

Zein El-Zein, M.D
Beaumont Orthopaedic Surgery
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Education:

- University of Michigan, Class of 2013 (09/2009-05/2013)
College of Literature, Science, and the Arts
Bachelor of Science Degree in Biochemistry- High Distinction
- University of Michigan Medical School- Class of 2017 (08/2013-05/2017)
- Beaumont Orthopaedic Surgery Residency
Class of 2022 (07/2017- 06/2022)
- University of Rochester Medical Center- Foot and Ankle Fellowship- 2022-2023 (08/2022-07/2023)

Membership:

- The Brehm Scholar Society- University of Michigan, 2013-Present
- American Academy of Orthopaedic Surgeons (AAOS), 2017-Present
- Michigan Orthopaedic Society (MOS), 2020-Present
- American Orthopaedic Foot & Ankle Society (AOFAS), 2020-Present

Awards:

- 2021 C. McMollister Evarts Resident Leadership Forum Nominee- The American Orthopaedic Association
- Orthopaedic Golden Hands Award 2020- Awarded by orthopaedic surgery chiefs
- AOFAS Resident Scholar 2020
- The Brehm Medical Scholarship- Full tuition to University of Michigan Medical School
- James B. Angell Scholar- University of Michigan (2011, 2013)
- University Honors- University of Michigan (2009,2010,2012)

Meetings/Courses:

- Arthrex Foot and Ankle Fellows Course- 2023 (04/2023)
- American Orthopaedic Foot & Ankle Society (AOFAS)- Annual Winter Meeting (01/2023)
- Trimed Lower Extremities Course-NY (04/2022)
- American Orthopaedic Foot & Ankle Society (AOFAS) Annual Meeting (09/2022)
- American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting (08/2021)
- American Orthopaedic Foot & Ankle Society (AOFAS) Annual Meeting (09/2021)
- Michigan Orthopaedic Society (MOS) Annual Meeting (08/2021)
- American Orthopaedic Foot & Ankle Society (AOFAS) Annual Virtual Meeting (09/2020)

- American Association of Hip and Knee Surgeons (AAHKS) Annual Meeting (11/2020)
- Michigan Orthopaedic Society (MOS) Annual Meeting 2020 (Canceled due to COVID-19 Pandemic; abstracts posted online for review)
- American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting 2020 (Made virtual due to COVID-19 Pandemic)
- Beaumont Advanced Hip Arthroscopy Cadaver Lab with Dr. Ira Zaltz (07/2020)
- AO Trauma Course- Basic Principles of Fracture Management (12/2019)
- Future Leaders Workshop- Introduction to Hip and Knee Arthroplasty- Johnson & Johnson Institute (09/2018)
- Arthrex Knee Arthroscopy Cadaver Lab- 2018, 2019
- Southeast Michigan Center for Medical Education Research Workshop Series- (09/2017)

Publications

Zein S. El-Zein, Jay Sawyer Croley, Corinn Gehrke, Matthew Siljander, James J. Verner, Michael A. Flierl, Erin A. Baker. Assessing Taper Geometry, Head Size, Head Material, and Their Interactions in Taper Fretting Corrosion of Retrieved Total Hip Arthroplasty Implants. The Journal of Arthroplasty. February, 2021. PMID: 33832796

Presentations:

Podium Presentation:

Zein S. El-Zein, Scott Diamond, Margaret Bohr, Mackenzie Fleischer, Corinn Gehrke, Erin Baker, Paul Fortin, Zachary Vaupel. The Routine Use and Cost Analysis of Acid-Fast Bacilli and Fungal Cultures in Foot and Ankle Surgery: A Retrospective Study. Michigan Orthopaedic Society Annual Scientific Meeting 2020. Mackinac Island, MI (08/2021)

