

# IRTG-Seminar



## Prof. Dr. Nina Morgener

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### “Native mass spectrometry – insights into biomolecular complexes”

Many functions in living cells are governed by non-covalent interactions between the participating biomolecules such as proteins or oligonucleotides. In recent years mass spectrometry has become a versatile tool for the investigation not only of the respective biomolecules themselves, but the non-covalent complexes they form.

Different non-covalent bio complexes pose different challenges for the investigation of their structure and function. I will give an overview over current standard instrumentation and procedures and the questions that can be answered. I will as well introduce an alternative ion source [1] we are developing in our lab and the new aspects that can be covered using this method, especially for the investigation of membrane protein complexes or time resolved measurements on fast time scales.

1. Morgner *et al.*, Australian Journal of Chemistry **59**, 109-114 (2006)
2. Henrich *et al.*, *Analyzing native membrane protein assembly in nanodiscs by combined non-covalent mass spectrometry and synthetic biology*. Elife **6**, (2017).
3. Hellwig *et al* In press at Chemical Communications, 2018, DOI: 10.1039/C8CC06284F

**Tuesday, November 27, 2018; 1:00 p.m.**  
**Physics high rise, Hermann-Herder-Str. 3, HS II**