CELL-MET5-IE-IE Days_JT

Innovation Ecosystems Event Paves the Way from the Lab to the World

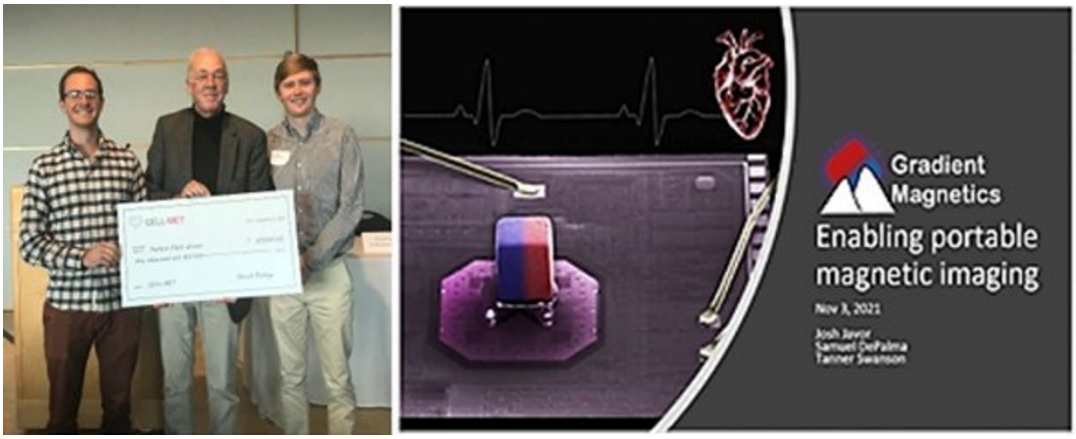
Outcome/accomplishment: Getting research out of the laboratory and put to use in the world is essential for innovation. In research and development, innovation ecosystems are networks of individuals, entities, and resources that join forces in a way that catalyzes new products, ideas, methods, and systems. To help build this capacity, in November 2021 students from multiple institutions convened for an Innovation Ecosystem Days program hosted by the NSF-funded Engineering Research Center for Cellular Metamaterials (CELL-MET), headquartered at Boston University (BU).

Impact/benefits: CELL-MET was established to develop methods to generate sophisticated, native-like tissue architectures with high functionality control with the ultimate goal of replacing diseased human organs. In addition to leading breakthrough research while training a pipeline of scientist and engineers that will be the future leaders in efforts to improve healthcare outcomes, CELL-MET created and sustains an innovation ecosystem that leverages their technological breakthroughs into commercial success. Their innovation ecosystem team is comprised of industry representatives and research colleagues that serve as advisors and work with the ERC to commercialize the technologies it creates.

Explanation/ background: CELL-MET's Innovation Ecosystem and Industrial/Practitioner Advisory Board (IPAB) works to advance an effective technology transfer process that leads to commercializing the output of research. Innovation Ecosystem Days are an important activity for preparing engineering students to transfer the technology they help develop. The 2021 program was held at BU and included 25 students from CELL-MET partner institutions. The program included:

- CELL-MET Deputy Director Chris Chen's update and plan for the Center's next 5 years
- CELL-MET industry member Bayer conducted a half-day biotech case study simulation
- Ten IPAB member companies provided market overviews and career track insights
- Presenters held hybrid breakout sessions to discuss career planning

In addition, a Perfect Pitch Business Plan competition was conducted. There were four teams (16 students involved), each mentored by IPAB member representatives. Judging was performed by a a group of venture capital representatives. The winners presented their pitch for contactless EKG technology. They are now following through on the launch of Gradient Magnetics.



CELL-MET Innovation Ecosystem Days Perfect Pitch winners are Josh Javor, a post-doc in Prof. Bishop's lab at BU, Sam DePalma, a Ph.D. student in Prof. Lahann's lab at University of Michigan, and Tanner

Swanson, a student from the Harvard Business School. (Credit: CELL-MET)