

Curriculum Vitae

Brian Mullis, MD

Professor and Program Director
Indiana University Department of Orthopaedics
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EDUCATION

Florida Orthopaedic Institute

Tampa, Florida
Orthopaedic Trauma Fellowship, 2006

University of North Carolina Department of Orthopaedics

Chapel Hill, North Carolina
General Surgery Internship, 2000
Orthopaedic Surgery Residency (6-year Program), 2005

University of North Carolina School of Medicine

Chapel Hill, North Carolina
M.D. *with Distinction*, 1999

University of North Carolina at Chapel Hill

Chapel Hill, North Carolina
B.S. Chemistry (Biochemistry Track) *Highest Honors with Distinction*, 1995

HONORS AND AWARDS

Indiana University Department of Orthopaedics

- **Howard Rosen Award, 2007**
AO junior faculty award elected by senior faculty for Residents Course
- **IU Ortho Teacher of the Year, 2008 and 2011**
Elected by the Chief Residents
- **IU SOM Teacher of the Year for Surgery Subspecialties, 2009**
Selected by IU medical school class of 2009
- **Best Doctors in America, 2010-2018**
Top 5% of physicians in America recommended by peers
- **Top Docs in Indianapolis, 2012, 2015-present**
Top Orthopaedists in *Indianapolis Monthly*
- **Jay L Grosfeld Award, 2012**

Selected annually based on trauma care in the state of Indiana

- **Orthopedics This Week Top North American Traumatologists, 2015**
One of 19 Trauma surgeons selected
- **International Assoc of Orthopedic Surgeons Top Doctor, 2015-2016**
- **Grateful Patient Recognition Eskenazi Health, 2016**
- **AAOS Achievement Award, 2017**
For active national achievement in teaching, research, and service

University of North Carolina Department of Orthopaedics

- **Musculoskeletal Course Resident Teaching Award, 2001**
elected by 2nd year medical students taking MSK course
- **William C. Patton Award, 2005**
elected by Ortho residents for Chief contributing most to their education

University of North Carolina School of Medicine

- **Alpha Omega Alpha, 1998**
- **Merit Scholarship, 1996-1997, 1997-1998, and 1998-1999**
- **NIH Summer Grant, 1996**

University of North Carolina

- **Phi Beta Kappa, 1995**

RESEARCH

Publications (selected):

Peer-Reviewed Journals

1. Dahners LE & Mullis BH “Effects of Nonsteroidal Anti-Inflammatory Drugs on Bone Formation and Soft-Tissue Healing.” *Journal of the American Academy of Orthopaedic Surgeons* Vol. 12, No. 3, p. 139-143, 2004
2. Mullis BH & Dahners LE “Hip Arthroscopy to Remove Loose Bodies Following Hip Trauma.” *Journal of Orthopaedic Trauma* Vol. 20, No. 1, p. 22-26, 2006
3. Mullis BH, Copland ST, Weinhold PS, Miclau T, Lester GE, & Bos GD “Effect of COX-2 Inhibitors and Non-Steroidal Anti-inflammatory Drugs on a Mouse Fracture Model.” *Injury* Vol. 37, No. 9, p. 827-837, 2006
4. Mullis BH, Karas SG, and Kelley SS “Characterization of a Consistent Radiographic Finding in Chronic ACL Deficiency: The Posteromedial Osteophyte.” *The American Journal of Orthopedics* Vol. 36, No. 9, p. 494-497, 2007

5. **Mullis BH** & Sagi HC “Minimum One-Year Follow-up for Patients with Vertical Shear Sacro-iliac Joint Dislocations Treated with Ilio-sacral Screws: Does Joint Ankylosis or Anatomic Reduction Contribute to Functional Outcome”? *Journal of Orthopaedic Trauma* Vol. 22, No. 5, p. 293-298, 2008
6. Cannada LK, Taghizadeh S, Murali J, Obremskey WT, DeCook C, and Bosse MJ (**Mullis BH** site PI and co-author by Vancouver model). “Retrograde Intramedullary Nailing in Treatment of Bilateral Femur Fractures” *Journal of Orthopaedic Trauma* Vol. 22, No. 8, p. 530-534, 2008
7. Foulk DM and **Mullis BH** “Hip Dislocations”, *Journal of the American Academy of Orthopaedic Surgeons* Vol. 18, No. 4, p. 199-209, 2010
8. FLOW Investigators (**Mullis BH** site PI) “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.” *BMC Musculoskeletal Disord* Vol. 11, No. 85, p. 1-14. 2010
9. Evanson BJ, **Mullis BH**, and Anglen JO “Nonunion of a Petrochanteric Femur Fracture Due to Gunshot Wound.” *American Journal of Orthopaedics* Vol. 40, No. 1, p. E5-E9, 2011
10. Glassner, PJ and Tejawani NC (**Mullis BH** site PI and co-author by Vancouver model) “Failure of Proximal Femoral Locking Compression Plate: A Case Series”, *Journal of Orthopaedic Trauma* Vol. 25, p. 76-83, 2011
11. Watters J, Anglen JO, and **Mullis BH** “The Role of Debridement in Low-Velocity Civilian Gunshot Injuries Resulting in Pelvis Fractures: a Retrospective Review of Acute Infection and Inpatient Mortality”, *Journal of Orthopaedic Trauma* Vol. 25, p. 150-155, 2011
12. Petrisor B et al. (**Mullis BH** one of 273 co-authors in alphabetical order) “Fluid lavage of open wounds (FLOW): a multicenter, blinded, factorial pilot trial comparing alternative irrigating solutions and pressures in patients with open fractures” *J Trauma* Vol. 71, No. 3, p. 596-606, 2011
13. Bassuener SR, **Mullis BH**, Harrison RK, Sanders R, “Use of Bioabsorbable Pins in Surgical Fixation of Comminuted Periarticular Fractures”, *Journal of Orthopaedic Trauma* Vol. 26, No. 10, p. 607-610, 2012
14. Cha E, Ertl JP, **Mullis BH** “A Case Report: Combined Periprosthetic Acetabulum Fracture and Pelvic Ring Injury”, *Journal of Orthopaedic Trauma* Vol. 26, e43-45, 2012
15. McDowell S, **Mullis BH**, Knight BS, Dahners LE “Modified Ollier Transtrochanteric Approach for the Treatment of Acetabular Fractures”, *Orthopedics* Vol. 35, No. 2, p. 92 (full article Orthosupersite.com 20120123-03), 2012

