

## BRANDON LEE BARNDS, MD

### TRAINING & EDUCATION

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#### **Fellow in Orthopedic Sports Medicine**

**August 2020 – July 2021**

Steadman Hawkins Clinic, Englewood, CO

- Director: Theodore F. Schlegel, MD

#### **Residency in Orthopedic Surgery**

**July 2015 – June 2020**

University of Kansas Medical Center, Kansas City, KS

- The University of Kansas Hospital
- Chairman: Bruce E. Toby, MD

#### **Doctor of Medicine**

**July 2011 - May 2015**

University of Kansas School of Medicine, Kansas City, KS

#### **Bachelor of Science in Biology, *Cum Laude***

**September 2006 – June 2010**

Washington and Lee University, Lexington, VA

### PROFESSIONAL SOCIETY MEMBERSHIPS

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#### **American Shoulder and Elbow Surgeons**

*Fellow Member*

**2019-2021**

#### **Alpha Omega Alpha Medical Honor Society**

*Vice-President KUMC Chapter*

**2014-2015**

*Member*

**2014-Present**

#### **Omicron Delta Kappa National Leadership Honor Society**

**2009-Present**

### HONORS & AWARDS

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#### **Betty & Federico Adler Resident Award for Outstanding Orthopedic Research**

The University of Kansas Medical Center, Dept. of Orthopedic Surgery, Kansas City, KS

**June 2019**

#### **Kim Templeton, M.D. Award for Excellence in Teaching**

**2018**

The University of Kansas Medical Center, Dept. of Orthopedic Surgery, Kansas City, KS

#### **Alpha Omega Alpha Medical Honor Society**

**2014**

The University of Kansas School of Medicine, Kansas City, KS

#### **NCAA Postgraduate Scholarship**

**2010**

*The NCAA awards up to 174 postgraduate scholarships annually across all divisions and sports to student-athletes who excel academically and athletically.*

Indianapolis, IN

#### **NCAA Division III Academic All-American**

**2008, 2009, 2010**

Indianapolis, IN

## PUBLICATIONS

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1. Tucker W, **Barnds B**, Morris B, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Nationwide Analysis of Total Ankle Replacement and Ankle Arthrodesis in Medicare Patients: Trends, Complications, and Cost. Accepted to Foot & Ankle Specialist; June 2020.
2. Norton N, **Barnds B**, McIff T, Toby B, Fischer K. The Effect of the Joint Capsule and Anterior Oblique Ligament on Dorsal Subluxation of the First Metacarpal During Key Pinch. Accepted for publication to the Journal of Biomechanical Engineering; January 2020.
3. **Barnds B**, Grote C, Mettman D, Templeton K. Liposclerosing Myxofibrous Tumor in a Patient with Prostate Cancer: Case and Review of the Literature. Accepted to The Journal of Bone and Joint Surgery-Case Connector. 2019; Dec;9(4) :e0411.
4. **Barnds B**, Johnson A, Rosenthal H, Tilley M. Ipsilateral Vascularized Double-Barrel Fibula Autograft for Limb Salvage in a Pediatric Patient with Lower Extremity Intramedullary Osteosarcoma. The Journal of Microsurgery. 2019; July;8. Epub ahead of print.
5. **Barnds B**, Morris B, Mullen S, Schroepfel JP, Tarakemeh A, Vopat B. Increased rates of knee arthroplasty and cost of patients with meniscal tears treated with arthroscopic partial meniscectomy versus non-operative management. Knee Surgery, Sports Traumatology, Arthroscopy. 2019 Jul;27(7):2316-2321.
6. **Barnds B**, Bounajem G, Schroepfel JP, Mullen S, Heddings A, Tarakemeh A, Vopat B. Simultaneous Bilateral Knee Dislocation in a Weight Trainer: A Case Report and Review of Literature. The Journal of Bone and Joint Surgery-Case Connector. 2019; Jan-Mar;9(1):e5.
7. **Barnds B**, Tucker W, Morris B, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Cost Comparison and Complication Rate of Lisfranc Injuries Treated with Open Reduction Internal Fixation versus Primary Arthrodesis. Injury-International Journal of the Care of the Injured. 2018; 49(12):2318-2321.
8. Galvis S, Burton D, **Barnds B**, Anderson J, Schwend R, Price N, Wilson S, Friis E. The Effect of Scoliotic Deformity on Spine Kinematics in Adolescents. Scoliosis and Spinal Disorders. 2016; 11: 42.
9. Boolani H, Madhu R, Baryun E, **Barnds B**, Janga P, Pamulapati H, Lakkireddy D. Remote Magnetic Navigation System Guided Radiofrequency Ablation of Intra Atrial Reentrant Trachycardia in Corrected Transposition of Great Arteries. Journal of Atrial Fibrillation 5, no. 2 (2012).
10. **Barnds B**, Heenan M, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Comparison of the Rate of Nonunion or Delayed Union in Fifth Metatarsal Fractures Receiving Anti-Inflammatory Medications. Submitted to Injury (June 2020).

