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Day 15th June

Where: Department of Chemistry and Biochemistry, Mendel University in Brno
(Zemědělská 1, building D)

8.00-10.00 Registration of participants and welcoming coffee

10.00 – 10.20

Summer School Opening

prof. RNDr. Ladislav Havel, CSc. - Rector of Mendel University in Brno



Invited lectures

10.20 – 11.00

Zinc signals and the control of immune cell functions

Hajo Haase, Aachen University, Germany

11.00 – 11.20

Metallothionein and neuroinflammation

Juan Hidalgo, Autonomous University of Barcelona, Spain

12.00 – 13.00

Lunch

Plenary lectures

13.00 – 13.20

Metallothionein in cancer development

Michal Masarik, Masaryk University in Brno, Czech Republic



13.20 – 13.40

Pathways in Zinc resistance

Monika Holubova, Masaryk University in Brno, Czech Republic



13.40 – 14.00

Metallothionein – Immunohistochemical cancer biomarker: a meta-analysis

Jaromir Gumulec, Masaryk University in Brno, Czech Republic



14.00 – 14.15

Electrochemistry of metallothioneins

Vojtech Adam, Mendel University in Brno, Czech Republic



14.15 – 14.35	Metallothionein and oxidative stress Branislav Ruttkay-Nedecky, Mendel University in Brno, Czech Republic	
14.35 – 15.00	Coffee Break	
15.00 – 15.30	Merck presentation	
15.30 - 17.00	LABORATORY OF METALLOMICS AND NANOTECHNOLOGIES – LABTOUR Ondrej Zitka, Mendel University in Brno, Czech Republic	
18.00	GUIDED BRNO TOUR Vlastimil Sochor, Mendel University in Brno, Czech Republic	

Day 16th June

Presentations of partners

Where: Department of Chemistry and Biochemistry, Mendel University in Brno
(Zemědělská 1, building D)

9.00 – 9.30 Opening remarks

Vojtech Adam, Mendel University in Brno, Czech Republic



9.30 – 10.30 Immunodetection of metallothionein

Gabriella Emri, University of Debrecen, Hungary



10.30 – 11.30 Capillary electrophoresis of metallothionein

Marta Kepinska, Wroclaw Medical University, Poland



11.30 – 13.30 Lunch

13.30 – 14.30 Modern electrochemical method for metallothionein analysis

Jan Labuda, Slovak University of Technology in Bratislava, Slovakia



14.30 – 15.00 Coffee Break

15.00 – 16.30 Stand up Posters Presentation

Ondrej Zitka, LMaN, Czech Republic



16.30 – 18.00 Laboratory tours

19.00 Social dinner – Stopkova Plzeňská pivnice

Day 17th June

Zinc resistant prostate cancer cell lines and methods for their analysis - workshop

Where: Faculty of Medicine MU, Department of pathological physiology (Kamenice 5, bldg. A18)

9.00 – 9.30	Opening remarks Michal Masarik , Masaryk University	
9.30 – 10.45	Laboratory tour I - Zinc resistant prostate cancer cell lines cell (derived from wt PC3 and wt 22Rv1); manipulation with cells; cytotoxicity tests (MTT, xCELLigence); scratch assays Monika Holubova, Marketa Sztalmachova, Michal Masarik , Masaryk University in Brno, Czech Republic	
10.45 – 12.00	Laboratory tour II – Determination of apoptosis and autophagy of zinc resistant prostate cancer cell line by flow cytometry and multimodal holographic microscopy. Jan Balvan, Jaromir Gumulec, Michal Masarik , Masaryk University in Brno, Czech Republic	
12.00 – 13.00	Lunch (Campus River - www.campusriver.cz/)	
13.00 – 14.15	Laboratory tour III – Expression analysis of selected genes involved in zinc resistance – qRT-PCR Kristyna Hudcova, Jan Balvan, Michal Masarik , Masaryk University in Brno, Czech Republic	
14.15 – 15.30	Laboratory tour IV – Induction of tumors in immunodeficient (nu/nu) mice. Manipulation with animals, application of anesthesia (i.p.), application of tumor cells (i.v. and s.c.) Marketa Sztalmachova, Monika Holubova, Michal Masarik , Masaryk University in Brno, Czech Republic	
15.30 – 16.00	Discussion and concluding remarks	

Day 18th June

Where: Department of Chemistry and Biochemistry, Mendel University in Brno
(Zemědělská 1, building D)

9.00 – 12.00 Round table: Research and future of metallomics
Vojtěch Adam, René Kizek, Mendel University in Brno, Czech Republic



12.00 – 13.30 Lunch

13.30 – 14.30 Conclusion and summary
Vojtěch Adam, René Kizek, Mendel University in Brno, Czech Republic



14.30 – 15.00 End of Metallomics technology conference 2015
Vojtěch Adam, René Kizek, Mendel University in Brno, Czech Republic