOS, Chicago, IL. 2007.

**INSTRUCTIONAL BOOKS**

* Instructional Course Lectures, Volume 70. AAOS 2021 – Section Editor - Trauma
* Instructional Course Lectures, Volume 69. AAOS 2020 – Section Editor – Trauma
* Instructional Course Lectures, Volume 68. AAOS 2019 – Section Editor – Trauma
* Instructional Course Lectures, Volume 67. AAOS 2018 – Section Editor – Trauma
* Instructional Course Lectures, Volume 66. AAOS 2017 – Section Editor – Trauma

**ABSTRACTS**

* Fox R, **Zura RD**. Management of Musculoskeletal Injuries Secondary to Gunshot. Injury Vol 47, Supplement 5, page S1. October, 2016.
* Vincent AB, Sims SH, Kellam JF, Bosse MJ, Peindl RD, and **Zura RD**: “Unstable Proximal Tibia Fractures: A Biomechanical Evaluation of Three Methods of Fixation and Initial Clinical Results. Combined Meeting of the New Zealand and Australian Orthopaedic Associations. Queenstown, New Zealand. JBJS-B Vol. 84 Supplement 3, October 2001.
* Abel MF, **Zura RD**, and Kahler DM: “Computer Assisted Pelvic Osteotomy for Acetabular Dysplasia” Pediatric Orthopaedic Society of North America 1999.
* **Zura RD**, Kahler DM: Operative Treatment of Calcaneus Fractures Through an Extended Lateral Approach Using Skeletal Traction, VMQ Vol 123: No 3:197, 1996.

**SELECTED AWARDS & RECOGNITION**

* The University of Virginia Orthopaedic Distinguished Alumnus. The 2023 Orthopaedic Surgery Alumni Weekend. Charlottesville, Va. April 21-22, 2023.
* Guest Speaker: William J. Mills III All Alaska Orthopedic Conference. Girdwood, Alaska. March 31-April 2, 2023.
* Chair’s Choice Highlight Paper Orthopaedic Trauma Association: Aqueous-PREP: A Pragmatic Randomized Trial Evaluating Preoperative Aqueous Antiseptic Skin Solutions in Open Fractures. Prep-It Investigators. Gerard Slobogean Presenter. Podium. OTA. Tampa, Fl. September 13, 2022.
* Visiting Professor Montefiore, NY. June 2022. Selznick Day.
* Visiting Professor MUSC (Medical University of South Carolina) October 20, 2020.
* First Place Resident Paper Competition. “Gunshot Wounds to the Hip: Doomed to Failure?” YiY Zhang BS ; Breydan Wright BS; Peter D’ Amore MD (Presenter); Cody Hightower MD; Thomas Stang, MD; Heidi Israel PHD; Michael Tucker MD, **Robert Zura MD**, Lisa K. Cannada MD. Podium – Louisiana Orthopaedic Association. New Orleans, LA. March 6, 2020.
* Highlight Paper Orthopaedic Trauma Association (OTA) Total Hip Arthroplasty or Hemiarthroplasty for Hip Fracture. HEALTH Investigators, Bhandari M, Einhorn TA, Guyatt G, Schemitsch EH, **Zura RD**, Sprague S, Frihagen F, Guerra-Farfán E, Kleinlugtenbelt YV, Poolman RW, Rangan A, Bzovsky S, Heels-Ansdell D, Thabane L, Walter SD, Devereaux PJ. Denver Colorado. September 26, 2019.
* Visiting Professor – Kimbrough Moore Day – University of South Carolina – Department of Orthopaedics. Columbia, SC. May 17-18, 2018.
* AAOS Achievement Award 2108.
* 2nd Annual Richard Whitehill Visiting Professor of Orthopaedic Surgery. The University of Virginia. Charlottesville, Va. February 20-21, 2018.

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**PROFESSIONAL AWARDS & RECOGNITION** *(continued)*

* LOA Resident Paper Award – Second Place, “Healing, Nonunion and Reoperation After Internal Fixation of Diaphyseal and Distal Femoral Fractures: A Systematic Review and Meta-Analysis” Terhoeve C, Nomides R, Zura R, Steen RG. Podium – Presenter C. Terhoeve; Louisiana Orthopaedic Association – Annual Meeting, New Orleans, LA. 2018.
* SOA/OREF Resident Award: Nomides R. (Presenter), Steen RG, Zura RD. Nonunion and Reoperation Rate after Internal Fixation of Proximal Femur Fractures: A Systematic Review and Meta-analysis. Southern Orthopedic Association Annual Meeting. Hilton Head, SC. 2018.
* Visiting Professor. LSU-Shreveport Resident Research Day / Graduation. Seattle, WA. June 15-16, 2017.
* Visiting Professor. University of Washington Resident Research Day / Graduation. Seattle, WA. June 2016.
* SOA/OREF Resident Award: “Decreasing Incidence of Hip Fracture in the US Medicare Population, 2005-2011” R. Andrew Henderson (presenter and resident award winner), Jonathan Godin, Benjamin Streufert, Richard Mather, Robert Zura. Southern Orthopaedic Association. Beaver Creek, CO. July 18, 2014.
* Landstuhl Visiting Scholar Program. Landstuhl, Germany. November 10-23, 2013.
* Team Physician Duke Men’s Lacrosse 2010 – 2015, National Champions: 2010, 2013, 2014.
* Consultant Surgeon: NC Zoo 2009-2015
* Landstuhl Visiting Scholar Program. Landstuhl, Germany. November 13-28, 2010.
* “Visitante Distinguido” (Distinguished Visitor) by Sr. Hugo Enrique Landivar Zambrana – Presidente Honorable Concejo Municipal De Santa Cruz De La Sierra. Santa Cruz, Bolivia. – 2009.
* Invited Moderator – Orthopaedic Trauma Association – Femur Section, Denver, CO. October, 2008.
* Presidential Guest Lecturer New Jersey Orthopaedic Society, Great Exuma, Bahamas. March 2007.
* Highlight paper from Orthopaedic Trauma Association - Phoenix 2006, The Effect of Timing of Definitive Fixation for Tibial Plateau, Fractures with Associated Compartment Syndrome on Infection Rates, Robert D. Zura, MD, Vani Sabesan MD, Lois Ann Nichols MD, Barnaby Dedmond MD, Patrick Leach MD, Kyle Jeray MD, William Obremskey MD, Brian Mata, Ricardo Pietrobon, MD, PhD, MBA, Steven A Olson, MD, Presented at: Orthopaedic Trauma Association – Specialty Day, AAOS San Diego, CA. February 2007.
* Residents Award - Best Paper, Virginia Orthopaedic Society Meeting, Williamsburg, Va., 1997.
* Outstanding Clinical Paper, First Annual Orthopaedic Alumni Meeting, University of Virginia, 1996.
* The Gary G. Wenzelberg Memorial Lecture Award, Outstanding paper on Diagnostic Imaging of the Pelvis, Surgery of the Pelvis and Acetabulum Meeting, 1996.
* Senate Joint Resolution 205, Sanitary Code for Public Swimming Pools, Approved, 1995.
* Lawn Resident: University of Virginia, 1989-1990.
* Jefferson Scholar Finalist: University of Virginia, 1986.
* Echols Scholar: University of Virginia, 1986-1990.
* Graduated with Distinction: University of Virginia, 1990.

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**PUBLICATIONS | REFEREED JOURNALS**

1. Pogorzelski, David MSca; Wells, Jeffrey L.b; Marvel, Debra MAc; Palmer, Jana E. EdDc; Mullins, C. Daniel PhDd; Medeiros, Michelle MScd; Gallant, Jodi L. MSca; Spicer, Ella BAe; Bergin, Patrick F. MDf; Gitajn, I. Leah MDg; Mullin, Devin S. BSg; Gaski, Greg E. MDh; Hymes, Robert MDh; Bzovsky, Sofia MSca; Slobogean, Gerard P. MD, MPHi; Sprague, Sheila PhDa,j,\*;  and the **PREP-IT Investigators**. Pragmatic design and inclusion of patient–partner representatives improves participant experience in clinical research. OTA International: The Open Access Journal of Orthopaedic Trauma 6(4):, December 2023. | DOI: 10.1097/OI9.0000000000000287 **Collaborator.**
2. O'Hara NN, Castillo RC, Carlini AR, Joshi M, Murray CK, Allen LE, Huang Y, Gary JL, Bosse MJ, Obremskey WT, McKinley TO, Schmidt AH, O'Toole RV; **METRC.** Application of Bayesian Methods to Help Interpret the VANCO Trial Results. J Orthop Trauma. 2023 Jan 1;37(1):1-7. doi: 10.1097/BOT.0000000000002458. PMID: 35830572. **Collaborator.**
3. Graphia CT, Klatman SH, Hein RE, Leonardi C, **Zura RD,** Richard MJ. Medicaid and Indigent Patients Experience Delayed Fixation of Distal Radius Fractures, Resulting in Worse Consequential Radiographic Outcomes. Orthopedics. 2023 Jun 21:1-5. doi: 10.3928/01477447-20230616-04. Epub ahead of print. PMID: 37341566.
4. Boissonneault A, O Hara N, Pogorzelski D, Marchand L, Higgins T, Gitajn L, Gage MJ, Natoli RM, Sharma I, Pierrie S, O'Toole RV, Sprague S, Slobogean G; **PREP-IT Investigators**\*. The impact of heterotopic ossification prophylaxis after surgical fixation of acetabular fractures: national treatment patterns and related outcomes. Injury. 2023 Mar 6:S0020-1383(23)00197-3. doi: 10.1016/j.injury.2023.03.001. Epub ahead of print. PMID: 37002119; PMCID: PMC10480339.
5. Gitajn IL, Werth P, Fernandes E, Sprague S, O'Hara NN, Bzovsky S, Marchand LS, Patterson JT, Lee C, Slobogean GP; **PREP-IT Investigators.** Assoc. of Patient-Level & Hospital-Level Factors with Timely Fracture Care by Race. JAMA Netw Open. 2022 Nov 1;5(11):e2244357. doi: 10.1001/jamanetworkopen.2022.44357. PMID: 36449289. **Collaborator.**
6. Patterson JT, O'Hara NN, Scharfstein DO, Castillo RC, O'Toole RV, Firoozabadi R; **METRC.** Do superficial infections increase the risk of deep infections in tibial plateau and plafond fractures? Eur J Orthop Surg Traumatol. 2022 Nov 23. doi: 10.1007/s00590-022-03438-1. Epub ahead of print. PMID: 36418579. **Collaborator.**
7. **PREP-IT Investigators.** Aqueous skin antisepsis before surgical fixation of open fractures (Aqueous-PREP): a multiple-period, cluster-randomised, crossover trial. Lancet. 2022 Oct 15; 400(10360):1334-1344. doi: 10.1016/S0140-6736(22)01652-X. PMID: 36244384. **Collaborator.**
8. Phillips M, Harrison A. Mehta S, Nolte P, Bhandari M, **Zura RD**. A Scoping Review of Operative and Non-invasive Management in the Treatment of Nonunions. Injury. 2022, September. In Press.

doi.org/10.1016/j.injury.2022.09.021.

1. O'Hara NN, Heels-Ansdell D, Bzovsky S, Dodds S, Thabane L, Bhandari M, Guyatt G, Devereaux PJ, Slobogean GP, Sprague S; **PREP-IT Investigators**. A pragmatic randomized trial evaluating pre-operative aqueous antiseptic skin solutions in open fractures (Aqueous-PREP): statistical analysis plan. Trials. 2022 Sep 12;23(1):772. doi: 10.1186/s13063-022-06541-0. PMID: 36096826. **Collaborator.**
2. O'Hara NN, Carullo J, Joshi M, Banoub M, Claeys KC, Sprague S, Slobogean GP, O'Toole RV; **PREP-IT Investigators**. Does cumulative topical antibiotic powder use increase the risk of drug induced acute kidney injury in fracture patients? Bone Jt Open. 2022 Apr;3(4):284-290. doi: 10.1302/2633-1462.34.BJO-2022-0009.R1. PMID: 35363046; PMCID: PMC9044090. **Collaborator.**
3. Gitajn IL, Werth PM, Sprague S, O'Hara N, Della Rocca G, **Zura R**, Marmor M, Domes CM, Hill LC, Churchill C, Townsend C, Van C, Hogan N, Girardi C, Slobogean GP. Association of COVID-19 With Achieving Time-to-Surgery Benchmarks in Patients With Musculoskeletal Trauma. JAMA Health Forum. 2021 Oct 29;2(10):e213460. doi: 10.1001/jamahealthforum.2021.3460. PMID: 35977160; PMCID: PMC8727030.
4. Frihagen F, Comeau-Gauthier M, Axelrod D, Bzovsky S, Poolman R, Heels-Ansdell D, Bhandari M, Sprague S, Schemitsch E; **HEALTH Investigators**. Who, if anyone, may benefit from a total hip arthroplasty after a displaced femoral neck fracture?: a post hoc subgroup analysis of the HEALTH trial. Bone Jt Open. 2022 Aug;3(8):611-617. doi: 10.1302/2633-1462.38.BJO-2022-0074.R1. PMID: 35909342. **Collaborator.**
5. Jensen SS, Jensen NM, Gundtoft PH, Kold S, **Zura R**, Viberg B. Risk factors for nonunion following surgically managed, traumatic, diaphyseal fractures: a systematic review and meta-analysis. EFORT Open Rev. 2022 Jul 5;7(7):516-525. doi: 10.1530/EOR-21-0137. PMID: 35900220; PMCID: PMC9297052.
6. **Zura R**, Anderson RB, Ahmed SS, Hak D, Watson T, Mack C, Irwin DE, Maislin G, Kelly KP, Jones JT, Wester T, Pavesio A, Ong K. EXOGEN Mitigates Risk of Fifth Metatarsal Fracture Nonunion: Results of a Novel Real-World Clinical Study. Foot Ankle Orthop. 2022 Jan 21;7(1):2473011421S00517. doi: 10.1177/2473011421S00517. PMID: 35098003; PMCID: PMC8793578.

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**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Carlini AR, Collins SC, Staguhn ED, Frey KP, O'Toole RV, Archer KR, Obremskey WT, Agel J, Kleweno CP, Morshed S, Weaver MJ, Higgins TF, Bosse MJ, Levy JF, Wu AW, Castillo RC; **METRC**. Streamlining Trauma Research Evaluation With Advanced Measurement (STREAM) Study: Implementation of the PROMIS Toolbox Within an Orthopaedic Trauma Clinical Trials Consortium. J Orthop Trauma. 2022 Jan 1;36(Suppl 1):S33-S39.doi: 10.1097/BOT.0000000000002291. PMID: 34924517; PMCID: PMC8694658. **Collaborator.**
2. Pechero G Jr, Pfaff B, Rao M, Pogorzelski D, McKay P, Spicer E, Howe A, Demyanovich HK, Sietsema DL, McTague MF, Ramsey L, Holden M, Rudnicki J, Wells J, Medeiros M, Slobogean GP, Sprague S; PREP-IT Investigators, Slobogean GP, Sprague S, Wells J, Bhandari M; Steering Committee; Adjudication Committee; Data and Safety Monitoring Committee; Research Methodology Core; Patient Centered Outcomes Core; Orthopaedic Surgery Core; Operating Room Core; Infectious Disease Core; Military Core; PREP-IT Clinical Sites, O'Toole RV, D'Alleyrand JC, Eglseder A, Johnson A, Langhammer C, Lebrun C, Manson T, Nascone J, Paryavi E, Pensy R, Pollak A, Sciadini M, Slobogean GP, Degani Y, Demyanovich HK, Howe A, O'Hara NN, Joseph K, Rudnicki J, Camara M; Aqueous-PREP and PREPARE; Aqueous-PREP; PREPARE. Implementing stakeholder engagement to explore alternative models of consent: An example from the PREP-IT trials. Contemp Clin Trials Commun. 2021 Jun 14;22:100787. doi: 10.1016/j.conctc.2021.100787. PMID: 34195467; PMCID: PMC8239736. **Collaborator.**
3. Leighton R, Phillips M, Bhandari M, **Zura R.** Low intensity pulsed ultrasound (LIPUS) use for the management of instrumented, infected, and fragility non-unions: a systematic review and meta-analysis of healing proportions. BMC Musculoskelet Disord. 2021 Jun 11;22(1):532. doi: 10.1186/s12891-021-04322-5. PMID: 34116673; PMCID: PMC8196464.
4. Jeffers KW, Shah SA, Calvert DD, Lemoine NP, Marucci J, Mullenix S, **Zura RD**, Bankston B, Bankston LS. Return to Play and Re-Injury Rates in NCAA Division I Football Players Following Anterior Cruciate Ligament Reconstruction Using Hamstring Autograft. Arthroscopy. 2021 May 3:S0749-8063(21)00449-7.

doi: 10.1016/j.arthro.2021.04.057. Epub ahead of print. PMID: 33957214.

1. Gitajn IL, Werth PM, Sprague S, Bzovsky S, Petrisor BA, Jeray KJ, O'Hara NN, Bhandari M, Slobogean G; FLOW Investigators. Effect of Tourniquet Use During Surgical Treatment of Open Fractures. J Bone Joint Surg Am. 2021 May 19;103(10):860-868. doi: 10.2106/JBJS.20.01458. PMID: 33877068. **Collaborator.**
2. Papakostidis C, Giannoudis PV, Watson JT, **Zura R**, Steen RG. Serious adverse events and 30-day hospital readmission rate following elective total knee arthroplasty: a systematic review and meta-analysis. J Orthop Surg Res. 2021 Mar 31;16(1):236. doi: 10.1186/s13018-021-02358-w. PMID: 33789702.
3. Comeau-Gauthier M, **Zura RD**, Bzovsky S, Schemitsch EH, Axelrod D, Avram V, Manjoo A, Poolman RW, Frihagen F, Heels-Ansdell D, Bhandari M, Sprague S; HEALTH Investigators. Heterotopic Ossification Following Arthroplasty for Femoral Neck Fracture. J Bone Joint Surg Am. 2021 Mar 25. doi: 10.2106/JBJS.20.01586. Epub ahead of print. PMID: 33764913.

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**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Major Extremity Trauma Research Consortium (METRC), O'Toole RV, Joshi M, Carlini AR, Murray CK, Allen LE, Huang Y, Scharfstein DO, O'Hara NN, Gary JL, Bosse MJ, Castillo RC, Bishop JA, Weaver MJ, Firoozabadi R, Hsu JR, Karunakar MA, Seymour RB, Sims SH, Churchill C, Brennan ML, Gonzales G, Reilly RM, **Zura RD**, Howes CR, Mir HR, Wagstrom EA, Westberg J, Gaski GE, Kempton LB, Natoli RM, Sorkin AT, Virkus WW, Hill LC, Hymes RA, Holzman M, Malekzadeh AS, Schulman JE, Ramsey L, Cuff JAN, Haaser S, Osgood GM, Shafiq B, Laljani V, Lee OC, Krause PC, Rowe CJ, Hilliard CL, Morandi MM, Mullins A, Achor TS, Choo AM, Munz JW, Boutte SJ, Vallier HA, Breslin MA, Frisch HM, Kaufman AM, Large TM, LeCroy CM, Riggsbee C, Smith CS, Crickard CV, Phieffer LS, Sheridan E, Jones CB, Sietsema DL, Reid JS, Ringenbach K, Hayda R, Evans AR, Crisco MJ, Rivera JC, Osborn PM, Kimmel J, Stawicki SP, Nwachuku CO, Wojda TR, Rehman S, Donnelly JM, Caroom C, Jenkins MD, Boulton CL, Costales TG, LeBrun CT, Manson TT, Mascarenhas DC, Nascone JW, Pollak AN, Sciadini MF, Slobogean GP, Berger PZ, Connelly DW, Degani Y, Howe AL, Marinos DP, Montalvo RN, Reahl GB, Schoonover CD, Schroder LK, Vang S, Bergin PF, Graves ML, Russell GV, Spitler CA, Hydrick JM, Teague D, Ertl W, Hickerson LE, Moloney GB, Weinlein JC, Zelle BA, Agarwal A, Karia RA, Sathy AK, Au B, Maroto M, Sanders D, Higgins TF, Haller JM, Rothberg DL, Weiss DB, Yarboro SR, McVey ED, Lester-Ballard V, Goodspeed D, Lang GJ, Whiting PS, Siy AB, Obremskey WT, Jahangir AA, Attum B, Burgos EJ, Molina CS, Rodriguez-Buitrago A, Gajari V, Trochez KM, Halvorson JJ, Miller AN, Goodman JB, Holden MB, McAndrew CM, Gardner MJ, Ricci WM, Spraggs-Hughes A, Collins SC, Taylor TJ, Zadnik M. Effect of Intrawound Vancomycin Powder in Operatively Treated High-risk Tibia Fractures: A Randomized Clinical Trial. JAMA Surg. 2021 Mar 24:e207259.

doi: 10.1001/jamasurg.2020.7259. Epub ahead of print. PMID: 33760010.

