

# **3<sup>rd</sup> Molecular Cell and Immune Biology (MCIB) Winter School**



**Mariazell, Austria**

January 7-10, 2010

# 3<sup>rd</sup> Molecular Cell and Immune Biology (MCIB) Winter School, 2010

## Program:

### January 7

7:00 am Departure from the LSB parking area

5:00 pm Arrival to Mariazell

5:45 pm **Opening:** László Fésüs

6:00-7:00pm **Section 1:**

**Chair: István Balogh**

### **Nutritional Bioactivation and Bioanalysis**

#### **Keynote:**

6:00-6:20

Ralph Rühl: Novel endogenous nutrition-relevant bioactive carotenoid-metabolites and retinoids

#### **Regular talks**

6:20-6:35

Johanna Mihály: Altered retinoid metabolism in human atopic dermatitis, respectively orally vs. topically treated mice using RAR and RXR ligands

6:35-6:55

Janine Gericke: Inflammatory and disease relevant target genes regulation by retinoids in mouse skin

7:00- 8:00 pm Dinner

8:00-9:45 pm **Section 2:**

**Chair: Árpád Lányi**

### **Biophysics and Cell Biology**

8:00-8:10

Gábor Szabó: Introduction

#### **Keynote**

8:10-8:30

Gábor Szabó: Hot topics in chromatin research: questions unanswered, answers questioned.

## **Regular Talks**

8:30-8:45

László Imre: The influence of global DNA methylation on the organization of chromatin structure is reflected by changes in histone mobility.

8:45-9:00

Zsuzsanna Gutay Tóth: Different clustering of the two conformational states of the ABCB1 membrane transporter.

9:00-9:15

Orsolya Bársony: Relationships between UIC2 mAb binding and the catalytic cycle of P-glycoprotein revisited.

9:15-9:30

Zsolt Bacsó: Raftology: an update

9:30-9:45

Katalin Goda: The ABC of ABC transporters: how do they work?

## **January 8**

7:00am Breakfast

8:00-11:00am **Section 3**

**Chair: Zoltán Balajthy**

### **Keynote**

8:00-8:20

János Aradi: Nobel Prize 2009, Telomere and telomerase

### **Retroviral Biochemistry and Enzymology**

8:20-8:30

József Tózsér: Introduction

### **Regular talks**

8:30-8:45

János Kádas: Infectivity of capsid mutant recombinant HIV-1 virions.

8:45-9:00

Angelika Varga: Optimization of retrovirus production

9:00-9:15

János Mótýán: Examination of the substrate binding sites of alpha-amylase enzymes.

## **Immune and Cancer Biology**

### **Regular talk**

9:15-9:30

Attila Szabó: Nucleic acid sensing and signaling in dendritic cells

### **Keynote**

9:30-9:50

Éva Rajnavölgyi: Tricks of highly pathogenic influenza viruses

### **Regular talks**

9:50-10:05

Attila Bácsi: Mitochondrial dysfunction and allergic inflammation

10:05-10:20

Kitti Pázmándi: The oxidative stress influences the phenotypical and functional properties of human plasmacytoid dendritic cells.

10:20-10:40

Edit Mikó: Anti-proliferative Effect of miR-214 and miR-126 in Small Cell Lung Carcinoma

11:00am-4:30pm      Skiing

5:00-7:00pm      **Section 4:**

**Chair: Attila Bácsi**

### **Nuclear Hormone Receptors I.**

5:00-5:10

László Nagy: Introduction

### **Keynote**

5:10-5:30

László Nagy: Stem cells and differentiation

### **Regular talks**

5:30-5:45

Tamás Varga: Activation of PPAR $\gamma$  by human serum

5:45-6:00

Zsuzsa Nagy: Is there a direct interaction between endogenous PPAR $\gamma$  and IL-4 induced STAT6?

6:00-6:15

Zoltán Simándi: Role of PRMT1 in retinoid signaling during stem cell differentiation

6:15-6:30

Péter Brázda: Nuclear receptor mobility at the single cell level.

6:30-6:45

Adrienn Gyöngyösi: The regulation of the KCNQ1/KCNE1 potassium channel komplex by PPAR $\gamma$  in human monocyte-derived dendritic cells.

