TECH VENTURE CHALLENGE
TECHNOLOGIES 2017

Dr. Nilanjan Sarkar

Autism Driving App − Autism driving assistance virtual reality simulator to train and enable persons with ASD for safe driving.

Dr. Keivan Stassun

Gamma-Ray Spectroscope -The likely product is a system that incorporates: a bright and proportional scintillator crystal, solid state readout, signal processing, a microcomputer, a transmitter, a solar panel and an antenna. The system will weigh under 1 kg and cold be used in either remote sensing (satellite) mapping of the composition or on board of a rover that will raster the surface of the object (planet, moon, asteroid) and locate and identify the composition.

Dr. Sinead Miller

Device for Blood Filtration for sepsis of bateremia - A method for isolating bacteria from flowing fluid has been developed. The method includes introducing a bacteriacontaminated sample into at least one inlet of a microfluidic device comprised of one or more channels. portions of the channels cross-section.

Dr. Craig Duvall

Conjugation of Lipophilic Albumin-Binding Moiety to siRNA- Systemic delivery of siRNA is a particular challenge due to rapid renal clearance from circulation. This specific challenge limits the use of siRNA as a cancer therapeutic, as long vascular circulation time following intravenous injection is the primary predictor of tumor biodistribution. Modification of siRNA with the lipophilic albumin-binding moiety described enhances its stability and persistence in circulation, leading to more effective and translatable intravenous (i.v.) RNAi therapies.

Dr. Anita Mahadevan-Jansen

Real-Time identification of bacteria in a fluid environment using Raman spectroscopy - The application of Raman Spectroscopy to characterize the MEF and detect the presence of and identify bacteria will inform physicians to prescribe more targeted antibiotics if needed. This will aid in reducing the number of multi-drug resistant organisms (MDROs).

Dr. Yevgeniy Vorobeychik

Spam filter Software/Platform - A novel, game theory-based machine learning platform for cyber security. These techniques can have an impact in intrusion detection, malware detection, spam classification, and more