1. Medeiros M, Love TR, Slobogean GP, Sprague S, Perfetto EM, O'Hara NN, Mullins CD; PREP-IT Investigators:. Patient and stakeholder engagement learnings: PREP-IT as a case study. J Comp Eff Res. 2021 Apr;10(6):439-442.

doi: 10.2217/cer-2020-0266. Epub 2021 Mar 24. PMID: 33759556. **Collaborator.**

1. Sprague S, Guyatt P, Bzovsky S, Nguyen U, Bhandari M, Thabane L, Petrisor B, Johal HS, Leonard J, Dodds S, Mossuto F, O'Toole RV, Howe A, Demyanovich HK, Camara M, O'Hara NN, Slobogean GP; PREP-IT Investigators. Pragmatic randomized trial evaluating pre-operative aqueous antiseptic skin solution in open fractures (Aqueous-PREP): the feasibility of a cluster randomized crossover study. Pilot Feasibility Stud. 2021 Mar 1;7(1):61. doi: 10.1186/s40814-021-00800-8. PMID: 33648577. **Collaborator.**
2. Prada C, Tanner SL, Marcano-Fernández FA, Bzovsky S, Schemitsch EH, Jeray K, Petrisor B, Bhandari M, Sprague S; FLOW Investigators. Erratum to: How Successful Is Antibiotic Treatment for Superficial Surgical Site Infections After Open Fracture? A Fluid Lavage of Open Wounds (FLOW) Cohort Secondary Analysis. Clin Orthop Relat Res. 2021 Mar 1;479(3):641. doi: 10.1097/CORR.0000000000001638. Erratum for: Clin Orthop Relat Res. 2020 Dec;478(12):2846-2855. PMID: 33577209; PMCID: PMC7899434. **Collaborator.**
3. Machine Learning Consortium, on behalf of the SPRINT and FLOW Investigators. A Machine Learning Algorithm to Identify Patients with Tibial Shaft Fractures at Risk for Infection After Operative Treatment. J Bone Joint Surg Am. 2021 Mar 17;103(6):532-540. doi: 10.2106/JBJS.20.00903. PMID: 33394819. **Collaborator.**
4. Prada C, Marcano-Fernández FA, Schemitsch EH, Bzovsky S, Jeray K, Petrisor B, Bhandari M, Sprague S; FLOW Investigators. Timing and Management of Surgical Site Infections in Patients With Open Fracture Wounds: A Fluid Lavage of Open Wounds Cohort Secondary Analysis. J Orthop Trauma. 2021 Mar 1;35(3):128-135. doi: 10.1097/BOT.0000000000001912. PMID: 33105456. **Collaborator.**
5. Pogorzelski D, Nguyen U, McKay P, Thabane L, Camara M, Ramsey L, Seymour R, Goodman JB, McGee S, Fraifogl J, Hudgins A, Tanner SL, Bhandari M, Slobogean GP, Sprague S; PREP-IT Investigators Executive Committee:; Steering Committee; Adjudication Committee; Data and Safety Monitoring Committee; Research Methodology Core; Patient Centered Outcomes Core; Orthopaedic Surgery Core; Operating Room Core; Infectious Disease Core; Military Core; McMaster University Methods Center; University of Maryland School of Medicine Administrative Center; University of Maryland School of Pharmacy, The PATIENTS Program; PREP-IT Clinical Sites: Lead Clinical Site (Aqueous-PREP and PREPARE); Aqueous-PREP and PREPARE; Aqueous-PREP; PREPARE; PREP-IT Investigators Executive Committee. Managing work flow in high enrolling trials: The development and implementation of a sampling strategy in the PREPARE trial. Contemp Clin Trials Commun. 2021 Jan 23;21:100730. doi: 10.1016/j.conctc.2021.100730. PMID: 33605946; PMCID: PMC7873628. **Collaborator.**

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**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. **Zura R**, Irwin DE, Mack CD, Aldridge ML, Mackowiak JI. Real-World Evidence: A Primer. J Orthop Trauma. 2021 Mar 1;35(Suppl 1):S1-S5. doi: 10.1097/BOT.0000000000002037. PMID: 33587539.
2. Mackowiak JI, Mack CD, Irwin DE, **Zura** R. Randomized Clinical Trial or Real-World Evidence: How Historical Events, Public Demand, and the Resulting Laws and Regulations Shaped the Body of Medical Evidence. J Orthop Trauma. 2021 Mar 1;35(Suppl 1):S17-S21. doi: 10.1097/BOT.0000000000002040. PMID: 33587542.
3. Mack CD, Pavesio A, Kelly K, Irwin DE, Maislin G, Jones J, Wester T, **Zura R.** Breaking Barriers: Studying Fracture Healing in the BONES Program. J Orthop Trauma. 2021 Mar 1;35(Suppl 1):S22-S27.

doi: 10.1097/BOT.0000000000002035. PMID: 33587543.

1. Axelrod D, Tarride JÉ, Ekhtiari S, Blackhouse G, Johal H, Bzovsky S, Schemitsch EH, Heels-Ansdell D, Bhandari M, Sprague S; HEALTH Investigators. Is Total Hip Arthroplasty a Cost-Effective Option for Management of Displaced Femoral Neck Fractures? A Trial-Based Analysis of the HEALTH Study. J Orthop Trauma. 2020 Nov;34 Suppl 3:S37-S41. doi: 10.1097/BOT.0000000000001932. PMID: 33027164. **Collaborator.**
2. Irwin DE, Kelly K, Winer I, Stürmer T, **Zura R.** Methodologies for Validation of Diagnoses in Real-World Data: BONES-A Case Study. J Orthop Trauma. 2021 Mar 1;35(Suppl 1):S28-S32. doi: 10.1097/BOT.0000000000002036. PMID: 33587544.
3. **Zura R.** Introduction. J Orthop Trauma. 2021 Mar 1;35(Suppl 1):Si. doi: 10.1097/BOT.0000000000002034. PMID: 33953066.
4. Lin CA, O'Hara NN, Sprague S, O'Toole RV, Joshi M, Harris AD, Warner SJ, Johal H, Natoli RM, Hagen JE, Jeray KJ, Fowler JT, Phelps KD, Pilson HT, Gitajn IL, Bhandari M, Slobogean GP; PREP-IT Investigators. Low Adherence to Recommended Guidelines for Open Fracture Antibiotic Prophylaxis. J Bone Joint Surg Am. 2021 Jan 7;Publish Ahead of Print. doi: 10.2106/JBJS.20.01229. Epub ahead of print. PMID: 33411466. **Collaborator.**
5. Tornetta P 3rd, Della Rocca GJ, Morshed S, Jones C, Heels-Ansdell D, Sprague S, Petrisor B, Jeray KJ, Del Fabbro G, Bzovsky S, Bhandari M; FLOW Investigators. Risk Factors Associated With Infection in Open Fractures of the Upper and Lower Extremities. J Am Acad Orthop Surg Glob Res Rev. 2020 Dec 8;4(12):e20.00188. doi: 10.5435/JAAOSGlobal-D-20-00188. PMID: 33986214; PMCID: PMC7725249. **Collaborator.**
6. Prada C, Tanner SL, Marcano-Fernández FA, Bzovsky S, Schemitsch EH, Jeray K, Petrisor B, Bhandari M, Sprague S; FLOW Investigators. How Successful Is Antibiotic Treatment for Superficial Surgical Site Infections After Open Fracture? A Fluid Lavage of Open Wounds (FLOW) Cohort Secondary Analysis. Clin Orthop Relat Res. 2020 Dec;478(12):2846-2855. doi: 10.1097/CORR.0000000000001293. Erratum in: Clin Orthop Relat Res. 2021 Mar 1;479(3):641. PMID: 32412929; PMCID: PMC7899390.**Collaborator.**
7. MacDonald DRW, Neilly D, Schneider PS, Bzovsky S, Sprague S, Axelrod D, Poolman RW, Frihagen F, Bhandari M, Swiontkowski M, Schemitsch EH, Stevenson IM; FAITH Investigators; HEALTH Investigators. Venous Thromboembolism in Hip Fracture Patients: A Subanalysis of the FAITH and HEALTH Trials. J Orthop Trauma. 2020 Nov;34 Suppl 3:S70-S75. doi: 10.1097/BOT.0000000000001939. PMID: 33027169. **Collaborator.**
8. DeAngelis RD, Minutillo GT, Stein MK, Schemitsch EH, Bzovsky S, Sprague S, Bhandari M, Donegan DJ, Mehta S; HEALTH Investigators. Who Did the Arthroplasty? Hip Fracture Surgery Reoperation Rates are Not Affected by Type of Training-An Analysis of the HEALTH Database. J Orthop Trauma. 2020 Nov;34 Suppl 3:S64-S69. doi: 10.1097/BOT.0000000000001931. PMID: 33027168. **Collaborator.**
9. Noori A, Sprague S, Bzovsky S, Schemitsch EH, Poolman RW, Frihagen F, Axelrod D, Heels-Ansdell D, Bhandari M, Busse JW; HEALTH Investigators. Predictors of Long-Term Pain After Hip Arthroplasty in Patients With Femoral Neck Fractures: A Cohort Study. J Orthop Trauma. 2020 Nov;34 Suppl 3:S55-S63.

doi: 10.1097/BOT.0000000000001929. PMID: 33027167. **Collaborator.**

***Robert D. Zura, MD Curriculum Vitae, Page 9***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Blankstein M, Schemitsch EH, Bzovsky S, Poolman RW, Frihagen F, Axelrod D, Heels-Ansdell D, Bhandari M, Sprague S, Schottel PC; HEALTH Investigators. What Factors Increase Revision Surgery Risk When Treating Displaced Femoral Neck Fractures With Arthroplasty: A Secondary Analysis of the HEALTH Trial. J Orthop Trauma. 2020 Nov;34 Suppl 3:S49-S54. doi: 10.1097/BOT.0000000000001936. PMID: 33027166. **Collaborator.**
2. Neilly D, MacDonald DRW, Sprague S, Bzovsky S, Axelrod D, Poolman RW, Frihagen F, Heels-Ansdell D, Bhandari M, Schemitsch EH, Stevenson IM; HEALTH Investigators. Predictors of Medical Serious Adverse Events in Hip Fracture Patients Treated with Arthroplasty. J Orthop Trauma. 2020 Nov;34 Suppl 3:S42-S48. **Collaborator.**
3. Neilly D, MacDonald DRW, Sprague S, Bzovsky S, Axelrod D, Poolman RW, Frihagen F, Heels-Ansdell D, Bhandari M, Schemitsch EH, Stevenson IM; HEALTH Investigators. Predictors of Medical Serious Adverse Events in Hip Fracture Patients Treated with Arthroplasty. J Orthop Trauma. 2020 Nov;34 Suppl 3:S42-S48.

doi: 10.1097/BOT.0000000000001935. PMID: 33027165. **Collaborator.**

1. Axelrod D, Comeau-Gauthier M, Bzovsky S, Schemitsch EH, Poolman RW, Frihagen F, Guerra-Farfán E, Heels-Ansdell D, Bhandari M, Sprague S; HEALTH Investigators. What Predicts Health-Related Quality of Life for Patients With Displaced Femoral Neck Fractures Managed With Arthroplasty? A Secondary Analysis of the HEALTH Trial. J Orthop Trauma. 2020 Nov;34 Suppl 3:S29-S36. doi: 10.1097/BOT.0000000000001933. PMID: 33027163. **Collaborator.**
2. Sivaratnam S, Comeau-Gauthier M, Sprague S, Schemitsch EH, Poolman RW, Frihagen F, Bhandari M, Swiontkowski M, Bzovsky S; FAITH Investigators; HEALTH Investigators. Predictors of Loss to Follow-up in Hip Fracture Trials: A Secondary Analysis of the FAITH and HEALTH Trials. J Orthop Trauma. 2020 Nov;34 Suppl 3:S22-S28. doi:10.1097/BOT.0000000000001928. PMID: 33027162. **Collaborator.**
3. Bzovsky S, Comeau-Gauthier M, Schemitsch EH, Swiontkowski M, Heels-Ansdell D, Frihagen F, Bhandari M, Sprague S; FAITH Investigators; HEALTH Investigators. Factors Associated With Mortality After Surgical Management of Femoral Neck Fractures. J Orthop Trauma. 2020 Nov;34 Suppl 3:S15-S21. doi: 10.1097/BOT.0000000000001937. PMID: 33027161. **Collaborator.**
4. Afaq S, OʼHara NN, Schemitsch EH, Bzovsky S, Sprague S, Poolman RW, Frihagen F, Heels-Ansdell D, Bhandari M, Swiontkowski M, Slobogean GP; FAITH Investigators; HEALTH Investigators. Arthroplasty Versus Internal Fixation for the Treatment of Undisplaced Femoral Neck Fractures: A Retrospective Cohort Study. J Orthop Trauma. 2020 Nov;34 Suppl 3:S9-S14. doi: 10.1097/BOT.0000000000001940. PMID: 33027160. **Collaborator.**
5. Blankstein M, Schemitsch EH, Bzovsky S, Axelrod D, Poolman RW, Frihagen F, Bhandari M, Swiontkowski M, Sprague S, Schottel PC; FAITH Investigators; HEALTH Investigators. The FAITH and HEALTH Trials: Are We Studying Different Hip Fracture Patient Populations? J Orthop Trauma. 2020 Nov;34 Suppl 3:S1-S8. **Collaborator.**
6. Faith Investigators, Health Investigators. Study Summaries. J Orthop Trauma. 2020 Nov;34 Suppl 3:Sii-Siii. **Collaborator.**
7. Hale D, Marvel D, Wells J; PREP-IT Investigators. What's Important: Patient Engagement in Research. J Bone Joint Surg Am. 2020 Oct 21;102(20):1836-1838. doi: 10.2106/JBJS.19.00625. PMID: 33086354. **Collaborator.**
8. Sheila Sprague, Taryn Scott, Shannon Dodds, David Pogorzelski, Paula McKay, Anthony D Harris, Amber Wood, Lehana Thabane, Mohit Bhandari, Samir Mehta, Greg Gaski, Christina Boulton, Francesc Marcano-Fernández, Ernesto Guerra-Farfán, Joan Hebden, Lyndsay M O'Hara, Gerard P Slobogean, [PREP-IT Investigators](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=PREP-IT+Investigators%5BCorporate+Author%5D). Correction to: Cluster identification, selection, and description in Cluster randomized crossover trials: the PREP-IT trials. Trials 2020 Sep 30;21(1):821. **Collaborator.**

***Robert D. Zura, MD Curriculum Vitae, Page 10***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Sprague S, Scott T, Dodds S, Pogorzelski D, McKay P, Harris AD, Wood A, Thabane L, Bhandari M, Mehta S, Gaski G, Boulton C, Marcano-Fernández F, Guerra-Farfán E, Hebden J, O'Hara LM, Slobogean GP; PREP-IT Investigators. Cluster identification, selection, and description in cluster randomized crossover trials: the PREP-IT trials. Trials. 2020 Aug 12;21(1):712. doi: 10.1186/s13063-020-04611-9. Erratum in: Trials. 2020 Sep 30;21(1):821. PMID: 32787892; PMCID: PMC7425374. **Collaborator**
2. Zhang Y, Wright B, D'Amore P, Hightower C, Stang T, Israel H, Tucker M, **Zura R**, Cannada LK. Gunshot Wounds to the Hip: Doomed to Failure? J Surg Orthop Adv. 2020 Summer;29(3):135-140.
3. Peter C Krause, Stuart A Grant, Edward Perez, Adam J Starr, Lisa A Taitsman, R Grant Steen, **Robert Zura**. Letter to the Editor on: "Iatrogenic peroneal nerve palsy rates secondary to open reduction internal fixation for tibial plateau fractures using an intra-operative distractor." J Orthop Trauma 2020 Sep. 9.
4. Phillips MR, Chang Y, **Zura RD**, Mehta S, Giannoudis PV, Nolte PA, Bhandari M. Impact of COVID-19 on Orthopaedic Care: A Call for Nonoperative Management. Ther Adv Musculoskelet Dis. 2020 Jun 19; 12:1759720X20934276. doi: 10.1177/1759720X20934276. eCollection 2020.
5. Program of Randomized Trials to Evaluate Pre-operative Antiseptic Skin Solutions in Orthopaedic Trauma (PREP-IT) Investigators, Slobogean GP, Sprague S, Wells J, Bhandari M, Rojas A, Garibaldi A, Wood A, Howe A, Harris AD, Petrisor BA, Mullins DC, Pogorzelski D, Marvel D, Heels-Ansdell D, Mossuto F, Grissom F, Del Fabbro G, Guyatt GH, Della Rocca GJ, Demyanovich HK, Gitajn IL, Palmer J, D'Alleyrand JC, Friedrich J, Rivera J, Hebden J, Rudnicki J, Fowler J, Jeray KJ, Thabane L, Marchand L, O'Hara LM, Joshi MG, Talbot M, Camara M, Szasz OP, O'Hara NN, McKay P, Devereaux PJ, O'Toole RV, **Zura R**, Morshed S, Dodds S, Li S, Tanner SL, Scott T, Nguyen U. Effectiveness of Iodophor vs Chlorhexidine Solutions for Surgical Site Infections and Unplanned Reoperations for Patients Who Underwent Fracture Repair: The PREP-IT Master Protocol. JAMA Netw Open 2020 Apr 1; 3(4):e202215.
6. Stennett CA1, OʼHara NN2, Sprague S3, Petrisor B3, Jeray KJ4, Leekha S1, Yimgang DP1, Joshi M5, OʼToole RV2, Bhandari M3, Slobogean GP2; FLOW Investigators. Effect of Extended Prophylactic Antibiotic Duration in the Treatment of Open Fracture Wounds Differs by Level of Contamination. J Orthop Trauma. 2020 Mar;34(3):113-120. **Collaborator.**
7. Jennifer Simkin PhD, Amy Bronstone PhD, Andrew Chapple PhD, R. Carter Clement MD, MBA, Anna Cohen-Rosenblum MD, Malwina Czarny-Ratajczak PhD, Vinod Dasa MD, Colette Hilliard MS, Andrew King MD, Peter Krause MD, Luis Marrero PhD, Robert Maupin MD, Kimberlee Mix PhD, Martin J. Ronis PhD, Mimi C. Sammarco PhD, Edward J. Trapido ScD, **Robert Zura MD**, R. Grant Steen PhD. Letter to the Editor: Editorial: Beware of Studies Claiming that Social Factors are “Independently Associated” with Biological Complications of Surgery. Clin Orthop Relat Res (2019) 00:1-3.
8. HEALTH Investigators, Bhandari M, Einhorn TA, Guyatt G, Schemitsch EH, **Zura RD**, Sprague S, Frihagen F, Guerra-Farfán E, Kleinlugtenbelt YV, Poolman RW, Rangan A, Bzovsky S, Heels-Ansdell D, Thabane L, Walter SD, Devereaux PJ. Total Hip Arthroplasty or Hemiarthroplasty for Hip Fracture. [N Engl J Med.](https://www.ncbi.nlm.nih.gov/pubmed/31557429) 2019 Sep 26.
9. Koso REK, **Zura R**, Steen RG. Nonunion and Reoperation After Internal Fixation of Proximal Femur Fractures: A Systematic Review. Orthopedics 2019 Jan 30:1-10**.**
10. **Zura R**, Kaste SC, Heffernan MJ, Accousti WK, Gargiulo D, Wang Z, Steen RG. Risk factors for nonunion of bone fracture in pediatric patients: An inception cohort study of 237,033 fractures. Medicine (Baltimore). 2018 Aug; 97(31):e11691.