11. Truntzer J, Vopat B, Schwartz J, Anavian J, **Barnds B**, Blaine T, Green A. Comparison of Post-Operative Anatomy Using Anatomic Total Shoulder Replacement Versus Soft-Tissue Balancing Total Shoulder Replacement. Submitted to AAOS (June 2020).
12. Morris B, Kim K, **Barnds B**, Tucker W, Bechtold M, Schroepel JP, Mullen S, Tarakemeh A, Vopat B. Posterolateral corner of the knee ligament tears: a systematic review of functional and postoperative rehabilitation protocols and review of the literature. Submitted to Knee Surgery, Sports Traumatology, Arthroscopy; 2019.

## EDITORIAL ACTIVITIES

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**Journal of Atrial Fibrillation** - Junior Editor **2012-2013**

## RESEARCH EXPERIENCE

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**University of Kansas Medical Center** **2019-Present**

Center for Orthopedic Research and Education  
 Primary Investigator: Jennifer Villwock, MD  
 Orthopedic Investigator: Kimberly Templeton, MD  
 Topic: Functional Pain Assessment Scale in Total Hip Arthroplasty Patients

**University of Kansas Medical Center** **2017-Present**

Center for Orthopedic Research and Education  
 Lab Director: Terrence E. McIff, MBA, Ph.D.  
 Primary Investigator: Ken Fischer, Ph.D.  
 Topic: Experiments for Basilar Thumb Contact Pressures and Modeling

**University of Kansas Medical Center** **2017-Present**

Center for Orthopedic Research and Education  
 Primary Investigator: Bryan G. Vopat, MD  
 Topic: Utilization of National Insurance Database to Determine Orthopedic Outcomes and Cost

**University of Kansas Medical Center** **2014-2016**

Center for Orthopedic Research and Education  
 Primary Investigator: Douglas Burton, MD  
 Topic: Characterization of spinal motion and structural asymmetry in scoliosis patients through assessing segmental spinal motion changes.

**University of Kansas Medical Center** **2010-2014**

Cardiovascular Research Institute  
 Primary Investigator: Dhanunjaya Lakireddy, MD  
 Topic: Analysis of CT Scans to better assess atrial fibrillation and stroke risk.

**University of Kansas Medical Center** **2009**

Otolaryngology, Head and Neck Surgery  
 Primary Investigator: Diane Durham, Ph.D.  
 Topic: Analysis of the method of apoptosis of neurons associated with hearing in the chicken brainstem.

