

**1st Int. Workshop
“PROTEOMICS – from Introduction to Clinical Applications”**

Programme

Sunday, 9th July 2017

Senat Room / UAIC

- 16:00 – 17.00 **Registrations**
- 17:00 – 18:30 **Welcome & Opening Addresses**
Alina Petre, Ionel Mangalagiu & Gabriel Dimofte
- Details for the program and short presentation of speakers**
Alina Petre, UAIC and TRANSCEND – IRO, Iasi, RO
- Novel organic compounds: potent solutions for tumors disorders**
Ionel Mangalagiu, Faculty of Chemistry, UAIC, Iasi, RO
- 18:30 – 19:00 **Guided tour - “Hall of the Lost Footsteps” at “Al. I. Cuza” University of Iasi**
- 19.00 **Welcome buffet**

Monday, 10th July 2017

Senat Room / UAIC

- Session 1:** **Introductory lectures in Proteomics and related methods**
Chair: Eugen Carasevici
- 09:00 – 09:45 **Higher order protein structure and dynamics**
Michael Glocker, Medical University Rostock, DE
- 09:45 – 10:15 **Separation methods: Introduction in Electrophoresis and HPLC**
Alina Petre, UAIC / TRANSCEND – IRO, RO
- 10:15 – 11.00 **Introduction in mass spectrometry**
Martina Macht, Bruker Daltonics, DE

11:00 – 11:15 *Networking with coffee, soda and sweets*

11:15 – 12:00 **MS Tools and strategies**
Martina Macht, Bruker Daltonics, DE

12:30 *Lunch at Gaudeamus student restaurant*

Session 2: **Mass spectrometry and Imaging**
Chair: Michael Glocker

14:00 – 14:30 **Fragmentation in MS and MS data interpretation**
Alexey Kononikhin, Institute for Energy Problems of Chemical Physics
RASLeninsky, Moscow, RU

14:30 – 15:00 **MALDI-Imaging: methodology and examples**
Alina Petre, UAIC / TRANSCEND – IRO, Iasi, RO

15:00 – 15:30 **Understanding protein dynamics using molecular simulations**
Andrei Neamtu, TRANSCEND – IRO, Iasi, RO

15:30 – 15:45 *Networking with coffee, soda and sweets*

15:45 – 17:30 **5 minutes talks – students and junior researchers**

19:00 **Dinner at “Berăria veche” restaurant**

Tuesday, 11th July 2017

Senat Room UAIC

Session 3: **Immunoaffinity- mass Spectrometry: Instrumental Development and Novel Analytical Concepts**
Chair: Martina Macht

09:00 – 09:50 **Affinity- Mass Spectrometry Technologies for Epitope Determination in Molecular Immunology**
Michael Przybylski, Steinbeis Centre for Biopolymer Analysis,
Rüsselsheim, DE

09:50 – 10:40 **How to Determine Binding Constants of Protein Complexes in the Gas Phase**

Michael Glocker, Medical University Rostock, DE

10:40 – 11:00 *Networking with coffee, soda and sweets*

11:00 – 11.50 **Protein quantitation by MRM-MS and iMALDI for biomedical and clinical research and diagnostics**

Christoph Borchers, University of Victoria Genome British Columbia Proteomics Centre, CA

12:30 *Lunch at Gaudeamus student restaurant*

14:00 **Visit to TRANSCEND – IRO, Iasi** (*only speakers*)

Session 4: **Clinical applications of Mass Spectrometry**

Chair: Christoph Borchers

15:00 – 15:50 **Clinical Application of Affinity-Mass Spectrometry in Enzyme Replacement Therapy**

Michael Przybylski, Steinbeis Centre for Biopolymer Analysis, Rüsselsheim, DE

15:50 – 16:20 **Urine peptidome analysis as a promising approach for potential biomarkers search of hypertension disorders**

Alexey Kononikhin, Institute for Energy Problems of Chemical Physics RASLeninsky, Moscow, RU

16:20 – 16:50 **Classification of Cancer Cell Lines using Matrix Assisted Laser Desorption Ionisation Time-of-flight Mass Spectrometry (MALDI-TOF MS) and Statistical Analysis**

Vlad Serafin, Middlesex University, London, UK

17:00 **Guided City Tour**

19:30 **Dinner at Palas Mall – “La Cupola” restaurant**

Wednesday, 12th July 2017

Senat Room / UAIC

Session 5:

New analytical approaches to elucidate biomedical problems

Chair: Michael Przybylski

09:15 – 10:00

Recent development in structural proteomics

Christoph Borchers, University of Victoria Genome British Columbia
Proteomics Centre, CA

10:00 – 10:30

Roche Oncology portfolio: Innovation in EGFR, KRAS, BRAF and NRAS mutation testing

Iuliu Ivanov, TRANSCEND - IRO, RO

10.30 – 10:45

Networking with coffee, soda and sweets

10:45 – 11:15

Lactucacapensis mitigate cognitive dysfunction on A β 1- 42 – induced a rat model of Alzheimer's disease through regulating BDNF mRNA and IL1 β mRNA expression and antioxidant system activity

Lucian Hritcu, Faculty of Biology, UAIC, RO

11:15 – 11:45

Supramolecular systems for biomedical applications

Alexandru Rotaru, Petru Poni Institute of Macromolecular Chemistry, Iași

11:45 – 12:00

Enzyme activity determination of Lysosomal Storage Disorders by novel analytic approaches

Laura Ion, Faculty of Chemistry, UAIC, RO

Closing didactic part

12:30

Lunch at Gaudeamus student restaurant

After 14:00

Individual program

14:00 – 15:00

Speakers and organizers brainstorming for next edition of the summer school

Thursday, 13th July 2016

TRANSCEND centre

10:00 – ca.17:00

Laboratory Practical (separate program)