***Robert D. Zura, MD Curriculum Vitae, Page 11***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Buchheit T, **Zura R**, Wang Z, Mehta S, Della Rocca GJ, Steen RG. Opioid exposure is associated with nonunion risk in a traumatically injured population: An inception cohort study. Injury. 2018 May 21.
2. Sprague S, Tornetta P 3rd, Slobogean GP, O'Hara NN, McKay P, Petrisor B, Jeray KJ, Schemitsch EH, Sanders D, Bhandari M; FLOW Investigators. Are large clinical trials in orthopaedic trauma justified? BMC Musculoskelet Disord. 2018 Apr 20;19(1):124. doi: 10.1186/s12891-018-2029-3. **Collaborator.**
3. Koso RE, Terhoeve C, Steen RG, **Zura R**. Healing, nonunion, and re-operation after internal fixation of diaphyseal and distal femoral fractures: a systematic review and meta-analysis. Int Orthop. 2018 Mar 8. doi: 10.1007/s00264-018-3864-4. [Epub ahead of print].
4. **Zura R**, Steen RG. Patient-Reported Outcome Measures in Perspective. Orthopedics. 2018 Jan 1;41(1):10-11. doi: 10.3928/01477447-20180109-03.
5. Wasterlain AS1, Melamed E2, Bello R3, Karia R2, Capo JT2; Science of Variation Group. The Effect of Price on Surgeons' Choice of Implants: A Randomized Controlled Survey. J Hand Surg Am. 2017 Jun 9. pii: S0363-5023(16)31018-8. doi: 10.1016/j.jhsa.2017.05.005. [Epub ahead of print] **Collaborator.**
6. Kahn, Mani D. MD, MPH; Fox, Rabun MD; Stang, Thomas DO; Marrero, Christopher E.MD; **Zura, Robert D. MD.** Anatomic Fixation of Posterior Malleolus Fractures as an Alternative to Transsyndesmotic Fixation. Techniques in Orthopaedics. June 2017 - Volume 32 - Issue 2 - p 93–102.
7. **Robert Zura**, J. Tracy Watson , Thomas Einhorn, Samir Mehta, Gregory J. Della Rocca, Ze Xiong, Zhe Wang, John Jones, R. Grant Steen. An inception cohort analysis to predict nonunion in tibia and 17 other fracture locations. Injury 2017 Jun;48(6):1194-1203. doi: 10.1016/j.injury.2017.03.036. Epub 2017 Mar 27.
8. Bosse MJ, Teague D, Reider L, Gary JL, Morshed S, Seymour RB, Toledano J, Cannada LK, Steverson B, Scharfstein DO, Luly J, MacKenzie EJ; METRC.. Outcomes After Severe Distal Tibia, Ankle, and/or Foot Trauma: Comparison of Limb Salvage Versus Transtibial Amputation (OUTLET). J Orthop Trauma. 2017 Apr; 31 Suppl 1:S48-S55. doi: 10.1097/BOT.0000000000000799. **Collaborator.**
9. OʼToole RV, Joshi M, Carlini AR, Murray CK, Allen LE, Scharfstein DO, Gary JL, Bosse MJ, Castillo RC; METRC... Local Antibiotic Therapy to Reduce Infection After Operative Treatment of Fractures at High Risk of Infection: A Multicenter, Randomized, Controlled Trial (VANCO Study). J Orthop Trauma. 2017 Apr; 31 Suppl 1:S18-S24. doi: 10.1097/BOT.0000000000000801. **Collaborator.**
10. Bosse MJ, Murray CK, Carlini AR, Firoozabadi R, Manson T, Scharfstein DO, Wenke JC, Zadnik M, Castillo RC; METRC.. Assessment of Severe Extremity Wound Bioburden at the Time of Definitive Wound Closure or Coverage: Correlation With Subsequent Postclosure Deep Wound Infection (Bioburden Study). J Orthop Trauma 2017 Apr;31 Suppl 1:S18-S24. doi: 10.1097/BOT.0000000000000801. **Collaborator.**
11. **Zura R**, Xu ZJ, Della Rocca GJ, Mehta S, Steen RG. When is a fracture not "fresh"? Aligning reimbursement with patient outcome. J Orthop Trauma. 2016 Dec 28. doi: 10.1097/BOT.0000000000000778. [Epub ahead of print]**.**
12. Mellema JJ1, Mallee WH2, Guitton TG2, van Dijk CN2, Ring D3, Doornberg JN2; Science of Variation Group & Traumaplatform Study Collaborative. Online Studies on Variation in Orthopedic Surgery: Computed Tomography in MPEG4 Versus DICOM Format. J Digit Imaging. 2017 Jan 24. doi: 10.1007/s10278-016-9939-0. [Epub ahead of print] **Collaborator.**

***Robert D. Zura, MD Curriculum Vitae, Page 12***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Nickel BT, Klement MR, Richard MJ, **Zura R**, Garrigues GE. Closing the gap: a novel technique for humeral shaft nonunions using cup and cone reamers. Injury. 2016 Dec; 47 Suppl 7:S40-S43. doi: 10.1016/S0020-1383(16)30853-1.
2. Klement MR, Nickel BT, Bala A, Penrose CT, **Zura RD**, Garrigues GE. Glenohumeral arthritis as a risk factor for proximal humerus nonunion. Injury. 2016 Dec; 47 Suppl 7:S36-S39. doi: 10.1016/S0020-1383(16)30852-X.
3. Ryan S, Eward W, Brigman B, **Zura RD**. Chronic Osteomyelitis of the Distal Femur Treated with Resection and Delayed Endoprosthetic Reconstruction: A Report of Three Cases. Case Rep Orthop. 2017; 2017:5141032. doi: 10.1155/2017/5141032. Epub 2017 Aug 15.
4. Sprague S, Petrisor B, Jeray K, McKay P, Heels-Ansdell D, Schemitsch E, Liew S, Guyatt G, Walter SD, Bhandari M; FLOW Investigators. Wound irrigation does not affect health-related quality of life after open fractures: results of a randomized controlled trial. Bone Joint J. 2018 Jan;100-B(1):88-94. **Collaborator.**
5. Matson AP, Morwood MP, Peres Da Silva A, Cone EB, Hurwitz SR, **Zura RD**. Obese Patients Have Fewer Wound Complications Following Fixation of Ankle Fractures. [Foot Ankle Spec.](https://www.ncbi.nlm.nih.gov/pubmed/28030963) 2016 Dec 1:1938640016685146. doi: 10.1177/1938640016685146. [Epub ahead of print].
6. **Zura R**, Braid-Forbes MJ, Jeray K, Mehta S, Einhorn TA, Watson JT, Della Rocca GJ, Forbes K, Steen RG. Letter to the Editor in response to Drs. Safiri and Ayubi. Bone. 2016 Dec 23. pii: S8756-3282(16)30372-6. doi: 10.1016/j.bone.2016.12.010. [Epub ahead of print].
7. **Zura R**, Braid-Forbes MJ, Jeray K, Mehta S, Einhorn TA, Watson JT, Rocca GJ, Forbes K, Steen RG. [Bone fracture nonunion rate decreases with increasing age: A prospective inception cohort study.](https://www.ncbi.nlm.nih.gov/pubmed/27836732) Bone. 2016 Nov 8. pii: S8756-3282(16)30331-3. doi: 10.1016 [Epub ahead of print].
8. TRUST Investigators writing group, Jason W Busse, Mohit Bhandari, Thomas A Einhorn, Emil Schemitsch, James D Heckman, Paul Tornetta III, Kwok-Sui Leung, Diane Heels-Ansdell, Sun Makosso-Kallyth, Gregory J Della Rocca, Clifford B Jones, Gordon H Guyatt. Re-evaluation of low intensity pulsed ultrasound in treatment of tibial fractures (TRUST): randomized clinical trial. BMJ 2016; 355 doi: http://dx.doi.org/10.1136/bmj.i5351 (Published 25 October 2016.) **Collaborator.**
9. **Zura R**, Rocca GD, Mehta S, Goost H, Steen RG. Letter to the Editor re: Biglari et al. (2016). [Arch Orthop Trauma Surg.](https://www.ncbi.nlm.nih.gov/pubmed/27687178) 2016 Sep 29.
10. **Zura RD** , Xiong Z, Einhorn T, Watson JT, Ostrum RF, Prayson MJ, Della Rocca GJ, Mehta S, McKinley T, Wang Z, Steen RG. Epidemiology of Fracture Nonunion in 18 Human Bones. JAMA Surg. Published online September 07, 2016. doi:10.1001/jamasurg.2016.2775.
11. Claessen FM, Stoop N, Doornberg JN, Guitton TG, van den Bekerom MP, Ring D; Science of Variation Group. Interpretation of Post-operative Distal Humerus Radiographs After Internal Fixation: Prediction of Later Loss of Fixation. J Hand Surg Am. 2016 Aug 10 [Epub ahead of print] **Collaborator.**
12. Abadie B, Leas D, Cannada L, Malm P, Morwood M, Howes C, **Zura R**, Healy K, Avery M, Schlatterer D, Miller AN. Does Screw Configuration or Fibular Osteotomy Decrease Healing Time in Exchange Tibial Nailing? J Orthop Trauma. 2016 Jul 16.
13. Mellema JJ, Doornberg JN, Molenaars RJ, Ring D, Kloen P; Traumaplatform Study Collaborative & Science of Variation Group. Tibial Plateau Fracture Characteristics: Reliability and Diagnostic Accuracy.” J Orthop Trauma. 2016 May; 30(5):e144-51. **Collaborator.**

***Robert D. Zura, MD Curriculum Vitae, Page 13***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Yan AY, Bertrand TE, **Zura RD**, Adams SB, Parekh SG: “Novel Technique for Treatment of Calcaneal Tuberosity Fractures.” Journal of Surgical Orthopaedic Advances Vol 25, No. 1, 58-63. Spring 2016.
2. Burgers PT, Hoogendoorn M, Van Woensel EA, Poolman RW, Bhandari M, Patka P, Van Lieshout EM; HEALTH Trial Investigators. “Total medical costs of treating femoral neck fracture patients with hemi- or total hip arthroplasty: a cost analysis of a multicenter prospective study.” Osteoporos Int. 2016 Jun;27(6):1999-2008 Epub 2016 Jan 28. **Collaborator.**
3. Mellema JJ, Doornberg JN, Molenaars RJ, Ring D, Kloen P; Traumaplatform Study Collaborative & Science of Variation Group. “Interobserver reliability of the Schatzker and Luo classification systems for tibial plateau fractures.” Injury. 2016 Jan 2. **Collaborator.**
4. **Robert Zura, MD**; Samir Mehta, MD; Gregory J. Della Rocca, MD, PhD; R. Grant Steen, PhD. “Biological Risk Factors for Nonunion of Bone Fracture” JBJS Reviews, 2016 Jan; 4 (1).
5. Janssen SJ, Teunis T, Guitton TG, Ring D; Science of Variation Group. “Do Surgeons Treat Their Patients Like They Would Treat Themselves?” Clin Orthop Relat Res. 2015 Nov;473(11):3564-72. **Collaborator.**
6. FLOW Investigators. “A Trial of Wound Irrigation in the Initial Management of Open Fracture Wounds.” N Engl J Med. 2015 Oct 8. **Collaborator.**
7. Godin JA, Brown C, Mardam-Bey S, Deshpande C, Manson M, Boling J, Olson S, **Zura R.** “Two Admission Pathways for Elderly Hip Fracture Patients: Clinical Outcomes at a Single Institution.” Current Orthopaedic Practice 4: 387-394, 2015.
8. Catterall JB, **Zura RD**, Bolognesi MP, Kraus VB. “Aspartic Acid Racemization Reveals a High Turnover State in Knee Compared with Hip Osteoarthritic Cartilage.” Osteoarthritis Cartilage. 2015 Sep 25. pii: S1063-4584(15)01316-3.
9. Stabler T, **Zura RD**, Hsueh MF, Kraus VB. Xanthine oxidase injurious response in acute joint injury. Clin Chim Acta. 2015 Sep 26.
10. **Zura R**, Della Rocca GJ, Mehta S, Harrison A, Brodie C, Jones J, Steen RG. “Treatment of chronic (>1 year) fracture nonunion: Heal rate in a cohort of 767 patients treated with low-intensity pulsed ultrasound (LIPUS).” Injury. 2015 May 28.
11. Burgers PT, Poolman RW, Van Bakel TM, Tuinebreijer WE, Zielinski SM, Bhandari M, Patka P, Van Lieshout EM; HEALTH and FAITH Trial Investigators. “Reliability, validity, and responsiveness of the Western Ontario and McMaster Universities Osteoarthritis Index for elderly patients with a femoral neck fracture.” J Bone Joint Surg Am. 2015 May 6;97(9):751-7. **Collaborator.**
12. **Zura R**, Mehta S, Della Rocca GJ, Jones J, Steen RG. “A cohort study of 4,190 patients treated with low-intensity pulsed ultrasound (LIPUS): findings in the elderly versus all patients.” BMC Musculoskelet Disord. 2015 Mar.
13. Gupta S, **Zura RD**, Hendershot EF, Peterson AC. Pubic symphysis osteomyelitis in the prostate cancer survivor: clinical presentation, evaluation, and management. Urology. 2015 Mar; 85(3):684-90.
14. Furman BD, Kimmerling KA, **Zura RD**, Reilly RM, Zlowodzki MP, Huebner JL, Kraus VB, Guilak F, Olson SA. Brief Report: Articular Ankle Fracture Results in Increased Synovitis, Synovial Macrophage Infiltration, and Synovial Fluid Inflammatory Cytokines and Chemokines. Arthritis Rheumatol. 2015 May;67(5):1234-9.ellema JJ1, Doornberg JN2, Guitton TG2, Ring D3; Science of Variation Group. Biomechanical studies: science (f)or common sense? Injury 2014 Dec;45(12):2035-9. Epub 2014 Sep 28 Collaborator.

***Robert D. Zura, MD Curriculum Vitae, Page 14***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Tosti R, Ilyas AM, Mellema JJ, Guitton TG, Ring D; Science of Variation Group. Interobserver Variability in the Treatment of Little Finger Metacarpal Neck Fractures. J Hand Surg Am. 2014 Jul 14. **Collaborator.**
2. Bruinsma WE, Guitton T, Ring D; Science of Variation Group. Radiographic loss of contact between radial head fracture fragments is moderately reliable. Clin Orthop Relat Res. 2014 Jul; 472(7):2113-9.**Collaborator.**
3. Neuhaus V1, Bot AG, Guitton TG, Ring DC; Science of Variation Group, Abdel-Ghany MI, Abrams J, Abzug JM, Adolfsson LE, Balfour GW, Bamberger HB, Barquet A, Baskies M, Batson WA, Baxamusa T, Bayne GJ, Begue T, Behrman M, Beingessner D, Biert J, Bishop J, Alves MB, Boyer M, Brilej D, Brink PR, Brunton LM, Buckley R, Cagnone JC, Calfee RP, Campinhos LA, Cassidy C, Catalano L 3rd, Chivers K, Choudhari P, Cimerman M, Conflitti JM, Costanzo RM, Crist BD, Cross BJ, Dantuluri P, Darowish M, de Bedout R, DeCoster T, Dennison DG, DeNoble PH, DeSilva G, Dienstknecht T, Duncan SF, Duralde XA, Durchholz H, Egol K, Ekholm C, Elias N, Erickson JM, Esparza JD, Fernandes CH, Fischer TJ, Fischmeister M, Forigua Jaime E, Getz CL, Gilbert RS, Giordano V, Glaser DL, Gosens T, Grafe MW, Filho JE, Gray RR, Gulotta LV, Gummerson NW, Hammerberg EM, Harvey E, Haverlag R, Henry PD, Hobby JL, Hofmeister EP, Hughes T, Itamura J, Jebson P, Jenkinson R, Jeray K, Jones CM, Jones J, Jubel A, Kaar SG, Kabir K, Kaplan FT, Kennedy SA, Kessler MW, Kimball HL, Kloen P, Klostermann C, Kohut G, Kraan GA, Kristan A, Loebenberg MI, Malone KJ, Marsh L, Martineau PA, McAuliffe J, McGraw I, Mehta S, Merchant M, Metzger C, Meylaerts SA, Miller AN, Wolf JM, Murachovsky J, Murthi A, Nancollas M, Nolan BM, Omara T, Omara T, Ortiz JA, Overbeck JP, Castillo AP, Pesantez R, Polatsch D, Porcellini G, Prayson M, Quell M, Ragsdell MM, Reid JG, Reuver JM, Richard MJ, Richardson M, Rizzo M, Rowinski S, Rubio J, Guerrero CG, Satora W, Schandelmaier P, Scheer JH, Schmidt A, Schubkegel TA, Schulte LM, Schumer ED, Sears BW, Shafritz AB, Shortt NL, Siff T, Silva DM, Smith RM, Spruijt S, Stein JA, Pemovska ES, Streubel PN, Swigart C, Swiontkowski M, Thomas G, Tolo ET, Turina M, Tyllianakis M, van den Bekerom MP, van der Heide H, van de Sande MA, van Eerten PV, Verbeek DO, Hoffmann DV, Vochteloo AJ, Wagenmakers R, Wall CJ, Wallensten R, Wascher DC, Weiss L, Wiater JM, Wills BP, Wint J, Wright T, Young JP, Zalavras C, **Zura RD**, Zyto K. Scapula fractures: interobserver reliability of classification and treatment. J Orthop Trauma. 2014 Mar; 28(3):124-9.
4. Bruinsma WE, Guitton TG, Warner JJ, Ring D; Science of Variation Group. Interobserver reliability of classification and characterization of proximal humeral fractures: a comparison of two and three-dimensional CT. [J Bone Joint Surg Am.](http://www.ncbi.nlm.nih.gov/pubmed/24005201) 2013 Sep 4;95(17):1600-4. **Collaborator.**
5. Zielinski SM, Keijsers NL, Praet SF, Heetveld MJ, Bhandari M, Wilssens JP, Patka P, Van Lieshout EM; [FAITH Trial Investigators](http://www.ncbi.nlm.nih.gov/pubmed?term=FAITH%20Trial%20Investigators%5BCorporate%20Author%5D). Femoral neck shortening after internal fixation of a femoral neck fracture. [Orthopedics.](http://www.ncbi.nlm.nih.gov/pubmed/23823040) 2013 Jul; 36(7):e849-58. **Collaborator.**
6. Wittstein JR, Watson Mayer S, Mayer B, Krenzel B, Deshpande C, **Zura R.** ”Distal Femoral Locking Plates and the Posterolateral Corner.” J [Knee Surg.](http://www.ncbi.nlm.nih.gov/pubmed/23696254) 2013 May 21.
7. Hageman MG, Guitton TG, Ring D; Science of Variation Group: “How surgeons make decisions when the evidence is inconclusive.” J Hand Surg Am. 2013 Jun;38(6):1202-8. **Collaborator.**
8. Brown CA, Olson S, **Zura R.** “Predictors of length of hospital stay in elderly hip fracture patients” [J Surg Orthop Adv.](http://www.ncbi.nlm.nih.gov/pubmed/23628571) 2013 Summer;22(2):160-3.
9. Doornberg JN, Guitton TG, Ring D; Science of Variation Group. “[Diagnosis of elbow fracture patterns on radiographs: interobserver reliability and diagnostic accuracy.](http://www.ncbi.nlm.nih.gov/pubmed/23247817)” Clin Orthop Relat Res. 2013 Apr;471(4):1373-8. Epub 2012 Dec 18. **Collaborator.**
10. Cannada LK, Taylor RM, Reddix R, Mullis B, Moghadamian E, Erickson M; Southeastern Fracture Consortium: “[The Jones-Powell Classification of open pelvic fractures: a multicenter study evaluating mortality rates.](https://owa.dm.duke.edu/owa/redir.aspx?C=_hLf6oL3-Eqj03CGzGreGsFOe7itCNAIXNhh3bPOv8V4t2qSZ5StJ_Zo0Q7Mv033dL6v1V4F6mA.&URL=http%3a%2f%2fwww.ncbi.nlm.nih.gov%2fpubmed%2f23425755)” J Trauma Acute Care Surg. 2013 Mar;74(3):901-6. **Collaborator.**