16. Zielinski SM, Viveiros H, Heetveld MJ, Swiontkowski MF, Bhandari M, Patka P, Van Lieshout EM; FAITH trial investigators (**Mullis BH** site PI and co-author by Vancouver model). Central coordination as an alternative for local coordination in a multicenter randomized controlled trial: the FAITH trial experience. *Trials*. Jan 8;13:5, 2012
17. Hebert-Davies J, Laflamme GY, Rouleau D; HEALTH and FAITH investigators (**Mullis BH** site PI and co-author by Vancouver model). Bias towards dementia: Are hip fracture trials excluding too many patients? A systematic review. *Injury*. 43(12):1978-84, 2012
18. Cannada LK, Taylor RM, Reddix R, **Mullis BH**, Moghadamian E, Erickson M and the South East Fracture Consortium “The Jones-Powell Classification of Open Pelvic Fractures: A Multi Center Study Evaluating Mortality Rates” *J Trauma Acute Care Surg*. 74(3):901-6, 2013
19. Bethel, Levenda, Hogg, Alge, Chu, **Mullis BH** “Compressive Loading Causes Unique Mechanism of Failure in Second Generation Sliding Hip 1 Screw” *Int. J. Medical Engineering and Informatics*. 5(4):311-320, 2013
20. Bogdan Y, Tornetta P, Leighton R, Dahn U, Sagi H, Nalley C, Sanders D, Siegel J, **MullisBH**, Bemenderfer T, Vallier H, Boyd A, Schmidt A, Westberg JR, Egol K, Kottmeier S, Collinge C “Treatment and Complications in Orthopaedic Trauma Patients with Symptomatic Pulmonary Embolism” *Journal of Orthopaedic Trauma* Suppl 1:S6-9, 2014
21. **Mullis BH**, Fisk E, Weaver D, Zhao Q, Daggy J “Anemia versus Transfusion: The Risk of Complications in Orthopaedic Trauma Patients”, *American Journal of Orthopaedics* 44(1):E11-6, 2015
22. Andersen D, Popescu V, Cabrera ME, Shanghavi A, Gomez G, Marley S, **Mullis BH**, Wachs J “Virtual annotations of the surgical field through an augmented reality transparent display” *Visual Computer* epub May 27, 2015
23. Litrenta J, Saper D, Tornetta P 3rd, Phieffer L, Jones C, **Mullis B**, Egol K, Collinge C, Leighton R, Ertl W, Ricci W, Teague D, Ertl JP “Does Syndesmotic Injury Have a Negative Effect on Functional Outcome? A Multicenter Prospective Evaluation.” *Journal of Orthopaedic Trauma*, 29(12):569-573, 2015
24. Bhandari M, Devereaux PJ, Einhorn TA, Thabane L, Schemitsch EH, Koval KJ, Frihagen F, Poolman RW, Tetsworth K, Guerra-Farfán E, Madden K, Sprague S, Guyatt G; HEALTH Investigators (**Mullis BH** site PI and co-author by Vancouver model). Hip fracture evaluation alternatives of total hip arthroplasty versus hemiarthroplasty with (HEALTH): protocol for a multicentre randomised trial. *BMJ Open*. 2015 Feb 13;5(2):e006263
25. Burgers PT, Poolman RW, Van Bakel TM, Tuinebreijer WE, Zielinski SM, Bhandari M, Patka P, Van Lieshout EM; HEALTH and

- FAITH Trial Investigators (**Mullis BH** site PI and co-author by model). “Reliability, validity, and responsiveness of the McMaster Universities Osteoarthritis Index for femoral neck fracture.” *J Bone Joint Surg Am*. Vancouver Western Ontario and elderly patients with a 2015 May 6;97(9):751-7
26. FLOW Investigators (**Mullis BH** site PI and co-author by Vancouver model). “A Trial of Wound Irrigation in the Initial Management of Open Fracture Wounds.” *NEJM* Oct 8, 2015 epub
27. D’Alleyrand JC, Lewandowski LR, Forsberg JA, Gordon WT, Fleming ME, **Mullis BH**, Andersen RC, Potter BK. “Combat-Related Hemipelvectomy: 14 Cases, a Review of the Literature and Lessons Learned”. *Journal of Orthopaedic Trauma* 2015 Dec;29(12):e493-8
28. Tornetta P, Litrenta J, Firoozabadi R, Vallier H, Egol K, **Mullis B**, Jones C, Schemitsch E, Kruppa C, Bhandari M, Leighton R, Sanders D, Collinge C, “Dynamizations and Exchanges: Success Rates and Indications”. *Journal of Orthopaedic Trauma* 2015 Dec;29(12):569-73
29. **Mullis BH** and Siegel J “Now That I’m in Charge: What Do I Do?” *Journal of Orthopaedic Trauma* 2015;29 Suppl 11:S12-4
30. Zhang L, Zhang W, **Mullis B**, Liu D, Xiong Q, Lv H, Ji X, Peng Y, Tang P. “Percutaneous Anterior Column Fixation for Acetabulum fractures, Does it Have to Be Difficult?” *J Orthop Trauma*. 2016 Jan;30(1):e30-5. doi: 10.1097/BOT
31. Andersen D, Popescu V, Cabrera M, Shanghavi A, Gomez G, Marley S, **Mullis B**, Wachs J. “Medical Telementoring Using an Augmented Reality Transparent Display” *Surgery*. Jun; 159(6):1646-53. doi: 10.1016/j.surg.2015.12.016. Epub 2016 Jan 21.
32. Andersen D, Popescu V, Cabrera ME, Shanghavi A, Gomez G, Marley S, **Mullis B**, Wachs J. “Avoiding Focus Shifts in Surgical Telementoring Using an Augmented Reality Transparent Display” *Stud Health Technol Inform*. 2016;220:9-14
33. Turner C, Hiatt S, **Mullis B** “Fact or Fiction: Is Orthopaedic Follow-up Worse for Penetrating Trauma?” *Am J Orthop*. 2016 Sep/Oct;45(6):E331-E334.
34. Kuhn KM, Cannada LK, Watson T, Ali A, Boudreau JA, Mir HR, Bauer JM, **Mullis B**, Hymes R, Genova R, Tucker M, Schlatter D. “How High Can You Go?: Retrograde Nailing of Proximal Femur Fractures” *J Surg Orth Adv* 2017 26(1):33-39
35. O’Toole, RV, Joshi M, Carlini AR, Sikorski RA, Dagal A, Murray CK, Weaver MJ, Paryavi E, Stall AC, Scharfstein DO, Agel J, Zadnik M, Bosse MJ, Castillo RC and METRC (**Mullis BH** site PI and co-Vancouver model). “Supplemental Perioperative Oxygen to Surgical Site Infection after High-Energy Fracture Surgery author by Reduce (OXYGEN Study)” *J Orthop Trauma* 2017; 31:S25-S31