Zein S. El-Zein, Jay Sawyer Croley, Corinn Gehrke, Matthew Siljander, James J. Verner, Michael A. Flierl, Erin A. Baker. Taper Geometry and Head Size Both Affect Taper Fretting Corrosion in Total Hip Arthroplasty. AAHKS Annual Meeting 2020. Dallas, TX (11/2020)

Zein S. El-Zein, Jay Sawyer Croley, Corinn Gehrke, James J. Verner, Michael A. Flierl, Matthew Siljander, Erin A. Baker. Do Taper Geometry and Head Size Affect Taper Fretting Corrosion in Total Hip Arthroplasty? A retrieval Analysis of Ceramic-on-Polyethylene and Metal-on-Polyethylene Explants. AAOS Annual Meeting 2020. Orlando, FL (03/2020)

Corinn Gehrke, Zein S. El-Zein, J. Sawyer Croley, Murphy A. Mallow, James J. Verner, Michael A. Flierl, Erin A. Baker. Do Taper Geometry and Head Size Affect Taper Fretting Corrosion in Total Hip Arthroplasty? A retrieval Analysis of Ceramic-on-Polyethylene and Metal-on-Polyethylene Explants. Orthopaedic Research Society 2020 Annual Meeting. Phoenix, AZ (02/2020)

El-Zein, Z.S., Barnett,S., Lin, J., Lynch, W.R., Reddy, R.M., Chang, A.C., Orringer, M.B., Carrott, P.W. Long-Term Follow Up of Activity Levels and Lifestyle Choices After Esophagectomy. 12th Annual Academic Surgical Congress- Las Vegas, Nevada (02/2017).

Poster Presentations:

Zein El-Zein, Mina Botros, Samuel Florentino, Judith Baumhauer. Patient Reported Outcomes using PROMIS after Tarsal Tunnel Release Surgery. AOFAS Annual Meeting 2023. Louisville, KY (09/2023)

Zein S. El-Zein, Scott Diamond, Margaret Bohr, Mackenzie Fleischer, Corinn Gehrke, Erin Baker, Paul Fortin, Zachary Vaupel. The Routine Use and Cost Analysis of Acid-Fast Bacilli and Fungal Cultures in Foot and Ankle Surgery: A Retrospective Study. AOFAS Annual Meeting 2021. Charlotte, NC (09/2021)

Zein S. El-Zein, Scott Diamond, Margaret Bohr, Mackenzie Fleischer, Corinn Gehrke, Erin Baker, Paul Fortin, Zachary Vaupel. The Routine Use and Cost Analysis of Acid-Fast Bacilli and Fungal Cultures in Foot and Ankle Surgery: A Retrospective Study. AAOS Annual Meeting 2021. San Diego, CA (08/2021)

Jeremy Kalma, Zein El-Zein, Denise Koueiter, Paul Fortin. Soft Tissue Thickness as a Predictor of Wound Complications After Total Ankle Arthroplasty: A Retrospective Study. AOFAS Annual Meeting 2021. Charlotte, NC (09/2021)

Corinn Gehrke, Zein S. El-Zein, J. Sawyer Croley, Murphy A. Mallow, James J. Verner, Michael A. Flierl, Erin A. Baker. Do Taper Geometry and Head Size Affect Taper Fretting Corrosion in Total Hip Arthroplasty? A retrieval Analysis of Ceramic-on-Polyethylene and Metal-on-Polyethylene Explants. Orthopaedic Research Society 2020 Annual Meeting. Phoenix, AZ (02/2020)

El-Zein, Z.S., Barnett,S., Lin, J., Lynch, W.R., Reddy, R.M., Chang, A.C., Orringer, M.B., Carrott, P.W. Long-Term Follow Up of Activity Levels and Lifestyle Choices After Esophagectomy Poster presented at: 60th Annual Student Biomedical Research Forum- University of Michigan Medical School; Ann Arbor, MI, USA. (02/2017)