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**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Nousiainen MT, Omoto DM, Zingg PO, Weil YA, Mardam-Bey SW, Eward WC.” T[raining femoral neck screw insertion skills to surgical trainees: computer-assisted surgery versus conventional fluoroscopic technique.](http://www.ncbi.nlm.nih.gov/pubmed/22688433)” J Orthop Trauma. 2013 Feb;27(2):87-92. **Collaborator.**
2. Hebert-Davies J, Laflamme GY, Rouleau D; HEALTH and FAITH investigators. “Bias towards dementia: are hip fracture trials excluding too many patients? A systematic review.” Injury. 2012 Dec;43(12):1978-84. Epub 2012 Sep 19. **Collaborator.**
3. Caputo AM, Howard RG, Watters TS, Olson SA, **Zura RD**, Bolognesi MP. “Computer-Assisted Reduction Method for Periprosthetic Distal Femur Fracture.” Journal of Surgical Orthopaedic Advances, Vol 21(2): 102-106, 2012.
4. Brown CA, Boling J, Manson M, Owens T, **Zura R.** “Relation between prefracture characteristics and perioperative complications in the elderly adult patient with hip fracture.” [South Med J.](http://www.ncbi.nlm.nih.gov/pubmed/22665153) 2012 Jun;105(6):306-10.
5. Lindenhovius A, Karanicolas PJ, Bhandari M, Ring D; COAST Collaborative. Radiographic arthrosis after elbow trauma: interobserver reliability. [J Hand Surg Am.](http://www.ncbi.nlm.nih.gov/pubmed/22397846) 2012 Apr.37(4):755-9. Epub 2012 Mar 6. **Collaborator.**
6. Buijze GA, Wijffels MM, Guitton TG, Grewal R, van Dijk CN, Ring D; [Science of Variation Group](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Science%20of%20Variation%20Group%22%5BCorporate%20Author%5D). Interobserver reliability of computed tomography to diagnose scaphoid waist fracture union. [J Hand Surg Am.](http://www.ncbi.nlm.nih.gov/pubmed/22281168) 2012 Feb.37(2):250-4. **Collaborator.**
7. Edlich RF, Garrison JA, Pace BM, Borel L, Rodeheaver GT, Thacker JG, Cox MJ, **Zura RD**, Lin KY. “Discontinuing the Use of Dangerous Cornstarch Powder on Medical Gloves.” [Ann Plast Surg.](http://www.ncbi.nlm.nih.gov/pubmed/22356783) 2012 Mar;68(3):332-333.
8. Zielinski SM, Viveiros H, Heetveld MJ, Swiontkowski MF, Bhandari M, Patka P, Van Lieshout EM; FAITH trial investigators. “Central coordination as an alternative for local coordination in a multicenter randomized controlled trial: the FAITH trial experience.” 2012 Jan 8;13:5. **Collaborator.**
9. Edlich RF, Buck LR, Garrison JA, Rhoads SK, Cox MJ, **Zura R.** “Developing an Organized Approach in the Food and Drug Administration to Ban Dangerous Devices that Can Injure the Patient and Health Care Worker.” [J Emerg Med.](http://www.ncbi.nlm.nih.gov/pubmed/22281033) 2012 Jan 25.
10. William C. Eward, DVM, MD; Dennis Darcey, MD; Leslie G. Dodd, MD; **Robert D. Zura, MD**.: “Case Report: Lead Toxicity Associated with an Extra-Articular Retained Missile 14 Years After Injury” Journal of Surgical Orthopaedic Advances, Vol 20 (4): 241-246, 2011.
11. Catterall JB, Hsueh MF, Stabler TV, McCudden CR, Bolognesi M, **Zura R**, Jordan JM, Renner JB, Feng S, Kraus VB.: “[Protein modification by deamidation indicates variations in joint extracellular matrix turnover.](http://www.ncbi.nlm.nih.gov/pubmed/22179616)” J Biol Chem. 2011 Dec 16.
12. Guitton TG, Ring D; Science of Variation Group. Interobserver reliability of radial head fracture classification: two-dimensional compared with three-dimensional CT [J Bone Joint Surg Am.](http://www.ncbi.nlm.nih.gov/pubmed/22048097) 2011 Nov 2;93(21):2015-21. **Collaborator.**
13. FLOW Investigators, Petrisor B, Sun X, Bhandari M, Guyatt G, Jeray KJ, Sprague S, Tanner S, Schemitsch E, Sancheti P, Anglen J, Tornetta P, Bosse M, Liew S, Walter S. [Fluid lavage of open wounds (FLOW): a multicenter, blinded, factorial pilot trial comparing alternative irrigating solutions and pressures in patients with open fractures.](http://www.ncbi.nlm.nih.gov/pubmed/21378581) J Trauma. 2011 Sep;71(3):596-606. **Collaborator.**
14. Payne DES, Wray WH, Ruch DS, **Zura RD**, Moorman CT. “Outcome of Intramedullary Fixation of Clavicular Fractures.” Am J Orthop 2011; Jun:40(6): E99-E104.
15. Edlich RF, Rhoads SK, Buck LR, Gubler KD, Long WB 3rd, **Zura R.**: “The failure of the food and drug administration to protect operating room personnel from the spread of deadly blood-borne infections.” [Ann Plast Surg.](javascript:AL_get(this,%20'jour',%20'Ann%20Plast%20Surg.');) Apr; 66(4):421, 2011.
16. Wittstein J, Vinson E, **Zura R.**: Traumatic Subchondral Fracture of the Femoral Head: A Case Report. Journal of Surgical Orthopaedic Advances 19(4): 234-235, 2010.

***Robert D. Zura, MD Curriculum Vitae, Page 16***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Edlich RF, Rodeheaver GT, Thacker JG, Borel L, Stevens HS, Dahlstrom JJ, Clark JJ, Wallis AG, Rhoads SK, Lin KY, Cox MJ, **Zura RD**.: “[Making medical gloves safe.](http://www.ncbi.nlm.nih.gov/pubmed/20864826)” Ann Plast Surg. Oct; 65(4):443-4, 2010.
2. Edlich RF, Long WB 3rd, Gubler KD, Rodeheaver GT, Thacker JG, Borel L, Dahlstrom JJ, Clark JJ, Kasinger E, Lin KY, Cox MJ, **Zura RD**.: “[A Wakeup Call to The Food and Drug Administration to Ban Cornstarch on Medical Gloves.](http://www.ncbi.nlm.nih.gov/pubmed/20656434)” J Emerg Med. 2010 Jul 23.
3. Flow Investigators: “ Fluid lavage of open wounds (FLOW): design and rationale for a large, multicenter collaborative 2 x 3 factorial trial of irrigating pressures and solutions in patients with open fractures.” J Trauma. 2011 Sep;71(3):596-606. **Collaborator**.
4. Adams SB Jr, Mayer SW, Hamming MG, **Zura RD**.: “Femoral neck fracture in association with low-energy pelvic ring fractures in an elderly patient.” [Am J Emerg Med.](javascript:AL_get(this,%20'jour',%20'Am%20J%20Emerg%20Med.');) 2010 Jul; 28(6):746.e1-3. Epub 2010 Mar 25.
5. **Zura RD**, Adams SB Jr, Jeray KJ, Obremskey WT, Stinnett SS, Olson SA; for the Southeastern Fracture Consortium Foundation: “[Timing of Definitive Fixation of Severe Tibial Plateau Fractures With Compartment Syndrome Does Not Have an Effect on the Rate of Infection.](http://www.ncbi.nlm.nih.gov/pubmed/20495494)” J Trauma. 2010 May 20.
6. Gaskill TR, **Zura R**, Aldridge JMIII: “Recurrent Compartment Syndrome: 2 Cases and a Review of the Literature.” Am J Orthop. Vol XXXIX (3), March, 2010.
7. Lindenhovius A, Karanicolas PJ, Bhandari M, van Dijk N, Ring D; Collaboration for Outcome Assessment in Surgical Trials: “[Interobserver reliability of coronoid fracture classification: two-dimensional versus three-dimensional computed tomography](http://www.ncbi.nlm.nih.gov/pubmed/19833449?itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum&ordinalpos=1)” J Hand Surg Am. 2009 Nov;34(9):1640-6. Epub 2009 Oct 14. **Collaborator**
8. Bhandari M, Sprague S, Schemitsch EH; International Hip Fracture Research Collaborative: “Resolving controversies in hip fracture care: the need for large collaborative trials in hip fractures.” J Orthop Trauma 23(6), 479-84, 2009. **Collaborator.**
9. Karanicolas PJ, Bhandari M, Walter SD, Heels-Ansdell D, Guyatt GH; Collaboration for Outcomes Assessment in Surgical Trials (COAST) Musculoskeletal Group. Radiographs of hip fractures were digitally altered to mask surgeons to the type of implant without compromising the reliability of quality ratings or making the rating process more difficult. J Clin Epidemiol. 2009 Feb;62(2):214-223.e1. Epub 2008 Sep 7. **Collaborator.**
10. Edlich RF, Long WB 3rd, Gubler DK, Rodeheaver GT, Thacker JG, Borel L, Chase ME, Fisher AL, Manson SS, Lin KY, Cox MJ, **Zura RD**: “Dangers of Cornstarch Powder on Medical Gloves – Seeking a Solution.” Annals of Plastic Surgery 63, 1, July 2009.
11. Catterall JB, Barr D, Bolognesi M, **Zura RD**, Kraus VB:“Post-translational aging of proteins in osteoarthritic cartilage and synovial fluid as measured by isomerized aspartate.” Arthritis Res Ther 11(2):R55. Epub 2009 Apr 16.
12. Richard F. Edlich MD, PhD, William B. Long III MD, Dean Gubler DO, MPH,George T. Rodeheaver PhD, John G. Thacker PhD, Lise Borel DMD, Margot E. Chase , Catherine L. Cross, Allyson L. Fisher , Kant Y. Lin MD, Mary J. Cox MD, **Robert D. Zura MD**: “Citizen's Petition to Food and Drug Administration to ban cornstarch powder on medical gloves: Maltese cross birefringence.” American Journal of Emergency Medicine 27, 227–235, 2009.
13. Stabler TV, Byers SS, **Zura RD**, Kraus VB. “Amino acid racemization reveals differential protein turnover in osteoarthritic articular and meniscal cartilages.” Arthritis Res Ther. 2009 Mar 6;11(2):R34.
14. Cannada LK, Viehe T, Cates CA, Norris RJ, **Zura RD**, Dedmond B, Obremskey W, Bosse M, and the Southeastern Fracture Consortium. “A Retrospective review of high-energy femoral neck-shaft fractures.” J Orthop Trauma, Vol 23, 254-260, 2009.
15. Viol A, Pradka SP, Baumeister SP, Wang D, Moyer KE, **Zura RD**, Olson SA, Zenn MR, Levin SL, Erdmann D. “Soft-tissue defects and exposed hardware: a review of indications for soft-tissue reconstruction and hardware preservation.” Plast Reconstr Surg. 123(4):1256-63, 2009.

***Robert D. Zura, MD Curriculum Vitae, Page 17***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Brad Petrisor, Kyle Jeray, Emil Schemitsch, Beate Hanson, Sheila Sprague, David Sanders and Mohit Bhandari for the FLOW Investigators: “Fluid lavage in patients with open fracture wounds (FLOW): an international survey of 984 surgeons”, BMC Musculoskeletal Disorders 9:7, 2008. **Collaborator.**
2. Adams SB Jr., Radkowski CA, **Zura RD**, Moorman CT III. Complete quadriceps tendon rupture with concomitant tears of the anterior cruciate ligament and lateral meniscus. Orthopaedics. 2008;31(1):88.
3. Marchant MH, **Zura RD**, Urbaniak JR, Aldridge III JM: “Hip incision planning for free vascularized fibular grafting of the proximal femur: A handy tip”. Journal of Surgical Orthopaedic Advances, Vol 16 (4): 204-206, 2007.
4. **Zura RD**, Adams SB, Mata BA, Pietrobon R, Olson SA: “Does knee position at the time of tourniquet inflation affect knee range of motion?” Journal of Surgical Orthopaedic Advances, Vol 16 (4): 171-173, 2007.
5. Hembree WC, Ward BD, Furman BD, **Zura RD**, Nichols LA, Guilak F, Olson SA: “Viability and apoptosis of human chondrocytes in osteochondral fragments following joint trauma”. Journal of Bone and Joint Surgery – BR Vol 89 (10):1388-95, 2007.
6. **Zura RD**, Browne JA, Black MD, Olson SA. “Current management of high-energy tibial plateau fractures”. Current Orthopaedics, Vol 21 (3): 229-235, 2007.
7. **Zura RD**, Sasser B, Sabesan V, Pietrobon R, Tucker MC, Olson SA: A Survey of Orthopaedic Traumatologists Concerning the Use of Bone Growth Stimulators. Journal of Surgical Orthopaedic Advances, Vol 16(1): 1-4, 2007.
8. **Zura RD**, Browne JA: Current Concepts In Locked Plating. Journal of Surgical Orthopaedic Advances, Vol 15(3): 173-176, 2006.
9. Radkowski CA, Simovitch RW, **Zura RD**: Manufacturing Imperfection of a Locking Plate Screw Hole: A Case Report. Journal of Long-Term Effects of Medical Implants, Vol 16:179-184, 2006.
10. Simovitch RW, Radkowski CA, **Zura RD**: Intramedullary Fixation of Fibular Fractures with Flexible Titanium Elastic Nails: Surgical Technique and Case Report. Journal of Long-Term Effects of Medical Implants, Vol 16: 175-178, 2006.
11. Richard F. Edlich, MD, PhD, Mary Anne Hudson, RN, BSN, Ralph M. Buschbacher, MD, Kathryne L. Winters, L. D. Britt, MD, MPH, FACS, Mary Jude Cox, MD, Daniel G. Becker, MD, FACS, Joseph K. McLaughlin, Ph.D., K. Dean Gubler, DO, MPH, Thomas S. P. Zomerschoe, RPT, Mary F. Latimer, CPMSC, CPCS, Robert D. **Zura**, MD, Nona S. Paulsen, CMA, William B. Long III, MD, Barbara M. Brodie, PhD, RN, Susan Berenson RN, BSN, MSN, Scott E. Langenburg, MD, FACS, Lise Borel, DMD, Danielle B. Jenson, Dillon E. Chang, MD, W. Randolph Chitwood, Jr., MD, Thomas H. Roberts, Esq., Mara J. Martin, BS, RN, Anna Miller, RN, BSN, Charles L. Werner, Peyton T. Taylor, Jr., M.D., Jeanette Lancaster, PhD, NR, FAAN, Marina S. Kurian, MD, Jerry L. Falwell, Jr: Devastating Injuries in Healthcare Workers: Description of the Crisis and Legislative Solution to the Epidemic of Back Injury from Patient Lifting. Journal of Long-Term Effects of Medical Implants 15(2): 225-242, 2005.
12. Peindl RD, **Zura RD**, Vincent AS, Coley ER, Bosse MJ, and Sims SH: Unstable Proximal Extra-Articular Tibia Fractures: A Biomechanical Evaluation of Four Methods of Fixation. JOT 18(8):540-545, September 2004.
13. Edwards BT, **Zura RD**, Bertrand S, Leonard S and Pellett J: Treatment of Neuromuscular Scoliosis with Posterior Spinal Fusion Using the Galveston Technique: A Retrospective Review and Results of 62 Patients. Journal of Long-Term Effects of Medical Implants 13(6): 437-44, 2003.
14. Edwards BT, Leach PB, **Zura RD**, Corpe RS, and Young TR: Presentation of Gamma-Irradiated in Air Polyethylene Wear in the Form of a Synovial Cyst. Journal of Long-Term Effects of Medical Implants 13(5): 413-7, 2003.
15. **Zura RD** and Bosse MJ: Current Management of Gunshot Wounds to the Hip and Pelvis. CORR 408:110-114, March 2003.

***Robert D. Zura, MD Curriculum Vitae, Page 18***

**PUBLICATIONS | REFEREED JOURNALS** *(continued)*

1. Chang JK, Gill SS, **Zura RD**, Krause WR, and Wang GJ: Comparative Strength of Three Methods of Fixation of Transverse Acetabular Fractures. CORR 392: 433-41, Nov. 2001.
2. Miller CW and **Zura RD**: Closed Reduction of a Dislocation of a Constrained Acetabular Component. Journal of Arthroplasty 16(4): 504-5, 2001.
3. **Zura RD** and Kahler DM: A Transverse Acetabular Nonunion Treated with Computer-Assisted Percutaneous Internal Fixation a Case Report. JBJS, 82-A: 219-224, 2000.
4. **Zura RD**, Minasi JS, and Kahler DM: Tumor-induced Osteomalacia and Symptomatic Looser Zones Secondary to Mesenchymal Chondrosarcoma. Journal of Surgical Oncology. 71(1):58-62, May 1999.
5. Kahler DM and **Zura RD**: Evaluation of a Computer Integrated Surgical Technique for Percutaneous Fixation of Transverse Acetabular Fractures. Lecture Notes Comput. Sci., 1205: 565-572, 1997.
6. Cox MJ, Bromberg WJ, **Zura RD**, Foresman PA, Morgan RG, and Edlich RF: New Advances in Electronic Devices for Hole Detection. J Appl Biomat 5:257-264, 1994.
7. Ruhl CM, Urbaniac JH, Foresman PA, Cox MJ, Rodeheaver GT, **Zura RD**, and Edlich RF: A New Hazard of Cornstarch, an Absorbable Dusting Powder. J Emerg Med 12:11-14, 1994.
8. Redd JL, **Zura RD**, Tanner AW, Walk EE, WU MM, and Edlich RF: Personal Emergency Response Systems. J Burn Care & Rehab 13:453-459, 1992.
9. Tanner RW, **Zura RD**, Chen VT, Gregory PC, Becker DG, Thacker JG, and Edlich RF: A System for Adaptive Transportation. J Burn Care & Rehab 11:543-551, 1990.
10. **Zura RD**, Groschel DHM, Becker DG, Hwang JC-S, and Edlich RF: Is There a Need for State Health Department Sanitary Codes for Public Hydrotherapy and Swimming Pools? J Burn Care & Rehab 11:146-150, 1990.
11. Devlin PM, Hwang JC-S, Winchell CJ, Day SG, **Zura RD**, and Edlich RF: Automated Hydrotherapy Pool Water Treatment System. J Burn Care & Rehab 10:74-78, 1989.

**NON-REFEREED PUBLICATIONS**

* Blizzard DJ, Agaba P, Morwood MP, Jerele JL, **Zura RD**. “Risks and Benefits of the Different Types of Gloves used in the Perioperative Setting” The Duke Orthop J 2017;7(1)3-10.
* Matson AP, Green CL, Hurwitz SR, **Zura RD**. “Stability of Ankle Fracture-Dislocation following Successful Closed Reduction” The Duke Orthop J 2017;7(1):58-63.
* **Zura RD**. Column: “Powdered Gloves Ban Only Helps Surgical Practices.” Surgical Products April, 2016.
* Antonio Barquet, Joao Matheus Guimaraes, Enrique Barrios, Mariela Garau, **Robert D Zura**, and William C Eward. “Epidemiology and Diagnosis of Ipsilateral Femoral Neck and ShaftFractures: A Systematic Review of 1761 cases in 1758 Patients” Trauma Cases Rev 2015, 1:3**.**
* Parekh S, Bertrand T, **Zura R**, Adams S, Yan A: “Novel Techniques in Treating Calcaneal Tuberosity Fractures.” The Duke Orthopaedic Journal 2014;4(1):3-7.
* Viens NA, Sutter EG, Mangiapani DS, Adams SB, **Zura RD**: “Unstable Ankle Fractures in Older Patients: A Consecutive Series with Modern Internal Fixation Techniques.” The Duke Orthopaedic Journal Vol 3, No. 1. June 2013.
* **Zura RD**, Krewatch MR, Crowder TT, Manson M, Richardson WJ. “From Shands to Nunley…..The History of Duke Orthopaedics. The Duke Orthopaedic Journal July 2010-June 2011. Vol. 1 Number 1.

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**INVITED LECTURES & PRESENTATIONS**

**2023**

* “Subtrochanteric Femur Fractures.” William J. Mills III All Alaska Orthopedic Conference. Girdwood, AK. March 31, 2023.
* Orthopaedics – It’s A Wonderful Career- The Privilege of Patient Care.” William J. Mills III All Alaska Orthopedic Conference. Girdwood, Alaska. April 1, 2023.
* “Proximal & Distal 1/3 Tibia Fractures.” William J. Mills III All Alaska Orthopedic Conference. Girdwood, AK. April 2, 2023.
* “Update on Ankle Fractures.” William J. Mills III All Alaska Orthopedic Conference. Girdwood, Alaska. April 2, 2023.
* “Turtle on a Post-Recognizing Our Mentors” 2023 Orthopaedic Surgery Alumni Weekend. Charlottesville, VA. April 21, 2023.
* “Subtrochanteric Femur Fractures – Tips and Tricks” 5th Annual: Best of Orthopaedic Techniques: International Summit 2023. July 8, 2023. Virtual to an Indian Audience
* “Fractures of the Femoral Head – Pipkin Fractures” 5th Annual: Best of Orthopaedic Techniques: International Summit 2023. July 8, 2023. Virtual to an Indian Audience
* “Faith Trial” 5th Annual: Best of Orthopaedic Techniques: Int’l. Summit 2023. July 8, 2023. Virtual to an Indian Audience
* “LIPUS Care Pathways for Bone Healing.” Innovations for Active Healing: Leveraging Innovation and Cost-Effectiveness to Enhance Patient Outcomes. September 27, 2023.
* PREPARE-Closed: A Pragmatic Randomized Trial Evaluating Preoperative Skin Solutions in Closed Fractured Extremities. Sheila Sprague Presenter. **PREP-IT Investigators.** OTA Seattle, WA. October 19, 2023. Podium
* PREPARE-Open: A Pragmatic randomized Trial Evaluating Preoperative Alcohol Skin Solutions in Open Fractured Extremities. Gerard Slobogean Presenter. **PREP-IT Investigators**. OTA Seattle, WA. October 20, 2023. Podium
* “Is Selectively Culturing Long Bone Nonunions Safe? A Multicenter Study.” Nainisha Chintalapudi Presenter. **EMIT Group**. OTA Seattle, WA. October 20, 2023. Podium
* “Ankle Fracture Update” SBOT Sociedade Brasileira De Ortopedia E Traumatologia. 55TH Congresso Annual. Brasilia, Brazil. November 16, 2023. Podium
* “Proximal Tibia Fractures” SBOT Sociedade Brasileira De Ortopedia E Traumatologia. 55TH Congresso Annual. Brasilia, Brazil. November 16, 2023. Podium
* “Update on Nonunions” SBOT Sociedade Brasileira De Ortopedia E Traumatologia. 55TH Congresso Annual. Brasilia, Brazil. November 17, 2023. Podium
* “My Experience with War” SBOT Sociedade Brasileira De Ortopedia E Traumatologia. 55TH Congresso Annual. Brasilia, Brazil. November 17, 2023. Podium

**2022**

* “Lessons along the way and other ramblings from an old curmudgeon.” Selznick Day Visiting Professor. Montefiore (Graduation) Bronx, NY. June 14, 2022.
* “The Privilege of patient care, It’s a wonderful career.” Selznick Day Visiting Professor. Montefiore (Graduation) Bronx, NY. June 15, 2022.
* “Patient-centric approaches to bone healing” Keynote Speaker. Innovations for Active Healing Symposium. Friday September 30, 2022. Virtual.
* Aqueous-PREP:A Pragmatic Randomized Trial Evaluating Preoperative Aqueous Antiseptic Skin Solutions in Open Fractures. Prep-It Investigators. Garard Slobogean Presenter. Podium. Chair’s Choice Papers. OTA. Tampa, FL. September 13, 2022.
* Symposium III Addressing Intimate Partner Violence in Orthopaedic TraumaSettings: The Educate Program. OTA Tampa, Fl. September 14, 2022. Podium Panelist.