36. Obrebsky WT, Schmidt AH, O'Toole R, DeSanto J, Morshed S, Tornetta P, Murray CK, Jones CB, Scharfstein DO, Taylor TJ, Carlini AR, Castillo RC and METC (**Mullis BH** site PI and co-author by model). "A Prospective Randomized Trial to Assess Oral Antibiotics for the Treatment of Postoperative Extremity Fractures (POvIV Study)" *J Orthop* Vancouver versus Intravenous Wound Infection after Trauma 2017;31:S32-S38
37. Bosse MJ, Teague D, Reider L, Gary JL, Morshed S, Seymour RB, Toledano J, Cannada LK, MacKenzie EJ and METRC (**Mullis BH** site PI and co-author by Vancouver model). "Outcomes after Severe Tibia, Ankle, and/or Foot Trauma: Comparison of Limb Transtibial Amputation (OUTLET)" *J Orthop Trauma* Distal Salvage versus 2017;31:S48-55
38. Castillo RC, Raja SN, Frey KP, Vallier HA, Tornetta P, Jaebon T, Goff BJ, Gottschalk A, Scharfstein DO, O'Toole RV and METRC (**Mullis BH** site PI and co-author by Vancouver model). "Improving Management and Long-Term Outcomes Following High-Energy Trauma (PAIN Study)" *J Orthop Trauma* 2017;31:S71-Pain Orthopaedic S77)
39. Fixation using Alternative Implants for the Treatment of Hip fractures (FAITH) Investigators (**Mullis BH** site PI and co-author by Vancouver model). "Fracture fixation in the operative management of hip fractures (FAITH): an international, multicentre, randomised controlled trial" *Lancet* 2017 published online March 2017, [http://dx.doi.org/10.1016/S0140-6736\(17\)30066-1](http://dx.doi.org/10.1016/S0140-6736(17)30066-1)
40. Andersen D, Popescu V, Cabrera ME, Shanghavi A, **Mullis B**, Marley S, Gomez G, Wachs JP "An Augmented Reality-Based Approach for Surgical Telementoring in Austere Environments." *Mil Med.* 2017 Mar;182(S1):310-315. doi: 10.7205/MILMED-D-16-00051.
41. **Mullis BH**, Fajardo A, Laughlin M "Combined Orthopaedic and Vascular Injuries" *JBJS Rev.* 2017 Aug;5(8):e2
42. Hire J, Boyer P, Israel H, Cannada L, Mir H, Halvorson J, Della Rocca G, Ming B, **Mullis B**, Deshpande C "Treatment and Outcomes of Patients with Ipsilateral Acetabular and Femur Fractures: a Multicenter Retrospective Analysis" *J Orthop Trauma.* 2017 Dec;31(12):650-656
43. Bethel M, McDowell S, Brahmandanda C, Cheng Y, **Mullis BH**, Ertl J, Chu T, Kacena M, Anglen J "The Properties of Inducible Membranes in Animals and Humans" *Int J of Med Engineering and Informatics* 2017 Vol 9, No. 3, 189-200
44. Martin RJ, Vestermark G, **Mullis B**, Anglen J. "A Retrospective Comparative Analysis of the Use of Implantable Bone Stimulators in Nonunions" *J Surg Orthop Adv.* 2017 FALL;26(3):128-133.
45. Rojas-Muñoz E, Cabrera ME, Andersen D, Popescu V, Marley S, **Mullis B**, Zarzaur B, Wachs J. "Surgical Telementoring Without Encumbrance: A Comparative Study of See-through Augmented Approaches. *Ann Surg.* 2018 Apr 18. [Epub ahead of Reality-based print]

46. Nicolay R, Tawari A, Kempegowda H, Suk M, **Mullis B**
(corresponding author) “How often are Protocols Followed at Level I
Trauma Centers?” *J Surg Orthop Adv.* Summer 2018;27(2):109-112.

