# Michigan State University
# 2021 Virtual Biomedical Imaging Symposium
## February 1, 2021   1:00 – 4:00 PM

**INTRODUCTION AND MODERATION: Erik Shapiro**

**SESSION 1**

**Christiane Mallett**
PET-MRI with orthogonal contrast agents in mouse tumor models

**David Zhu**
Shape Analysis of Brain Regional Structures

**Muneeza Azmat**
Myocardial and input frame reduction in dynamic cardiac CT for perfusion estimation

**Brett Volmert**
Bioengineered Human Heart Organoids to Investigate Mechanisms of Chemotherapy-Induced Cardiotoxicity

**Chunqi Qian**
Sensitivity-enhanced wireless detectors for imaging and physiological sensing

**Reid Blanchett**
Is the diffusivity of the superior longitudinal fasciculus disrupted in infants with Turner syndrome?

**David Filipovic**
Lessons learned from competitive in silico predictions of rib fractures and pulmonary embolisms using CT

**Lorenzo Sempere**
Nanoparticle-based contrast agents for intraductal imaging and preventive treatment of breast cancer

**Noura Massri**
Effect of Non-Steroidal Anti-inflammatory Drugs on Uterine Blood Vessel 3D Structure and Function in Mouse Model of Pregnancy

**Jie Huang**
Altered Visual Cortical Functional Network in Migraine

**Melissa Schott**
The development of magnetoendosymbionts (MEs) for magnetic particle imaging, optical imaging, and their use for eukaryotic cellular control via thermal induction

**Arth Patel**
Abdominopelvic CT scans and the Rate of Non-Diagnosed Vertebral Fractures

**Norman Scheel**
Resting-state functional MRI signal fluctuations are correlated with brain amyloid-β deposition in patients with amnestic mild cognitive impairment

**Melissa Dale**
Fusing AutoML Models: A Case Study in Medical Image Classification

**Carolina Cywiak**
Neuromodulation induce changes on brain fMRI

**Harvey Lee**
Green Lanmodulin-based Reporter: An Intensiometric Rare Earth Element Biological Sensor

**Joe Adams**
Characterization of Partial Volume Errors in Coronary Plaque PET Imaging

**Shuyang Qin**
Recovery the point source locations with unknown medium

**15 MINUTE BREAK**

**SESSION 2**

**Jill Slade**
Diurnal rhythms in skeletal muscle oxidative capacity and microvascular function

**Faryal Mir**
Supercharged OATPs: Potentials in Protein Engineering for Imaging

**Zac Fernandez**
Functional Connectivity of Cortical Resting-State Networks is Differentially Affected by Excess Environmental Stimulation

**Victoria Toomajian**
In Vivo Tracking of Iron Labeled Extracellular Vesicles by Magnetic Particle Imaging

**Gregory Holste**
Fusing Imaging and Clinical Information for Improved Automatic Breast Cancer Detection

**Tianyu Yang**
Ultrasound Modulated Bioluminescence Tomography

**Alesa Hughson**
Using Magnetic Resonance imaging to identify injury biomarkers in miniature pigs

**Michael Moore**
High resolution and high-speed imaging of brain activity through sparse labeling and new image processing methods

**Kylie Smith**
Detecting brain drain: a PET imaging approach to monitoring brain waste clearance

**Gaurav Gadgeel**
Kidney Stone Prognostics with Non-Contrast CT Imaging

**Manoj Madhavan**
Tracking embryo movement in the mouse uterus in real time using ex-vivo multiphoton microscopy

**Josh Hubert**
Automated selection of internal carotid and vertebral arteries and internal jugular veins in pc MRI

**Everett Baxter**
Imaging of HEK293T OATP1B4 cells induced with NFAT-GFP and Harmine

**Mohamed Abouhawwash**
Exploration of Multi-objective Optimization with Genetic Algorithms for PET Image Reconstruction

**Ethan Tu**
Point Spread Function Estimation and Deconvolution Methods for Magnetic Particle Imaging

**Md Naffiujamman**
Iron Oxide Nanochain as a High-Performance Magnetic Particle Imaging Tracer for Cell Tracking

**Jonathan Burkow**
Detection of rib fractures in pediatric radiographs using deep learning

**Erik Shapiro**
CRISPRa-induced expression of reporter proteins for biomedical imaging