**2021**

* “Patient-Centric Approaches to Bone Healing” Grand Rounds. Stanford University Orthopaedics. Wednesday June 23, 2021. Virtual.
* “LIPUS-The Totality of the Evidence” ANZ Medical Ed. event. Australia, NZ, Southeast Asia, Amsterdam. Virtual.
* “Proximal Tibia Fractures – Supra-Patellar Nailing” Kuntscher Society Forum at the 51st Peruvian Congress of Orthopedics and Traumatology. Peru. September 16, 2021. Virtual.
* “The Surgeon’s Perspective” Bioventus sales training. Memphis, TN. September 21, 2021. Virtual.

**2020**

* Webinar: Patient-Centric Approaches to Bone Healing: <https://www.naccme.com/program/20-wccme-201>
* “Gunshot Wounds to the Hip: Doomed to Failure?” YiY Zhang BS ; Breydan Wright BS; Peter D’ Amore MD (Presenter); Cody Hightower MD; Thomas Stang, MD; Heidi Israel PHD; Michael Tucker MD, **Robert Zura MD**, Lisa K. Cannada MD. Podium – Louisiana Orthopaedic Association. New Orleans, LA. March 6, 2020.
* “Patient-Centric Approaches to Bone Healing”–Advancing Orthobiologics–Virtual Symposium. Exploring Advancements in Orthobiologics for Knee Osteoarthritis and Bone Healing. <https://www.advancingorthobiologics.com/>
* “Patient-Centric Approaches to Bone Healing” Grand Rounds. UCSD (University of California San Diego) Wednesday September 2, 2020. Virtual.
* “Nonunions – What do we know and can we predict them?” Grand Rounds MUSC (Medical University of South Carolina) Tuesday October 20, 2020. Virtual.
* “Patient-Centric Approaches to Bone Healing” Grand Rounds. Jack Hughston Memorial Hospital. Phenix City, AL December 2, 2020. Virtual.
* “Patient-Centric Approaches to Bone Healing” Grand Rounds. WellSpan York Hospital. York, PA. December 30, 2020. Virtual.

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**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2019**

* “Femoral Neck Nonunions” Best in Orthopaedic Techniques – in association with the OTA and AAOS. New Delhi, India. September 13-14, 2019.
* “Subtrochanteric Fractures – Tips and Tricks” Best in Orthopaedic Techniques – in association with the OTA and AAOS. New Delhi, India. September 13-14, 2019.
* “Atypical Femoral Fractures – Long Term Impact of Bisphosphonate Therapy” Best in Orthopaedic Techniques – in association with the OTA and AAOS. New Delhi, India. September 13-14, 2019.
* “Extreme Nailing – Techniques and Tips in treating Distal Tibia Fractures” Best in Orthopaedic Techniques – in association with the OTA and AAOS. New Delhi, India. September 13-14, 2019.
* “Induced Membranes – The Masquelet Technique” Best in Orthopaedic Techniques – in association with the OTA and AAOS. New Delhi, India. September 13-14, 2019.
* “Osteomyelitis and Antibiotic Nails – Review, indications, and Fabrication” Best in Orthopaedic Techniques – in association with the OTA and AAOS. New Delhi, India. September 13-14, 2019.
* “Overview of Biologic Factors Impacting Nonunion and Can Nonunions be Predicted?” Best in Orthopaedic Techniques – in association with the OTA and AAOS. New Delhi, India. September 13-14, 2019.
* “Femoral Neck Nonunions” Best in Orthopaedic Techniques – in association with the OTA and AAOS. Mumbai, India. September 15-16, 2019.
* “Subtrochanteric Fractures – Tips and Tricks” Best in Orthopaedic Techniques – in association with the OTA and AAOS. Mumbai, India. September 15-16, 2019.
* “Atypical Femoral Fractures – Long Term Impact of Bisphosphonate Therapy” Best in Orthopaedic Techniques – in association with the OTA and AAOS. Mumbai, India. September 15-16, 2019.
* “Extreme Nailing – Techniques and Tips in treating Distal Tibia Fractures” Best in Orthopaedic Techniques – in association with the OTA and AAOS. Mumbai, India. September 15-16, 2019.
* “Induced Membranes – The Masquelet Technique” Best in Orthopaedic Techniques – in association with the OTA and AAOS. Mumbai, India. September 15-16, 2019.
* “Osteomyelitis and Antibiotic Nails – Review, indications, and Fabrication” Best in Orthopaedic Techniques – in association with the OTA and AAOS. Mumbai, India. September 15-16, 2019.
* Podium Presentation, Highlight Paper: “Total Hip Arthroplasty or Hemiarthroplasty for Hip Fracture.” HEALTH Investigators, Bhandari M (Presenter), Einhorn TA, Guyatt G, Schemitsch EH (presenter), **Zura RD** (Presenter), Sprague S, Frihagen F 9Presenter), Guerra-Farfán E, Kleinlugtenbelt YV, Poolman RW, Rangan A, Bzovsky S, Heels-Ansdell D, Thabane L, Walter SD, Devereaux PJ. Orthopaedic Trauma Association (OTA) Denver, Colorado. September 26, 2019.
* Podium Presentation: “Early Weight Bearing After Distal Femoral Fractures in the Elderly: A Prospective, Cohort Pilot Study.” Cannaa LK (Presenter), Bruggers JL, Jeray KJ, **Zura RD**, Tanner SL, Dawson S, Israel H. Orthopaedic Trauma Association (OTA) Denver, Colorado. September 27, 2019.
* “Update on Ankle Fractures” 14th Annual Congress of Chinese Orthopaedic Association. Shanghai, China. November 14, 2019.
* “Nonunions – What we know and Can We Predict Them?” 14th Annual Congress of Chinese Orthopaedic Association. Shanghai, China. November 15, 2019.

**2018**

* “Healing, Nonunion and Reoperation After Internal Fixation of Diaphyseal and Distal Femoral Fractures: A Systematic Review and Meta-Analysis” Terhoeve C, Nomides R, **Zura R**, Steen RG. Podium – Presenter C. Terhoeve; Louisiana Orthopaedic Association – Annual Meeting, New Orleans, LA. 2018.
* “Nonunions: What do we know and can we predict them?” Richard Whitehill Visiting Professor Lecture. The University of Virginia. Charlottesville, Va. February 21, 2018.
* “Distinguished Visiting Surgeons Program: Landstuhl, Germany” Richard Whitehill Visiting Professor Lecture. The University of Virginia. Charlottesville, Va. February 21, 2018.
* “Nonunions: What do we know and can we predict them?” Grand Rounds, University of Colorado, Department of Orthopaedics. May 2, 2018.
* “Nonunions: What do we know and can we predict them?” Kimbrough Moore Day – University of South Carolina – Department of Orthopaedics. Columbia, SC. May 18, 2018.

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**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2018** *(continued)*

* “Distinguished Visiting Surgeons Program: Landstuhl, Germany” Kimbrough Moore Day – University of South Carolina – Department of Orthopaedics. Columbia, SC. May 18, 2018.
* “Nonunions – What do we know and can we predict them?” Twentieth Century Orthopaedics Association Annual Meeting. Nemacolin, Pa. July 26, 2018.
* “Nonunions – What do we know and can we predict them?” Osteosynthese International 2018, Annual meeting of the Kuntscher Society. Poznan, Poland. September 6-8, 2018.
* “Impact of Opioids on Fracture Non-Union” Osteosynthese International 2018, Annual meeting of the Kuntscher Society. Poznan, Poland. September 6-8, 2018.
* “Challenges & Complications in the Management of Fractures to the Foot and Ankle Secondary to Gunshot Wounds” Osteosynthese International 2018, Annual meeting of the Kuntscher Society. Poznan, Poland. September 6-8, 2018.
* “Evidence Based Literature Review of LIPUS and Non-Unions and Case Example” Osteosynthese International 2018, Annual meeting of the Kuntscher Society. Poznan, Poland. September 6-8, 2018.
* “Nonunions: What do we know and can we predict them?” Grand Rounds, University of Alabama Birmingham, Department of Orthopaedics. October 11, 2018.
* “Extreme Nailing of subtrochanteric femur fractures: tips and tricks from the expert” 55th Congreso Argentino de Ortopedia y Traumatologia: Simposio Sociedad Kutnscher International. Rosario, Argentina. December 3, 2018.
* “Extreme nailing of proximal and distal tibia: tips and tricks from the expert” 55th Congreso Argentino de Ortopedia y Traumatologia: Simposio Sociedad Kutnscher International. Rosario, Argentina. December 3, 2018.
* “Focus Lecture: How can I get this bone to heal?” 55th Congreso Argentino de Ortopedia y Traumatologia: Simposio Sociedad Kutnscher International. Rosario, Argentina. December 3, 2018.
* “The Case where I learned the most – Distal Femur” 55th Congreso Argentino de Ortopedia y Traumatologia: Simposio Sociedad Kutnscher International. Rosario, Argentina. December 3, 2018.
* “The Case where I learned the most – Humerus” 55th Congreso Argentino de Ortopedia y Traumatologia: Simposio Sociedad Kutnscher International. Rosario, Argentina. December 3, 2018.

**2017**

* “Road Traffic Accidents and Trauma Care in Uganda” Second Series of Global Forums on Road Traffic Trauma. Pakistan, Brazil, USA, Tanzania, NIH - National Library of Medicine. January 30, 2017.
* “AAOS – India Trauma Conclaves – Experience, Updates, and Opportunities” Second Series of Global Forums on Road Traffic Trauma. Pakistan, Brazil, USA, Tanzania, NIH - National Library of Medicine. January 30, 2017.
* “The Future of Academic Medicine” Louisiana Orthopaedic Association. New Orleans, LA February 10, 2017.
* “Low Intensity Pulsed Ultrasound (LIPUS) and Fracture Healing” University of Alabama (UAB) Grand Rounds – Orthopaedics. March 30, 2017.
* “Why Compliance Matters” International Science Summit. April 28, 2017 – Amsterdam
* “Risk Factors and Bone Healing” ” International Science Summit. April 28, 2017 – Amsterdam
* “Nonunions – What do We Know and Can We Predict Them?” LSU-Shreveport Orthopaedic Graduation / Research Day. Shreveport, LA. June 16, 2017.
* “OTA Distinguished Visiting Scholar Program” LSU-Shreveport Orthopaedic Graduation / Research Day. Shreveport, LA. June 16, 2017.
* “Management of Gunshot Wounds and Ballistic fractures of the Upper Extremity: Our Experience at an Urban Trauma Center and Review of Literature” Thomas Royals (Presenter) Gerhard Küntscher Society Annual Meeting: Osteosynthese International 2017. Munich, Germany. September 13-15, 2017.
* “Risk factors for nonunion of bone fracture in pediatric patients” Gerhard Küntscher Society Annual Meeting: Osteosynthese International 2017. Munich, Germany. September 13-15, 2017.

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**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2017** *(continued)*

* “Cost savings using ITS small fragment plating in lateral malleolus ankle fractures: our experience at an Urban Trauma Center” Thomas Royal (presenter) Gerhard Küntscher Society Annual Meeting: Osteosynthese International 2017. Munich, Germany. September 13-15, 2017.
* “Nonunion and unplanned reoperation rates in adult distal and diaphyseal femoral fractures – a systematic review and meta-analysis” Gerhard Küntscher Society Annual Meeting: Osteosynthese International 2017. Munich, Germany. September 13-15, 2017.
* “Impact of chronic analgesic use on fracture nonunion” Gerhard Küntscher Society Annual Meeting: Osteosynthese International 2017. Munich, Germany. September 13-15, 2017.
* “Nonunions: What we know and can we predict them?” Chinese Orthopaedic Association. Zhuhai, China November 16, 2017.
* “Evolving Technique Update: The Subtrochanteric Femur Fracture: 5 Tips in 5 Minutes” OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* “Pro: Antegrade Rodding is Quick, Efficient with Few Complications: Try It!” OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* “Bad Ankle Fractures with Soft-Tissue Injuries: Pro: Fix Them All Now! Don’t Wait!” OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* “Debate: The Posterior Malleolus: When I Fix and How I do! Pro: Almost Always Fix It!” OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* “Panel: Medial Malleolus Fixation. Pro: Sex Appeal: Long 3.5 mm Screws” OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* “Evolving Technique Update: Tips and Tricks for Proximal and Distal Tibia Fractures” OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.

**2016**

* “The Long Term Results of Syndesmotic Malreduction: What Happens When We Get it Wrong?” South Eastern Fracture Symposium. Durham, North Carolina. January 29, 2016.
* “Case Presentations and Resolutions.” Bioventus Science Summit. Chicago, IL. June 10, 2016.
* “Can Nonunions be Predicted?” Bioventus Science Summit. Chicago, IL. June 10, 2016.
* “Exogen: Clinical Data.” Bioventus Science Summit. Chicago, IL. June 10, 2016.
* “Antegrade Femoral Nailing: How I do it in 2016.” Il Encuentro Centroamericano de Asociaciones de Ortopedia y Traumatologia. XXV Congreso Nacional de Ortopedia y Traumatologia. Cumbre de Expertos en Encavijado Endomedular Kuntscher Society. Copan, Honduras. June 16, 2016.
* “Subtrochanteric Femur Fractures: When I use Plates.” Il Encuentro Centroamericano de Asociaciones de Ortopedia y Traumatologia. XXV Congreso Nacional de Ortopedia y Traumatologia. Cumbre de Expertos en Encavijado Endomedular Kuntscher Society. Copan, Honduras. June 16, 2016.
* “Nonunions: What do we know and can we predict them?” University of Washington Resident Research Day / Graduation. Seattle, WA. June 2016.
* “OTA Distinguished Visiting Scholar Program.” University of Washington Resident Research Day / Graduation. Seattle, WA. June 2016.
* “Collaboration: Say Yes! It’s about the People.” University of Washington Resident Research Day / Graduation. Seattle, WA. June 2016.
* “Tibial Plateau Fractures” Southern Orthopaedic Association. Symposium 6 – Lower Extremity Trauma. Naples, FL. July 30, 2016.
* “Proximal 1/3 and Distal 1/3 Tibia Fractures”: AAOS-IOA: 3rd Trauma Conclave, New Delhi, India. September 16, 2016.
* “Management of Open Tibia Fractures”: AAOS-IOA: 3rd Trauma Conclave, New Delhi, India. September 16, 2016.

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**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2016** *(continued)*

* “Subtrochanteric Femoral Fractures”: AAOS-IOA: 3rd Trauma Conclave, New Delhi, India. September 16, 2016.
* “Pilon Fractures”: AAOS-IOA: 3rd Trauma Conclave, New Delhi, India. September 16, 2016.
* “Humeral Shaft Fractures – All Should be Plated”: AAOS-IOA: 3rd Trauma Conclave, New Delhi, India. September 17, 2016.
* “Humeral Shaft Fractures – All Should be Nailed”: AAOS-IOA: 3rd Trauma Conclave, New Delhi, India. September 17, 2016.
* “Proximal 1/3 and Distal 1/3 Tibia Fractures”: AAOS-IOA: 3rd Trauma Conclave, Goa, India. September 19, 2016.
* “Management of Open Tibia Fractures”: AAOS-IOA: 3rd Trauma Conclave, Goa, India. September 19, 2016.
* “Humeral Shaft Fractures – All Should be Plated”: AAOS-IOA: 3rd Trauma Conclave, Goa, India. September 20, 2016.
* “Humeral Shaft Fractures – All Should be Nailed”: AAOS-IOA: 3rd Trauma Conclave, Goa, India. September 20, 2016.
* “Tibial Shaft Fractures”: Keynote Address: Gerhard Kuntscher Society Annual Meeting. Osteosynthese International 2016. Aschaffenburg, Germany. September 22, 2016.
* “Management of Musculoskeletal Injuries Secondary to Gunshot Wounds”: Rabun Fox (presenter), **RD Zura**. Gerhard Kuntscher Society Annual Meeting. Osteosynthese International 2016. Aschaffenburg, Germany. September 22, 2016.
* “Nonunion and Unplanned Reoperation Rates in Adult Proximal Femoral Fractures: a Meta-Analysis”: Riikka Nomides (presenter), **RD Zura**, RG Steen. Gerhard Kuntscher Society Annual Meeting. Osteosynthese International 2016. Aschaffenburg, Germany. September 22, 2016.
* “The Epidemiology of Fracture Nonunion in 18 Human Bones – Analysis of a Payer Database ~ 90.1 million Patients”: **Robert D Zura (presenter)**, Z. Xiong, T Einhorn, JT Watson, R Ostrum, MJ Prayson, G Della Rocca, S Mehta, T McKinley, Z Wang, RG Steen. Gerhard Kuntscher Society Annual Meeting. Osteosynthese International 2016. Aschaffenburg, Germany. September 24, 2016.
* “Periprosthetic Fractures”: Symposium 10. 104th Annual Meeting of the Clinical Orthopaedic Society. New Orleans, LA. October 1, 2016.
* “The Results of Syndesmotic Malreduction: What Happens When we get it Wrong?”: Mini Symposium; Syndesmosis Injury: How Times have Changed. Orthopaedic Trauma Association Annual Meeting. Washington, D.C. October 7, 2016.
* “Fracture Nonunion Literature Review and Update” Vu-Medi. October 11, 2016.
* “Can Fracture Nonunion Be Predicted?” Advances in Bone Healing Summit. Phoenix, AZ. October 14, 2016.

**2015**

* “Tibia Fractures” Bioventus Sales Training. Feb 18, 2015. Durham, NC.
* “Powdered Gloves. Is it time for a Change?” AORN. Denver, Co. March 9, 2015.
* “Ortho Trauma Room Utilization, What do we Know?” Yap MV, Balajonda NG, **Zura RD**. Poster AORN. Denver, Co. March 2015.
* “Role & Results of LIPUS to Improve Bone Healing” VuMedi Webinar – Bone Healing – How To Treat Non-Unions May 20, 2015.
* “Exogen: Comorbidities and Value in the Current Health Care System” EFFORT Symposium - Prague, Czech Republic. May 29, 2015.
* “Subtrochanteric Femur Fractures” Southern Orthopaedic Association. Asheville, NC. July18, 2015.
* “Closing the gap: a novel technique for humeral shaft nonunion using cup in cone reamers” Nickel BT (Presenter), Klement MR, Richard M, **Zura RD**, Garrigues GE. Kuntscher Society Annual Meeting – Osteosynthese International 2015. Brussels, Belgium. September 2015.
* “The Effects of computer-assisted surgery training in the placement of iliosacral screw. Kuntscher Society Annual Meeting – Osteosynthese International 2015. Brussels, Belgium. September 2015.
* “Femoral Nailing in the Pediatric population” **Zura RD**, Nickel BT (presenter). Kuntscher Society Annual Meeting – Osteosynthese International 2015. Brussels, Belgium. September 2015.
* “Predictors of failure for delayed surgical treatment of closed ankle fracture-dislocations.” Kuntscher Society Annual Meeting – Osteosynthese International 2015. Brussels, Belgium. September 2015.
* “Coexisting glenohumeral arthritis increases proximal humeral fracture nonunion after nonsurgical treatment.” Nickel BT (presenter), Klement MR, Bala A, **Zura RD**, Garrigues GE. Kuntscher Society Annual Meeting – Osteosynthese International 2015. Brussels, Belgium. September 2015.
* “Powdered Gloves. Is it time for a Change?” KAORN. Daejong, Korea. November 7, 2015.

