

LUNCH LEARN Seminar

Biophysical Analysis of Molecular Interactions with Electro-Switchable Biosurfaces

Date: April 26th, 2018 | **Time:** 01:00 - 02:00 pm

Location: University of Toronto, MaRS Toronto Medical Discovery Tower, Room 4-204
101 College St, Toronto, ON M5G 1L7

Lunch & Refreshments provided

switchSENSE[®] is an automated biosensor chip technology that employs electrically actuated DNA nanolevers for the real-time measurement of binding kinetics (k_{ON} , k_{OFF}) and affinities (K_D). Interactions between proteins, DNA/RNA, and small molecules can be detected with femto-molar sensitivity.

At the same time, protein diameters (D_H) are analyzed with 0.1 nm accuracy and conformational changes as well as melting transitions (T_M) can be measured using minimal amounts of sample.

The principles and applicability of three complementary measurement modalities of **switch**SENSE[®]

will be introduced in this talk: Fluorescence Proximity Sensing, Molecular Ruler Measurements, and Switching Dynamics Measurements.

We will discuss workflows and unique possibilities for monitoring protein size and assembly of biomolecular complexes in solution by assessing the hydrodynamic radius.

Application examples from drug development and fundamental research will be discussed, including:

- ◆ Small Molecule Inhibitors
- ◆ Conformational Changes in Proteins
- ◆ DNA / RNA binding Proteins & Enzymes

The Speaker

Dr. Daisylea de Souza Paiva, Dynamic Biosensors, DE

In Cooperation with



Seminar Registration Deadline is April 20th, 2018

To register for this event please write a message to events@dynamic-biosensors.com stating your full name and institution.