47. Andersen DS, Cabrera ME, Rojas-Muñoz EJ, Popescu VS, Gonzalez
GT, **Mullis B**, Marley S, Zarzaur BL, Wachs JP “Augmented Reality
Future Step Visualization for Robust Surgical Telementoring”
Simul Healthc. 2019 Feb;14(1):59-66

48. Rojas-Muñoz E, Andersen D, Cabrera ME, Popescu V, Marley S,
Zarzaur B, **Mullis B**, Wachs JP “Augmented Reality as a Medium for
Improved Telementoring” *Mil Med.* 2019 Mar 1;184(Suppl 1):57-64

49. Egol KA, Carlock KD, Kelly EA, Seetharam A, **Mullis BH**,
Marcantonio AJ, Bramlett KJ, Nchako CM, Watson JT, Cannada LK,
Konda SR “Previous Implant Fractures (PIFs): A New Descriptive Classification
System” *J Orthop Trauma.* 2019 epub ahead of print

50. Baessler A, **Mullis B**, Loder R, Corn K, Mavros C “Overlapping
Surgery for Ankle Fractures: Is It Safe?” submitted to *JGME* 2019

Peer-Reviewed Book Chapters

1. LeCroy CM, **Mullis BH**, Carmack DB, Milbrandt TA, Anderson DG “Trauma.”
Review of Orthopaedics, 4th edition; Edited by Miller MD, W.B. Saunders
Company, 2004
2. **Mullis BH** and Anglen JO “Open Reduction Internal Fixation and Closed
Reduction Percutaneous Fixation of Femoral Neck Fractures.” *Operative
Techniques in Orthopaedic Surgery*, 1st edition; Section Editor Tornetta P,
Lippincott Williams & Wilkins, 2010
3. **Mullis BH** and Anglen JO “Hip Trauma.” *Orthopaedic Knowledge Update*, 10th
edition; Section Editor Cannada L, American Academy of Orthopaedic
Surgeons, 2011
4. McDowell S, **Mullis BH**. “Radial and Ulnar Shaft, Monteggia, and Galeazzi
Fractures.” In: Archdeacon MT, Anglen JO, Ostrum RF, Herscovici D Jr, eds.
Prevention and Management of Common Fracture Complications. Thorofare,
NJ: SLACK Incorporated: 111-120, 2012
5. **Mullis BH**: Techniques of Anterior Pelvic Fixation. *Instructional Course
Lectures* 2012;61:19-25
6. **Mullis BH** and Anglen JO “Open Reduction Internal Fixation and Closed
Reduction Percutaneous Fixation of Femoral Neck Fractures.” *Operative
Techniques in Orthopaedic Surgery*, 2nd edition; Section Editor Tornetta P,
Lippincott Williams & Wilkins, 2015
7. **Mullis BH** and Anglen JO “Intramedullary Fixation for Proximal Humerus
Fractures: Applications and Technical Lessons.” *Advanced Reconstruction:
Shoulder 2* Abrams J, Bell R and Tokish J eds. AAOS/ASES, 2017

8. **Mullis BH & DeFalco C** “Hip Dislocations and Femoral Head Fractures.” *Orthopaedic Knowledge Update Trauma 5* Section Editor Jeray K, AAOS/OTA, 2017
9. **Mullis BH**, Richards R, and Anglen JO “Open Reduction Internal Fixation and Closed Reduction Percutaneous Fixation of Femoral Neck Fractures.” *Operative Techniques in Orthopaedic Surgery*, 3rd edition; Section Editor Tornetta P, Lippincott Williams & Wilkins, submitted 2019

Peer-Reviewed Electronic Publications

1. **Mullis BH**, and Bos GD “External Hemipelvectomy.” *Orthopaedic Care: Medical and Surgical Management of Musculoskeletal Disorders*. Edited by Koman LA, www.orthotextbook.net, Journal of the Southern Orthopaedic Association, 2003
2. **Mullis BH**: “Managing the Open Fracture.” American Academy of Orthopaedic Surgeons Web site: *Orthopaedic Knowledge Online*, Vol. 6, No. 5: <http://www5.aaos.org/oko/partners/ota/main.cfm>. Accessed May 29, 2008.
3. **Mullis BH**: “Managing the Open Fracture.” American Academy of Orthopaedic Surgeons Web site: *Orthopaedic Knowledge Online* 2010;8(8): <http://www5.aaos.org/oko/partners/ota/main.cfm>. Accessed August 30, 2010.
4. **Mullis BH**, Shively KD, and Anglen JO: “ORIF and CRPP of the Femoral Neck.” *Orthopaedia Main. In: Orthopaedia - Collaborative Orthopaedic Knowledgebase*. Created Jun 05, 2010 12:17. Last modified Jul 06, 2011 05:54 ver.15. Retrieved 2011-07-06, from <http://www.orthopaedia.com/x/EgoCAg>.
5. **Mullis BH** “Open Fractures.” OTA Resident Spring Fracture Course Module, April 2012
6. **Mullis BH** “Talus Fractures.” OTA Resident Fall Course Module, October 2013

Research Presentations (selected):

International

1. “Effect of COX-2 Inhibitors and NSAIDS on a Mouse Fracture Model.” American Orthopaedic Association (poster); British Columbia, Canada June 2002
2. “Humeral Shaft Nonunion and Radial Nerve Palsy Multicenter Study” OTA (podium co-author); Vancouver, Canada Oct 2017
3. “Does Motion at 8 Weeks Predict Nonunion in Nonoperatively Managed Humeral Shaft Fractures: A Prospective Multicenter Evaluation” OTA (podium co-author); Vancouver, Canada Oct 2017
4. “Timing of Definitive Fixation With Respect to Flap Coverage in Open Tibia Fractures” OTA (podium co-author); Vancouver, Canada Oct 2017

5. "Open Reduction is Associated with Greater Propensity-Stratified Hazard of Reoperation after Internal Fixation of Femoral Neck Fractures in Adults 18-65 Years" COA (podium co-author); British Columbia, Canada June 2018

