



Universität für Bodenkultur Wien



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## Bio / Life Sciences Seminar - Invitation:

### New ways to characterize biomolecules for pharmaceuticals, biotechnology and food science

Prager Elektronik GmbH in cooperation with the **Department of Chemistry of the University of Natural Resources and Life Sciences Vienna (BOKU Vienna)** and the **BOKU Core Facility "Biomolecular & Cellular Analysis"** cordially invite you to our Bio / Life Sciences Seminar.

Specialists from our business partners **Malvern Panalytical** and **RheoSense** as well as from BOKU Vienna will contribute to an interesting program.

#### Planned Program:

**Morning:** *Malvern MicroCal Line* - Thermal analysis: Isothermal Titration Calorimetry and Differential Scanning Calorimetry - Characterization of the interactions of biomolecules and determination of thermal stability.

Visitation of the BOKU Core Facility "Biomolecular & Cellular Analysis" (BmCA)

**Afternoon:** *Malvern Panalytical* – nanoparticles, proteins and polysaccharides: size, stability, viscosity, absolute molecular weight, number and structure, ultra-low volume Taylor dispersion.  
*RheoSense* - viscosity and rheology, application presentation: whole blood, plasma and serum viscosity.

In the breaks: discussion with product specialists, device presentations, user experiences

**Date and time: Tuesday 13<sup>th</sup> February 2018, 09:00 to 17:00**

**Venue:** University of Natural Resources and Life Sciences Vienna (BOKU Vienna), Muthgasse 11, Stiege 2 (written on the outside wall), 1<sup>st</sup> floor, seminar room B-01-014, 1190 Vienna

**Lecturers:** Specialists of the respective subject area. Presentation language: English

**Costs:** This workshop, as well as lunch and coffee are free of charge!

**Registration:** Please register via email [a.weiss@prager-elektronik.at](mailto:a.weiss@prager-elektronik.at) quickly, as the number of participants is limited!

**Please forward this information to interested colleagues!**

We look forward to your participation!

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--- Support for Success ---

## **Bio/Life Sciences Seminar, BOKU Vienna, 13<sup>th</sup> February 2018**

### **Time schedule:**

- 9:00 - 9:30 Coffee and Registration
- 9:30 - 10:00 Introduction: Prager Elektronik and Professor Christian Obinger
- 10:00 - 11:30 MicroCal - Dr. Michael Rhys Williams, Bioscience Applications Manager, Malvern Panalytical:  
**“Thermal Analysis ITC and DSC - Characterization of the interactions and the stability of biomolecules (theoretical background and applications examples)”**
- 11:30 - 12:00 Application presentations from BOKU:
- Peter Herzog, PhD student in the group of Clemens Peterbauer, Department of Food Science and Technology:  
**“Using Differential Scanning Calorimetry to investigate pyranose 2-oxidases from fungal and bacterial origin”**
- Martina Schroffenegger, PhD student in the group of Erik Reimhult, Department of Nanobiotechnology:  
**“The influence of molecular weight on the thermal aggregation of thermoresponsive core-shell nanoparticles studied by Differential Scanning Calorimetry”**
- 12:00 - 12:30 Visitation of the BOKU Core Facility “Biomolecular & Cellular Analysis” (BmCA)
- 12:30 - 13:30 Lunch (restaurant “Brotzeit”, Muthgasse 11, 1190 Vienna)
- 13:30 - 14:15 Dr. Yu-Su Chen, Applications Specialist - Nano Particulate Systems, Malvern Panalytical:  
**“Nano Tracking Analysis and Dynamic Light Scattering - How we use both techniques together”**
- 14:15 - 14:45 Dr. Michael Rhys Williams, Bioscience Applications Manager, Malvern Panalytical:  
**“Viscosizer TD - ultra-low volume Taylor Dispersion Analysis (hydrodynamic size, viscosity and  $k_D$  from ultra-low volume of sample)”**
- 14:45 - 15:00 Coffee break
- 15:00 - 15:45 Dr. Renata Kovacova, Prager Elektronik / Dr. John Stenson, Malvern Panalytical:  
**“GPC/SEC for biopolymers - background and application”**
- 15:45 - 16:45 Eric Ng, RheoSense:  
**“Whole blood, plasma and serum viscosity”**
- 16:45 - 17:00 Closing remarks

*New instruments presented in the Laboratory of the Core Facility BmCA*

MicroCal PEAQ-ITC Automated

MicroCal PEAQ-DSC Automated

Zetasizer Nano ZSP with Autotitrator and full accessories

*Possible demo measurements with instruments in seminar room and consultations:*

Zetasizer Nano ZSP (Prager Elektronik)

NanoSight NS300 (Malvern Panalytical)

RheoSense demo units (Prager Elektronik and RheoSense)

On request - Mastersizer 3000 - laser diffraction (Prager Elektronik)

Please inform Prager Elektronik team in advance if you wish to bring own samples to demo measurement.