6:45-7:00

Anikó Dózsa: PPAR $\gamma$  expression and signaling pattern is different in normal and pathologic sebaceous glands

7:00- 8:00 pm Dinner

8:00-10:00pm **Section 5:**

**Chair: Zsolt Bacsó**

### **Nuclear Hormone Receptors II.**

8:00-8:15

Dániel Törőcsik: Role of Liver X Receptor in dendritic cells

8:15-8:30

Lajos Széles: Characterization of RXR signaling pathways in human monocyte-derived dendritic cells

8:30-8:45

Attila Pap: Difficulties of determination of Cre/loxP mediated recombination in tissue specific knock out mice.

8:45-9:00

Zsolt Czimmerer: Regulation of mir-342 expression during dendritic cell differentiation

9:00-9:15

Szilárd Póliska: Analysis of PPAR $\gamma$  polymorphisms in chronic inflammatory diseases

9:15-9:30

Éva Kiss-Tóth: Diet induced alterations of metabolic parameters in C57BL6/J mouse strain

9:30-9:45

Endre Barta: In silico promoter analysis: understanding the transcriptional code

9:45-10.00

Melinda Oros: Induction of calcification and osteoblastic differentiation of vascular smooth muscle cells by ethanol or macrophages

## **January 9**

7:00am Breakfast

8:00-11:00am **Section 6**

**Chair: András Mádi**

### **Apoptosis Signaling**

#### **Regular talks**

8:00-8:15

Zsuzsa Szondy: Impaired clearance of apoptotic cells, autoimmunity, transglutaminase connection

8:15-8:30

Zsolt Sarang: Loss of transglutaminase 2 alters the LPS-induced proinflammatory cytokine production of peritoneal macrophages

8:30-8:45

Krisztina Köröskényi: Adenosine is a soluble mediator to regulate part of the anti-inflammatory responses induced in macrophages by apoptotic cells :

8:45-9:00

Katalin Tóth: Katalin Tóth: Retinoids promote the glucocorticoid-induced apoptosis of thymocytes via enhancing the transcriptional activity of the glucocorticoid receptor

9:00-9:15

Éva Garabuczi: Regulation of transglutaminase 2 expression in thymocytes undergoing apoptosis

9:15-9:30

Bea Kiss: Retinoids induce apoptosis in thymocytes via the Nur77 transcription factor

### **Molecular Technologies**

9:30-9:45

Éva Csósz: Proteomics Core Facility

9:45-10:00

Attila Papp: Laboratory Animal Core Facility 2009

10:00-10:15

Ralph Rühl: Lipidomic Core facility: More and advanced LC MS-MS applications

11:00am-4:30pm Skiing

5:00-7:00pm **Section 7:**

**Chair: Katalin Goda**

## **Clinical Biochemistry and Molecular Pathology**

### **Keynote**

5:00-5:20

István Balogh: Mutation testing in monogenic and multifactorial diseases

### **Cell Death and Differentiation I.**

5:20-5:30

László Fésüs: Introduction

### **Regular talks**

5:30-5:45

Róbert Király: Survey of natural variants of human transglutaminase 2 based on its SNPs

5:45-6:00

Krisztián Csomós: Tissue transglutaminase contributes to the all-trans retinoic acid induced differentiation syndrome phenotype in the NB4 model of acute promyelocytic leukemia

6:00-6:15

István Németh: Investigation of interaction partners (substrates) of tissue transglutaminase in differentiated NB4 cell

6:15-6:30

Judit Hodrea: transglutaminase 2 is Expressed and Active on the Surface of Human Monocyte-derived Dendritic Cells and Macrophages

6:30-6:45:

Ayna Gizem: Clearance of Autophagic Dying Cells Induces the Inflammasome pathway in Primed Mouse Macrophages

7:00-8:00 pm: Dinner

8:00-9:00pm **Section 8:**

**Chair: Bálint L. Bálint**

**Cell Death and Differentiation II.**

8:00-8:15

Zoltán Doró: Various types of necrotic cell death in neutrophil granulocytes and their elimination by macrophages

8:15-8:30

András Mádi: Pro-inflammatory response is induced by the uptake of autophagic 293T cells in human macrophages

8:30-8:45

Zoltán Nemes: Mariazeller TGaserei

8.45-9:00

Gábor Zahuczky: The pivotal role of MERTK receptor tyrosine kinase in enhancing phagocytic capacity of DXM treated macrophages toward apoptotic neutrophils

9:00-10:00pm **Section 9:**

**General Discussion**

**Useful information**

Accommodation (with half board)

<http://www.dreihasen.at/>

Info about Mariazell, skiing, ski passes, snow situation:

<http://www.mariazell.at/>

**Éva Dögei: 06/30/2488-133**