Metallomics Technology Conference 2015

Recent Advances and Strategies

Conference program

Date: 14th — 18th June 2015

Laboratory of Metallomics and Nanotechnology
Mendel University in Brno

Date: 14th June 2015

15.00 — 18.00 Registration of participants

Date: 15th June 2015

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

14.35 — 15.00 Coffee Beak

15.00 — 15.30 Merck presentation

15.30 — 17.00 **LABTOUR**
Laboratory of metallomics and nanotechnologies
Ondrej Zitka,
Mendel University in Brno, Czech Republic

18.00 **GUIDED BRNO TOUR**
Vlastimil Sochor,
Mendel University in Brno, Czech Republic

Date: 16th June 2015

Presentations of partners

Where: Department of Chemistry and Biochemistry, MENDELU

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 **Cappilary 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 Technology University, Slovakia

14.30 — 15.00 Coffee Break

15.00 — 16.30 Stand up Posters Presentation
Ondrej Zitka, Mendel University in Brno,
Czech Republic

16.30 — 18.00 Laboratory tours

Date: 17th June 2015

Zinc resistant prostate cancer cell lines and methods for their analysis

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

9.00 – 9.30 Opening remarks
Michal Masarik,
Masaryk University in Brno, Czech Republic

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 mice. Manipulation with animals, application of anesthesia, application of tumor cells
Marketa Sztalmachova, Monika Holubova, Michal Masarik, Masaryk University in Brno, Czech Republic

15.30 — 16.00 Discussion and concluding remarks

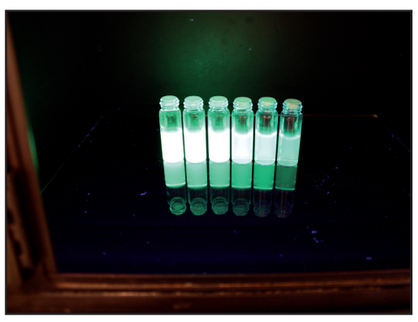
Date: 18th June 2015

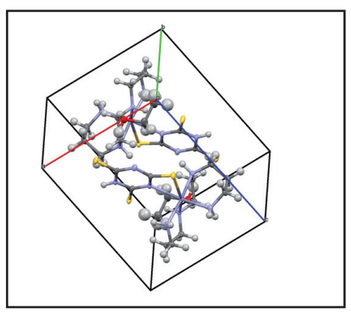
9.00 — 12.00 Round table: Research and future of metallomics
Vojtech Adam, Rene Kizek
Mendel University in Brno, Czech Republic

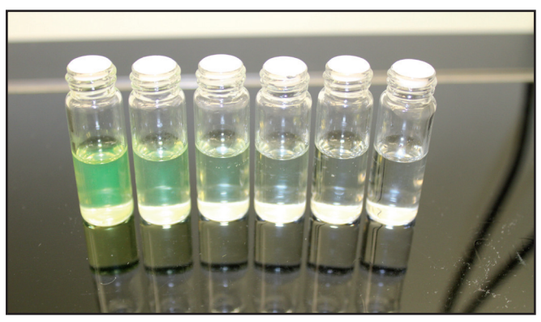
12.00 —13.30 Lunch

13.30 — 14.30 Conclusion adn summary
Vojtech Adam, Rene Kizek
Mendel University in Brno, Czech Republic

14.30 — 15.00 End of Metallomics technology conference 2015
Vojtech Adam, Rene Kizek
Mendel University in Brno, Czech Republic







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METALLOMIC SCIENTIFIC NETWORK

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www.visegradfund.org