National

1. "Effect of COX-2 Inhibitors and NSAIDS on a Mouse Fracture Model." Orthopaedic Research Society (poster, presenter); Dallas, TX Feb 2002
2. "Results of Posterior Fixation for Vertically Unstable Sacroiliac Dislocation." OTA (podium, presenter); Phoenix, AZ October 2006
3. "Results of Posterior Fixation for Vertically Unstable Sacroiliac Dislocation." AAOS (podium, presenter); San Diego, CA February 2007
4. "Retrograde Intramedullary Nailing in Bilateral Femur Fractures." OTA (poster, co-author); Boston, MA October 2007
5. "Morbidity and Mortality of Open Pelvic Fractures Using the Jones-Powell Classification." OTA (poster, co-author); Dallas, TX October 2008
6. "Morbidity and Mortality of Open Pelvic Fractures Using the Jones-Powell Classification." AAOS (poster, co-author); Las Vegas, NV February 2009
7. "Does Anemia or Transfusion Increase the Risk of Complication in Orthopaedic Trauma Patients?" AAOS (podium, corresponding author); San Diego, CA February 2011
8. "Does Anemia or Transfusion Increase the Risk of Complication in Orthopaedic Trauma Patients?" OTA (poster, corresponding author); San Antonio, TX October 2011
9. "A Modified Ollier Transtrochanteric Approach for the Treatment of Acetabular Fractures" OTA (poster, corresponding author); San Antonio, TX October 2011
10. "The Fate of Patients After a Staged Nonunion Procedure for Known Infection" OTA (podium, co-author); San Antonio, TX October 2011
11. "Posterolateral Antiglides vs Lateral Plating for SE Pattern Ankle Fractures: A Multicenter Randomized Control Trial" AAOS (podium, co-author); San Antonio, TX October 2011
12. "The Fate of Patients After a Staged Nonunion Procedure for Known Infection" AAOS (poster, co-author); San Francisco, CA February 2012
13. "Posterolateral Antiglides vs Lateral Plating for SE Pattern Ankle Fractures: A Multicenter Randomized Control Trial" AAOS (podium, co-author); San Francisco, CA February 2012
14. "Second Generation Locking Sliding Hip Screw Shows Catastrophic Failure in Biomechanical Testing" AAOS (podium, corresponding

author); San Francisco, CA February 2012

15. "Posterolateral Antiglides vs Lateral Plating for SE Pattern Ankle Fractures: A Multicenter Randomized Control Trial" AOA (poster, co-author); Washington, DC June 2012
16. "The Fate of Patients After a Staged Nonunion Procedure for Known Infection" AOA (poster, co-author); Washington, DC June 2012
17. "Retrograde Nailing of Proximal Femur Fractures" OTA (podium, co-author); Minneapolis, MN Oct 2012
18. "Combat-Related Hemipelvectomy: Eleven Cases, a Review of the Literature and Lessons" SOMOS (podium, co-author); Naples, FL December 2012
19. "Treatment and Complications in Orthopaedic Trauma Patients with Pulmonary Embolism" AAOS (podium, co-author); Chicago, IL March 2013
20. "Combat-Related Hemipelvectomy: Eleven Cases, a Review of the Literature and Lessons" AAOS (podium, co-author); Chicago, IL March 2013
21. "Retrograde Nailing of Proximal Femur Fractures" AAOS (podium, co-author); Chicago, IL March 2013
22. "Treatment and Complications in Orthopaedic Trauma Patients with Pulmonary Embolism" AOA (podium, co-author); Denver, CO June 2013
23. "Spacer Composition Influences Properties of the Masquelet Membrane in Animals and Observed Gene Expression Patterns Of Inducible Membranes in Humans" OTA (podium, co-author); Phoenix, AZ October 2013
24. "Fact Or Fiction For Penetrating Trauma: Is Follow-Up Worse?" OTA (poster, corresponding author); Phoenix, AZ October 2013
25. "Dynamizations and Exchange Nailing: Success Rates And Indications" OTA (podium, co-author); Phoenix, AZ October 2013
26. "Locked Plating vs. Retrograde Nailing for Distal Femur Fractures: A Multicenter Randomized Trial" OTA (podium, co-author); Phoenix, AZ October 2013
27. "Combat-Related Hemipelvectomy: Eleven Cases, a Review of the Literature and Lessons" EOA (podium, co-author); Miami, FL March 2014
28. "Locked Plating vs. Retrograde Nailing for Distal Femur Fractures: A Multicenter Randomized Trial" AAOS (podium, co-author); New Orleans, LA March 2014
29. "Dynamizations and Exchange Nailing: Success Rates and

Indications” AAOS (podium, co-author); New Orleans, LA March 2014

30. “See-What-I-Do: Increasing mentor and trainee sense of co-presence in trauma surgeries with the STAR platform” Joint Program Committee-1 (podium, co-author); Fort Detrick, MD August 2015
in trauma surgeries with the STAR platform” Military Health System Research Symposium (podium, co-author); Fort Lauderdale, FL August 2015
32. “Peroneal Irritation After Lateral Malleolar Fractures” OTA (podium co-author); San Diego, CA October 2015
33. “Open Ankle Fractures: What Predicts Infection?” OTA (podium co-author); San Diego, CA October 2015
34. “The Effect of Knee Flexion Contracture on Outcomes of Distal Femur Fractures” OTA (podium co-author); San Diego, CA Oct 2015
35. “Surgery for Unilateral Sacral Fractures: Are the Indications Clear?” OTA (podium co-author); San Diego, CA October 2015
36. “Assessment of a Tranexamic Acid Protocol for Orthopedic Trauma Surgery” Society of Critical Care Medicine 2016 Critical Care Congress (poster, co-author); Orlando, FL February 2016
37. “The Effect of Knee Flexion Contracture on Outcomes of Distal Femur Fractures” AAOS (podium, co-author); Orlando, FL March 2016
38. “Surgery for Unilateral Sacral Fractures: Are the Indications Clear?” AAOS (podium, co-author); Orlando, FL March 2016
39. "Treatment and Outcomes of Patients with Ipsilateral Acetabular and Femur Fractures: A Multicenter Retrospective Analysis" Eastern Orthopaedic Association; New Orleans, LA Oct 2016
40. “Combined Orthopaedic and Vascular Injuries: A Multicenter Analysis” OTA (podium co-author); Washington, DC, Oct 2016
41. “Does Operative Intervention Provide Early Pain Relief for Patients with Undisplaced Unilateral Sacral Fractures?” OTA (podium co-author); Washington, DC, Oct 2016
42. “Open Reduction and Internal Fixation versus Closed Reduction and Internal Fixation in Treatment of Young Adults with Femoral Neck Fractures: a Multicenter Retrospective Cohort Study” OTA (podium co-author); Washington, DC, Oct 2016
43. “The Effect of Coronal Plane Angulation on the Outcomes of Operatively Treated Distal Femur Fractures” OTA (podium co-author); Washington, DC, Oct 2016
44. “Treatment and Outcomes of Patients with Ipsilateral Acetabular and Femur Fractures: a Multicenter Retrospective Analysis” OTA

