

# Phillip H. Behrens, MD

Professional website: [bsjhealth.com](http://bsjhealth.com)

Corporate website: [walqer.com](http://walqer.com)

Medical Legal: <https://www.seakexperts.com/phillip-h-behrens>

---



## Education

---

### Spine Surgery Fellowship, Masson Spine Institute, Orlando, FL

Jan–Dec 2023

- Fellowship director, Robert Masson, MD
- 12-month comprehensive spine fellowship with focus on minimally invasive, outpatient, and endoscopic techniques
- Performed 5-10 outpatient spine surgeries per week with independent clinic & surgery block
- Assisted in development of novel surgical techniques including:
  - Augmented Reality (AR) & Artificial Intelligence (AI) surgical integration systems
  - Surgical workflow optimization & efficiency using AR & AI technology
  - Minimally invasive & endoscopic instrumentation systems

### Advanced Training in Spine Surgery

- Complex Spinal Deformity, Mini-Fellowship
  - Washington University in St. Louis, MO
    - Munish Gupta, MD & Camilo Molina, MD
- Sacroiliac Joint Dysfunction & Surgical Approaches
  - SI Bone; Nashville, TN
- Extreme Lateral Interbody Fusion (XLIF) Intro Course
  - Nuvasive Spine; San Diego, CA
- Endoscopic Spine Surgery, Basic Techniques
  - Ellquence; Boca Raton, FL
- Endoscopic Spine Surgery Advanced Course
  - Ellquence, May 2023, Boca Raton FL
- Instructor, Advanced MIS TLIF Course
  - Biederman Motech, Miami, FL
- Prone Trans Psoas (PTP) Beginner Instructional Course
  - ATEC Spine; Carlsbad, CA
- Advanced Techniques in Single Position Spinal Surgery
  - ATEC Spine; Carlsbad, CA
- Spine Surgical Navigation & Techniques Course
  - Medtronic; Austin, TX
- Advanced Techniques for MIS TLIF
  - Biederman Motech; Miami, FL
- Spine Instrumentation for Residents and Fellows
  - Stryker Spine; Miami, FL

- Adult Spine Deformity Surgical Solutions
  - DePuy Synthes; Seattle, WA.

February 2018

<b>Orthopedic Surgery Residency</b> , <u>Cedars-Sinai Medical Center</u> , Los Angeles, CA	2017-2021
▪ #2 Orthopedic Hospital in US ( <i>US News and World Report 2023-2024</i> )	
▪ #1 Hospital in California, 8 years in a row ( <i>US News and World Report 2016-2023</i> )	
▪ Graduate Medical Education (GME) Committee representative	
▪ Editor, Cedars-Sinai Orthopedics Newsletter	
<b>General Surgery Internship</b> , <u>Cedars-Sinai Medical Center</u> , Los Angeles, CA	2016-2017
<b>Doctor of Medicine (MD)</b> , <u>Indiana University School of Medicine</u> , Indianapolis, IN	2012-2016
▪ Alpha Omega Alpha, top 15% of medical school class	
▪ USMLE Step 1 Score: 253 (90 <sup>th</sup> percentile)	
▪ USMLE Step 2 CK Score: 261 (92 <sup>nd</sup> percentile), USMLE Step 2 CS: Pass	
▪ USMLE Step 3: 228	
<b>Bachelor of Science (BS)</b> , <u>University of Southern Indiana</u> , Evansville, IN	2008-2012
▪ 1 of 6 high school seniors selected for combined B.S./M.D. program	
▪ Overall GPA 3.95/4.0	
▪ President's Medal recipient, highest award given to University student	
▪ Full academic scholarship	

