BiophysTO Lunchtime Seminar Series

Date
Thursday, Nov 26, 2020
12:00 – 1:00 pm

Location
Virtual via zoom

Dr. Vincent Tabard-Cossa

Department of Physics
University of Ottawa

Quantifying Biomarker Concentration Using Solid-State Nanopores

Single-molecule counting is the most accurate and precise method for determining the concentration of a biomarker in solution and is leading to the emergence of digital diagnostic platforms enabling precision medicine. In principle, solid-state nanopores, molecular scale holes in thin insulating membranes, should be well-suited to the task, given their single-molecule sensitivity and fully electronic detection capability. Yet, a number of challenges remain. In this talk, I will present a digital sensing scheme capable of reliably quantifying the concentration of a target protein in complex biofluids that overcomes specificity, sensitivity, and consistency challenges associated with the use of solid-state nanopores for protein sensing.

Zoom Link
https://utoronto.zoom.us/j/81281912614

Host: Dr. Walid A. Houry

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