## PRESENTATIONS

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1. **Barnds B**, Heenan M, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Comparison of the Rate of Delayed/Nonunion in Fifth Metatarsal Fractures Receiving Anti-Inflammatory Medications. American Orthopedic Society for Sports Medicine Annual Meeting. Boston, MA. July 2019. Podium Presentation.
2. **Barnds B**, Heenan M, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Comparison of the Rate of Delayed/Nonunion in Fifth Metatarsal Fractures Receiving Anti-Inflammatory Medications. Arthroscopy Association of North America Annual Meeting. Orlando, FL. May 2019. Podium Presentation.
3. **Barnds B**, Heenan M, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Comparison of the Rate of Delayed/Nonunion in Fifth Metatarsal Fractures Receiving Anti-Inflammatory Medications. Orthopedic Summit-Evolving Techniques. Las Vegas, NV. December 2018. Podium Presentation.
4. **Barnds B**, Heenan M, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Comparison of the Rate of Delayed/Nonunion in Fifth Metatarsal Fractures Receiving Anti-Inflammatory Medications. Orthopedic Summit-Evolving Techniques. AANA Annual Meeting. Orlando, FL. April 2019. Podium Presentation.
5. **Barnds B**, Heenan M, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Comparison of the Rate of Delayed/Nonunion in Fifth Metatarsal Fractures Receiving Anti-Inflammatory Medications. Orthopedic Summit-Evolving Techniques. AOSSM Annual Meeting. Boston, MA. July 2019. Podium Presentation.
6. **Barnds B**, Tucker W, Morris B, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Cost Comparison and Complication Rate of Lisfranc Injuries Treated with Open Reduction Internal Fixation versus Primary Arthrodesis. American Orthopaedic Foot and Ankle Society Annual Meeting. Boston, MA. July 2018. Podium Presentation.
7. Tucker W, **Barnds B**, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Nationwide Analysis of Total Ankle Replacement and Ankle Arthrodesis in Medicare Patients: Trends, Complications, and Cost. American Orthopaedic Foot and Ankle Society Annual Meeting. Boston, MA. July 2018. Poster Presentation.
8. **Barnds B**, Tucker W, Morris B, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Cost Comparison and Complication Rate of Lisfranc Injuries Treated with Open Reduction Internal Fixation versus Primary Arthrodesis. American Orthopaedic Society for Sports Medicine Annual Meeting. San Diego, CA. July 2018. Podium Presentation.
9. **Barnds B**, Morris B, Mullen S, Schroepfel JP, Tarakemeh A, Vopat B. Sex Treatment Trends, Cost Analysis and Rates of Progression to Knee Arthroplasty Associated with Meniscal Tears Treated with Arthroscopic Partial Meniscectomy versus Non-Operative Management.

American Medical Women's Association Annual Meeting. Philadelphia, PA. March 2018. Podium Presentation.

10. **Barnds B**, Tucker W, Morris B, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Cost Comparison and Complication Rate of Lisfranc Injuries Treated with Open Reduction Internal Fixation versus Primary Arthrodesis. Orthopedic Summit-Evolving Techniques. Las Vegas, NV. December 2017. Podium Presentation.
11. Morris B, **Barnds B**, Kim K, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Posterolateral Corner of The Knee Ligament Injuries: A Systematic Review of Functional And Postoperative Rehabilitation Protocols. Orthopedic Summit-Evolving Techniques. Las Vegas, NV. December 2017. Podium Presentation.
12. **Barnds B**, Morris B, Mullen S, Schroepfel JP, Tarakemeh A, Vopat B. Cost Comparison and Sex Analysis of Arthroscopic Partial Meniscectomy versus Non-Operative Management for Meniscal Tears and How It affects Progression to Knee Arthroplasty. University of Kansas Medical Center Faculty Research Day. Kansas City, KS. November 2017. Poster Presentation.
13. **Barnds B**, Tucker W, Morris B, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Cost Comparison and Complication Rate of Lisfranc Injuries Treated with Primary Fixation, Primary Fusion, or Closed Management University of Kansas Medical Center Faculty Research Day. Kansas City, KS. November 2017. Poster Presentation.
14. **Barnds B**, Janga P, Lakkireddy D. Left Atrial Appendage Minimum Neck Diameter as a Potential Predictor of Cardioembolic Stroke. University of Kansas Medical Center Student Research Forum. Kansas City, KS. 2013. Poster Presentation.

## CURRENT RESEARCH PROJECTS

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Hierl A, **Barnds B**, Moran H, Templeton K, Villwock J. ABC's of Pain: A Functional Scale Measuring Peri-Operative Pain in Total Hip Arthroplasty (THA) Patients. Abstract submitted to AAOS annual meeting.