# Work Experience

---

<b>Orthopedic Surgeon, <u>Jackson Purchase Medical Center</u>, Mayfield, KY</b>	Dec 2025-Present
<ul style="list-style-type: none"><li>• Board-Certified, fellowship trained spine surgeon<ul style="list-style-type: none"><li>○ ABOS (American Board of Orthopaedic Surgery) Certified<ul style="list-style-type: none"><li>- Part 1: September 2, 2022</li><li>- Part 2: September 5, 2025</li></ul></li><li>○ Please note sub-specialty board certification is not available for Orthopaedic Surgery of the Spine</li></ul></li><li>• Extensive training &amp; experience includes:<ul style="list-style-type: none"><li>○ Minimally invasive &amp; outpatient spine surgery</li><li>○ Adult joint reconstruction surgery of the shoulder, hip, knee</li><li>○ High acuity orthopedic trauma &amp; pediatrics</li></ul></li></ul>	
<b>Orthopedic Surgeon, <u>Orthopaedic Associates, Inc.</u>, Evansville, IN</b>	Dec 2021-Aug 2025
<ul style="list-style-type: none"><li>• Level 2 &amp; Level 3 trauma center experience with</li><li>• Responsible for 1.5-million-person catchment area over 100-mile geographic referral area</li><li>• Volume &amp; Productivity<ul style="list-style-type: none"><li>○ Achieved 12,462 wRVU in 2024, approx. 75<sup>th</sup> Percentile volume per MGMA</li><li>○ Performed approximately 500 procedures in first year of practice</li><li>○ Case volume ranges from 31-67 per month, 100-150 clinic visits weekly, 1000-1650 wRVU monthly</li><li>○ Yearly gross revenue \$1.34 million in 2024 (professional fees only/not inclusive of ancillary income)</li></ul></li></ul>	
<b>Licensed as Physician &amp; Surgeon, State Medical Board</b>	June 2016-Present
<ul style="list-style-type: none"><li>• Past &amp; Present State Medical Licenses Include:<ul style="list-style-type: none"><li>○ Indiana, active</li><li>○ Kentucky, active</li><li>○ Florida, inactive</li><li>○ Utah, inactive</li><li>○ California, inactive</li><li>○ Missouri, inactive</li></ul></li></ul>	
<b>Chairman, Department of Orthopedics, <u>Deaconess Hospital</u>, Henderson, KY</b>	Jan 2023-Feb 2024
<ul style="list-style-type: none"><li>• Appointed Chairman of the Department</li><li>• Led initiative to develop new adult joint reconstruction program</li><li>• Developed new mobilization and post operative pain protocols leading to expedited discharge</li><li>• Achieved same day discharge of approximately 70% of hip, knee, shoulder replacement patients</li><li>• Junior Associate at 14-member, private practice group</li></ul>	

**Cofounder & Executive Vice President, Walquer LLC, Evansville, IN** 2018-Present

- Co-founder & Exec Vice President of Walquer LLC, a medical device company focused on developing high end, biomechanically superior mobility aids
- Awarded 2 patents for next generation assistive walking device
- Awarded 2 rounds of funding from the Indiana Technical Business Association (ITAP)
- Academic Partnerships:
  - Purdue University, Senior Capstone Project
  - Cedars-Sinai Medical Center
  - University of Southern Indiana
- Cooperate Partnerships:
  - Elevate Ventures, Inc., venture capital firm
  - Boomerang Ventures, Inc., venture capital firm
  - Indiana Technical Business Association (ITAP)

**Expert Witness in Medical Malpractice, SEAK, Inc. Expert Witness, Falmouth, MA** 2015-Present

- Completed over 40 hours of training on expert witness testimony, deposition, and cross examination technique
- Certified in expert witness testimony by SEAK, Inc.

**Consultant in Medical Technologies, L.E.K Consulting LLC, Boston, MA** 2020-Present

- Physician consultant for product development
- Areas of expertise:
  - Surgical robotics
  - Intraoperative navigation
  - Pharmaceuticals
  - Healthcare services

**Tutor in Physics, Chemistry, Biology, University of Southern Indiana, Evansville, IN** 2009-2012

- Worked 20 hours a week teaching 1 to 10 students simultaneously
- Led new, grant funded community outreach program which provided tutoring services to underserved students
- Completing 15 hours of training and certified by College Reading and Learning Association (CRLA)

## Research Experience

---

<b>Cedars-Sinai Orthopaedic Stem Cell Laboratory, Los Angeles, CA</b>	2016-2021
▪ Hyun Bae, MD	
▪ Inflammatory processes in intervertebral disc degeneration, and spine fusion models, stem cell therapies	
<b>Cedars-Sinai Department of Orthopaedic Surgery, Los Angeles, CA</b>	2016-2021
▪ Mark Vrahas, MD	
▪ Lower extremity trauma, spine degeneration, and total joint arthroplasty	
<b>Cedars-Sinai Orthopaedic Biomechanics Laboratory, Los Angeles, CA</b>	2016-2021
▪ Melodie Metzker, PhD	
▪ Biomechanics, bone metabolism, and spine fusion models	
<b>Indiana University, Department of Orthopaedic Surgery, Indianapolis, IN</b>	2014-2016
▪ Dan Wurtz, M.D.	
▪ Functional outcomes in orthopedic trauma, casting for early onset scoliosis	
<b>Vanderbilt University, Clinical Pharmacology, Nashville, TN</b>	2011
▪ L. Jackson Roberts II, M.D	
▪ Free radical metabolism, rhabdomyolysis induced renal failure, and engineering free radical scavengers	
<b>Indiana University School of Medicine, Evansville, IN</b>	2011-2012
▪ Tracy Anthony, Ph.D.	
▪ Cellular homeostatic responses, metabolic and epigenetic changes to environmental stress	
<b>University of Illinois, Champaign-Urbana, IL</b>	2012
▪ Romana Nowak, Ph.D.	
▪ Gene induction and cell metabolism in response to chemotherapeutic agents in leiomyoma	
<b>University of Southern Indiana, Evansville, IN</b>	2009-2011
▪ Brent Summers, Ph.D.	
▪ Implications of urbanization on species diversity and ecological fitness	