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**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2014**

* “Subtrochanteric Fractures” SouthEastern Fracture Consortium, Durham, NC January 31, 2014.
* “NonUnion Diagnosis” Bioventus Science Summit. San Diego, Ca. February 21, 2014.
* “Exogen Fresh Fracture Data” Bioventus Science Summit. San Diego, Ca. February 21, 2014.
* “Bone Healing Risk Factors” Bioventus Science Summit. San Diego, Ca. February 21, 2014.
* “Welcome and Levels of Evidence – Evidence based Medicine” Bioventus Science Summit. San Diego, Ca. February 21, 2014.
* “Bone Marrow Aspirate Concentrate (BMAC) and its Use in Trauma and Osteomyelitis” BMAC Symposium – Harvest Technologies. Teaneck, NJ. March 5, 2014.
* “Intertrochanteric Fractures – Treatment Options and Outcomes” AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* “Complex Tibial Plateau Fractures” AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* “Early and Definitive Treatment of Pilon Fractures” AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* “Complex Malleolar Fractures” AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* “Exogen - Evidence for Bone Stimulators in Fractures” South Bend Indiana June 23, 2014.
* Moderator – Symposium 1: Trauma – The Humerus from Top to Bottom. Southern Orthopaedic Association. Beaver Creek, CO. July 17, 2014.
* “All Humeral Shaft Fractures Should be Plated” Southern Orthopaedic Association. Beaver Creek, CO. July 17, 2014.
* “Decreasing Incidence of Hip Fracture in the US Medicare Population, 2005-2011” R. Andrew Henderson, Jonathan Godin, Benjamin Streufert, Richard Mather, Robert **Zura** (presenter) Osteosynthese International 2014 “Nails and More.” Krems, Austria. September 2014.
* “Repair of Intertrochanteric Hip Fracture: Cephalomedullary Nail Predominates Over Dynamic Hip Screw” Benjamin Streufert, R. Andrew Henderson, Jonathan Godin, Richard Mather, **Robert Zura (presenter)**. Osteosynthese International 2014 “Nails and More.” Krems, Austria. September 2014.
* Keynote Lecture: “Orthopaedic Care at Landstuhl Army Hospital Osteosynthese International 2014 “Nails and More.” Krems, Austria. September 2014.”
* “Nailing Subtrochanteric Femur Fractures – How I do them.” XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* Expert Panel – Proximal Femur Fractures: XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* “Entry Points for Antegrade Femoral Nailing.” XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* Expert Panel – Diaphyseal Femur Fractures: XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* “Nails Vs. Plates for Distal Tibia Fractures – Which is Superior?” XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* Expert Panel – Tibia Fractures: XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* “What’s New in Nailing Lower Extremity Fractures.” XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* “Managing Gunshot Wounds and other War Injuries to the Extremities.” XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* Expert Panel – PolyTrauma: XX Congreso de la Associacion del Trauma Ortopedico. Buenos Aires, Argentina. October 30-November 1, 2014.
* “Innovation in Orthopaedics” Cardinal Health Technical Council. Lake Geneva, Wisconsin. November 17, 2014.

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**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2013**

* “Chronic Osteomyelitis – The Orthopaedic Perspective”: SouthEastern Fracture Consortium, Charleston, SC. February 2013.
* “VTE and PE Treatment: Current Recommendations”: SouthEastern Fracture Consortium, Charleston, SC. February 2013.
* “Bone Growth Stimulators and How they fit in my practice” Exogen Science Summit Amsterdam, Netherlands. June 2013.
* “Exogen – Nonunion Evidence” Exogen Science Summit Berlin, Germany. November 2013.
* “Case Studies Roundtable” Exogen Science Summit Berlin, Germany. November 2013.
* “Proximal Tibia Fractures” Landstuhl Army Hospital, Landstuhl, Germany. November 2013.
* “Distal Tibia Fractures” Landstuhl Army Hospital, Landstuhl, Germany. November 2013.
* “My Experiences as an OTA / Red Cross Distinguished Visiting Scholar in Landstuhl Army Hospital” Vail, Colorado SOMOS (Society of Military Orthopaedic Surgeons) December 2013.
* “Where does Ultrasound fit in? Evidence for Bone Stimulators in Fractures.” Vail, Colorado SOMOS (Society of Military Orthopaedic Surgeons) December 2013.

**2012**

* “Pilon Fractures” South Eastern Fracture Symposium Durham, NC. January 2012.
* “Novel Locking Techniques, When You Don’t Have Fluoroscopy” Curso Internacional de Enclavijado Endomedular (Kuntscher Society Medullary Nailing Course) March 23, 2012 Medellin, Colombia.
* “Antegrade Femoral Nailing Starting Point Options, I prefer Trochanteric” Curso Internacional de Enclavijado Endomedular (Kuntscher Society Medullary Nailing Course) March 23, 2012 Medellin, Colombia.
* “Proximal Tibial Fractures – Nailing Tips and Tr Co-Chairman TREW (Trauma, Reconstruction, Endoscopy, Wound) Course. Durham, NC December 2012**.**
* “Distal Tibia Fractures – Nailing Tips and Tricks” Curso Internacional de Enclavijado Endomedular (Kuntscher Society Medullary Nailing Course) March 23, 2012 Medellin, Colombia.
* “Monday November 22, Landstuhl, Germany” Curso Internacional de Enclavijado Endomedular (Kuntscher Society Medullary Nailing Course) March 23, 2012 Medellin, Colombia.
* “Management of Osteomyelitis with Antibiotic Nails” Curso Internacional de Enclavijado Endomedular (Kuntscher Society Medullary Nailing Course) March 23, 2012 Medellin, Colombia.
* “Analysis of Two Protocols for the Care of Elderly Patients with Hip Fractures”: Christopher R. Brown, MD, Maria J. Manson, Thomas Owens MD, John Boling MS, Elizabeth Hubbard MD, Steven Olson MD, **Robert Zura MD**. Poster - Southern Orthopaedic Association. White Sulphur Springs, WV. July 2012.
* Moderator Trauma Session: Southern Orthopaedic Association. White Sulphur Springs, WV. July 2012.
* “Analysis of Patient Characteristics and Its Effect on Perioperative Complications in Elderly Patients with Hip Fractures.” Christopher Brown MD, John Boling MS, Maria Manson, Thomas Owens MD, **Robert D. Zura MD** (Presenter): Podium - Southern Orthopaedic Association. White Sulphur Springs, WV. July 2012.
* “Medical Volunteering – Landstuhl Germany.” Podium - Southern Orthopaedic Association. White Sulphur Springs, WV. July 2012.
* “Ankle Fractures in older patients: the use of augmented fixation techniques.” Podium – Osteosynthese International – Annual Congress of the Gerhard Kuntscher Society – Rostock, Germany. September 2012.
* Session III: Hints, Pitfalls and Complication management in Proximal Femoral Nailing – Moderator - Osteosynthese International – Annual Congress of the Gerhard Kuntscher Society – Rostock, Germany. September 2012.
* “Relationship between pre-fracture characteristics and peri-operative complications in the elderly hip fracture patient, predictors of LOS” Podium – Osteosynthese International – Annual Congress of the Gerhard Kuntscher Society – Rostock, Germany. September 2012.
* “VTE and PE Treatment: Current Recommendations” Orthopaedic Trauma Association Basic Science Forum Minneapolis, MN. October, 2012.
* Lower Extremity Amputations: When, Where, and How? OTA Residents Basic Fracture Course OTA, Minneapolis, MN October 2012.
* “Alternative Solutions in Post-Traumatic Reconstruction: I need to make bone. Induced Membranes.” Orthopaedic Trauma Association Mini Symposium Minneapolis, MN. October, 2012.
* “Hip Fractures:” TREW (Trauma, Reconstruction, Endoscopy, Wound) Course. Durham, NC December 2012.
* “Nailing Techniques in the Tibia:” Lower Extremity Masters Course. Davos, Switzerland December, 2012.
* “Management of Bone Loss Following Open Fractures:” Lower Extremity Masters Course. Davos, Switzerland December, 2012.

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**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2011**

* “Complex Proximal and Distal Tibia Fractures.” Grand Rounds Steadman Phillipon Research Institute and Clinic. Vail, CO. March 7, 2011.
* “New Borderlines of Intramedullary Fixation of Proximal Tibia Fractures.” 12th European Congress of Trauma and Emergency Surgery. Milan, Italy. April 29, 2011.
* “Update On Bimalleolar Ankle Fractures” Southern Orthopaedic Association Hawaii. July 21, 2011
* Moderator: Update on Foot and Ankle Fractures. Southern Orthopaedic Association Hawaii. July 21, 2011
* Lower Extremity Amputations: When, Where & How? OTA Residents Basic Fracture Course, San Antonio, TX. October 2011.
* “A Comparison of Efficacy and Resource Utilization Between Acute BMP-2 and Standard Treatment in Type III Tibia Fractures: A Multicenter Prospective, Randomized Controlled Trial” OTA Study Group: Bosse M, **Zura RD**, Pollak A, Volgas D, Obremskey W, Barei D, Seymour R. Podium Presentation (Bosse- presenter) OTA. San Antonio, TX October, 2011.

**2010**

* BMP in Fracture Healing: Is it Worth it? Congreso International de clavos endomedulares / International Congress on Intramedullary Nailing (Kuntscher Society) Gramado, Brazil April 2010.
* Antegrade Femoral Nailing: I prefer Trochanteric Entry: Congreso International de clavos endomedulares / International Congress on Intramedullary Nailing (Kuntscher Society) Gramado, Brazil April 2010.
* Reamed Vs. Unreamed Tibial Nailing: Does it matter? Congreso International de clavos endomedulares / International Congress on Intramedullary Nailing (Kuntscher Society) Gramado, Brazil April 2010.
* Distal Tibia Fractures: I prefer Intramedullary Nails: Congreso International de clavos endomedulares / International Congress on Intramedullary Nailing (Kuntscher Society) Gramado, Brazil April 2010.
* Antibiotic Nails for Infection: Congreso International de clavos endomedulares / International Congress on Intramedullary Nailing (Kuntscher Society) Gramado, Brazil April 2010.=
* Intertrochanteric Hip Fractures: I prefer Plates. Southern Orthopaedic Association, Puerto Rico. June, 2010.
* Femoral Shaft Fractures: I prefer Trochanteric Entry Nails. Southern Orthopaedic Association, Puerto Rico. June, 2010.
* Lower Extremity Amputations: When, Where & How? OTA Residents Basic Fracture Course, Baltimore, MD. October 2010.
* Open Tibia Fractures and Complex Distal Tibia Fractures. Landstuhl Regional Medical Center. Landstuhl, Germany. November 18, 2010
* Complex Proximal Tibia Fractures. Landstuhl Regional Medical Center. Landstuhl, Germany. November 24, 2010.
* Treatment of Open Tibia Fractures and Complex Proximal and Distal Tibial Fractures. Grand Rounds, Medical College of Georgia. Augusta, GA, December 8, 2010.
* “Monday November 22, Landstuhl, Germany.” Fracture Conference, Medical College of GA. Augusta, GA, December 9, 2010.

**2009**

* Damage Control Orthopaedics: 19th Annual Duke Trauma Conference. Durham, NC, March 2009.
* Bone Morphogenic Proteins for Fracture Healing: Conferencista Cumbre de Expertos en Enclavijado Endomedular (Expert Intramedullary Nail Conference) Kuntscher International Society, Sociedad de Ortopedia y Traumatologia Filial. Santa Cruz de la Sierra, Bolivia. March 2009.
* Subtrochanteric Femur Fractures: Conferencista Cumbre de Expertos en Enclavijado Endomedular (Expert Intramedullary Nail Conference) Kuntscher International Society, Sociedad de Ortopedia y Traumatologia Filial. Santa Cruz de la Sierra, Bolivia. March 2009.
* Intramedullary Infections and Treatment Options: Conferencista Cumbre de Expertos en Enclavijado Endomedular (Expert Intramedullary Nail Conference) Kuntscher International Society, Sociedad de Ortopedia y Traumatologia Filial. Santa Cruz de la Sierra, Bolivia. March 2009.
* Reamed Vs. Unreamed Nails for Closed Tibial Fractures: Conferencista Cumbre de Expertos en Enclavijado Endomedular (Expert Intramedullary Nail Conference) Kuntscher International Society, Sociedad de Ortopedia y Traumatologia Filial. Santa Cruz de la Sierra, Bolivia. March 2009.
* Treating Nonunion: The Traumatologist’s Perspective: Eastern Orthopaedic Association, Nassau, Bahamas. June, 2009.
* Lower Extremity Amputations: When, Where & How? OTA Residents Basic Fracture Course, SanDiego, CA. October 2009.

***Robert D. Zura, MD Curriculum Vitae, Page 27***

**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2008**

* Pilon Fractures: Southeastern Fracture Conference, Charleston, SC. January 18, 2008.
* Open Tibia Fractures: Orthopaedic Trauma: Concepts to Controversies. Snowmass, Colorado – February 2008.
* Humeral Shaft Fractures: Orthopaedic Trauma: Concepts to Controversies. Snowmass, Colorado – February 2008.
* Distal Tibia Fractures, Grand Rounds: University of Louisville, Kentucky – February 26, 2008.
* Extra-articular Proximal and Distal Tibia Fractures, Grand Rounds University of Tennessee – Chattanooga, TN – April 21, 2008.
* Femoral Nailing: Choosing the Right Starting Point and Technical Tips: Napa Valley Orthopaedic Trauma Symposium – September 18, 2008.
* Open Tibia Fractures: Current Treatment Protocols: Napa Valley Orthopaedic Trauma Symposium – September 20, 2008.
* Lower Extremity Amputations: When, Where, and How? OTA Residents Basic Fracture Course, Denver, CO. October 2008.

**2007**

* The Effect of Timing of Definitive Fixation for Tibial Plateau Fractures with Associated Compartment Syndrome on Infection Rates. Podium Presentation American Academy of Orthopaedic Surgeons. San Diego, CA, Feb. 16, 2007.
* The Effect of Timing of Definitive Fixation for Tibial Plateau Fractures with Associated Compartment Syndrome on Infection Podium Presentation Orthopaedic Trauma Association – Specialty Day. San Diego, CA, Feb. 17, 2007.
* Open Fractures – Review of Current Treatment: New Jersey Orthopaedic Society Current Concepts in Orthopaedics. Great Exuma, Bahamas, March 2007.
* Femoral Nailing – From the Hip or the Knee?: New Jersey Orthopaedic Society Current Concepts in Orthopaedics. Great Exuma, Bahamas, March 2007.
* The Reamer Irrigator Aspirator – Introduction of New Technology: New Jersey Orthopaedic Society Current Concepts in Orthopaedics. Great Exuma, Bahamas, March 2007.
* Review of Basic Principles of Plating and Update on Locked Plating: New Jersey Orthopaedic Society Current Concepts in Orthopaedics. Great Exuma, Bahamas, March 2007.
* Antegrade Femoral Nailing: Trochanteric Entry Site, Conferencista Cumbre de Expertos en Enclavijado Endomedular (Expert Intramedullary Nail Conference) Asuncion, Paraguay - November 2007.
* Management of Open Fractures and Intramedullary Nailing: Conferencista Cumbre de Expertos en Enclavijado Endomedular (Expert Intramedullary Nail Conference) Asuncion, Paraguay - November 2007.
* Biomechanics & biology of relative stability: Conferencista Cumbre de Expertos en Enclavijado Endomedular (Expert Intramedullary Nail Conference) Asuncion, Paraguay - November 2007.
* Subtrochanteric Femur Fractures: Conferencista Cumbre de Expertos en Enclavijado Endomedular (Expert Intramedullary Nail Conference) Asuncion, Paraguay - November 2007.

**2006**

* Ankle Fractures: Basics and What’s New. Southeastern Fracture Symposium – Greensboro, NC, January 2006.
* Orthopaedic Trauma – 16th Annual Duke Trauma Conference – Durham, NC, March 2006.
* Tibial Non-Unions Duke/Synthes Advanced Trauma Symposium – Durham, NC, September 2006.
* Lower Extremity Amputations: When, Where, and How?: OTA Residents Basic Fracture Course, Phoenix, AZ, October 2006.
* Trochanteric Entry Femoral Nailing – Debate. AO Advanced Course, Davos, Switzerland. December 2006.
* The Effect of Timing of Definitive Fixation for Tibial Plateau Fractures with Associated Compartment Syndrome on Infection Rates. **Robert D Zura MD** (Presenter), Vani Sabesan MD, Lois Ann Nichols MD, Barnaby Dedmond MD, Patrick Leach MD, Kyle Jeray MD, William Obremskey MD, Brian Mata, Ricardo Pietrobon, MD, PhD, MBA, Steven A Olson MD Podium Presentation: Orthopaedic Trauma Association Annual Meeting – Phoenix, AZ, October 2006.
* The Effect of Knee Position at the time of Torniquet Inflation on Operative Knee Range-of-Motion Podium Presentation: Eastern Orthopaedic Association. Boca Raton, FL, October 2006.

***Robert D. Zura, MD Curriculum Vitae, Page 28***

**INVITED LECTURES & PRESENTATIONS** *(continued)*

**2005**

* Diaphyseal Humeral Fractures and Nonunions: Lecture given at Southeastern Fracture Symposium Greensboro, NC, January 2005.
* Basic Fracture Care: Lecture given at Musculoskeletal Assessment for Primary Care Providers - Durham, NC, April 2005.
* Femur Fractures: Smith & Nephew Perioperative Nurses Course, Myrtle Beach, SC, August 2005.
* Locking Plates: Smith & Nephew Perioperative Nurses Course, Myrtle Beach, SC, August 2005.
* Basic Fractures: Orthopaedic Trauma Class, Duke University Medical Center, Durham, NC, September 2005.
* Minimally Invasive Plate Osteosynthesis: Synthes Advanced Technology Forum, Durham, NC, September 2005.
* Pilon Fractures: Synthes Advanced Technology Forum, Durham, NC, September 2005.
* Extra-articular Proximal Tibia Fractures: Synthes Advanced Technology Forum, Durham, NC, September 2005.
* Lower Extremity Amputations: When, Where, and How?: OTA Residents Basic Fracture Course, Ottawa, Canada, October 2005.

**2004**

* Locked Plating Lab: Instructor: Orthopaedic Trauma Association, Ft. Lauderdale, FL, October 2004.

**2003**

* Orthopaedic Trauma. Medical College of Georgia Perioperative Nurses Course, February 2003.
* Orthopaedic Fractures. Medical College of Georgia OB/GYN lecture series, March 2003.

**2002**

* Orthopaedic Trauma. Medical College of Georgia Perioperative Nurses Course, September 2002.

**2001**

* Orthopaedic Trauma: a Review of Current Treatment Options: lecture given at Orthopaedic Nursing Conference, Savannah, GA, 2001.

**1998**

* Optimizing Registration Accuracy in Computer Assisted Percutaneous Pelvic Surgery. CAOS’98, Pittsburgh 1998.

**1997**

* Evaluation of a Computer Integrated Surgical Technique for Percutaneous Fixation of Transverse Acetabular Fractures. Virginia Orthopaedic Society – Williamsburg, VA, 1997.

**1996**

* Operative Treatment of Calcaneus Fractures Through an Extended Lateral Approach Using Skeletal Traction. Virginia Orthopaedic Society – Richmond, VA, 1996.
* Evaluation of a Computer Integrated Surgical Technique for Percutaneous Fixation of Transverse Acetabular Fractures. University of Virginia Alumni Meeting – Charlottesville, VA, 1996.

