BiophysTO Lunchtime Seminar Series

Date

Thursday, March 8th , 2018
[12:10 (noon)]

Location

McLennan, MP606
60 St George st

Streaming

Seminar livestreamed to DV3129 @ UTM

Pizza & refreshments provided

Prof. Warren Chan

Institute of Biomaterials & Biomedical Engineering (IBBME), Donnelly Centre for Cellular and Biomolecular Research (CCBR)
Department Materials Science and Engineering
Department of Chemical Engineering
Department of Chemistry, University of Toronto

Cancer Nanomedicine: The challenge of targeting nanoparticles into solid tumors

Nanotechnology involves the engineering of structures, materials, and particle in the size range of 1 to 100 nm. These nanostructures have unique biological, optical, electrical and magnetic properties that are in direct relationship to their size, shape, and surface chemistry. As a result of these properties, nanotechnology is currently exploited in medicine for diagnosing and treating diseases. In this presentation, the properties of nanomaterials and challenges associated with using them for cancer targeting will be discussed. Specifically, the discussion will focus on how biological fluids and serum proteins influence the morphology, surface chemistry, and targeting ability of the nanoparticles in cells outside and inside the body. We will further describe chemical strategies using DNA-based molecular assembly to address the nanoparticle “delivery” challenge.

Host: Dr. AntonZilman

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