## Research Awards & Honors

---

<b>Rubenstein Resident Research Award Nominee, <u>Cedars-Sinai Medical Center</u></b>	2020
▪ Nominated by the Department of Orthopaedics, Division of Spine Surgery	
▪ Recognized for publication “NF-κB inhibitor reduces the inflammatory response and improves bone formation in rhBMP-2-mediated spine fusion”	
<b>Thomas A. Whitecloud Award Finalist, <u>26<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST)</u></b>	2019
▪ “Electrospun synthetic bone scaffolds promote mesenchymal stem cell function and spinal fusion”	
<b>New Investigator Research Award (NIRA) Finalist, <u>Orthopaedic Research Society (ORS) Meeting</u></b>	2019
▪ 1 of 6 papers nominated	
▪ “Omega 3 fatty acid supplementation attenuates intervertebral disc degeneration”	
<b>Russel A. Hibbs Award Finalist, <u>Scoliosis Research Society (SRS) 53<sup>rd</sup> Annual Meeting</u></b>	2018
▪ 1 of 4 papers nominated	
▪ “NF-κB inhibitor reduces the inflammatory response and improves bone formation in rhBMP-2-mediated spine fusion”	
<b>CSRS Basic Science Award, <u>Cervical Spine Research Society (CSRS) 46<sup>th</sup> Annual Meeting</u></b>	2018
▪ \$500 award, 3 <sup>rd</sup> Place	
▪ “Anti-Inflammatory Peptide Attenuates Edema and Promotes BMP-2-Induced Bone Formation in Spine Fusion”	
<b>ORS Basic Science Research Award, <u>OREF/ORS Resident Research Symposium</u></b>	2018
▪ 3 <sup>rd</sup> Place, Finalist	
▪ “Electrospun synthetic bone scaffold promotes mesenchymal stem cell function and rhBMP-2 mediated spinal fusion”	
<b>Most Outstanding Research Award, <u>Western Orthopaedic Associating (WOA) 82nd Meeting</u></b>	2018
▪ Award for most papers presented by residency program at annual meeting	

## LLC & Patents

---

<b>Patent Recipient, <u>Walquer LLC</u>, Evansville, IN</b>	2018-Present
▪ Co-Founder of Walquer LLC, medical device company focused on high performance assistive walking devices	
▪ Grants & Funding:	
○ ITAP (Indiana Technical Assistance Program) for small businesses, 2018	
○ ITAP (Indiana Technical Assistance Program) for small businesses, 2019	
○ CTSI (Clinical & Translational Sciences Institute) for seed funding, 2023	

- Sponsored by Indiana University School of Medicine
- Purdue University Applied Research Institute grant, 2023

## Grants & Research Funding

---

<b>Resident Research Grant, <u>Scoliosis Research Society (SRS)</u></b>	2020
▪ \$2,500 resident research grant	
<b>Resident Education Grant, <u>Journal of Bone and Joint Surgery (JBJS)</u></b>	2019
▪ Awarded \$1,500 grant to support research & education of orthopaedic residents	
<b>Small Business Grant, <u>Indiana Technical Business Association</u></b>	2020
▪ \$9,000 small business grant for Walqr LLC	
▪ Production and improvement of assistive walking device	
<b>Small Business Grant, <u>Indiana Technical Business Association</u></b>	2019
▪ \$1,000 small business grant for Walqr LLC	
▪ Development of assistive walking device	

## Academic Awards/Honors

---

<b>Alpha Omega Alpha, <u>Indiana University School of Medicine</u></b>	2015
▪ Recognizes top 15% of medical school class	
▪ Awarded for exceptional performance in academics, research, community service, and leadership	
<b>President's Medal, <u>University of Southern Indiana</u></b>	2012
▪ "Highest honor awarded to a graduating senior"	
▪ Class rank: #1 of over 2000	
▪ Award Criteria: "the most outstanding academic achievement, service to the school and community"	
<b>Baccalaureate/Doctor of Medicine Scholarship Program, <u>Indiana University</u></b>	2008-2012
▪ 1 of 6 students selected yearly	
▪ Interviewed as high school senior and accepted into Indiana University School of Medicine,	
▪ 8-year combined B.S./M.D. program	
▪ Full undergraduate scholarship	
<b>Basketball Homecoming Court, <u>University of Southern Indiana</u></b>	2012
▪ 1 of 5 men chosen to represent the University on the 2012 Homecoming Court	
▪ Selected based upon popular vote, extracurricular involvement, and academic achievement	
<b>Top Student Leader Award, <u>University of Southern Indiana</u></b>	2011
▪ 1 of approximately 10,000 students to receive the Provost's Top Student Leader Award	
▪ Recognized for "outstanding service to the local community, university and leadership"	
<b>Order of Omega Honor Society, <u>University of Southern Indiana</u></b>	2011

