The Institute for Engineering in Medicine (IEM) is pleased to announce a seminar by Dr. Natalia Trayanova, “Your Personal Virtual Heart.”

Dr. Natalia Trayanova is a Professor of Biomedical Engineering at Johns Hopkins University. She is the inaugural Murray B. Sachs Endowed Chair. She directs the Computational Cardiology Laboratory at the Institute for Computational Medicine. In 2013, she received the very prestigious NIH Director’s Pioneer Award for innovative science. Dr. Trayanova was also the inaugural William R. Brody Faculty Scholar at Johns Hopkins University. Dr. Trayanova is a Fellow of Heart Rhythm Society, American Heart Association, Biomedical Engineering Society, and American Institute for Medical and Biological Engineering. The translational research in Dr. Trayanova’s Computational Cardiology Laboratory centers around improvement of the clinical therapies of atrial and ventricular ablation, and the risk stratification for arrhythmias using a personalized approach.

The basic science research in Dr. Trayanova lab focuses on understanding the pathological electrophysiological and electromechanical behavior of the heart, with emphasis on the mechanisms for cardiac arrhythmogenesis and pump dysfunction. Dr. Trayanova is the author of over 250 peer-reviewed publications in prestigious journals, among which Science Translational Medicine, Nature Communications, and Journal of Clinical Investigations. She and her lab members are the recipients of numerous research awards. Dr. Trayanova serves as Associate Editor and is on the Editorial Board of several journals.