

# Mass Spectrometry

Summer School | October 04.-05. 2022

## Tuesday October 04, 2022

9:00 Registration, Foyer **Arnimallee 22**, FU Berlin  
 9:30 - 9:40 Welcome and opening remarks

### 1st session: Proteomics

9:40 -10:15 Matthias Selbach, MDC for Molecular Medicine  
*Functional characterization of human protein phosphorylation sites*  
 10:15-10:50 Philip Mertins, MDC for Molecular Medicine  
TBA  
 10:50-11:10 Coffee break

### 2st session: Interactomics 1

11:10-11:45 Juri Rappsilber, TU Berlin  
TBA  
 11:45-12:20 Ilaria Piazza, MDC for Molecular Medicine  
TBA  
 12:20-12:55 Fan Liu, FMP/Charité  
TBA  
 12:55-14:35 Lunch buffet and poster-session

### 3st session: Interactomics 2

14:35-15:10 Leonhard Urner, TU Dortmund  
TBA  
 15:10-15:45 Florian Stengel, Universität Konstanz  
*Studying proteome organization and cellular compartmentalization: from proteins to functional compartments*  
 15:45-16:15 Coffee break and poster-session

### 4th session: Mass Spectrometry Imaging

16:15-16:50 Oliver Klein, Charité  
*When Images are Talking To Us: A New Era of Virchow's Tools*  
 16:50-17:25 Jörg Radnik, BAM  
*ToF-SIMS at advanced materials - from nano to energy*  
 17:25-18:00 Weston Struwe, University of Oxford  
TBA

## Wednesday October 05, 2022

### 5th session: Clinical Mass Spectrometry

9:00 - 9:35 Maximilian Mehling, Landesinstitut für gerichtliche und soziale Medizin Berlin  
*Applications of mass spectrometry in routine post-mortem analysis*  
 9:35 -10:10 Maria Kristina Parr, FU Berlin  
*Going green in multi-compound separation: SFC MS/MS for challenging bioanalysis*  
 10:10-10:45 Henning Urlaub, MPI Multidisciplinary Sciences  
*Unravelling RNA- and DNA-protein interactions with mass spectrometry*  
 10:45-11:05 Coffee break  
 11:05-11:40 Markus Ralser, Charité  
TBA  
 11:40-12:15 Jennifer Kirwan, MDC/BIH  
*Metabolomics enables precision medicine: a personal history of how not to do it*  
 12:15-13:15 Lunch buffet  
 13:15-13:50 Sven Heiles, Justus-Liebig-Universität Gießen  
*Fates of fats - Lipid structures and lipid distributions elucidated by high-performance mass spectrometry*  
 13:50-14:25 Dominik Schwudke, DZIF Borstel  
*Exposing Host-Pathogen Interaction by Lipid Mass Spectrometry*  
 14:25-14:45 Coffee break

### 6th session: Supramolecular Mass Spectrometry

14:45-15:20 Kevin Pagel, FU Berlin  
*Sugars in the Gas Phase - Novel Techniques to Unravel the Glycocode*  
 15:20-15:55 Daniel L. Stares (AG Schalley), FU Berlin  
*Mass Spectrometry as a Tool to Study Diverse Supramolecular Systems*  
 15:55-16:30 Dietrich A. Volmer, HU Berlin  
*Deeper access into the Vitamin D metabolome using mass spectrometry*  
 16:30-16:40 Closing Remarks (Georg W. Bertram, VP2 FUB)

### 16:40-18:40 Lab Tour FU Berlin MS Labs: 2x 1 hour, 2 stations possible

1. Supra-MS, ToF-SIMS, Andreas Springer: 10 persons
2. Bio-MS, Benno Kuropka: 8 persons
3. Supra-FAB, Kevin Pagel: 10 persons
4. Pharma-MS, Fabian Schumacher, Felix Bredendiek: 2x 4 persons