- Represents top 3% of the Greek community
- Acceptance is based on character, scholarship, offices held in Greek organizations

<b>Alumni Association Scholarship, <u>University of Southern Indiana</u></b>	2010
▪ \$1000 scholarship for academic achievement, community service, and leadership	
<b>Lloyd Volckening Scholarship Award, <u>Phi Delta Theta Fraternity</u></b>	2010
▪ \$2600 scholarship for service to the community, campus involvement, and academic achievement	
<b>Rick Bergwitz Scholarship Award, <u>Phi Delta Theta Fraternity</u></b>	2011
▪ \$500 scholarship for service to the community, campus involvement, and academic achievement	
<b>2010 Honor Student, <u>University of Southern Indiana</u></b>	2010
▪ Among top 1% of university students given this award	
▪ Selected by microbiology professor for “exemplifying the industry, initiative, and intelligence”	
<b>2011 Honor Student, <u>University of Southern Indiana</u></b>	2011
▪ Among top 1% of university students given this award	
▪ Selected by animal physiology professor for “exemplifying the industry, initiative, and intelligence”	
<b>Scholastic Achievement Award, <u>Pott College of Science and Engineering</u></b>	2011
▪ Recognized for maintaining a 3.5 or higher GPA with over 90 credit hours	
<b>Academic Excellence Award, <u>Interfraternity Council</u></b>	2011
▪ Awarded to Fraternity men who achieve a semester 4.0 GPA	
<b>Dean's List, <u>University of Southern Indiana</u></b>	2008-2012
▪ Achieving a 3.5 GPA or above per semester	

# Publications

---

## Peer-reviewed manuscripts

Jagannathan RS, Fernández-Montoya, M, Aguirre, ME (2025). Nonlinear Stiffness Walking Cane Inspired by Prosthetic Leg Design. In the Proceedings of the International Workshop on Medical and Service Robots (MESROB2025). (pp. 207-217). Cham: Springer Nature Switzerland.

[https://doi.org/10.1007/978-3-031-96081-9\\_21](https://doi.org/10.1007/978-3-031-96081-9_21)

- Funding and support provided by Walqr LLC
- Awarded Gold for Best Medical Application Paper.

Fernandez-Montoya, M, Ranganathan SJ, Aguirre ME. (2025). Bi-modal Haptic Feedback Walking Cane with Dynamic Data Acquisition. In the Proceedings of the International Workshop on Medical and Service Robots (MESROB2025), (pp. 312-321). Cham: Springer Nature Switzerland.

[https://doi.org/10.1007/978-3-031-96081-9\\_31](https://doi.org/10.1007/978-3-031-96081-9_31)

- Funding and support provided by Walqr LLC
- Awarded Silver for Best Medical Application Paper

Glaeser JD, Bao X, Kaneda G, Avalos P, **Behrens P**, Salehi K, Da X, Chen A, Castaneda C, Nakielski P, Jiang W, Tawackoli W, Sheyn D. iPSC-neural crest derived cells embedded in 3D printable bio-ink promote cranial bone defect repair. *Sci Rep.* 2022 Nov 4;12(1):18701. doi: 10.1038/s41598-022-22502-8. PMID: 36333414; PMCID: PMC9636385.

- *Scientific Reports.* Impact Factor: 4.99

Ryu RC, **Behrens PH**, Malik AT, Lester JD, Ahmad CS. Are we putting ourselves in danger? Occupational hazards and job safety for orthopaedic surgeons. *J Orthop.* 2021 Feb 20;24:96-101. doi: 10.1016/j.jor.2021.02.023. PMID: 33716416

Glaeser JD, **Behrens P**, Stefanovic T, et al. Neural crest-derived mesenchymal progenitor cells enhance cranial allograft integration. *STEM CELLS Transl Med.* 2020;1–13. PMID: 33512772

<https://doi.org/10.1002/sctm.20-0364>

- *Stem Cells Transl Med.* Impact Factor: 6.4

Ryu RC, **Behrens PH**, Burkert BA, Johnson JP, Kim TT. Two-level cervical disc arthroplasty in patients with Klippel-Feil syndrome: A case report and review of the literature. *Surg Neurol Int.* 2020 Oct 2;11:322. doi: [10.25259/SNI\\_587\\_2020](https://doi.org/10.25259/SNI_587_2020). PMID: 33093999

Lin CA, **Behrens PH**, Paiement G, Hardy WD, Mirocha J, Rettig RL, Kiziah HL, Rudikoff AG, Hernandez Conte A. Metabolic factors and post-traumatic arthritis may influence the increased rate of surgical site infection in patients with human immunodeficiency virus following total hip arthroplasty. *J Orthop Surg Res.* 2020 Aug 12;15(1):316. doi: [10.1186/s13018-020-01827-y](https://doi.org/10.1186/s13018-020-01827-y) PMID: 32787972

