Updates | July 4, 2023



UBC School of Biomedical Engineering

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Announcements

An impedance-based chemiresistor for the real-time, simultaneous detection of gut microbiota-generated short-chain fatty acids

Congratulations to Carolina Tropini, Sijie Liu, Adel Yavarinasab, Stephane Flibotte for their paper *An impedance-based chemiresistor for the real-time, simultaneous detection of gut microbiota-generated short-chain fatty acids* in Science Direct. Their discovery offers a leap forward in the medical sector, offering instantaneous and direct reporting on the availability of SCFAs.

The team envisions a future where molecules important for health can be measured rapidly in the clinic and this is a step to allow that for these critical anti-inflammatory compounds.

SCFAs are key molecules, produced by gut bacteria in the intestine, that are absorbed into the bloodstream and strongly influence human health. SCFA disruption and imbalances have been linked to many diseases; however, SCFAs are seldom used diagnostically as their detection requires extensive sample preparation and expensive equipment. In this work, the team developed an electrochemical sensor that enables real-time (requiring less than 2 min per measurement), quantitative measurement of SCFAs from complex samples in liquid phase without the need for extraction, evaporation, or destruction. The end product is a miniaturized sensor that is highly stable and sensitive, making it ideal for real-time monitoring applications.

An impedance-based chemiresistor for the real-time, simultaneous detection of gut microbiota-generated short-chain fatty acids

Preparing for BMEG 598 Biomedical Engineering Seminar

BMEG MASc and PhD students are invited to sign-up for a BMEG 598 seminar presentation in the coming academic year, by <u>filling in this survey before August 1st.</u>

MASc and PhD students are invited to present their research any time in BMEG 598, however those students preparing to graduate in November or May are encouraged to sign up early for a spot. As a reminder, it is a requirement that students present once during their program.

For any questions, please reach out to bmeg598@sbme.ubc.ca for any questions.

Research Seminars 2023/24 Schedule Announcement

The School of Biomedical Engineering is thrilled to announce our 2023/24 Seminar Series lineup! We have a new speaker each month, covering topics from Cellular & Molecular Engineering, to Imaging & Computational Biology, to Human Interfacing Devices. There will be opportunities to meet with the speakers individually, so make sure to click on the attachments to add the series to your calendar!

- Dr. Omar F. Khan
 - September 28 l 11:00 am 12:00 pm l LSC 1001
- Multi-Modal Ultrasound Video Analysis
 - Dr. Alison Noble
 - October 12 l 11:00 am 12:00 pm l LSC 1001
- Mechanobiology & Topology of Collective Cell Migration
 - Dr. lan Wong
 - November 9 I 11:00 am 12:00 pm I LSC 1001
- Dr. Trey Ideker
 - January 11 | 11:00 am 12:00 pm | LSC 1001
- Dr. Ira Hofer
 - February 8 l 11:00 am 12:00 pm l LSC 1001
- Dr. Jef Boeke
 - April 4 | 11:00 am 12:00 pm | LSC 1001
- Dr. Kristala L Jone Prather
 - May 16 I 11:00 am 12:00 pm I LSC 1001

Professional Development Sessions & Research Talks

We Haven't Even Begun the Conversation Yet: Establishing Meaningful Relationships by Derek Thompson

July 12 | 12:00 pm - 1:00 pm

To get involved and be a part of learning and input opportunities, SBME welcomes you to attend REDI events that we and other UBC groups host.

Join us for our upcoming seminar with Derek Thompson.

Zoom Link

Meeting ID: 691 3157 8693

Passcode: 367629

FACTS Public Panel: Tackling Climate Change and the Just Transition to Renewable Energy

July 27 l 2:30 pm - 9:30 pm

This two-part event is part of a series of French-Ameri-Can Climate Panels (FACTS) on climate change that have been held throughout North America in the past decade. Jointly sponsored by the Pacific Institute for the Mathematical Sciences (PIMS) and the French Embassy of Canada, this panel features a diverse group of eminent Canadian and French leaders representing climate science, renewable energy, economics, public policy, and Indigenous affairs.

The event is organized in two sessions. Topics may vary per session and participants can choose to attend either session or both. There is limited seating for both sessions so please be sure to RSVP.

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