Laboratoire d'Instrumentation PET & Neuroimagerie (LINE)

SEMINAIRE DE RECHERCHE & DEVELOPPEMENT

Clinical PET:
Where do we go from here ?

JEUDI 21 JANVIER 2016, 12:00 H

BIBLIOTHEQUE DU SERVICE DE MEDECINE NUCLEAIRE & IMAGERIE MOLECULAIRE
DEPARTEMENT DE RADIOLOGIE, ETAGE 1, AILE JURA

PRÉSENTÉ PAR

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As physicians strive for earlier and more accurate detection of neurological disorders, cardiovascular disease and cancers, positron emission tomography/computed tomography (PET/CT) molecular imaging innovations play an essential role in revealing the complete picture of the disease. Unlike conventional anatomic medical imaging, PET/CT enables physicians to visualize biological processes at the cellular level, where disease begins. The widespread availability of PET/CT technology has led to the significant growth and acceptance of molecular imaging over the past several years, according to Michael Casey, a developer of PET devices. Dr Casey has helped to create numerous inventions relating to PET/CT, many of which have accelerated patient scan times and improved image quality—contributing to enhanced patient care. This seminar offers an overview of the entire range of PET imaging from basic principles to various steps required for obtaining quantitatively accurate data from PET and combined PET/CT systems including data collection methods and algorithms used to correct them and image reconstruction algorithms as well as image analysis techniques and their clinical and research applications.

Dr Casey is Director of Physics at Siemens Healthcare in Tennessee, U.S. He is one of Siemens' "*Inventors of the Year 2012*". When he was a child, he wanted to know how things worked and how they could be improved. During his career at Siemens as an engineer, he registered 31 inventions contributing to enhanced patient care.