Ju DG, Glaeser JD, Salehi K, Kanim LE, **Behrens PH**, Eberlein SA, Metzger MF, Sheyn D, Bae HW. Electrospun, synthetic bone void filler promotes human MSC function and BMP-2 mediated spinal fusion. *Journal of Biomaterials Applications.* [published online ahead of print, 2020 Jul 5]. *J Biomater Appl.* 2020;885328220937999. doi: [10.1177/0885328220937999](https://doi.org/10.1177/0885328220937999) PMID: 32627633

- *J Biomater Appl.* Impact Factor: 2.5

Glaeser JD, Salehi K, Kanim LEA, Sheyn, D, NaPier, Z, **Behrens PH**, Cuellar JM, Bae HW. Anti-Inflammatory Peptide Attenuates Edema and Promotes BMP-2-Induced Bone Formation in Spine Fusion. *Tissue Eng Part A*, 24(21-22), 1641-1651. 2018. PMID: 29766758

- *Tissue Eng Part A*. Impact Factor: 3.8

Plaisance, EP, Van N, Orgeron M, McDaniel AN, **Behrens PH**, Gettys TW, Anthony TG. Role of General Control Nonderepressible 2 (GCN2) kinase in mediating responses to dietary methionine restriction. *The FASEB Journal*. 2012, Apr; 26(255): 1.

## Book Chapters

Ryu R, **Behrens PH**, Drazin D, Kim T, Johnson J. Navigation in Occipital and Cervical Spine Surgery. Veeravagu and Wang 1e. Navigated and Robotic Spine Surgery. 2023.

## Oral Presentations at Scientific Meetings

**Behrens PH**, Ryu RC, Burkus B, Ross L, Kim T. *Seattle Science Foundation National Journal Club. May 2020, Seattle, WA.*

Ju DG, Glaeser JD, Salehi K, Kanim LE, **Behrens PH**, Metzger MF, Sheyn D, Bae HW. Electrospun synthetic bone scaffolds promote mesenchymal stem cell function and spinal fusion. *47<sup>th</sup> Annual Meeting of the Cervical Spine Research Society (CSRS), November 2019, New York, NY.*

Ju DG, Glaeser JD, Salehi K, Kanim LE, **Behrens PH**, Metzger MF, Sheyn D, Bae HW. Electrospun synthetic bone scaffolds promote mesenchymal stem cell function and spinal fusion. *34<sup>th</sup> Annual Meeting of the North American Spine Society (NASS), September 2019, Chicago, IL.*

**Behrens PH**, NaPier ZM, Salehi K, Kanim LE, Arabi Y, Salehi K, Kim SD, Sheyn D, Bae HW, Glaeser JD. Omega 3 fatty acid supplementation attenuates intervertebral disc degeneration. *Western Orthopaedic Association (WOA) 83<sup>rd</sup> Annual Meeting. Monterey, CA. August 2019.*

Lin C, Paiement G, **Behrens PH**, Hardy WD, LaBounty T, Li Q, Mirocha J, Conte AH. Immunologic status does not predict the risk of periprosthetic infection in patients infected with Human Immunodeficiency Virus undergoing total hip arthroplasty. *Western Orthopaedic Association (WOA) 83<sup>rd</sup> Annual Meeting, August 2019, Monterey, CA.*

**Behrens PH**, Glaeser JD, Salehi K, Papalamprou A, Arabi Y, Stefanovic T, Tawackoli W, Kim K, Baloh R, Ben-David S, Cohn-Yakubovich D, Gazit Z, Sheyn D. Neural Crest-Derived Mesenchymal Stem Cells (MSCs) Enhance Bone Allograft Healing. *83<sup>rd</sup> Annual Meeting of the Western Orthopaedic Association (WOA), August 2019, Monterey, CA.*

Ju DG, Glaeser JD, Salehi K, Kanim LE, **Behrens PH**, Metzger MF, Sheyn D, Bae HW. Electrospun synthetic bone scaffolds promote mesenchymal stem cell function and spinal fusion. *26<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), July 2019, Amsterdam, NL.*

**Thomas A. Whitecloud Award Finalist**

Lin C, Paiement G, **Behrens PH**, Hardy WD, LaBounty T, Li Q, Mirocha J, Conte AH. Immunologic status does not predict the risk of periprosthetic infection in patients infected with Human Immunodeficiency Virus undergoing total hip arthroplasty. *Cedars-Sinai Medical Center Orthopaedic Surgery Grand Grounds, April 2019, Los Angeles, CA.*

