Faculty of Science
Dean's Seminar Series

Dr. James Inkster

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Looking inside the body without a knife

Developing novel probes for medical imaging - the case for ^{18}F-labelled Rhodamines

Assessing heart function before the patient has a serious cardiac event is significant diagnostic challenge. To help with this assessment, scientists have developed techniques such as Positron Emission Tomography or "PET scanning" to look at organ and tissue function non-invasively. PET scans use special dyes that are specific to the tissues that are the target of the study. These dyes contain radioactive tracers that allow images of their distribution in the body to be obtained using special imaging devices that can detect the radiation emitted by the dyes. PET imaging agents are currently available for several diseases. For example, glucose labelled with the isotope fluorine-18 (^{18}F) can be used to image tumors. These imaging agents are not, however, available for imaging all organs that are clinically important.

Dr. Inkster is involved in a research team that is developing novel PET agents to measure blood flow to the heart as well as other non-cardiac applications. In addition, PET imaging might also be useful for the detection of bacterial infections such as tuberculosis, which would be of great value in indigenous and pediatric populations. This talk will give us a peek inside the molecular imaging world.

THURS, JUNE 6/19
10:30 - 11:30 AM
Room D215
Abbotsford Campus

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