Molecular Imaging with Radionuclides in Clinical and Preclinical Research

Positron emission tomography (PET) and single photon emission computer tomography (SPECT) are methods for molecular imaging in the preclinical and clinical settings. The methods show a very high sensitivity and an adequate resolution. The lecture will give an introduction into the methods and will exemplify the use of it. The focus will be on oncological applications but other fields like β-cell imaging or bone tissue engineering will be discussed. The use of the methods for the development of pharmaceuticals will be showed. A further advantage of these methods is the possible fast translation to patient application. Examples for the imaging of peptides (e.g. Exendin-4 and gastrin) will also be presented.

Dr. Martin Behe
Paul Scherrer Institut
Villigen, Schweiz