



**Western**  
Biomedical Imaging  
Research Centre

SEMINAR SERIES  
[www.westernuBIRC.ca](http://www.westernuBIRC.ca)

**Wednesday, March 13th, 2019; 12:00 pm**  
Shuttleworth Auditorium  
St. Joseph's Health Care

Pizza will be served prior to the seminar

## Prof. dr. Freek Beekman

Biomedical Imaging, Faculty of Applied Sciences  
Delft University of Technology, Netherlands  
Founder & CEO of MILabs



**Title: Broadband Photon Tomography:  
High Performance Integrated 4x4D  
PET, SPECT, Optical & X-ray Tomography**

**Abstract:** In preclinical research we have dreamed about a 3D magnifying glass that would allow us to e.g. see various cell functions and structures in a dynamic 4D single scan, and map integrated detailed dynamics of e.g. contrast agents, tracers, pharmaceuticals, receptors and indicators of therapy response in tumours. To meet these and many other imaging needs we developed the user friendly fully integrated VECTor-6 imaging platform (WMIC innovation of the Year 2018) comprising:

**A)** down to **0.25 mm SPECT & 0.6 mm PET** in vivo resolution, with **positron-range free PET** for otherwise "difficult isotopes" like 124I, 76Br, 86Y, and 82Rb. **B)** concurrent **sub-mm multi-tracer PET & PET-SPECT** **C)** **sub-second dynamic PET & SPECT** **D)** sub-mm resolution imaging of  $\alpha$  &  $\beta$ -emitting pharmaceuticals, **E)** **ultra-high performance low dose X-ray CT** and **F)** Cherenkov, Fluorescence & Bioluminescence imaging including optical tomography

**MILabs**  
Making Molecular Imaging Clear



PET

SPECT

Optical

CT

- Very high performance modules
- Fully integrated
- Modules can be added later



## BIRC PARTNERS



Department of  
Medical Imaging



For more information please contact:  
Shelagh Ross  
tel. 519-646-6100 ext. 64143  
[sross55@uwo.ca](mailto:sross55@uwo.ca)