(poster co-author); Washington, DC, Oct 2016

45. "Does Operative Intervention Provide Early Pain Relief for Patients with Undisplaced Unilateral Sacral Fractures?" AAOS (podium, co-author); San Diego, CA March 2017
46. "Military Medical Modeling & Simulation Applications of Medical Technology "Realities" to Improve Training Effectiveness - Mixed Reality as a Medium for Improved Teleproctoring" MHSRS (podium co-author); Kissimmee, FL Aug 2017
47. "Does Motion at 8 Weeks Predict Nonunion in Nonoperatively Managed Humeral Shaft Fractures? A Prospective Multicenter Evaluation" OTA (podium, co-author); Vancouver, BC Oct 2017
48. "Radial Nerve Injury and Recovery After Humeral Nonunion Surgery" OTA (podium, co-author); Vancouver, BC Oct 2017
49. "Timing of Definitive Fixation with Respect to Flap Coverage in Open Tibia Fractures" OTA (podium, co-author); Vancouver, BC Oct 2017
50. "Open Reduction is Associated with Greater Propensity-Stratified Hazard of Reoperation After Internal Fixation of Femoral Neck Fractures in Adults 18-65 Years of Age" OTA (podium, co-author); Vancouver, BC Oct 2017
51. "Operative vs. Non Operative Treatment of Isolated Humeral Shaft Fractures: A Prospective Cohort Study" OTA (podium, co-author); Orlando, FL Oct 2018
52. "Characterization of Vitamin D Deficiency and Use of a Standardized Supplementation Protocol in Orthopaedic Trauma Patients" OTA (poster, co-author); Orlando, FL Oct 2018
53. "Is There a Critical Angle That Portends Poor Functional Outcome Scores in Nonoperative Treatment of Isolated Humeral Shaft Fractures?" OTA (podium, co-author); Orlando, FL Oct 2018
54. "Results of Operative Fixation for Femoral Neck Fractures in Patients Aged 18 to 59 Years: A Study of 16 Centers and 596 Cases" OTA (podium, co-author); Orlando, FL Oct 2018
55. "Operative vs. Nonoperative Treatment of Isolated Humeral Shaft Fractures: A Prospective Cohort Study" AAOS (podium, co-author); Las Vegas, NV March 2019
56. "Timing of Definitive Fixation with Respect to Flap Coverage in Open Tibia Fractures; AAOS (podium, co-author); Las Vegas, NV March 2019
57. "Is There a Critical Angle that Portends Poor Functional Outcome Scores in Nonoperative Treatment of Isolated Humeral Shaft Fractures?" AAOS (podium, co-author); Las Vegas, NV March 2019
58. "Radial Nerve Injury and Recovery After Humeral Nonunion Surgery" AAOS (podium, co-author); Las Vegas, NV March 2019

59. "Anterior Translation of Proximal Humerus Fractures Predicts Surgery" AAOS (poster, co-author); Las Vegas, NV March 2019

ACTIVITIES

Indiana University Department of Orthopaedics

- **Chief, Orthopaedic Trauma Service IU SOM, 2006-2011**
Committees: OR, Trauma, Emergency Management
- **Acting Chief of Orthopaedics, Wishard Hospital, 2007**
Committees: Clinical Oversight, Medical Executive
- **Education Committee for IU Orthopaedics, 2006-2011**
- **Research Committee for IU Orthopaedics, 2009 to present**
- **AO North America Orthopaedic Faculty, 2007 to present**
- **PMR Chairman Search Committee, 2008-2009**
- **Faculty Advisor for Ortho Student Interest Group, 2008-2016**
- **Orthopaedic Clerkship Director for IU ED residents, 2008-2019**
- **OTA Research Committee, 2009-2015**
- **ATLS Instructor, 2009-2018**
- **Board of Directors University Orthopaedic Assoc., 2010-present**
- **Advisor and Board Reviewer to Pearl IRB, 2011-2012**
- **Co-Chair, OR Committee Wishard/Eskenazi Hospital, 2011-2018**
- **Chief, Orthopaedic Trauma Service Eskenazi Health, 2013-2018**
Committees: OR, Trauma. Emergency Management
- **IUHP Orthopaedic Service Line Council, 2013-2014**
- **IU SOM IRB Consultant, 2013-2016**
- **OTA Spring Resident Course Co-Chair, 2013-2015**
- **OTA Spring Resident Course Chair, 2015-2016**
- **OTA Education Committee (ex officio), 2013-2017**
- **Orthopaedic Chairman Search Committee, 2014-2016**
- **OTA Education Committee, 2017-2020**
- **BoneSupport Clinical Event Committee for FORTIFY, 2018-present**
- **IU P&T committee for Emergency Medicine, 2018-2019**
- **IUSM GME Well-Being Advisory Panel, 2018-present**
- **ICMH Trauma division co-Chair, 2017-present**