Accepted Abstracts

Zein S. El-Zein, Jay Sawyer Croley, Corinn Gehrke, James J. Verner, Michael A. Flierl, Erin A. Baker. Do Taper Geometry and Head Size Affect Taper Fretting Corrosion in Total Hip Arthroplasty? A retrieval Analysis of Ceramic-on-Polyethylene and Metal-on-Polyethylene Explants. Michigan Orthopaedic Society Annual Scientific Meeting 2020. Mackinac Island, MI (06/2020- Meeting Canceled due to COVID pandemic)

Published Videos

Zein El-Zein, Justin Smith, David Ciufo, Paul Fortin. Total Talus Arthroplasty. AAOS Orthopaedic Video Theater Plus (08/2021)

Research:

- Beaumont Research Institute THA implant retrieval study- Studied how taper geometry, head size, and head material can affect fretting corrosion in THA
- Beaumont Research Institute foot and ankle research- Retrospective review of infected foot and ankle cases to assess the rate of positive AFB and fungal cultures and the cost analysis of such cultures
- Beaumont Research Institute foot and ankle research- Retrospective review of infected trauma and adult reconstruction cases to assess the rate of positive AFB and fungal cultures and the cost analysis of such cultures
- Beaumont Research Institute foot and ankle research- Looking at X-ray based analysis of subcutaneous fat as a predictor of wound complications in Total Ankle Arthroplasty.
- University of Michigan Thoracic Surgery Department Clinical Research Assistant- Studied how preoperative counseling for esophagectomy can lead to durable smoking cessation, routine exercise, and lower postoperative complication rates (2014-2015)
- University of Michigan Department of Pathology Research Assistant- Studied the Pax2 gene and its effect on normal kidney development (2011-2012)
- Ann Arbor VA Healthcare system- Involved in Alzheimer's disease research that studied small molecules as potential therapy by inhibiting amyloid-beta protein accumulation and aggregation in transfected mice (2010-2011)

Experience

- Hearts to Soles- volunteered to passing out shoes and boots to people in need in Rochester, NY 2022
- St. Joseph's Neighborhood Center Volunteering- Providing MSK care to those in need and teaching University of Rochester medical students, 2023
- Beaumont Orthopaedic Institute Moolighting- (07/2021-06/2022)
- Beaumont Health Graduate Medical Education Committee- Orthopaedic Residency Representative 2019-2020, 2020-2021
- Beaumont Orthopaedic Surgery Annual Program Evaluation- Resident representative, 2020
- External Research Program Review of Beaumont Research Institute with Dr. Wellington Hsu and Dr. Erin Hsu- 2019
- COVID-19 Medical Floor Care- March-May 2020
- University of Michigan Medical Student of Middle Eastern Descent (MSMD) Organization- Treasurer (2013-2015)
- University of Michigan Muslim Medical Student Association (MMSA)- Social Chair (2013-2015)
- Science Learning Center Teacher- Taught calculus-based physics for undergraduate students in a small group study group at University of Michigan (2011).

- University of Michigan Department of Physics- Tutored undergraduate students in physics (2012)
- HUDA Clinic Volunteer- Shadowed and assisted physicians who provided uninsured patients with free health care in Detroit. (2012)
- UMHS Volunteer Services- Volunteered at the University of Michigan Post Anesthesia Care Unit and Physical Therapy Department at the Wound Care Unit. (2011-2012)
- University of Michigan Ginsberg Center Volunteer- Went on an interfaith alternative spring break to Washington DC and worked with organizations that provided food, shelter, and education for the homeless. (2013)
- Food Gatherers Volunteer (2016-2017)
- Intramural Basketball- Ananas Basketball Team (Fall 2012 and 2013)
- American Red Cross Blood Drive Host (2011-2012)
- Susan G. Komen Annual Race for the Cure- Team creator/ captain for fundraiser race/walk (2011-2012)
- Subway Restaurant- Assistant Manager (2009-2013)

Hobbies:

- Tennis, soccer, basketball
- Vegetable gardening
- Home improvement projects