Research

Research on Tap: Mechanobiology: How Force and Stretch Shape Life

April 2, 2019 | 4-6 PM | Photonics Colloquium Room

Introductions:

Gloria Waters	Vice President and Associate Provost for Research
Elise Morgan	Professor, Department of Mechanical Engineering; Division of Materials Science & Engineering; and Department of Biomedical Engineering
Katya Ravid	Professor, Medicine and Biochemistry, School of Medicine; and Director, Interdisciplinary Biomedical Research Office (IBRO)

Research Presentations:

- **Growth Factor Mechanobiology in Musculoskeletal Tissues**
  Michael Albro, PhD, Assistant Professor, Mechanical Engineering, ENG
- **Mechanobiology of Soft Tissue Repair and Skeletal Tissue Regeneration**
  Jeroen Eyckmans, PhD, Research Assistant Professor, Biomedical Engineering, ENG
- **Tensional Homeostasis of Adherent Cells**
  Dimitrije Stamenovic, PhD, Professor, Biomedical Engineering, ENG
- **On Force and Form: Mechanobiology of the Extracellular Matrix**
  Michael Smith, PhD, Associate Professor, Biomedical Engineering, ENG
- **YAP/TAZ Signaling in Development and Disease**
  Bob Varelas, PhD, Associate Professor, Biochemistry, BUSM
- **Mechanobiology of Heritable Connective Tissue Disease (ECM and the 3 Bears)**
  Matthew D. Layne, PhD, Associate Professor, Biochemistry, BUSM
- **Cytoskeletal Structure Mediates In Vitro Mediated Signaling By Mechanical Stretch**
  Louis C. Gerstenfeld, PhD, Professor, Orthopaedic Surgery, BUSM
- **Mechanobiology of Marrow Tissue in Health and Pathology**
  Katya Ravid, PhD, DSc, Professor, Medicine and Biochemistry, School of Medicine; and Director, Interdisciplinary Biomedical Research Office (IBRO)
- **Osteocytes Mechano-Transduction**
  Paola Divieti-Pajevic, Associate Professor, Molecular & Cell Biology, GSDM
- **Fluctuation-Driven Mechanotransduction Regulates Mitochondrial Structure and Function**
  Béla Suki, PhD, Professor, Biomedical Engineering, ENG
- **Neurological Dysfunction Associated to Mechanical Stresses at the Brain-Tumor Interface**
  Hadi T. Nia, PhD, Assistant Professor, Biomedical Engineering, ENG
- **Probing and Programming How Cells Sense Force**
  John Ngo, PhD, Assistant Professor, Biomedical Engineering, ENG
- **Multi-Scale Computations for Mechanobiology**
  Qiang Cui, PhD, Professor, Chemistry, CAS
- **How Structural and Geometric Heterogeneity Shape Local ECM Mechanics?**
  Katherine Zhang, PhD, Associate Professor, Mechanical Engineering, ENG
- **Capitalizing on Mechanobiology to Prevent Vascular Dementia**
  Kathleen Morgan, PhD, Professor, Health Sciences; and Human Physiology, SAR

Upcoming Events

For more details: bu.edu/research/events

Research on Tap:

Please email research@bu.edu with topic suggestions for next year

Research How-To:

How to Secure Funding from the Department of Defense
Wednesday, April 10, 2019 | 3-5 pm

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