Joint Call for Proposals Awards 12 Development Projects for Medical Device and Health Technology

Philadelphia, PA – December 6, 2019 – Penn Health-Tech has selected the awardees for its annual Pilot Award Program for the 2020 funding year. Those receiving the Pilot Award, their proposal title, and the institutions with which they are affiliated are listed at the end of this announcement. Additionally, we are pleased to spotlight the Medical Device Accelerator Program Awardees, which were also selected by the Joint Call for Proposals Project Selection Committee.

“2019 has been a tremendous year for the Penn Health-Tech,” said Executive Director, Victoria Berenholz. “We received 84 applications, our highest number to date, and our interdisciplinary applicants represent Penn Engineering, Penn Medicine, Penn Nursing, Penn Veterinary Medicine and the Children’s Hospital of Pennsylvania (CHOP). We are very excited about funding and supporting these technologies. We see our Pilot Awardees as a reflection of the excellent early stage innovation in medical technology across the Penn ecosystem.”

The Pilot Award Program is made possible by support from Penn Health-Tech leadership from Penn Medicine, Penn Engineering, and the Vice Provost for Research, along with our collaborations with the Penn Center for Musculoskeletal Disorders, Penn Center for Precision Medicine, and CHOP.

ABOUT PENN HEALTH-TECH: CENTER FOR HEALTH, DEVICES AND TECHNOLOGY

Launched in May 2017, Penn Health-Tech was established by the Perelman School of Medicine, the School of Engineering and Applied Science and the Office of the Vice Provost of Research. It is also sponsored in part by a generous gift from Penn alum Jonathan Brassington, whose passion to encourage interdisciplinary investigative projects sparked the center’s creation. Serving the local rich ecosystem of institutes and
centers, Penn Health-Tech expands Penn’s biomedical technology pipeline by uniting Penn Medicine, Penn Engineering, and beyond to create transformative technologies that address pressing healthcare needs. Penn Health-Tech also serves as an important link to regional partners such as the University of Pennsylvania Health System and The Children’s Hospital of Philadelphia.

**ABOUT THE MEDICAL DEVICE ACCELERATOR OF THE PENN MEDICINE CENTER FOR HEALTH CARE INNOVATION**

The Medical Device Accelerator, sponsored by the Perelman School of Medicine and Penn Medicine Center for Health Care Innovation, in partnership with the Penn Center for Innovation and Penn Health-Tech, empowers entrepreneurs, clinicians, and researchers at Penn Medicine to create and commercialize innovative medical devices to address unmet clinical needs, improve patient outcomes and reduce the cost of care. The program supports faculty and staff in transforming their "paper napkin drawing" to a final product ready for clinical use. We also partner with PCI Ventures to help participants make the transition from device to company after the program concludes.

**APPLICATIONS FOR THE 2019-2020 AWARDS**

Penn Health-Tech and the Penn Medicine Center for Health Care Innovation released its annual joint call for proposals targeting faculty from the University of Pennsylvania, Penn Medicine, and CHOP working on the development of medical device and health technology projects that address unmet clinical needs. Applications opened on Friday, July 12th and closed on Monday, September 23rd.

A list of previous recipients is available on the Penn Health-Tech website: [https://healthtech.upenn.edu/work-with-us/our-portfolio/](https://healthtech.upenn.edu/work-with-us/our-portfolio/). For more information, contact Glory Durham, Associate Director, at htec@pennmedicine.upenn.edu

**2020 Penn Health-Tech Pilot Awardees**

An Augmented Reality Surgical Navigation System

- Thomas Schaer, VMD. School of Veterinary Medicine
- Stephen H. Lane, PhD. School of Engineering and Applied Science
- Samir Mehta, MD. University of Pennsylvania Health System
- Kathryn Wulster, VMD. School of Veterinary Medicine
Developing a Novel Surgical Platform for Predictive Analytics and Intelligent Guidance
Vivek Buch, MD. University of Pennsylvania Health System
Peter Madsen, MD, MBE. University of Pennsylvania Health System
Jianbo Shi, PhD. School of Engineering and Applied Science
James Gee, PhD. Perelman School of Medicine

Development of a Biomaterial Delivery System to Localize and Direct Stem Cells for Enhanced Cartilage Repair
Jay Patel, PhD. Perelman School of Medicine
Claudia Loebel, MD, PhD. School of Engineering and Applied Science
Robert Mauck, PhD. Perelman School of Medicine
Jason Burdick, PhD. School of Engineering and Applied Science
James Carey, MD, MPH. University of Pennsylvania Health System

Human Blinking Eye-On-A-Chip for In Vitro Testing of Contact Lenses
Dan Huh, PhD. School of Engineering and Applied Science
Vatinee Bunya, MD, MSCE. Perelman School of Medicine

Hypknowledge
Michael Perlis, PhD. Perelman School of Medicine

Improving Sensitivity of Liquid Biopsy
Haim Bau, PhD. School of Engineering and Applied Science
Erica Carpenter, PhD. School of Engineering and Applied Science
Charu Aggarwal, MD, MPH. Perelman School of Medicine
Jinzhao Song, PhD. School of Engineering and Applied Science

Microscopic Robot-Assisted Axon Regrowth for Rapid Repair of Peripheral Nerve Injuries
D. Kacy Cullen, PhD. Perelman School of Medicine
Marc Miskin, PhD. School of Engineering and Applied Science
Non-Invasive Detection of Elevated Intracranial Pressure with Near-Infrared Light

Wesley Baker, PhD. Children’s Hospital of Philadelphia
Daniel Licht, MD. Children’s Hospital of Philadelphia
Arjun Yodh, PhD. College of Arts and Science
Todd Kilbaugh, MD. Children’s Hospital of Philadelphia
Tiffany Ko, PhD. Children’s Hospital of Philadelphia

Remotely Adjustable Pulmonary Artery Band

Cynthia Sung, PhD. School of Engineering and Applied Science
Mark Fogel, MD, Perelman School of Medicine
Jonathan Chen, MD. Children’s Hospital of Philadelphia

2020 Medical Device Accelerator Program Awardees

High-resolution, low cost, dry EEG sensors
Flavia Vitale, PhD, Perelman School of Medicine
Kathryn Davis, MD, MSTR Perelman School of Medicine
Nicolette Driscoll, PhD Candidate, School of Engineering and Applied Science

Minimally Invasive Stabilization of Fractured Ribs
Adam Shiroff, MD, Perelman School of Medicine

Stellate Ganglion Magnetic Stimulator
Timothy Markman, MD, University of Pennsylvania Health System