***Robert D. Zura, MD Curriculum Vitae, Page 29***

**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**LOCAL** *(continued)*

* “Compartment Syndrome” LSUHSC July 2016.
* “Our Patient’s Experience in Landstuhl” at “Orthopaedic Military Care: Following a Virtual Patient from Injury in Afghanistan through Landstuhl to the US” Symposium Durham July 2014.
* Director: “Orthopaedic Military Care: Following a Virtual Patient from Injury in Afghanistan through Landstuhl to the US” Symposium. Durham July 2014.
* “My Landstuhl Experiences” Duke Orthopaedic Attending Lecture Series. February 17, 2014.
* “Monday November 22, 2010, Landstuhl Germany” National Radiologic Technology Week – Duke Cancer Center. Wednesday November 6, 2013. Durham, NC.
* “Clavicle Fractures – Update” Arthrex Orthopaedic Trauma Lab – Durham, NC September 2013.
* “Ankle Fractures – Are we fixing too many?” Arthrex Orthopaedic Trauma Lab – Durham, NC September 2013.
* “Amputations – The Orthopaedic Perspective” Duke Trauma Workshop – DRH September 13, 2013.
* “Distal Tibia Fractures” Duke Orthopaedic Attending Lecture Series. August 19, 2013. Durham, NC.
* “Monday November 22, 2010, Landstuhl Germany” Plastic Surgery Grand Rounds. Wednesday April 18, 2012. Durham, NC.
* “Surgical Approaches to Pilon Fractures”: South Eastern Fracture Symposium Durham, NC. January 2012.
* “Monday November 22, 2010, Landstuhl Germany” OR Staff, Nursing Grand Rounds. Wednesday September 28, 2011. Durham, NC.
* Lab Instructor: Suprapatellar Tibial Nails and Sure-Shot Locking. South American Orthopaedic Symposium. Duke University, November 5, 2010.
* Chairman South American Orthopaedic Symposium. Duke University. November 4-6, 2010.
* Mentor to Sami Mardam-Bey (2010). (This student attends my outpatient clinic for one year as their clinical component of their third year).
* Management of Open Fractures: Plastic Surgery Grand Rounds, Duke University. October 21, 2009.
* Damage Control Orthopaedics: 19th Annual Duke Trauma Conference. Durham, NC March, 2009.
* Mentor to Tyler Watters (2008-9), John Backus (2008-9) (These students attend my outpatient clinic for one year as their clinical component of their third year).
* Director of Orthopaedic Trauma Fellowship (2008-present).
* Tibial Non-Unions: Duke/Synthes Advanced Trauma Symposium – Durham, NC, September 2006.
* Orthopaedic Trauma: 16th Annual Duke Trauma Conference – Durham, NC, March 2006.
* Extra-articular Proximal Tibia Fractures: Synthes Advanced Technology Forum, Durham, NC, September 2005.
* Pilon Fractures: Synthes Advanced Technology Forum, Durham, NC, September 2005.
* Minimally Invasive Plate Osteosynthesis: Synthes Advanced Technology Forum, Durham, NC, September 2005.
* Basic Fractures: Orthopaedic Trauma Class, Duke University Medical Center, Durham, NC, September 2005.
* Basic Fracture Care: Lecture given at Musculoskeletal Assessment for Primary Care Providers - Durham, NC, April 2005.
* Director of the Orthopaedic lecture series for second year Duke medical students. (2005-2013).
* Directed and coordinated Orthopaedic Trauma Journal Club (met every 6 weeks) – 2004-2015.
* Directed and coordinated Friday morning Emergency Orthopaedic Conference with Orthopaedic residents and medical students. (2004-2009 –incorporated into our Thursday conference after Orthopaedic educational retreat.).
* Directed and coordinated Thursday morning Orthopaedic Trauma conference and lecture series and associated labs with Orthopaedic residents and medical students. (2004-2015).
* Directed Tuesday morning Orthopaedic Trauma Radiology conference with Orthopaedic Residents and medical students. (2004-2015).

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL**

**2023**

* “Fracture Healing – Using Evidence-Based Technology” PAOS Winter CME Meeting. Phoenix, AZ. February 18, 2023.
* “A Surgeon’s Perspective on Bone Growth Therapy” Orthofix rep training. Dallas, TX. June 5, 2023
* “A Surgeon’s Perspective on Bone Growth Therapy” Bioventus rep training. Durham, NC. Virtual 18, 2023
* “A Surgeon’s Perspective on Bone Growth Therapy” Orthofix rep training. Dallas, TX. Virtual August 23,2023.

**2022**

* Case Presentations. Kuntscher Society Annual Meeting. Louisville, KY. Friday September 30, 2022.
* Panel Discussion. Kuntscher Society Annual Meeting. Louisville, KY. Friday September 30, 2022.
* Chair – Session IV. Kuntscher Society Annual Meeting. Louisville, KY. Saturday October 1, 2022.

**2021**

* Expert Panel – Case discussions: Kuntscher Society Forum at the 51st Peruvian Congress of Orthopedics and Traumatology. Peru. September 16, 2021. Virtual.
* Lipus – Review of MOA and Clinical data and case reviews” Virtual – British Columbia, Canada. October 26, 2021.
* Judge – OREF Southeast Region Resident Research Symposium. Virtual – October 27, 2021.
* Lipus – Review of MOA and Clinical data and case reviews” Virtual – Saskatchewan, Canada. November 29, 2021.
* Lipus – Review of MOA and Clinical data and case reviews” Virtual British Columbia, Canada. December 13, 2021.

**2020**

* “Exogen and Fracture Healing” Louisville, KY. March 2, 2020. Moderator: Advancing Orthobiologics – Virtual Symposium. Exploring Advancements in Orthobiologics for Knee Osteoarthritis and Bone Healing.

<https://www.advancingorthobiologics.com/>

* Visiting Professor MUSC (Medical University of South Carolina) Case Reviews, resident Questions and Dr. Reid Question and Answer session. October 20, 2020.

**2019**

* Symposium Moderator: “Tibia Fractures from Top to Bottom: A Case Based Discussion” Louisiana Orthopaedic Association. New Orleans, La. February 15, 2019.
* Moderator: Bioventus Orthobiologics Summit. Alexandria, Va. “Factors That Impact Bone Healing” Bioventus Orthobiologics Summit. Alexandria, Va. April 5, 2019.
* “LIPUS: The Totality of the Evidence” Bioventus Orthobiologics Summit. Alexandria, Va. April 5, 2019.
* Breakout Session: Real World Scenarios: Fracture Case Review. Bioventus Orthobiologics Summit. Alexandria, Va. April 5, 2019.
* “Exogen and Fracture Healing” 17th Annual Trauma 101: Fracture Care for the Community Orthopedist and Orthopaedic PA & NP. Clearwater, Fl. April 26, 2019.
* “Nonunions – Review of literature, Epidemiology, and Prediction” Edmonton, Canada. May 23. 2019.
* “Lipus – Review of MOA and Clinical data and case reviews” Edmonton, Canada. May 23, 2019.
* “Lipus – Acute Fracture Cases and Acute Fracture Literature, and Brief Overview” Vancouver, Canada. May 24, 2019.
* “Exogen & Fracture Healing” 20th Annual Conference – Orthopaedics in the Lone Star State - PAOS. August 28, 2019.
* Course Director: Best in Orthopaedic Techniques – in association with the OTA and AAOS. New Delhi, India. September 13-14, 2019.
* Course Director: Best in Orthopaedic Techniques – OTA and AAOS. Mumbai, India. September 15-16, 2019.
* Moderator: Paper session VII: International Trauma Care Forum at the Orthopaedic Trauma Association. Denver, Colorado. September 26, 2019.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2018**

* Impact of analgesics and other common medications on fracture healing: An inception cohort study, **Zura R**, Buchheit T, Steen G, Mehta S, Della Rocca G, Wang Z. Poster. Louisiana Orthopaedic Association – Annual Meeting, New Orleans, LA. 2018.
* Healing, Nonunion, and Reoperation after Internal Fixation of Proximal Femur Fractures: A Systematic Review and Meta-analysis. Nomides R, Terhoeve C, Steen G, **Zura** R. Poster. Louisiana Orthopaedic Association – Annual Meeting, New Orleans, LA. 2018.
* Cost Savings Using Generic Small Fragment Plating in Lateral Malleolus Ankle Fractures at a Level I Trauma Center. Royals T, **Zura R.** Poster. Louisiana Orthopaedic Association – Annual Meeting, New Orleans, LA. 2018.
* Risk factors for nonunion of bone fracture in pediatric patients. **Zura R**, Kaste S, Heffernan M, Accousti B, Gargiulo D, Wang Z, Steen G. Poster. Louisiana Orthopaedic Association – Annual Meeting, New Orleans, LA. 2018.
* Koso, R. (Presenter), Steen, R.G., & **Zura, R.** (April, 2018). Proximal Femur Fracture Complications: A Systematic Review & Meta-Analysis. Podium Presentation: Mid-America Orthopaedic Association (MAOA) Annual Meeting; San Antonio, TX.
* Terhoeve, C. (Presenter), Koso, R., Steen, R.G., & **Zura, R.** (April, 2018). Healing, Nonunion, and Reoperation After Internal Fixation of Distal and Diaphyseal Femoral Fractures: A Systematic Review and Meta-Analysis. Podium Presentation at: Mid-America Orthopaedic Association (MAOA) Annual Meeting; San Antonio, TX, USA.
* Buchheit, T., **Zura, R.**, Wang, Z., Mehta, S., Della Rocca, G., Terhoeve, C., Steen, G. (June, 2018). Opioid Exposure is Associated with Nonunion Risk in Traumatically Injured Patients: An Inception Cohort Study. Poster presented at: American Orthopaedic Association (AOA) Annual Meeting; Boston, MA, USA. June 2018.
* Moderator: Session I – Proximal and Distal Tibia Fracture: Osteosynthese International 2018, Annual meeting of the Kuntscher Society. Poznan, Poland. September 6-8, 2018.
* Moderator: Session VI – Calcaneal Fracture – Part II – Mario Goldzak in Memoriam: Osteosynthese International 2018, Annual meeting of the Kuntscher Society. Poznan, Poland. September 6-8, 2018.
* Poster – Klatman S, Neary J, lambert T, **Zura** R. “Timing of Fixation for Distal Radius Fractures” Osteosynthese International 2018, Annual meeting of the Kuntscher Society. Poznan, Poland. September 6-8, 2018.
* Panel – Complex Femoral Fractures – Case based approach. 55th Congreso Argentino de Ortopedia y Traumatologia: Simposio Sociedad Kutnscher International. Rosario, Argentina. December 3, 2018.
* Panel – Avoiding complications in lower limb fractures. 55th Congreso Argentino de Ortopedia y Traumatologia: Simposio Sociedad Kutnscher International. Rosario, Argentina. December 3, 2018.

**2017**

* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN. February, 2017.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. February, 2017.
* “Impact of Chronic Analgesic Use on Fracture Nonunion” RG Steen, **R Zura**, T Buchheit, Z Wang, S Mehta, G Della Rocca Poster Orthopaedic Research Society (ORS) San Diego, CA. March 2017.
* “Tibial Shaft Fractures” Masters Fractures Forum. Huntington Beach, Ca. April 2017.
* Moderator: Medical Education Board. April 27, 2017 – Amsterdam.
* “Share Best Practices:” Medical Education Board. April 27, 2017 – Amsterdam.
* “Improvement of Medical Education:” Medical Education Board. April 27, 2017 – Amsterdam.
* Chair: “International Science Summit” April 28, 2017 – Amsterdam

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2017** *(continued)*

* Moderator: “Breakout Round Table Case Discussions” International Science Summit. April 28, 2017 – Amsterdam
* Mack C, Pavesio A, Kelly K, Wester T, Jones J, Maislin G, Irwin D, Brinkley E, **Zura RD**. Making the Most of External Comparators: A Study of Fracture Healing in Patients at Risk of Non-Union. Poster. ISPOR 22nd Annual International Meeting, Boston, MA, 21-25 May, 2017.
* Terhoeve C, Nomides R, Steen RG, **Zura RD**. Healing, Nonunion, and Reoperation after Internal Fixation of Diaphyseal and Distal Femoral Fractures: A Systematic Review and Meta-Analysis.” American Orthopedic Association Annual Leadership Meeting. Charlotte, NC. Poster.
* Nomides R, Steen RG, **Zura RD**. Healing, Nonunion, and Reoperation after Internal Fixation of Proximal Femoral Fractures: A Systematic Review and Meta-Analysis. American Orthopedic Association Annual Leadership Meeting. Charlotte, NC. Poster.
* Moderator: General Session 1 – Resident Awards. Southern Orthopaedic Association. Hilton Head Island, SC. June 29, 2017.
* Nomides R. (Presenter), Steen RG, **Zura RD**. Nonunion and Reoperation Rate after Internal Fixation of Proximal Femur Fractures: A Systematic Review and Meta-analysis. Southern Orthopedic Association Annual Meeting. Hilton Head, SC.
* Nomides R. (Presenter), Terhoeve C, Steen RG, **Zura RD**. / Nomides R (2017). Diaphyseal and Distal Femur Fracture Complications: Systematic Review and Meta-Analysis. Southern Orthopedic Association Annual Meeting. Hilton Head, SC.
* Mack C, Pavesio A, Kelly K, Wester T, Jones J, Maislin G, Irwin D, Brinkley E, **Zura RD**. Breaking News: Study of Fracture Healing in Patients at Risk of Non-Union. Poster. 33rd ICPE: International Conference on Pharmacoepidemiology & Therapeutic Risk Management, Montreal, Canada, August 23-27, 2017.
* Chair – Session III – Pediatric. Gerhard Küntscher Society Annual Meeting: Osteosynthese International 2017. Munich, Germany. September 13-15, 2017.
* Trauma Co-Chair: OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Moderator Debate: Treatment of Intertrochanteric Femur Fractures, How I Treat: Timing, Anti-coagulation and 1 Year Later. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Moderator: Subtrochanteric Fractures. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Moderator: Case Presentations with Questions and Answers – Femur. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Panel – Wrap Up and Case Presentations: Potpourri Trauma – Lightening Round Fractures. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Moderator: Midfoot and Hindfoot Trauma. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Moderator: Bad Ankle Fractures with Soft Tissue Injuries. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Panel Moderator: When do I fix Open Versus Closed Complex Injuries and How. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Panel Moderator: 42 year old Motorcycle Rider Caught under an 18 Wheeler with a Complex Pilon. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2017** *(continued)*

* Moderator: Case Presentations with Questions & Answers – Pediatric Tibia, Distal Tibia, Pilon, Syndesmosis, Complications. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Moderator: The Tibia from Top to Bottom. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Debate Moderator: 45 year old Driver of a MVA Now with a Schatzker IV and Presumed Knee Dislocation. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Debate Moderator: 65 year old Menopausal Woman with a Proximal Humeral Fracture. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.
* Co-Moderator: Panel Discussion: Wrap up & Summary. OSET Orthopaedic Summit Evolving Techniques 2017. Las Vegas, NV. December 6-7, 2017.

**2016**

* Moderator Symposium: Syndesmotic Injuries. South Eastern Fracture Symposium. Durham, North Carolina. January 29, 2016.
* “The epidemiology of fracture nonunion in 18 human bones: Analysis of a payer database that includes ~90.1 million patients” R **Zura**, Z Xiong, T Einhorn, JT Watson, RF Ostrum, MJ Prayson, GJ Della Rocca, T McKinley, S Mehta, Z Wang, RG Steen. Poster at ORS. Orlando, FL. March 2016
* “Impact of medication use on fracture nonunion in human bones: Analysis of a payer database of ~90.1 million patients” **R Zura**, Z Xiong , T Einhorn , JT Watson, MJ Prayson, GJ Della Rocca, T McKinley, S Mehta, Z Wang , RG Steen. Poster at ORS. Orlando, FL. March 2016
* “Acute Inflammatory Response After Severe Joint Injury Potentially Involved in the Development of Post-traumatic Arthritis” Janet L Huebner, Bridgette D Furman, Maria J Manson, Kelly A Kimmerling, Steven A Olson, Farshid Guilak, Louis DeFrate, **Robert D Zura**, Rachel M Reilly and Virginia Byers Kraus. Poster at OARSI (Osteoarthritis Research Society International) Amsterdam. March 2016.
* “Lipus: Clinical Data” University of Virginia Department of Orthopaedics. Charlottesville, Va. May 4, 2016.
* Chair: Bioventus Science Summit. Chicago, IL. June 10, 2016.
* “Predicting Nonunion” Discussion sessions, moderator. Bioventus Science Summit. Chicago, IL. June 10, 2016.
* Matson AP(Presenter), Morwood MM, Peres-Da-Silva A, Cone EB, Hurwitz SR, **Zura RD**. “Obesity predicts lower risk of wound complications following open reduction and internal fixation of ankle fractures.” Poster presented at the American Orthopaedic Foot and Ankle Society Annual Meeting. July 2016.
* Moderator: GENERAL SESSION: Foot & Ankle, Trauma and Tumor. Southern Orthopaedic Association. Naples, FL. July 29, 2016.
* Moderator: RAPID FIRE SESSION: Trauma. Southern Orthopaedic Association Naples, FL. July 29, 2016.
* Matson AP (presenter), Morwood MM, Peres-Da-Silva A, Cone EB, Hurwitz SR, **Zura RD**. “Obesity predicts lower risk of wound complications following open reduction and internal fixation of ankle fractures.” Southern Orthopaedic Association Annual meeting. July 2016, Naples, FL.
* “Lipus: Clinical Data and Basic Science” University of Texas San Antonio Department of Orthopaedics. San Antonio, TX. August 25, 2016.
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN September 2016.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2016** *(continued)*

* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN September, 2016.
* Chair: AAOS-IOA: 3rd Trauma Conclave, New Delhi, India. September 16-17, 2016.
* Moderator: Foot and Ankle Session: AAOS-IOA: 3rd Trauma Conclave New Delhi, India. September 16, 2016.
* Moderator: Infection Session: “Exterminator Video”: AAOS-IOA: 3rd Trauma Conclave New Delhi, India. September 17, 2016.
* Chair: AAOS-IOA: 3rd Trauma Conclave, Goa, India. September 19-20, 2016.
* Moderator: Infection Session: AAOS-IOA: 3rd Trauma Conclave, Goa, India. September 20, 2016.
* Moderator: Session I – Nail vs. Plate vs. Prosthesis: Tibia. Gerhard Kuntscher Society Annual Meeting. Osteosynthese International 2016. Aschaffenburg, Germany. September 22, 2016.
* Poster: “Impact of Medication Use on Fracture Nonunion in Human Bones – Analysis of a Payer Database ~ 90.1 million Patients”: RG Steen, Z Xiong, T Einhorn, JT Watson, MJ Prayson, GJ Della Rocca, T McKinley, S Mehta, Z Wang, **RD Zura**. Gerhard Kuntscher Society Annual Meeting. Osteosynthese International 2016. Aschaffenburg, Germany. September 22-24, 2016.
* Moderator: Papers With Discussion Session: 104th Annual Meeting of the Clinical Orthopaedic Society. New Orleans, LA. October 1, 2016.
* **Zura RD** , Xiong Z, Einhorn T, Watson JT, Ostrum RF, Prayson MJ, Della Rocca GJ, Mehta S, McKinley T, Wang Z, Steen RG. Epidemiology of Fracture Nonunion in 18 Human Bones. Poster: Orthopaedic Trauma Association Annual Meeting. Washington, D.C. October 7, 2016.
* “Case Introductions and Resolutions” Advances in Bone Healing Summit. Phoenix, AZ. October 14, 2016.
* Moderator: Breakout Session: “Predicting Fracture Nonunion” Advances in Bone Healing Summit. Phoenix, AZ. October 14, 2016.
* “Lipus: Clinical Data and Basic Science” The CORE Institute Department of Orthopaedics. Phoenix, AZ. December 5, 2016.

