SSBH 2025

Cancer and Bone Society Asia-Pacific Conference

17:05-17:30 | Grand Hall 4+5, B1F

Symposium 4. The Metastatic Bone Microenvironment: Cellular and Molecular Dissection

Gabriel M. Pagnotti

Professor

The University of Texas MD Anderson Cancer Center, USA

Educational Background & Professional Experience

2014 Ph.D. in Biomedical Engineering, SUNY Stony Brook University; Stony Brook, New York

2008 M.S. in Biomedical Engineering, University of South Florida; Tampa, Florida 2002 B.S. in Electrical Engineering, University of Central Florida; Orlando, Florida

Sep 2016–Aug 2020 Postgraduate Fellow, Endocrine/Hematology, Endocrinology/Hematology, Indiana University; Indianapolis, Indiana

Oct 2014–Aug 2016 Postdoctoral Associate, Biomedical Engineering, SUNY Stony Brook University; Stony Brook, New York

Aug 2003–May 2005 Post–Baccalaureate Studies, Molecular & Microbiology, University of Central Florida; Orlando, FL

Research Interests

My research interests focus on the interactions of the musculoskeletal system in the context of metabolic dysfunction, primarily in the setting of cancer and/or its many therapies. I have investigated multiple forms of mechanical stimuli, recognized as anabolic to musculoskeletal tissues, for translational applications to biomechanics and regulation of endocrine factors in metabolic and bone disorders.

Publications

- 1. Effect of Age at Time of Irradiation, Sex, Genetic Diversity, and Granulopoietic Cytokine Radiomitigation on Lifespan and Lymphoma Development in Murine H-ARS Survivors. Radiat Res, 2024.
- 2. Diet-Stimulated Marrow Adiposity Fails to Worsen Early, Age-Related Bone Loss. Obes Facts., 2024.
- 3. The checkpoint inhibitor PD-1H/VISTA controls osteoclast-mediated multiple myeloma bone disease., 2023.
- 4. Zoledronic acid improves bone quality and muscle function in a high bone turnover state. bioRxiv, 2023.
- 5. Low-Magnitude Mechanical Signals Combined with Zoledronic Acid Reduce Musculoskeletal Weakness and Adiposity in Estrogen-Deprived Mice. bioRxiv. 2023.



Curriculum Vitae

