



THE UNIVERSITY
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Materials & Manufacturing Research Institute (MMRI)

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7:30-8:00	Registration
8:00-8:10	Welcoming Remarks: Dr. York Hsiang (Professor, Surgery, UBC) Dr. Philp Barker (Vice-Principal, Research and Innovation, UBC Okanagan)
Theme 1	Cardiovascular Physiology
8:10-8:20	Dr. Glen Foster (Assistant Professor, Health and Exercise Science, UBC Okanagan) From Exercise to High Altitude: Can We Quantify Pulmonary Vascular Shunt Recruitment
8:20-8:30	Dr. Christopher West (Assistant Professor, Southern Medical Program, UBC Okanagan) When the System Loses Control – Cardiovascular Physiology in the Setting of Spinal Cord Injury
8:30-8:40	Dr. Rob Shave (Professor, Health and Exercise Science, UBC Okanagan) Has Endurance Activity Shaped the Human Heart? A Comparison Between Human and Chimpanzees
Theme 2	Cardiovascular Biology
8:40-8:50	Dr. Pascal Bernatchez (Associate Professor, Anesthesiology, Pharmacology & Therapeutics, UBC) The Vascular Endothelium in the Vascular and Pulmonary Complications of Marfan's Syndrome
8:50-9:00	Dr. Karin Humphries (Associate Professor, Cardiology, UBC) What's Good for the Gander, May Not be Good for the Goose! Sex Differences in Cardiovascular Disease
9:00-9:10	Dr. Jonathan Little (Assistant Professor, Health and Exercise Science, UBC Okanagan) Beyond Glucose: New Insights on Insulin Resistance, Hyperinsulinemia and Cardiovascular Risk
9:10-9:20	Dr. Sepideh Pakpour (Assistant Professor, Engineering, UBC Okanagan) – Negin Kazemian Gut Microbiota and Cardiovascular Disease: Challenges and Opportunities
Theme 3	Imaging
9:20-9:30	Dr. Patrick McVeigh (PGY4, Medical Biophysics, University of Toronto) Endovascular Optical Imaging: Shedding Light on Vascular Disease with Ultraminiature Scanning Fiber Angioscopy
9:30-9:40	Dr. Omid Jazaeri (Vascular Surgeon, The Medical Center of Aurora, Colorado) Advanced Vascular Imaging and Al: Digitizing Vascular Surgery for the Future
9:40-9:50	Dr. Martin Haulena (Co-Founder and Chief Scientific Officer, Imaging Reality Inc.) Creation of a Virtual Reality Space for Displaying Volumetric Studies: Optimizing Medical Education, Consultation and Surgical Planning
9:50-10:00	Dr. Nima Ziraknejad (Founder and CEO, NZ Technologies Inc.) Redefining Human - Machine Interactions in the Operative Workspace
10:00-10:30	Coffee Break

Theme 4	Biomaterials
10:30-10:40	Dr. Keekyoung Kim (Assistant Professor, Mechanical Engineering, University of Calgary) 3D Bioprinting of Vascularized Tissue Constructs
10:40-10:50	Dr. Jayachandran Kizhakkedathu (Professor, Pathology, UBC) Antithrombotic Coatings for Cardiovascular Device and Implants
10:50-11:00	Dr. Joel Gagnon (Assistant Professor, Surgery, UBC) Hydrophilic Coating in Endovascular Surgery: Potentially Problematic?
Theme 5	Devices
11:00-11:10	Dr. Anasavarapu S. Phani (Associate Professor, Mechanical Engineering, UBC) – Masoud Hejazi Deformation Characteristics of Self Expanding Venous Stents
11:10-11:20	Dr. Sherene Shalhub (Associate Professor, School of Medicine, University of Washington) Challenges of Aortic Stent Grafts in Individuals with Genetically Triggered Aortopathies
11:20-11:30	Dr. Mu Chiao (Professor, Mechanical Engineering, UBC) Biomedical Microdevices
11:30-11:40	Dr. Kenichi Takahata (Professor, Electrical and Computer Engineering, UBC) Smart Stent and Endoscope Technologies Enabled by MEMS
11:40-11:50	Dr. John Madden (Professor, Electrical and Computer Engineering, UBC) Medical Applications of Artificial Muscle: Steerable Catheters and Human Assist Devices
11:50-12:00	Dr. Hadi Mohammadi (Assistant Professor, Engineering, UBC Okanagan) - Dylan Goode Prosthetic Heart Valves: Design and Development
Theme 6	Wearable Technologies
12:00-12:10	Dr. Brett Heilbrom (Clinical Associate Professor, Medicine, UBC) Novel Ambulatory ECG Monitoring Technologies
12:10-12:20	Dr. Kendall Ho (Professor, Emergency Medicine, UBC) Home Health Monitoring and Beyond: Digital Health Opportunities and Considerations
12:20-13:15	Lunch Break

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Theme 7	Innovator's corner
13:15-13:20	Introductory Remarks: Dr. Abbas Milani (MMRI Director and Professor, Engineering, UBC Okanagan)
13:20-13:30	Ms. Kim Buschert (Librarian, Management, UBC) Market Research for Innovative Technologies: Strategies and Sources
13:30-13:40	Mr. Paul Matthews, P.Eng. (Counsel, Lawson Lundell LLP) Tech Business Strategy and Intellectual Property – Going beyond Patents
13:40-13:50	Dr. Jennifer Tedman-Jones (Director of Business Development, Mitacs) Mitacs: Support for Health Innovation through Unique Industry-Academic Partnerships
13:50-14:00	Mr. Sean Lumb (Life Sciences Stream Lead, entrepreneurship@UBC) e@UBC Incubator for Life Science Technologies
14:00-14:15	Discussion
14:15-14:25	Ms. Brenda Irwin (Founder and Managing Partner, Relentless Venture Fund) A Venture Capital Investment Primer for Digital Health Technology
14:25-14:35	Ms. Nola Lagace (Commercial Account Manger-Health Care, The Royal Bank of Canada) Accessing the Right Capital
14:35-14:50	Discussion
14:50-15:00	Dr. Marlene Grenon (Associate Professor, Surgery, University of California, San Francisco) At the Intersection of Medicine and Innovation in a VUCA World: A Toolbox for Entrepreneurs
15:00-15:10	Mr. Abhi Cherukupalli (MD Student, Vancouver Fraser Medical Program, UBC) Medicine, Engineering and Design: The Hatching Health Program at UBC
15:10-15:20	Dr. Ali Tavallaei (Assistant Professor, Biomedical Engineering, Ryerson University) The Innovation Process for a Novel Catheter Navigation Platform: From Lab to Startup
15:20-15:30	Dr. Peter Skarsgard (Clinical Associate Professor, Surgery, UBC) Surgical Mitral Valve Repair, Percutaneously
15:30-15:40	Dr. Donald Ricci (CEO and co-founder, Evasc) Developing a Cardiovascular Stent: Lessons Learned
15:40-16:00	Closing Remarks

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