- **IU P&T committee for Orthopaedic Surgery**, 2018-present
Committee Chair, 2019-present
- **OTA representative for National Trauma Research Action Plan (NTRAP) project Pediatrics panel**, 2019-present
- **American Board of Orthopaedic Surgery Examiner**, 2019-present
- **Secretary-Treasurer Indiana Orthopaedic Society**, 2019
Elected by the Board to serve in Presidential line of the state society
- **CORD (Council of Orthopaedic Residency Directors) Education Taskforce**, 2019-2020
- **IU Ortho Med Student Education Committee**, 2019-present
- **AO Trauma North America Research Committee** 2019-2022
- **AOA CORD Education Taskforce** 2019-2020
- **OTA Online Discussion Forum Committee**, 2019-2022

Peer Review Publication Appointments

- **Journal of Orthopaedic Trauma**,
Associate Editor 2008 to present, Reviewer 2006-2008
- **Journal of the American Academy of Orthopaedic Surgeons**, Reviewer 2008 to present
- **Orthopaedic Knowledge Online**, Reviewer 2008-present
- **Journal of Trauma**, Reviewer 2010 to present
- **Journal of Orthopaedic Research**, Reviewer 2013 to present
- **International Journal of Clinical Transfusion Medicine**,
Reviewer 2015 to present

Educational Course Faculty-National (Invited Lecturer to all Courses)

- **OTA Basic Residents Course**, Phoenix, AZ October 2006
- **AO ORP Course** St. Petersburg, FL December 2006
- **AO Basic Residents Course**, Reno, NV January 2007
- **OTA Advanced Residents Course**, Rosemont, IL March 2007
- **S&N Advanced Trauma Techniques**, Memphis, TN April 2007
- **International Trauma Symposium**, Aventura, FL September 2007
- **OTA Basic Residents Course**, Boston, MA October 2007
- **OTA Advanced Residents Course**, Dallas, TX May 2008
- **OTA Basic Residents Course**, Denver, CO October 2008

- **AO Basic Residents Course**, Indianapolis, IN May 2009
- **OTA Basic Residents Course**, San Diego, CA October 2009
- **OTA Annual Meeting**, San Diego, CA October 2009
- **OTA Basic Residents Course**, Baltimore, MD October 2010
- **Medtronic Osteobiologic Summit**, Miami, FL January 2011
- **Synthes ORP Course**, Minneapolis, MN April 2011
- **OTA Comprehensive Residents' Course**, Chicago, IL April 2011
- **Medtronic Osteobiologic (Chairman)** San Francisco, CA May 2011
- **S&N TSF Basic Course**, New York City, NY June 2011
- **AO Basic Residents Course**, Chicago, IL August 2011
- **Medtronic Osteobiologic Summit**, Las Vegas, NV September 2011
- **OTA Basic Residents Course (Moderator and Lecturer)**, San Antonio, TX October 2011
- **AO Basic Residents Course**, Las Vegas, NV November 2011
- **AAOS/OTA Strategies and Tactics in Orthopaedic Extremity Trauma**, Rosemont, IL December 2011
- **AAOS/OTA Strategies and Tactics in Orthopaedic Extremity Trauma**, Rosemont, IL November 2012
- **OTA Comprehensive Residents Course**, Chicago, IL April 2013
- **Trauma Expert Interactions: Advanced Case Complications Symposium**, Boston, MA May 2013
- **OTA Residents Course (Module Leader)**, Phoenix, AZ Oct 2013
- **OTA Advanced Residents Course**, Orlando, FL Jan 2014
- **OTA Residents Course (Co-Chair)**, Rosemont, IL April 2014
- **S&N Masters Fracture Forum**, Huntington, CA May 2014
- **AO Basic Residents Course**, Charlotte, NC January 2015
- **AO Basic Residents Course**, New Orleans, LA February 2015
- **Biomet Elite Trauma Course**, Miami, FL March 2015
- **OTA Residents Course (Chair)**, Rosemont, IL April 2015
- **Biomet Elite Trauma Course (Chair)**, Newark, NJ August 2015
- **OTA Residents Course**, San Diego, CA October 2015
- **Zimmer Biomet Trauma Course**, New York, NY November 2015

- **OTA Residents Course (Chair)**, Rosemont, IL April 2016
- **AO Basic Residents Course (Moderator)**, Minneapolis, MN Aug 2016
- **AO Basic Residents Course**, Orlando, FL Sep 2016
- **OTA Annual Meeting**, Washington DC Oct 2016
- **Zimmer Biomet Trauma Course**, San Francisco CA Oct 2016
- **Zimmer Biomet Latin America Trauma Course**, Miami FL March 2017
- **S&N Masters Fracture Forum**, Huntington, CA May 2017
- **AO Basic Residents Course (Co-Chair)**, Birmingham, AL March 2018
- **AO Basic Residents Course (Moderator)**, Kansas City, MO March 2018
- **S&N Masters Fracture Forum**, Huntington, CA April 2018
- **AAOS/OTA Daily Dilemmas in Trauma**, Baltimore, MD April 2018
- **AO Basic Residents Course (Moderator)**, Baltimore, MD Nov 2018
- **AAOS/OTA Daily Dilemmas in Trauma**, Orlando, FL May 2019

Educational Course Faculty-Regional (selected)

- **AO Advanced Technology Symposium**, Indianapolis, IN August 2007
- **ATLS Instructor**, Indianapolis, IN June 2009
- **ATLS Instructor**, Indianapolis, IN October 2009
- **ATLS Instructor**, Indianapolis, IN June 2010
- **ATLS Instructor**, Indianapolis, IN Oct 2010
- **ATLS Instructor**, Indianapolis, IN Feb 2011
- **ATLS Instructor**, Indianapolis, IN June 2011
- **Synthes ORP Course (Moderator)**, Indianapolis, IN Oct 2011
- **ATLS Instructor**, Indianapolis, IN October 2012
- **ATLS Instructor**, Indianapolis, IN June 2013
- **ATLS Instructor**, Indianapolis, IN February 2014
- **ATLS Instructor**, Indianapolis, IN June 2015
- **ATLS Instructor**, Indianapolis, IN June 2017

