

Jump ARCHES Showcases Health Care Solutions to Chicago Entrepreneurs

Jump ARCHES at MATTER b-roll 2:15

A robotic hand capable of gently squeezing a rubber ball, an immersive virtual reality environment for medical students to learn procedures and a computer-based game that helps in the rehabilitation of children with cerebral palsy. These are just a few of the Jump ARCHES health care solutions recently exhibited at MATTER in Chicago before an audience of about 100 people.

Jump ARCHES (Applied Research for Community Health through Engineering and Simulation) is a \$62.5 million endowment and collaboration between OSF HealthCare and the Health Care Engineering Systems Center (HCESC) at the University of Illinois Urbana-Champaign. It was launched in 2014 to fund innovative projects between physicians and engineers to improve or produce medical technology and devices that could revolutionize medical training and health care delivery.

Dr. Jim Graumlich, a hospitalist at OSF HealthCare Saint Francis Medical Center, along with a team of engineers and clinicians developed software that simplifies prescription instructions and communicates those directions to patients using an avatar.

Graumlich, who is also a professor at the University of Illinois College of Medicine Peoria, says his group's Jump ARCHES-funded project aims to solve a decades old problem of helping patients understand medication and other health-related instructions.

Jump ARCHES-Graumlich :19 ...chronic illness."

"If you follow patients with low health literacy over time, you will find that they have more admissions to the hospital for preventable conditions, they also have more visits to the emergency department and they also have more morbidity or complications of their chronic illnesses," said Graumlich.

Graumlich says the Jump ARCHES funding helped his team get its project off the ground. He hopes to acquire another grant to expand product offerings. Since its inception, the Jump ARCHES program has funded more than 15 projects like Graumlich's, many of which were featured in hands-on demonstrations at the Virtual Reality and Medical Simulation Showcase at MATTER.

OSF became a founding member of MATTER, a Chicago-based incubator for health care entrepreneurs in November, 2014. In 2016, it partnered with the incubator to develop The OSF Simulation Stage at MATTER, a flexible simulation space to test early-stage health care solutions.

Jump ARCHES-Kesh :17 ...with Chicago."

"We wanted the health care systems here, the venture capitalists (and) entrepreneurs to see what is happening through Jump ARCHES," Kesh Kesavadas (keh-suh-VAH-dez), PhD, Director, HCESC at the U of I Urbana-Champaign and the Engineering Chief for Jump ARCHES. "We hope this will create awareness, exposure and probably better collaboration with Chicago."

The showcase was an effort to encourage Chicago area startups and others to partner with the Jump ARCHES program to bring some of these health care solutions to market.