IEM News

Registration Open for IEM Innovation Week Events Held April 6-10

Registration is open for IEM Innovation Week's eight events, listed below, highlighting advances and new directions in applying medical engineering to fight cancer, neurological disorders, failing organs, and many other ailments.

- **Design of Medical Devices Conference** April 6-9
- **Institute for Engineering in Medicine BioSciTech Symposium** April 6-7
- **IEM Career Mixer at the Design of Medical Devices Conference** April 8
- **Minnesota Neuromodulation Symposium** April 9-10
- **Neuro-Oncology Symposium** April 6-7
- **Institute for Mathematics and Its Applications/Physical Sciences Oncology Center Workshop** April 6-8
- **Physical Sciences Oncology Network Brain Tumor Working Group Workshop** April 7-8
- **Manufacturing Needs for Biofabrication of Engineered Tissues and Organs** April 6

IEM Member Highlights

Casim Sarkar and Colleagues Author Research Paper Published in PNAS on Discovery that Could Lead to New Treatments for HIV, Autoimmune Diseases and Cancer

Breakthrough Study on Molecular Interactions Could Improve Development of New Medicines
Kevin Peterson Leads Development of Sophisticated, AI-Based Consumer Health App to be Launched in 2020

New Treatment App Uses Intel from Medical School Experts

Douglas Yee Discusses Decrease in Cancer Deaths with Star Tribune

Record Drop in Cancer Deaths May Reflect a Series of Treatment Breakthroughs

Announcements

2020 IEM Walter Barnes Lang Fellowship Awardees

The IEM Walter Barnes Lang Fellowship supports graduate students traveling to research meetings in 2020 to deliver presentations based on their research. Recipients of the $1000 award are graduate students at the University of Minnesota who are engaged in research related to engineering in medicine and who are advised by IEM members.

Ciutara, Clara
Abstract: A rheological perspective on the formulation effects on lung surfactant replacement therapy
Conference: XVIIIth International Congress on Rheology, Rio de Janeiro, Brazil

Fischer, Nicholas
Abstract: Multifunctional Peptide Coatings for Preventing Infection of Dental Implants
Conference: World Biomaterials Conference 2020, Glasgow

Galliger, Zachary
Abstract: 3D Bioprinting Chondrogenic Hydrogels using Tracheal Extracellular Matrix
Conference: 2020 Biologic Scaffolds for Regenerative Medicine Symposium, Napa, California

Mantell, Kathleen
Abstract: Comparing Transcranial Magnetic Stimulation (TMS) Simulations for Lesioned and Non-Lesioned Hemispheres in Pediatric Stroke Models
Conference: 7th International Conference on Non-Invasive Brain Stimulation (NIBS), Baden-Baden, Germany

McKay, Jessica
Abstract: A Reader Study Comparing the Quality of High-Resolution Diffusion Weighted Imaging Methods for Breast MRI
Conference: International Society of Magnetic Resonance in Medicine (ISMRM) Annual Meeting, Sydney, NSW, Australia

Saha, Renata
Abstract: Portable Magnetic Particle Spectroscopy (MPS) Testing Kit for Rapid, Wash-Free, Solution-Phase-Based Immunoassays
Conference: 13th International Conference on the Scientific and Clinical Applications of Magnetic Carriers, London, UK

Yaman, Burhandeddin
Abstract: Physics-Based Self-Supervised Deep Learning for Accelerated MRI Without Fully Sampled Reference Data
Conference: International Society for Magnetic Resonance in Medicine, Sydney, Australia