

Radiolabeled nanoparticles for diagnostic purposes: Focus on cancer

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This lecture will address a variety of topics related to the use of radio labeled nanoparticles for imaging purposes. Starting with the concept of this technology, but also providing an overview about each nanoparticle that have been used for in such approach, including liposomes, micelles, iron oxide, gold nanoparticles, silica nanoparticles, dendrimers, etc. In addition, this lecture will include discussion of how to plan rationally the synthesis and labeling of the nanoparticles, in order to achieve dependable data from *in vitro* and *in vivo* studies. We will also have an opportunity to present some data from our laboratory using nanoparticles (liposomes, iron oxide nanoparticles, and mesoporous silica nanoparticles) for tumor identification or treatment.

Biography

Andre Luis Branco de Barros worked with radio labeled nanoparticles for tumor detection during his Master Degree, Ph.D. and also in his Post-doc. De Barros had a opportunity to work with Andrew Tsoukas and Abass Alavi at University of Pennsylvania where he worked with iron and gold nanoparticles for assess atherosclerotic plaque burden. He is reviewer for the International Journal of Nanomedicine, Current Molecular Imaging, Nanotechnology, Science and Application.

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