FACULTY OF SCIENCE
Charles University

School of Chemistry, Faculty of Science (FoS) would like to invite you to attend the lecture

Quo Vadis Chemie

DEVELOPMENT AND APPLICATION OF INNOVATIVE RADIOMETALS FOR THERAGNOSIS

which will be delivered by

Prof. Roger Schibli

Center for Radiopharmaceutical Sciences, ETH-PSI-USZ, Zurich+Villigen, Switzerland

on April 29 (Mon) at 15:00

Lecture Hall CH2, the School of Chemistry Building, FoS, Charles Univ., Hlavova 8, Prague 2

Abstract: The concept "Theragnosis" in nuclear medicine means matched-pairs of diagnostic (PET/SPECT) and therapeutic radionuclides (α-, β^-- and electron-emitters) with identical or similar chemical properties.

"New" radiometals have found their way into preclinical/clinical development. Among the most interesting radionuclides are $^{43/44/47}$Sc, $^{64/67}$Cu and $^{149/152/155/161}$Tb. Their production, rapid purification and utilization is a challenge for inorganic chemistry. New, metal selective, and functionalized chelating systems have been developed, which form in vivo stable complexes without negatively influencing the biological behavior of the targeting molecules.

This talk will highlight our efforts ranging from production/purification of new radiometals, their chemical and bio-orthogonal incorporation into targeting molecules and their pre-clinical and clinical testing.