



Department of
Biomedical Engineering

UNIVERSITY OF WISCONSIN-MADISON

Celebrating 25 Years

Fall 2024
Seminar Series

Integrating Bioengineering and Biomarker Discovery to Advance Personalized Regenerative Medicine

Genevieve Romanowicz, PhD

K99 Fellow and post-doctoral scholar

Knight Campus for Accelerating Scientific Impact

University of Oregon

Dr. Romanowicz's research bridges tissue engineering and clinical care by addressing critical questions in bone regeneration and fracture risk prediction. Her work focuses on developing advanced bone-like organoids and preclinical models to explore the immune response's role in bone healing and fracture risk. She has also created predictive models for recurrent bone stress injuries, leveraging high-precision proteomic markers in female athletes. By integrating these experimental platforms with machine learning, Dr. Romanowicz aims to identify biomarkers and improve outcome predictions for complex injuries, including craniofacial trauma and bone stress injuries. Supported by her K99 project, her research drives personalized, translational strategies to enhance musculoskeletal health and clinical outcomes.



ABOUT the SPEAKER

Dr. Genevieve Romanowicz is a post-doctoral scholar and K99 Fellow working with Dr. Robert Guldborg at the Knight Campus for Accelerating Scientific Impact, University of Oregon. Her research focuses on translating cutting-edge regenerative engineering strategies to clinically relevant musculoskeletal and craniofacial problems. She obtained her DDS and PhD from the University of Michigan in 2021, studying bone composition and biomechanics and a BS in Biomedical Engineering from Michigan Technological University in 2012. Dr. Romanowicz was selected as a rising leader in the fields of oral, dental, and craniofacial research as part of the NIDCR MIND-the-Future program. Her current work encompasses bone tissue engineering, bone-like organoids, and biomarkers to predict fracture healing.

Wednesday, December 11 at Noon
2188 Mechanical Engineering Building

