A *clinical biomarker* can be defined as “a characteristic that is objectively measured and evaluated as an indicator of normal biological processes, pathological processes, or pharmacological responses to a therapeutic intervention”. The development of specific techniques that permit quantitative analysis of relevant clinical biomarkers is one of the main challenges in clinical diagnosis.

In this regard, the great potential of inductively coupled plasma-mass spectrometry (ICP-MS) methods and strategies for screening, with great selectivity and sensitivity, multiple heteroatoms in biomolecules and their mixtures, along with its capability for absolute protein quantifications in specific applications is well known. In this talk, the opportunity of using such capabilities in conjunction with the application of stable isotopes of the heteroelements of interest will be highlighted in two specific areas: the monitoring of Fe-metabolism biomarkers (proteins and peptides) and the formation of DNA-Pt adducts to address intrinsic or acquired resistance to chemotherapeutic treatments.

**Wednesday, 2 July 2014**
5:00 p.m.

**Lehrgebäude Chemie/Physik**
(Walther Nernst-Haus)
Hörsaal 0’06
Newtonstr. 14, 12489 Berlin

**SALSA Summer Get-Together**
starting at 6:30 p.m. Everybody is invited to join us at the Studentisches Begegnungszentrum „Motorenprüfstand“, Newtonstraße 16, 12489 Berlin

*The Humboldt-Universität zu Berlin awards the Honorary Professorship to Prof. Dr. Ulrich Panne.*

Opening ceremony: 5:00 p.m. s. t., Hörsaal 0’06 (Walther Nernst-Haus)