Invited Guest Lecturer – International

- **OTA/AAOS Webinar (Director)**, International Broadcast, Nov 2013
- **Annual Chinese Ortho Trauma Assoc. & Visiting Professor Peking**

Union Medical Hospital and 301 Military Hospital, Beijing, China
March 2014

- **Rota Navy Hospital, Rota, Spain** August 2014
- **OTA/AAOS Webinar series International Broadcast, Sep-Oct** 2014
- **Mediware Webinar, International Broadcast, Jan** 2016

Invited Guest Lecturer – National

- **Portsmouth Naval Hospital, Portsmouth, VA** February 2008
- **OTA Young Practitioner’s Forum, Denver, CO** October 2008
- **AAOS Instructional Course Lecture, Las Vegas, NV** February 2009
- **Portsmouth Naval Hospital, Portsmouth, VA** April 2009
- **Portsmouth Naval Hospital, Portsmouth, VA** August 2009
- **AAOS Instructional Course Lecture, New Orleans, LA** March 2010
- **National Naval Medical Center, Bethesda, MD** January 2011
- **AAOS Instructional Course Lecture, San Diego, CA** February 2011
- **AOSSM Specialty Day, San Diego, CA** February 2011
- **Medtronic Osteobiologic Trauma, Denver, CO** September 2011
- **Medtronic Osteobiologic Trauma, Aspen, CO** September 2011
- **Aspen Valley Hospital Grand Rounds, Aspen, CO** September 2011
- **OTA Young Practitioner’s Forum, San Antonio, TX** October 2011
- **Society of Military Orthopaedic Surgeons (Moderator & Speaker)**
Naples, FL December 2012
- **OTA Annual Meeting, Phoenix, AZ** October 2013
- **AAPA Annual Meeting , Atlanta, GA** June 2014
- **OTA Young Practitioner’s Forum, Tampa, FL** Oct 2014
- **OTA Annual Meeting (Moderator & Speaker), San Diego, CA** Oct
2015
- **Clinical Orthopaedic Society, Indianapolis, IN** Sep 2017
- **AAOS/OTA Specialty Day, Las Vegas, NV** March 2019

Invited Guest Lecturer – Regional (selected)

- **Trauma/Surgical CC Symposium, Indianapolis, IN** November 2007
- **EM Updates Symposium, Terre Haute, IN** November 2007
- **High Risk Medicine Symposium, Terre Haute, IN** May 2008

- **LaPorte Hospital Grand Rounds**, Laporte, IN June 2009
- **High Risk Medicine Symposium**, Terre Haute, IN Nov 2009
- **Trauma/Surgical CC Symposium**, Indianapolis, IN October 2010
- **Indiana ENA Symposium**, Carmel, IN June 2011
- **Trauma/Surgical CC Symposium**, Indianapolis, IN November 2012
- **IUH Methodist Trauma Symposium**, Indianapolis, IN November 2013
- **Indiana State Association of Blood Banks Annual Meeting**, Indianapolis, IN September 2015

Invited Interviews - National

- **EmpowHer**, Las Vegas, NV February 2009
<http://www.empowher.com/users/dr-brian-mullis>
- **Synthes Podcast**, San Antonio, TX October 2011

Florida Orthopaedic Institute

Educational Course Faculty-International and National

- **OTA Residents Basic Course**, Ontario Canada, October 2005
- **Current Solutions in Orthopaedic Trauma**, Orlando, FL Dec 2005

EMPLOYMENT

Indiana University Department of Orthopaedics

- **Assistant Professor**, 2006-2012
- **Associate Professor**, 2012-2016
Tenure awarded July 2013
- **Program Director**, 2015-present
- **Professor**, 2016-present
- **Consulting**
Smith & Nephew (2007-2008, 2011, 2014, 2018), Stryker Biotech (2007), Wyeth (2008), Medtronic (2011-2012), Synthes (2011-2012), Biomet (2014-2015), Zimmer Biomet (2015-present), ConvaTec (2015-2016), Acelity (2016), Advisory Board for Larson Financial (2015-2018), BoneSupport (2016)

Florida Orthopaedic Institute

- **Orthopaedic Trauma Fellow**, 2005-2006

University of North Carolina Department of Orthopaedics

- **Categorical 6-year Research Resident**, 1999-2005

General surgery internship, 1 year of research , 4 years Orthopaedics

- **Consulting**
Pharmacia/Pfizer (2000)

University of North Carolina School of Medicine

- **UNC School of Medicine, Division of Orthopaedics, 1996**
research funded by NIH summer grant
- **UNC School of Medicine, Division of Student Affairs, 1996-1997**
biochemistry large group (up to 160 students) tutor

MILITARY EXPERIENCE (2001-2015)

- **Commissioned United States Navy Reserve Dec 19, 2001**
- **National Defense Service Medal, 2003**
- **Sharpshooter Pistol Qualification, 2003**
- **Navy Achievement Medal, 2008**
- **Promoted to Commander, 2011**
- **Deployed to Afghanistan for Operation Enduring Freedom, 2012**
- **Navy Commendation Medal, Afghanistan Campaign Medal, Overseas Service Ribbon, Sea Service Deployment Ribbon, Global War on Terrorism Service Medal, NATO-ISAF medal, Armed Forces Reserve with Mobilization ribbon, Navy Unit Commendation, 2012**

PROFESSIONAL MEMBERSHIPS

- **Orthopaedic Trauma Association, 2006-present**
- **Indiana Orthopaedic Society, 2008-present**
- **Fellow of American Academy of Orthopaedic Surgeons, 2009-present**
- **Fellow of American College of Surgeons, 2016-present**
- **Fellow of American Orthopaedic Association, 2018-present**

CERTIFICATIONS

- **American Board of Orthopaedic Surgery, July 2008 Part 2, recert July 2016 (expires 12/31/28)**
- **ATLS Instructor, July 2009-present**

ACTIVE MEDICAL LICENSES

- **Indiana State Medical License**, issued March 15, 2006