



Medical Devices Center Newsletter

Note from the Director

Exciting developments continue at the Medical Devices Center (MDC). The seventh Innovation Fellows class is making final presentations on their new inventive devices and concepts while the new class is about to arrive (see details below).

Engineering student volunteers have been busy this summer working on needs that M.D.s have brought forth. There were about 20 senior design teams from biomedical and mechanical engineering that took advantage of the MDC facilities during the spring semester.

Preparations are underway for visiting professors and industry-

based engineers to take advantage of our programs this fall.

The theme for the 2015 Design of Medical Devices Conference was Medical Devices in the Far East. MDC continues to have great visibility in that region. Within the last year there have been two visits each to China, Japan, Taiwan, and also Costa Rica. Various collaborations are being discussed with these countries and dozens of return visits to tour MDC have occurred.

Local outreach by MDC is accelerating with discussions continuing with many Minnesota-based companies. In many cases

joint research agreements are in place or are being discussed (see Collaborate Today! section). MDC is now involved with First in Man studies with several inventions and a number on licenses have been completed this year on former Innovation Fellows inventions.

The new location for the MDC has been ideal for attracting attention to its facilities by our local medical professionals. Many M.D.s and nurses have contacted us seeking solutions for observed medical devices needs. If you have not toured the MDC recently, we invite you to contact us as we are averaging about six tours a week.

-Arthur G. Erdman

Announcing the next Innovation Fellows Team

We are pleased to announce the 2015-2016 Innovation Fellows Team:

- **Adam Black**, Ph.D., Biomedical, Electrical Engineering, University of Minnesota
- **Amit Goyal**, M.D., Resident in Neurosurgery, University of Minnesota
- **Michael Greminger**, Ph.D., Associate Professor in Mechanical Engineering, University of Minnesota - Duluth
- **Brian Krohn**, Ph.D., Natural Resource Science, Chemistry; CEO of Zuri Apps; Entrepreneur
- **Steven Reinitz**, Ph.D., Co-founder B.B.R. Medical Innovations; Entrepreneur
- **Ahmed Selim**, M.D., Internal Medicine Physician (Cardiovascular Hospitalist), University of Iowa Hospital and Clinics
- **Bradley Slaker**, M.B.A., Founder and CEO of DesignWise Medical; Entrepreneur
- **Anastasia Zink**, Ph.D., Neuroscience, University of Minnesota, Co-founder of MN Neuromodulation Consortium



We look forward to the team starting in August and bringing new ideas to the healthcare community!

Congratulations to **Alumni Fellow James Ankrum**, who was a finalist and prize winner for the NIH Single Cell Analysis Program "Follow that Cell" Challenge. James is currently an Assistant Professor of Biomedical Engineering and researcher at the University of Iowa Fraternal Order of Eagles Diabetes Research Center.

Collaborate with us Today!

The purpose for the MDC Innovation Collaborations (IC) Program is to invite medtech companies to engage with UMN research/engineering resources and work collaboratively on a medical device that solves an unmet healthcare need.

The IC Program starts by building a relationship with a company and identifying their unmet need. The unmet need is vetted for clarity, the refereed literature and intellectual property is explored for white space. The appropriate UMN research/engineering faculty are identified and form a multidisciplinary team. A budget and research project agreement is co-executed based on the company's work plan, goals and objectives.

The company team and the UMN team actively engage and commit to regular progress meetings, sharing resources and working toward completing project goals.

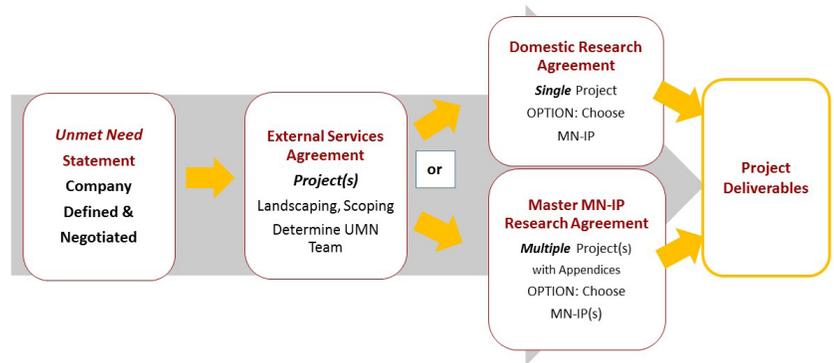
UMN resources include individuals from the Vet School, Biotech Institute, math and hard science departments, engineering schools, health science disciplines, School

of Public Health, Academic Health Center, and specialty health care providers (including physicians and nurses). For non-significant risk medical devices, first-in-man clinical data generation is possible to achieve.

To learn more about collaborating, please contact Greg Peterson: gkpeters@umn.edu or 612-626-4615

Innovation Collaborations - Process

GK Peterson – Innovation Collaborations University of Minnesota



Design of Medical Devices Conference

April 11, 12-14, 2016

The Commons Hotel &
McNamara Alumni Center
Minneapolis, MN

Save the Date!

Join the MDC at the MN State Fair September 3, 2015 9am-9pm

Come see the future of medical device research in the University of Minnesota Building. This display will include body part models, rapid prototyped parts and devices, a visible heart demonstration with a video showcasing the Atlas of Human Heart Anatomy, a laparoscopic trainer with various instruments, demo and interaction with 3D anatomical models. Talk with experts and find out more about the state-of-the-art research that includes designing, prototyping and testing new medical devices. Experimental Surgical Services, Minnesota Supercomputing Institute, The Visible Heart Lab and the Medical Devices Center will be on-site throughout the day.



Medical Devices Center

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