



Research Seminar Presented by:

**Dr. Oleksandr Bubon**

Associate Scientist, Thunder Bay Regional  
Health Research Institute, CTO, Radialis Medical

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1:30 PM in CB 4058

## **Low-dose organ-targeted Positron Emission Tomography: technology and applications**

Albert Rose, the visionary at the Radio Corporation of America (RCA), first observed that image noise in television was due to the number of photons contributing to each image, and thus the image could be improved by increasing the quantum efficiency (QE) of optical detectors ('making every photon count'). Our research on advanced technology for Positron Emission Tomography (PET) detectors is based on this fundamental notion but also makes a step forward in 'counting every photon', meaning that instead of increasing the number of gamma-photons used, we optimize the use of available radiation with the most sensitive PET detector. This allows us to significantly decrease the radiation exposure associated with PET imaging and to minimize the potential damaging effects of excess radiation on human tissue.

