Inaugural University Collaboration

A joint celebration of the inaugural collaboration between Sweden’s Chalmers University of Technology and the George Washington University’s School of Engineering and Applied Science. Designed to expose students from each university to commercialization and technical prototyping, the collaboration involved Chalmers’ Entrepreneurship and Strategy Program and GW’s Biomedical Engineering Department and two senior biomedical capstone design teams.

Following introductory remarks by the founders of this global partnership, GW Engineering Student Teams will introduce their projects, show a video, and take live questions from the audience.

**Project Profiles**

**MRI Simulator**

Receiving and MRI can be a very stressful experience, and many patients report experiencing anxiety during the process of an MRI
scan. These fears, more generally categorized as phonophobia—fear of loud noises—and claustrophobia—fear of small spaces, have led to unsuccessful MRI scans and large scheduling setbacks, which are time-consuming and frustrating for many radiologists. Moreover, setbacks cause a substantial loss of scan time and resources, primarily monetary, if a patient is unable to complete the scan within the time block. The MRI Simulator allows patients to experience the auditory and spatial environment of an MRI using Virtual Reality (VR) technology prior to an actual scan, which will help doctors and patients alike, assess the patient’s ability to scan successfully.

**Leg Carrier**

Our client is a retired Army veteran who enjoys an active lifestyle. She recently sustained an injury and uses an above-knee prosthetic. To stay active, she frequently rides her handcycle, both leisurely on local trails and competitively in marathons. In order to prevent any problems when turning on her handcycle, she must remove her prosthetic leg, making storage on a handcycle essential. To meet this need, our group designed a handcycle storage solution to optimize the transport of assistive devices and personal belongings while riding a handcycle.

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**Faculty Profiles**

**Dr. Jason Zara, GW,** has worked for 18 years in the development of novel imaging instrumentation and software to approach the detection and evaluation of epithelial cancers, epilepsy, and other human diseases

**Emma Brink, CHALMERS,** is Chief Operating Officer for the Center for Higher Ambition Leadership at within the division of Entrepreneurship and Strategy at Chalmers University of Technology.

**Annamaria Konya Tannon, GW** is the chief evangelist for Innovation, Entrepreneurship, and Invention for the School of Engineering and Applied Science and the Executive Director of the GW Innovation Center. She is a technology entrepreneur and angel investor.

**Dr. David T. Lee, GW,** teaches physics, materials analysis, and biomedical engineering and directs Biomedical Engineering Capstone Courses.

**Student Lead**

**Konstantin Mitic, GW,** is a graduate of GW's biomedical engineering program and winner of the Pelton Award. He is co-founder of George Hacks, a medical solutions hackathon, and is passionate about solving complex healthcare and humanitarian issues.

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*Details from this event will be posted on the Innovation Center's website after May 14.*

*We would like to thank the Embassy of Sweden, DC for their support of this collaboration.*