**Behrens PH**, Glaeser JD, Salehi K, Papalamprou A, Arabi Y, Stefanovic T, Tawackoli W, Kim K, Baloh R, Ben-David S, Cohn-Yakubovich D, Gazit Z, Sheyn D. Neural Crest-Derived Mesenchymal Stem Cells (MSCs) Enhance Bone Allograft Healing. *Cedars-Sinai Orthopaedic Surgery 10<sup>th</sup> Annual Research Symposium, June 2019, Los Angeles, CA.*

**Behrens PH**, NaPier ZM, Salehi K, Kanim LE, Arabi Y, Salehi K, Kim SD, Sheyn D, Bae HW, Glaeser JD. Omega 3 fatty acid supplementation attenuates intervertebral disc degeneration. *Orthopedic Research Society (ORS) Annual Meeting, February 2019, Austin, TX.*

**New Investigator Research Award (NIRA) finalist**

**Behrens PH**, Glaeser JD, Salehi K, Papalamprou A, Arabi Y, Stefanovic T, Tawackoli W, Kim K, Baloh R, Ben-David S, Cohn-Yakubovich D, Gazit Z, Sheyn D. Neural Crest-derived Mesenchymal Stem Cells (MSCs) enhance cranial allograft integration. *Orthopedic Research Society (ORS) Annual Meeting, February 2019, Austin, TX.*

**Behrens PH**, Glaeser JD, Salehi K, Kanim LE, Sheyn D, NaPier ZM, Cuellar JM, Bae HW. NF- $\kappa$ B inhibitor reduces the inflammatory response and improves bone formation in rhBMP-2-mediated spine fusion. *Cervical Spine Research Society (CSRS) 46<sup>th</sup> Annual Meeting, December 2018, Scottsdale, AZ.*

**3<sup>rd</sup> Place Award, Basic Science**

**Behrens PH**, Glaeser JD, Salehi K, Kanim LE, Sheyn D, NaPier ZM, Cuellar JM, Bae HW. NF- $\kappa$ B inhibitor reduces the inflammatory response and improves bone formation in rhBMP-2-mediated spine fusion. *Scoliosis Research Society (SRS) 53<sup>rd</sup> Annual Meeting, October 2018, Bologna, Italy*

**Russel A. Hibbs Basic Science Award Finalist, 1 of 4 papers**

Ju DG, Glaeser JD, Salehi K, Kanim LE, **Behrens PH**, Eberlein SA, Metzger MF, Sheyn D, Bae HW. Electrospun synthetic bone scaffold promotes mesenchymal stem cell function and rhBMP-2 mediated spinal fusion. *OREF/ORS Southwest Region Resident Research Symposium, September 2018, San Diego, CA.*

**3<sup>rd</sup> Place Award, Basic Science**

**Behrens PH**, Glaeser JD, Salehi K, Kanim LE, Sheyn D, NaPier ZM, Cuellar JM, Bae HW. Anti-inflammatory peptide improves bone formation in rhBMP-2-mediated spine fusion. *Western Orthopaedic Association (WOA) 82<sup>nd</sup> Annual Meeting, August 2018, Snowmass, CO.*

**Behrens PH**, Zachert W, Zagol-Ikapitte I, Boutaud O, Roberts L. Jackson. Acetaminophen and other novel drugs reduce oxidative injury and preserve kidney function in rhabdomyolysis-induced renal failure. *Vanderbilt University Annual Research Symposium, July 2011, Nashville, TN.*

**Behrens PH**, Summers BR. Wildlife conservation measures effectively blunt the impact of urbanization and maintain species diversity of Indiana's Blue River. *University of S. Indiana Science & Technology Research Symposium, August 2010, Evansville, IN.*

**Behrens, PH.,** Summers, R. Brent. Wildlife conservation measures effectively preserve the natural landscape of Indiana's Blue River. *SWI STEM Research Conference, September 2010, Evansville, IN.*

**Behrens, PH**, Summers RB. 10-year, comprehensive evaluation of the ecologic fitness of Indiana's Blue River. *SWI STEM Research Conference, July 2010. Evansville, IN.*

## Abstracts & Poster Presentations:

Ju DG, Glaeser JD, Salehi K, Kanim LE, **Behrens PH**, Metzger MF, Sheyn D, Bae HW. Electrospun synthetic bone scaffolds promote mesenchymal stem cell function and spinal fusion. *Western Orthopaedic Association (WOA) Annual Meeting, August 2019, Monterey, CA.*

**Behrens PH**, Glaeser JD, Salehi K, Papalamprou A, Arabi Y, Stefanovic T, Tawackoli W, Kim K, Baloh R, Ben-David S, Cohn-Yakubovich D, Gazit Z, Sheyn D. Neural Crest-derived MSCs Enhance Cranial Allograft Integration. *2nd International Combined Meeting of Orthopaedic Research Societies (ICORS), June 2019, Montréal, Québec, Canada.*

