Curriculum Vitae

Mary L. Bouxsein

Professor of Orthopedic Surgery; Director, Center for Advanced Orthopedic Studies
Harvard Medical School

Educational Background & Professional Experience

2022-2023	President, American Society for Bone and Mineral Research
2022-	Director, Office for Research Careers, Center for Faculty Development, MGH
2021	Adele Boskey Award, American Society for Bone and Mineral Research
2019	Thomas A. McMahon Mentorship Award, Harvard-MIT Health Sciences & Technology Program
2018-	Professor, Dept of Orthopedic Surgery, Harvard Medical School, Boston
2016-2019	Board Member, International Osteoporosis Foundation
2016	A. Clifford Barger Excellence in Mentorship Award, Harvard Medical School
2015-2018	Council Member, American Society of Bone and Mineral Research
2015	Fellow, American Institute for Medical and Biological Engineering (AIMBE)
2014-2018	Associate Professor, Dept of Orthopedic Surgery, Harvard Medical School, Boston
2013-2018	Associate Editor, Journal of Bone and Mineral Research
2012-	Faculty Member, Harvard-MIT Health Sciences and Technology Program
2005	Fuller Albright Award, American Society of Bone and Mineral Research
2000-2013	Assistant Professor, Dept of Orthopedic Surgery, Harvard Medical School, Boston
1992	PhD, Mechanical Engineering, Stanford University, Stanford, CA

Research Interests

As a biomechanical engineer, my research focuses on understanding the biomechanical underpinnings of skeletal fragility, as well as the musculoskeletal response to altered loading conditions, including spaceflight. My work ranges from animal models to large cohort studies in humans. I have keen interest in applying novel imaging techniques to estimate bone strength in humans and improve the prediction of fracture risk in osteoporosis. We are also interested in the risk factors and biomechanical factors that contribute to increased risk of stress fracture in athletes, particularly military personnel. Finally, we have a longstanding interest in understanding how skeletal loading contributes to fracture risk.

Publications

Eastell R, Vittinghoff E, Lui LY, Ewing SK, Schwartz AV, Bauer DC, Black DM, Bouxsein ML. Diabetes Mellitus and the Benefit of Antiresorptive Therapy on Fracture Risk. J Bone Miner Res. 2022 Nov;37(11):2121-2131.