Xu S, Haase D, **Barnds B**, Mullen S, Schroepfel JP. National Insurance Database Study of the Effect of Preoperative Steroid Injections in Hip Arthroscopy on Revision Arthroscopy Rate.

Norton N, Fischer K, McIff T, **Barnds B**, Toby B. Biomechanical and MR Imaging Experiments for Basilar Thumb Contact Pressures and Modeling.

**Barnds B**, Heenan M, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. National Insurance Database Study of the Effect of NSAIDs on Nonunion of 5<sup>th</sup> Metatarsal Fractures.

## PUBLISHED ABSTRACTS

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1. **Barnds B**, Heenan M, Tarakemeh A, Mullen S, Schroepfel JP, Vopat B. Comparison of the Rate of Nonunion or Delayed Union in Fifth Metatarsal Fractures Receiving Anti-Inflammatory Medications. *Orthopaedic Journal of Sports Medicine*, 7(7 suppl5), (2019).
2. **Barnds B**, Tucker W, Morris B, Schroepfel J. P., Mullen S, Tarakemeh A, Vopat B. Cost Comparison and Complication Rate of Lisfranc Injuries Treated with Open Reduction Internal Fixation versus Primary Arthrodesis. *Orthopaedic Journal of Sports Medicine*, 6(7 suppl4), (2018).
3. Kanmanthareddy A, Reddy M, **Barnds B**, Janga P, Pillarisetti J, Sridhar ARM, Atkins D, Bommana S, Lakkireddy D. Pericardial Fat Doesn't Impact Atrial Fibrillation Ablation Outcomes. *American College of Cardiology Annual Scientific Session* (2014).
4. Reddy M, Janga P, Pamulapati H, Bommana S, Kretsinger H, Reddy C, **Barnds B**, Reddy N, Atkins D, Lakkireddy D. "Impact of Cavotricuspid Isthmus Dependent Right Atrial Flutter Ablation on the Incidence and Recurrence of Atrial Fibrillation", *American Heart Association Scientific Sessions* (2012).

## LECTURES

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1. "Management of Acute Proximal Humeral Fractures" University of Kansas Department of Orthopaedic Surgery, Resident Teaching Lecture, January 2020.
2. "Degenerative Rotator Cuff Tears: Refining Surgical Indications Based on Natural History Data" University of Kansas Department of Orthopaedic Surgery, Resident Teaching Lecture, March 2019.
3. "Articular Cartilage Defects of the Adult Knee" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, July 2018.
4. "Acromioclavicular Joint Separations" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, July 2018.
5. "Anterior Cruciate Ligament Injuries" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, July 2018.
6. "Lower Extremity Limb Salvage Utilizing an Ipsilateral Double-Barrel Fibula Autograft for Pediatric Osteosarcoma" The University of Kansas Medical Center Department of Orthopaedic Surgery, 22<sup>nd</sup> Annual Leonard F Peltier Lecture Series, June 2018.
7. "Management and Complications of Pediatric Tibial Eminence Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, June 2018.
8. "Concussion and Common Neurologic Sports Injuries" University of Kansas Department of Orthopaedic Surgery, Resident Teaching Lecture, May 2018.
9. "Posterior Cruciate Ligament Injuries" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, May 2018.