**Behrens PH**, Spitzer AI. AAOS Video Theatre: Mechanical alignment and gap balancing in total knee arthroplasty: rationale and technique. *Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS), March 2019, Las Vegas, NV.*

Lin C, Paiement G, **Behrens PH**, Hardy WD, LaBounty T, Li Q, Mirocha J, Conte AH. Immunologic status does not predict the risk of periprosthetic infection in patients infected with Human Immunodeficiency Virus undergoing total hip arthroplasty. *Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS), March 2019, Las Vegas, NV.*

**Behrens PH**, Glaeser JD, Salehi K, Kanim LE, Sheyn D, NaPier ZM, Cuellar JM, Bae HW. Anti-inflammatory peptide enhances new bone formation and reduces inflammation in rhBMP-2-mediated spine fusion. *North American Spine Society (NASS) 33<sup>rd</sup> Annual Meeting, September 2018, Los Angeles, CA.*

**Behrens PH**, Glaeser JD, Salehi K, Papalamprou A, Arabi Y, Stefanovic T, Tawackoli W, Kim K, Baloh R, Ben-David S, Cohn-Yakubovich D, Gazit Z, Sheyn D. Neural Crest-derived Mesenchymal Stem Cells (MSCs) enhance cranial allograft integration. *Cedars-Sinai Medical Center Research Symposium, February 2018, Los Angeles, CA.*

Plaisance, EP, Van N, Orgeron M, McDaniel AN, **Behrens PH**, Gettys TW, Anthony TG. Role of General Control Nonderepressible 2 (GCN2) kinase in mediating responses to dietary methionine restriction. *Experimental Biology Annual Meeting, April 2012, San Diego, CA.*

**Behrens PH**, Zachert W, Zagol-Ikapitte I, Boutaud O, Roberts L. Jackson. Acetaminophen and other novel drugs reduce oxidative injury and preserve kidney function in rhabdomyolysis-induced renal failure. *Vanderbilt University Annual Research Symposium, July 2011, Nashville, TN.*

**Behrens, PH**, Summers RB. 10-year, comprehensive evaluation of the ecologic fitness of Indiana's Blue River. *Endeavour Annual Research Symposium; September 2010. Evansville, IN.*

## **Conferences, Meetings, & Courses Attended**

---

Orthopedic Research Society (ORS) Annual Meeting, February 2019, Austin, TX.  
Western Orthopaedic Association (WOA) 83<sup>rd</sup> Annual Meeting, August 2019, Monterey, CA.  
Cervical Spine Research Society (CSRS) 46th Annual Meeting, December 2018, Scottsdale, AZ.  
Scoliosis Research Society (SRS) 53<sup>rd</sup> Annual Meeting, October 2018, Bologna, Italy  
Western Orthopaedic Association (WOA) 82<sup>nd</sup> Annual Meeting, August 2018, Snowmass, CO.  
Stryker Spine Course, 3<sup>rd</sup> Annual Residents and Fellows Spine Symposium, March 2019, Miami, FL.  
AO Trauma Course, Basic Principles of Fracture Management, March 2018, Kansas City, MO.  
DePuy Synthes Spine Course, Adult Spine Deformity, February 2018, Seattle, WA.  
Cedars-Sinai 19<sup>th</sup> Annual Spine Symposium, February 2020, Las Vegas, NV.  
Medtronic Spine Surgical Navigation Course, April 2022, Austin, TX  
Biederman Motech, Advanced MIS TLIF Course, May 2022, Miami, FL  
Surgical Management of Sacroiliac Joint Dysfunction, SI Bone, November 2022, Nashville, TN  
Extreme Lateral Interbody Fusion (XLIF) Intro Course, Nuvasive, February 2023, San Diego, FL  
Endoscopic Spine Surgery Introduction Course, Ellquence, April 2023, Boca Raton, FL  
Endoscopic Spine Surgery Advanced Course, Ellquence, May 2023, Boca Raton FL  
Instructor at Biederman Motech, Advanced MIS TLIF Course, June 2023, Miami, FL  
Prone Trans Psoas (PTP) Beginner Instructional Course, ATEC Spine, July 2023, Carlsbad, CA  
Advanced Techniques in Single Position Spinal Surgery, ATEC Spine, April 2023, Carlsbad, CA  
Stryker MAKO Total Knee and Partial Knee Instructional Course, Stryker, November 2025, Las Vegas, NV  
- *Certified, Stryker MAKO Total Knee Arthroplasty*  
- *Certified, Stryker MAKO Unicompartmental Knee Arthroplasty*

## **Leadership Positions & Service Activities**

---

**Medical Services Volunteer, Missionaries of Charity, Jenkins, KY** 2013

- Worked with the impoverished and medically underserved in the Appalachian Mountains
- Assisted in the maintenance of children's summer camp at two local churches

