Date  September 2, 2019, 5 pm – 6 pm

Title  Ambient Ionization Mass Spectrometry for Cancer Diagnosis and Clinical Use

Speaker  Prof. Dr. Livia S. Eberlin
Department of Chemistry, University of Texas at Austin, USA

Biosketch
Livia Schiavinato Eberlin received her B.S. in Chemistry from the State University of Campinas in 2008. In 2012, she received her Ph.D. in Analytical Chemistry from Purdue University under the supervision of Prof. R. Graham Cooks. She then pursued her postdoctoral research in the Department of Chemistry at Stanford University under the mentorship of Prof. Richard N. Zare. In 2016, Prof. Eberlin started her role as an assistant professor in the Department of Chemistry at The University of Texas at Austin. Eberlin is the recipient of a NIH/NCI K99/R00 Pathway to Independence Award, a Moore Inventor Fellowship, and a MacArthur Fellowship. Her research program centers around the development and application of ambient ionization mass spectrometry technologies in health related research, with a particular focus on disease detection and diagnosis to improve patient care and clinical outcomes.

Abstract
Implementation of new clinical technologies that provide precise molecular diagnosis of tissues are highly desirable to guide treatment strategies and improve cancer patient care. Molecular technologies offer the exciting opportunity to incorporate cancer-specific biomarkers into clinical decision making for improved cancer detection and diagnosis. In particular, ambient ionization mass spectrometry (MS) techniques provide the specificity and sensitivity necessary to perform in situ analysis of tissue samples for near real time assessment of their molecular signatures. In this talk, I will describe my lab’s research applying ambient ionization MS techniques to address critical problem in cancer research. Focus will be given to highlight our recent research using desorption electrospray ionization MS imaging to diagnose fine needle biopsies of thyroid cancers, and the development of MasSpec Pen, a handheld device that can detect cancer by contact with fresh tissue in surgery.

Prof. Dr. Livia S. Eberlin has been invited by Dr. Cédric Bovet, University Institute of Clinical Chemistry, Inselspital, Bern University Hospital.

Next DBMR Research Conference  October 7, 2019
“Stem cell therapy for peripartum neuroregeneration and pulmonary regeneration”
Prof. Dr. Boris W. Kramer
Head of Pediatric Research, Maastricht University

The DBMR Research Conference takes place from 5 pm – 6 pm and will be followed by an apéro.