10. "Medial Epicondyle Fractures in Overhead Athletes" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, May 2018.
11. "Management of Traumatic Anterior Shoulder Instability" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, April 2018.
12. "Ulnar Collateral Ligament Injuries" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, March 2018.
13. "The Utility of Biologics, Osteotomy, and Cartilage Restoration in the Knee" University of Kansas Department of Orthopaedic Surgery, Resident Teaching Lecture, February 2018.
14. "Surgical Options for Tibial Plateau Fracture Chronic Nonunions" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, November 2017.
15. "Review of Orthopedic Oncology Topics, Orthopedic In-Service Training Exam" The University of Kansas Department of Orthopaedic Surgery, Resident Teaching Lecture, October 2017.
16. "Diagnosis and Management of Periprosthetic Joint Infections" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, September 2017.
17. "Total Knee Arthroplasties in Patient with Preoperative Genu Valgum Deformity" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, September 2017.
18. "Anatomy and Surgical Approaches of the Elbow" University of Kansas Department of Orthopaedic Surgery, Resident Teaching Anatomy Lecture and Prosection, August 2017.
19. "Instructional Lecture on How to Utilize the Pearldiver Software for Performing Retrospective Database Reviews", The University of Kansas Medical Center Department of Orthopaedic Surgery, Resident Conference, July 2018.
20. "Outcomes and Longevity of Total Ankle Arthroplasties" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, June 2017.
21. "Adult Cavovarus Foot Deformity" The University of Kansas Medical Center Department of Orthopedic Surgery Indications Conference, May 2017.
22. "Diagnosis and Management of Felons of the Fingertips" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, April 2017.
23. "Management of Carpometacarpal Boss" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, April 2017.
24. "Management of Distal Femur Fractures" University of Kansas Department of Orthopaedic Surgery, Resident Teaching Lecture, March 2017.
25. "Subtalar Dislocations" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, March 2017.

26. "Extensor Mechanism Reconstruction Options in Proximal Tibial Endoprosthesis Reconstructions" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, February 2017.
27. "Diagnosis and Management of Lisfranc Injuries" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, February 2017.
28. "Management of Tibial Plateau Fracturs with Concomitant Compartment Syndrome" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, January 2017.
29. "Periprosthetic Knee Infections" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, December 2016.
30. "Complex Revision Total Hip Arthroplasty with Posterior Column Acetabular Plating" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, November 2016.
31. "Review of Pediatric Orthopedic Topics, Orthopedic In-Service Training Exam" The University of Kansas Medical Center Department of Orthopaedic Surgery, Resident Teaching Lecture, October 2016.
32. "Revision of Unicompartmental Total Knee Arthroplasties" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, October 2016.
33. "Anatomy and Surgical Approaches of the Leg" The University of Kansas Department of Orthopaedic Surgery, Resident Teaching Anatomy Lecture and Prosection, September 2016.
34. "Periprosthetic Subtrochanteric Femur Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, June 2016.
35. "Management and Outcomes of Pediatric Both Bone Forearm Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, June 2016.
36. "Management of Metacarpal Shaft Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, June 2016.
37. "Management of Femoral Shaft Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, May 2016.
38. "Management and Complications of Tibial Shaft Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, May 2016.
39. "Management of Patellar Tendon Ruptures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Resident Teaching Lecture, February 2016.
40. "Radiographic Work-Up of Calcaneus Fractures" The University of Kansas Medical Center Department of Radiology, MSK Radiology Conference, January 2016.
41. "Radiographic Work-Up of Proximal Humerus Fracture" The University of Kansas Medical Center Department of Radiology, MSK Radiology Conference, January 2016.



42. "Management of Proximal, Middle, and Distal Phalanx Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, December 2015.
43. "Non-Athletic Pediatric Medial Epicondyle Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, December 2015.
44. "Management of Trimalleolar Ankle Fractures" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, November 2015.
45. "Distal Radius Fractures with Acute Carpal Tunnel Syndrome" The University of Kansas Medical Center Department of Orthopaedic Surgery, Indications Conference, November 2015.
46. "Review of Basic Science Topics, Orthopedic In-Service Training Exam" University of Kansas Medical Center Department of Orthopaedic Surgery, Resident Teaching Lecture, October 2015.

## **PROFESSIONAL ADVANCEMENT & COURSES**

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| <b>GME Residents as Teachers - Scholars Program</b>                                | <b>2017-2018</b> |
| <i>Formalized curriculum to promote developing resident teachers and leaders</i>   |                  |
| <b>AONA Advanced Trauma Course, Toronto, ON, Canada</b>                            | <b>2017</b>      |
| <b>AANA Fundamentals of Arthroscopic Skills Course for Residents, Rosemont, IL</b> | <b>2017</b>      |
| <b>AO/ASIF Basic Course for Residents, Phoenix, AZ</b>                             | <b>2015</b>      |
| <b>Interdisciplinary Communication Training Program</b>                            | <b>2015</b>      |
| <i>Instructor</i>  |                  |
| The University of Kansas Medical Center  |                  |