**Camp Counselor, Camp Boggy Creek, Orlando, FL** 2013

- Boggy Creek is a medically supervised summer camp for children living with medical limitations
- Cabin counselor for up to 12 boys with epilepsy and other illnesses, ages ranging from 12-14
- Serviced the unique emotional and medical needs of the children who live with chronic illness

**Vice President, Phi Delta Theta Fraternity, Evansville, IN** 2009-2010

- Elected Vice President of 80-member fraternity
- Led organization the highest award in 2009 based on overall excellence, Kansas City Trophy
- Drafted, revised and amended 50 pages of by-laws regarding:
  - Financial planning & responsibilities
  - Increasing minimum GPA requirement to 3.0
  - Duties & responsibilities of Executive Board members

**Class Officer, Student Government: University of Southern Indiana, Evansville, IN** 2010-2011

- Elected as 1 of 3 representatives of the University of Southern Indiana's College of Science and Engineering
- Organized a formal, campus wide "Town Hall" meeting twice annually between students and administration, served on philanthropy and bylaw committees
- Met with the Dean of College of Science and Engineering twice a semester

**Vice President, Interfraternity Council, Evansville, IN** 2009-2010

- Authored bylaw amendments to improve GPA requirements of member chapters
- Led incentive program to increase Greek participation by introducing the "Campus Involvement Award"
- Nominated by council for presidential candidacy

**Committee Chair, Indiana Commission for Higher Education, Indianapolis, IN** 2010

- 1 of 8 Indiana students selected from Indiana universities, represented 10,000 constituents
- Served as search committee chairman for Indiana Commission for Higher Education
- Conducting interviews at the state capital and submitted candidate recommendations to the Governor of Indiana, Mitch Daniels

**Chairman of Awards Committee, Phi Delta Theta Fraternity, Evansville, IN** 2008-2012

- Authored 800 pages of award applications yearly
- Led organization was awarded the following awards:
  - Vice President's Award for Chapter Excellence recognized at #1 fraternity on campus.
  - Kansas City Trophy, recognized at #1 of over 160 chapters internationally

**Vice President, ALS Association of Evansville, Evansville, IN** 2010

- Organized a fundraiser walk to support the Indiana Amyotrophic Lateral Sclerosis (ALS) Association
- \$60,000 raised; over 2,000 people attended

**President of Student Government, Reitz Memorial High School, Evansville, IN** 2007-2008

- Coordinated a \$2500 fundraiser dinner for Riley Children's Hospital with two local high schools
- Opened and presided over all General Assembly meetings
- Provided progress reports to administrators concerning the operation of the programs, services, and activities

# Hobbies & Interests

---

## Endurance Athlete

- Evansville Half Marathon, Evansville, IN; Sept 2023
- Great Floridian Half Marathon, Orlando, FL; Oct 2023
- Ironman 70.3-mile Triathlon, Haines City, FL; Dec 2023
- Ironman 70.3-mile Triathlon, Panama City Beach, FL; May 2024
- Evansville Half Marathon, Evansville, IN; Sept 2024

## Collegiate Club Wrestling, University of Southern Indiana

2008-2012

- 184 lb weight class

## Varsity Wrestling Coach, Reitz Memorial High School

2008-2012

## 1<sup>st</sup> Place Powerlifting, S. Indiana Annual Powerlifting Classic

2012

- 1<sup>st</sup> Place in 105kg weight class; 2<sup>nd</sup> Place overall
- Current record holder for bench press in 105kg weight class
- Competition performance:
  - Bench press: 425 lbs
  - Squat: 505 lbs
  - Deadlift: 545 lbs
  - Total: 1470 lbs

## Classic Car Restoration

- Major restoration projects include:
  - 1979 Pontiac Firebird Trans Am
  - 1978 Chevrolet Corvette Stingray
  - 1994 Jeep Wrangler

## Intramural Sports, University of Southern Indiana, Evansville, IN

2008-2012

- Participant in Soccer, Baseball, and Basketball

## Personal & Professional Evaluations

---

- Zach Napier, MD
  - Relationship: co-resident
  - Current position: partner at Indiana Spine Group, Indianapolis, IN
- Andrew Alvarez, MD
  - Relationship: colleague
  - Current position: Partner at Rothman Orthopedics, Orlando, FL
- Robert Masson, MD
  - Relationship: Fellowship director, spine surgery
  - Current position: Founder & Neurosurgeon at Masson Spine Institute, Orlando, FL
- Camilo Molina, MD
  - Relationship: Professor of spine surgery at Washington University, St. Louis
  - Current position: Professor of neurosurgery, Washington University, St Louis
- David Lippman, MD
  - Relationship: primary care physician, internal medicine
  - Current position: Director of Echo Health Clinic, Evansville, IN
- Cameron Metzger, MD
  - Relationship: current practice partner
  - Current position: orthopedic surgeon, Orthopaedic Associates of Evansville