**2015**

* Biomechanics of Locked Plating: Science Summit, San Francisco, California. May 2009.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN Feb. 2015.
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN Feb. 2015.
* “Proximal Femoral Fractures” Masters Fractures Forum. Huntington Beach, Ca. April 2015.
* “Moderator: Femoral Fractures – From Top to Bottom” Southern Orthopaedic Association. Asheville, NC. July18, 2015.
* “Predictors of Failure for Delayed Surgical Treatment of Closed Ankle Fracture-Dislocations” Andrew Matson (presenter), Robert D. **Zura** Southern Orthopaedic Association. Asheville, NC. July16, 2015.
* “The Effect of Computer-Assisted Surgery Training in the Placement of Iliosacral Screws” Elizabeth Hubbard, Erika Templeton (presenter), William Eward, Markku Nousiainen, **Robert Zura**. Southern Orthopaedic Association. Asheville, NC. July17, 2015.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2014**

* “Proximal Tibia Fractures” Masters Fractures Forum. Huntington Beach, Ca. May 2014.
* Moderator – Small Group Discussion – Reduction Techniques – Concepts and Applications: AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* Moderator – Small Group Discussion – Upper Extremity Fractures – Decision Making and Methods of Stabilization: AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* Moderator – Small Group Discussion – Fractures of the Femur: AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* Moderator – Small Group Discussion – Fractures of the Tibia, Ankle, and Foot: + AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* Moderator – Practical Exercise – Fixation of a Type 13-C1 Fracture in the Distal Humerus using a Locking Compression Plate (LCP): AO Trauma Course – Advanced Principles of Fracture Management. Guangzhou, China June 14-16, 2014.
* “Decreasing Incidence of Hip Fracture in the US Medicare Population, 2005-2011” R. Andrew Henderson (presenter), Jonathan Godin, Benjamin Streufert, Richard Mather, Robert **Zura**. Southern Orthopaedic Association. Beaver Creek, CO. July 18, 2014.
* “Is the Treatment Practice for Femoral Neck Fractures in Medicare patients Changing in the United States?” Tyler Watters (presenter), Jonathan Godin, R. Andrew Henderson, Benjamin Streufert, Samuel Wellman, David Attarian, **Robert Zura**, Michael Bolognesi. Southern Orthopaedic.
* “Repair of Intertrochanteric Hip Fracture: Cephalomedullary Nail Predominates Over Dynamic Hip Screw” Benjamin Streufert (presenter), R. Andrew Henderson, Jonathan Godin, Richard Mather, **Robert Zura**. Southern Orthopaedic Association. Beaver Creek, CO. July 18, 2014.
* “Use of a Concentrated Bone Marrow Aspirate for Nonunions and Bone Defects of the femur and Tibia” Robert **Zura**, Alexander Vap (presenter), Kristoff Reid. Southern Orthopaedic Association. Beaver Creek, CO. July 19, 2014.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN July, 2014.
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN July 2014.
* Moderator Proximal Femur Section: Osteosynthese International 2014 “Nails and More.” Krems, Austria. September 2014.
* “Heal rate in 4,190 fresh fractures treated with low-intensity pulsed ultrasound (LIPUS)”: **Zura RD**, Mehta S, Della Rocca G, Jones J, Steen RG. Poster. International Society for Pharmacoeconomics and Outcomes Research. Amsterdam. November 2014.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2013**

* “Moderator – Osteomyelitis Section: South Eastern Fracture Consortium, Charleston, SC. February 2013.
* “Moderator DVT and PE section”: South Eastern Fracture Consortium, Charleston, SC. February 2013.
* Chairman: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN March 2013.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN March 2013.
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN March 2013.
* “Surgical Approaches for Semi-extended nailing”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN March 2013.
* “Medical Volunteering – Landstuhl”: Mercer University School of Medicine – Orthopaedic Interest Group – Savannah Campus. March 2013
* “The Orthopaedic Match: Strategies for Success”: Mercer University School of Medicine – Orthopaedic Interest Group – Savannah Campus. March 2013
* “Ankle Fractures” Masters Fractures Forum. Huntington Beach, CA. May 2013
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN July 2013.
* “Surgical Approaches for Semi-extended nailing”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN July 2013.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN July 2013.
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN September 2013.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN September 2013

**2012**

* “Tibia Fractures” Smith-Nephew Global Sales Meeting Miami, FL. January 20, 2012.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN March 30-31, 2012.
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN March 30-31, 2012.
* “Tibia Fractures” Masters Fractures Forum. Huntington Beach, CA. May 2012
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN September, 2012.
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN September, 2012.
* “Nailing Techniques in the Tibia:” Lower Extremity Masters Course. Davos, Switzerland December, 2012
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN December, 2012.
* “Compartment Syndrome”: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. Memphis, TN December, 2012.
* Chairman: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN December, 2012.
* Co-Chairman: TREW (Trauma, Reconstruction, Endoscopy, Wound) Course. Durham, NC December 2012.
* InterTan Live cadaver Demonstration Lab: TREW (Trauma, Reconstruction, Endoscopy, Wound) Course. Durham, NC December 2012.
* Moderator Trauma Section: TREW (Trauma, Reconstruction, Endoscopy, Wound) Course. Durham, NC December 2012.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2012** *(continued)*

* Moderator Severe Open Fractures and Soft Tissue Coverage Problems Module: Lower Extremity Masters Course. Davos, Switzerland December, 2012.
* Moderator Discussion Group – Distal Tibia and Pilon: Lower Extremity Masters Course. Davos, Switzerland December, 2012.
* Moderator Discussion Group – Severe Open Fractures and Soft Tissue Coverage Problems: Lower Extremity Masters Course. Davos, Switzerland December, 2012.
* Moderator Discussion Group – Proximal Femoral Injuries: Lower Extremity Masters Course. Davos, Switzerland December, 2012.
* Moderator Discussion Group – Proximal Tibial Injuries: Lower Extremity Masters Course. Davos, Switzerland December, 2012.
* Moderator Discussion Group – Distal Femoral Fractures: Lower Extremity Masters Course. Davos, Switzerland December, 2012.
* Moderator Discussion Group – Hindfoot, Midfoot, and Forefoot fractures: Lower Extremity Masters Course. Davos, Switzerland December, 2012.
* Moderator Discussion Group – Lower Extremity Fractures With Difficult Problems: Lower Extremity Masters Course. Davos, Switzerland December, 2012.

**2011**

* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course, Memphis, TN. Feb. 4-5, 2011.
* Compartment Syndrome: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. Feb. 5, 2011.
* Dr. Nousiainen (presenter), Dr. Omoto, Dr. Zingg, Dr. Carnahan, Dr. Kiss, Dr. Weil, Dr. Mardam-Bey, Dr. Eward, **Dr. Zura**, Dr. Kreder, and Dr. Helfet. Training Femoral Neck Screw Insertion Skills to Surgical Trainees: Computer-Assisted Surgery Versus Conventional Fluoroscopic Technique" Podium: Innovations in Medical Education conference in Pasadena, Sat March 12, 2011.
* “How do I know when a Fracture is Healed?” Smith-Nephew Science Summit Miami, FL, March 18, 2011.
* “Where does Ultrasound fit in? Evidence for Bone Stimulators in Fractures.” Smith-Nephew Science Summit Miami, FL, March 18, 2011.
* “NonUnions – Risk Factors and Treatment Options” Smith-Nephew Science Summit Miami, FL, March 18, 2011.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course New Orleans, LA. May 20-21, 2011.
* Compartment Syndrome: Surgical Approaches for Internal Fixation (SAIF) Advanced Course. New Orleans. LA. May 21, 2011.
* “NonUnions – Risk Factors and Treatment Options” Smith-Nephew Science Summit San Francisco, CA. June 3, 2011.
* “Exogen – Practical Tips and Tricks” Smith-Nephew Science Summit San Francisco, CA. June 3, 2011.
* Kaufman AM, Mather RC, Orlando L, Bolognesi MP, Olson SA, **Zura RD**. “Cost Effectiveness Analysis of Implant Selection in the Treatment of Extracapsular Hip Fractures. Poster: American Orthopaedic Association Boston, MA. June, 2011.
* Kaufman AM (Presenter), Mather RC, Orlando L, Bolognesi MP, Olson SA, **Zura RD**. “Cost Effectiveness Analysis of Implant Selection in the Treatment of Extracapsular Hip Fractures. Podium. Southern Orthopaedic Association Hawaii, July 21, 2011.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2010**

* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. Feb 5-6, 2010.
* Distal Femur Fractures: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. Feb 5, 2010.
* Locked Plates in the Biologic Era: How they Work Smith-Nephew Science Summit Phoenix, Az. April 9, 2010.
* Nonunions: Risk Factors and Treatment: Smith-Nephew Science Summit Phoenix, Az. April 9, 2010.
* Table Instructor: Calcaneal Fixation: Smith-Nephew Science Summit Phoenix, Az. April 9, 2010.
* Moderator: Trauma Section. Southern Orthopaedic Association, Puerto Rico. June, 2010.
* Nonunions: Risk Factors and Treatment: Smith-Nephew Science Summit Boston, MA. June 25, 2010.
* Nonunions: Risk Factors and Treatment: Wilmington, NC. Sept. 16, 2010.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. Sept. 24-25, 2010.
* Distal Femur Fractures: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. Sept. 24-25, 2010.
* Kaufman AM, Mather RC (Presenter), Orlando L, Bolognesi MP, Olson SA, **Zura RD**. “Cost Effectiveness Analysis of Implant Selection in the Treatment of Extracapsular Hip Fractures. Podium North Carolina Orthopaedic Association. Oct 8-10 2010.
* Kaufman AM, Mather RC, Orlando L, Bolognesi MP, Olson SA, **Zura RD**. “Cost Effectiveness Analysis of Implant Selection in the Treatment of Extracapsular Hip Fractures. Poster: Annual Meeting of the Orthopaedic Trauma Association, Baltimore, MD. Oct 10-13 2010.
* Dr. Nousiainen, Dr. Omoto, Dr. Zingg, Dr. Carnahan, Dr. Kiss, Dr. Weil, Dr. Mardam-Bey, Dr. Eward, **Dr. Zura**, Dr. Kreder, and Dr. Helfet. Training Femoral Neck Screw Insertion Skills to Surgical Trainees: Computer-Assisted Surgery Versus Conventional Fluoroscopic Technique" Poster: Orthopaedic Trauma Association Baltimore, MD, Oct., 2010.
* Kaufman AM, Mather RC, Orlando L, Bolognesi MP, Olson SA, **Zura RD**. “Cost Effectiveness Analysis of Implant Selection in the Treatment of Extracapsular Hip Fractures. Poster: 1st Annual AONA Challenges in Fracture Care Across Disciplines Meeting, Phoenix, Az. Nov 11-14 2010.

**2009**

* Biomechanics of Locked Plating: Science Summit, San Francisco, California. May 2009.
* Case Studies – Nonunion: Science Summit, San Francisco, California. May, 2009.
* Moderator: Eastern Orthopaedic Association, Nassau, Bahamas. June, 2009.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. September 18-19, 2009.
* Distal Femur Fractures: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. September 18, 2009.

**2008**

* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Memphis, TN. November 20-21, 2008.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2007**

* Comparison of Periarticular Locked Plates and Less Invasive Stabilization System Plating for Fixation of Proximal, Extra-Articular, and Bicondylar Tibial Plateau Fractures. Poster: AAOS San Diego, CA, February 2007.
* Computer Navigation versus Fluoroscopic Navigation for Closed Reduction in a Tibial Plateau Fracture Model. Poster: AAOS San Diego, CA, February 2007.
* Humerus Shaft Acute Fixation and Nonunions: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN September 21-22, 2007. (SAIF: Surgical Approaches for Internal Fixation. Lecture and cadaver dissection course for Orthopaedic residents.) Faculty member 2007-present.
* Humerus: Anterolateral and Posterior Approach Demo: Surgical Approaches for Internal Fixation (SAIF) Advanced Course, Memphis, TN September 21-22, 2007.
* Table Instructor: Surgical Approaches for Internal Fixation (SAIF) Advanced Course Memphis, TN. September 21 – 22, 2007.
* Subtrochanteric Femur Fractures: International Trauma Symposia, Aventura, FL. September, 2007.
* Surgical Approaches to the Foot and Ankle: International Trauma Symposia, Aventura, FL. September, 2007.

**2006**

* AO ASIF Basic Principles of Operative Fracture Management Course, Table Instructor, Philadelphia, PA, January 2006.
* Table Instructor, Spanning External Fixator Lab: OTA Residents Basic Fracture Course, Phoenix, AZ, October 2006.
* Table Instructor, Tension Band / Olecranon Fractures: OTA Residents Basic Fracture Course, Phoenix, AZ, October 2006.
* Table Instructor: AO Advanced Course, Davos, Switzerland. December 2006.
* The Effect of Knee Position at the time of Tourniquet Inflation on Operative Knee Range-of-Motion **Robert D. Zura** MD, Samuel B. Adams MD, Ricardo Pietrobon MD PhD MBA, Brian A. Mata BS (Presenter), Michael P. Bolognesi MD, Mark Easley MD, Steven A. Olson MD – Podium Presentation: NC Orthopaedic Society - Asheville, NC, October 2006.
* Computer Navigation versus Fluoroscopic Navigation for Closed Reduction in a Tibial Plateau Fracture Model. Poster: Orthopaedic Trauma Association Annual Meeting – Phoenix, AZ, October 2006.
* Comparison of Periarticular Locked Plates and Less Invasive Stabilization System Plating for Fixation of Proximal, Extra-Articular, and Bicondylar Tibial Plateau Fractures. Poster: Orthopaedic Trauma Association Annual Meeting – Phoenix, AZ, October 2006.
* Comparison of Periarticular Locked Plates and Less Invasive Stabilization System Plating for Fixation of Proximal, Extra-Articular, and Bicondylar Tibial Plateau Fractures. Poster: Georgia Orthopaedic Society, Sea Island, GA, October 2006.
* The Effect of Timing of Definitive Fixation for Tibial Plateau Fractures with Associated Compartment Syndrome on Infection Rates Poster: Georgia Orthopaedic Society, Sea Island, GA, October 2006.
* Comparison of Periarticular Locked Plates and Less Invasive Stabilization System Plating for Fixation of Proximal, Extra-Articular, and Bicondylar Tibial Plateau Fractures. Poster: Eastern Orthopaedic Association. Boca Raton, FL, October 2006.
* The Effect of Timing of Definitive Fixation for Tibial Plateau Fractures with Associated Compartment Syndrome on Infection Rates Poster: Eastern Orthopaedic Association. Boca Raton, FL, October 2006.
* Discussion Group Leader – Periarticular Fractures: AO Advanced Course, Davos, Switzerland. December 2006.

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**TEACHING RESPONSIBILITIES INCLUDING CONTINUING EDUCATION**

**REGIONAL / NATIONAL / INTERNATIONAL** *(continued)*

**2005**

* Plate Biomechanics, Table Instructor: Synthes Perioperative Nursing Course, Myrtle Beach, SC, June 2005.
* Table Instructor, Spanning External Fixator Lab: OTA Residents Basic Fracture Course, Ottawa, Canada, October 2005.

**2004**

* Locked Plating Lab: Instructor: Orthopaedic Trauma Association, Ft. Lauderdale, FL, October 2004.
* Dynamic Compression Screw for Distal Femoral Fractures Lab: Instructor: Orthopaedic Trauma Association, Ft. Lauderdale, FL, October 2004.
* Attitudes of OTA Members Concerning the Use of Physical Forces to Aid in Fracture Healing: Georgia Orthopaedic Society – Lake Oconee, GA, October 2004.

**2003**

* Trochanteric Antegrade Femoral Nailing: Our Short Term Experience. Edwards B, Lewis R (presenter), Tucker M, **Zura** R, Miller J. Florida Orthopaedic Society – Scientific Annual Meeting – Ponte Vedra, FL, May 2003.

**2002**

* Tibial External Fixator Lab: Nurses Conference at Southeastern Fracture Conference, Greensboro, January 2002.
* Unstable Proximal Extra-articular Tibia Fractures: A Biomechanical Evaluation of Three Methods of Fixation. Poster: Orthopaedic Research Society, Dallas, TX, 2002.
* Trochanteric Antegrade Femoral Nailing: Our Short Term Experience. Edwards B (presenter), Lewis R, Tucker M, **Zura** R, Miller J. Georgia Orthopaedics – Sea Island, GA, October 2002.
* Minimally Invasive Fracture Surgery. Brooks K (presenter), Tucker M, **Zura RD**. Georgia Orthopaedics – Sea Island, GA, October 2002.

**2001**

* Unstable Proximal Extra-articular Tibia Fractures: A Biomechanical Evaluation of Three Methods of Fixation. Poster: Orthopaedic Trauma Association, San Diego 2001.

**2000**

* Computer Guided Placement of Iliosacral Screws Compared to Standard Fluoroscopic Technique. Kahler DM (presenter), **Zura RD**, Mallik K.CAOS ’00, Davos, Switzerland, 2000.

***Robert D. Zura, MD Curriculum Vitae, Page 41***

**Recent External Support | Gifts, Grants, Contracts:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Zura** | 1% | eIRB: Pro00015940 Flow: Fluid Lavage of Open Wounds: A Multi-Center, Blinded, Factorial Trail Comparing Alternative Irrigating Solutions and Pressures in Patients with Open Fractures | Sponsor:  U.S. Army Instit. of Surgical Research  (OTRP) | 07/01/2009-06/30/2015 |
| **Zura** | 1% | eIRB: Pro00027697 Hip Fracture Evaluation with Alternatives of Total Hip Arthroplasty vs. Hemi-Arthroplasty (HEALTH): A Multi-Centre Randomized Trial Comparing Total Hip Arthroplasty & Hemi-Arthroplasty on Revision Surgery & Quality of Life in Patients with Displaced Femoral Neck Fractures | $24,000 | 07/01/2010-06/30/2015 |
| **Zura** | 1% | eIRB: Pro00032198 A Prospective Randomized Trial to Assess Fixation Strategies for Severe Open Tibia Fractures: Modern Ring External Fixators vs. Internal Fixation (FIXIT Study)-US Department of Defense-METRC | $35,000 | 02/01/2012-01/31/2016 |
| **Zura** | 1% | eIRB: Pro00035216 Assessment of Severe Extremity Wound Bioburden at the Time of Definitive Wound Closure or Coverage: Correlation with Subsequent Post-Closure Deep Wound Infection- US Department of Defense-METRC | $25,000 | 02/01/2012-01/31/2016 |
| **Zura** | 1% | eIRB: Pro00040026 The Effect of Computer-Assisted Surgery Training in Placement of Sacroiliac Screws By Orthopaedic Surgery Residents. | $10,000 | 02/01/2013-01/31/2014 |
| **Zura** | 1% | eIRB: Pro00051952 Outcomes Following Severe Distal Tibia, Ankle and/or Foot Trauma: Comparison of Limb Salvage vs. Transtibial Amputation Protocol (OUTLET Study)- US Department of Defense-METRC | $26,250 | 03/18/2014-03/18/2016 |
| **Zura** | 1% | eIRB: Pro00051954 Streamlining Trauma Research Evaluation with Advanced Measurement: STREAM Study-National Institutes of Health-METRC | $12,500 | 02/14/2014-02/10/2016 |
| Olson  Collaborator:  **Zura** | NA | eIRB: Pro00038254 Assessment of Biomarkers Associated with Joint Injury and Subsequent Post-Traumatic Arthritis (US Department of Defense) |  | 07/11/2012-07/11/2015 |
| Olson  Collaborator:  **Zura** | NA | Pro00043568 Does Residual Displacement On Standard Radiographic Views Correlate with Pelvic Ring Injury Clinical Outcome? |  | 04/08/2013-04/08/2016 |

**Grant title: Advancing the Care of Patients with Musculoskeletal Injuries Worldwide through Multi-National Research Initiatives**

Funder: Canadian Institutes of Health Research

Amount: $6,943,280 | Duration: July 1, 2016 – June 30, 2024

**Study Title: Intimate Partner Violence During Recovery from a Musculoskeletal Injury: A Pilot Prospective, Multicentre Cohort Study**

Principal Investigators: Drs. Brad Petrisor & Sheila Sprague

Funding from: PSI Foundation

Amount: $164,000 | Awarded: August 2022 - February 2024

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**Past External Support | Gifts, Grants, Contracts:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PI** | **%Effort** | **Purpose** | **Amount** | **Duration** |
| Beau Sasser | N/A | Bone Growth Stimulator Survey | $1,250.00 | 1-2 years |
| **Zura** | N/A | The Effect of Knee Position at the time of Tourniquet Inflation on Operative Knee Range-of-Motion | $10,000 –  Sponsor:  Zimmer |  |
| **Zura** | N/A | Comparison of Periarticular Locked Plates & Less Invasive Stabilization System Plating for Fixation of Proximal, Extra-Articular & Bicondylar Tibial Plateau Fractures | $12,000 – Sponsor:  Synthes |  |
| **Zura** | N/A | Pro00016423 Training Femoral Neck Screw Insertion Skills to Surgical Trainees: Computer- Assisted Surgery Versus Conventional Fluoroscopic Technique | $9000  Sponsor:  GME Grant | 07/01/2009-06/01/2011 |
| **Zura** | N/A | eIRB: Pro00007202  Randomized, Placebo-Controlled Study to Evaluate the Efficacy, Safety & Tolerability of CP-533,536 in Subjects with a Closed Fracture of Tibial Shaft (A3241010) | $154,806  Sponsor:  Pfizer | 2/1/2008–1/31/2013 |
| **Zura** | N/A | Pro00009075 Clinical Efficacy & Cost Implications of Acute BMP-2 Application in Grade III Tibia Fractures: Prospective Randomized Multi-Center Study | $19,000 | 07/01/2005-12/31/2010 |
| **Zura** | N/A | Pro00001409 Retrospective Review of the Value of the Tip-Apex Distance in Predicting Failure of Fixation in Peritrochanteric Femur Fractures Treated with a Helical Blade-Nail Device |  | 05/01/2007-05/01/2011 |
| **Zura** | 1% | eIRB: Pro00012273  Standard Reaming versus Reaming-Irrigating-Aspirating for Intramedullary Nailing of Femoral Shaft Fractures (STAFF) | $55,974  Sponsor: Greensville Hospital System | 10/1/2008–9/30/2012 |
| **Zura** | 1% | eIRB: Pro00021501  Retrospective Study of GRADE IIIB Open Fractures-Does vacuum-assisted closure allow for (>72hours) delayed flap coverage? | $2,500 | 12/31/2009-12/31/2013 |
| **Zura** | N/A | eIRB: Pro00008160  Outcomes after Treatment of Femoral Head Fractures (Retrospective Study) | $500  Sponsor: Carolinas Healthcare Systems | 9/01/2008–08/30/2012 |