



Engineering
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FLORIDA INTERNATIONAL UNIVERSITY

Biomedical Engineering
Wallace H. Coulter Foundation
Seminar Series

Theranostics: Targeted Radiopharmaceuticals for Diagnosis and Therapy

Dr. Shankar Vallabhajosula

Weill Cornell Medical College of Cornell University

Friday, January, 18th, 2013
LECTURE: 9:00 AM - 10:00 AM

ENGINEERING CENTER
ROOM EC 1107
10555 WEST FLAGLER STREET
MIAMI, FL 33174



Abstract:

Theranostics integrates diagnostics and therapeutics in order to provide the right drug and the right dose to the right patient at the right time. Molecular targeted therapeutic drug (radioactive or non-radioactive) with a companion diagnostic imaging technique (PET or SPECT) provides a strategic link to the promise of personalized medicine. In nuclear medicine, thyroid scan with I-123 or I-131 followed by therapy with I-131 provides the best example of theranostics. In the last 10 years a number of target specific diagnostic and therapeutic radiopharmaceuticals (labeled with In-111, Zr-89, Tc-99m, Y-90, Lu-177) have been developed for the treatment of neuroendocrine tumors, lymphoma and prostate cancer. This talk will focus on the design and development of target specific molecular agents and translational research from preclinical studies to investigational phase I, II, and III studies necessary for marketing a therapeutic drug with a companion molecular imaging diagnostic radiopharmaceutical.

Biography

Shankar Vallabhajosula, Ph.D., is a Professor of Radiochemistry and Radiopharmacy at Weill Cornell Medical College (WCMC) of Cornell University, New York, NY. He is also the Director of Research in Nuclear medicine and Chief of Radiochemistry at Citigroup Biomedical Imaging Center (CBIC) of WCMC. In 1980, Dr. Shankar received his Ph.D. in Biomedical Chemistry (with specialization in Radiopharmacy) from the University of Southern California, Los Angeles, California. After working for 17 years at Mount Sinai School of Medicine in New York, he moved to Weill Cornell Medical College in 1997. In 2007, Dr. Vallabhajosula received "**Berson-Yalow Award**" from the Greater New York Chapter, Society of Nuclear Medicine for his contributions to the science of Nuclear Medicine. In 2009, Dr. Shankar published a single author text book on "**Molecular Imaging: Radiopharmaceuticals for PET and SPECT**" (Springer 2009).

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