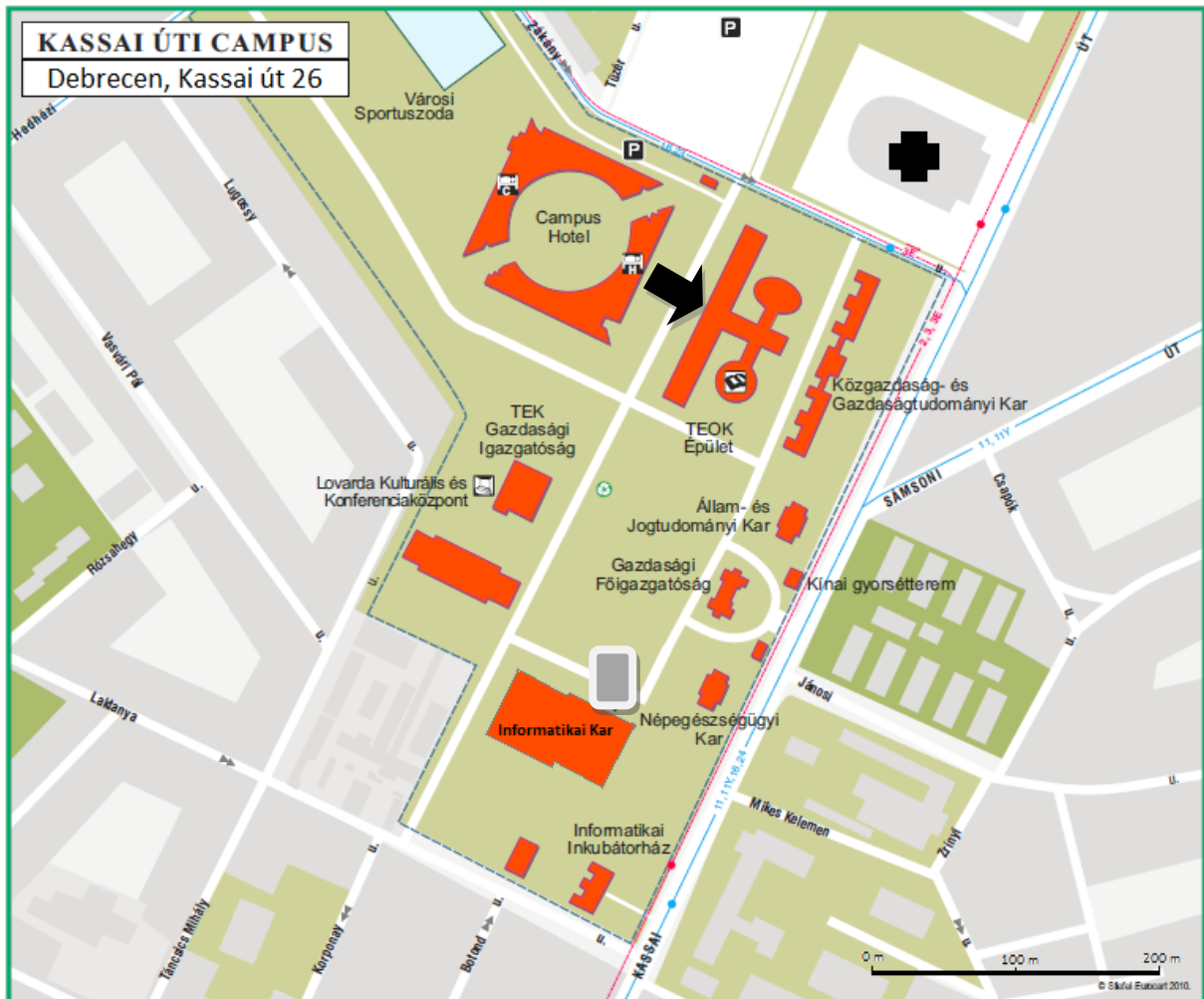


13th Molecular, Cell and Immune Biology Winter Symposium



*organized by the
Molecular, Cell and Immune Biology Doctoral School,
University of Debrecen*

Debrecen, 9-10 January, 2020
Venue: Center for Social Sciences and Health Education
Lecture Hall 5, Kassai Campus



The black cross indicates the Főnix Sports Hall, the black arrowhead shows the main entrance of the building where the conference will be in the Lecture Hall 5.

Address: Debrecen, Kassai út 26.

GPS: N47.540909° E21.640205°

There is a bus stop nearby where you can take the following buses:
16, 22, 22Y, 23, 23Y, 24, 24Y and 51E.

It is also possible to take trolleybuses 3, 3A, 5 and 5A.

The timetables are published on the website of the public transport operator, DKV Traffic Close Corporation: www.dkv.hu/en

SPONSORS OF THE SYMPOSIUM

UNICAM



MERCK

TSLabor



EFOP-3.6.3-VEKOP-16-2017-00009

13th Molecular, Cell and Immune Biology Winter Symposium

Programme:

January 9

10:15-10:25 **Opening**
József Tózsér

10:25-12:10 **Section 1**

Chair: János Mótyán

Introductory lecture

10:25-10:45 Éva Csósz:
LC-MS platform for multiomics analyses

Regular talks

10:45-11:00 Gabriella Gellén:
Cross-linking mass spectrometry on P-glycoprotein

11:00-11:15 Tamás Richárd Linkner:
Analysis of changes in the cellular proteome and transcriptome following HIV infection and the role of HIV-2 Vpx

11:15-11:30 Beáta Boros-Oláh:
Exploring the genetic architecture of R-loops and chromatin conformation using 4C/DRIP Barcode-seq

11:30-11:45 Csaba Fillér:
Investigation of histone modifying proteins with chromosome conformation capture techniques in meiotic *Saccharomyces cerevisiae* cells

11:45-12:00 Ajneesh Kumar:
In-silico construction of Homo sapiens Antimicrobial and Immunomodulatory Peptide (AMP) Database, DEAMP

12:00-12:10 Orsolya Kóréh:
Introducing Unicam Hungary Ltd. Distribution and Service of Analytical Instrumentation and Imaging Equipment

12:10-13:00 **Lunch**

13:00-14:30 Section 2

Chair: Melinda Szilágyi-Bónizs

Regular talks

- 13:00-13:15 Mária Miczi:
General and specific structural characteristics of retroviral and DNA-damage inducible retroviral-like proteases
- 13:15-13:30 Vanda Toldi:
Proteolytic inactivation of human mesotrypsin by chymotrypsin C protects the pancreas from pancreatitis
- 13:30-13:45 Zsuzsa Csobán-Szabó:
Protein-peptide based assay for the characterization of human blood coagulation factor XIII-A isopeptidase activity
- 13:45-14:00 Zsuzsanna Gyöngy:
Elucidation of the catalytic cycle of ABCG2 in permeabilized cells
- 14:00-14:15 Kuljeet Singh:
The Effect of Sour Cherry Flavonoids and Anthocyanins on Pgp activity
- 14:15-14:30 Gyula Hoffka:
Role of conformational heterogeneity in enzymatic catalysis

14:30-15:00 Coffee Break

15:00-16:30 Section 3

Chair: Mohamed Mahdi

Regular talks

- 15:00-15:15 Attila Pap:
Life without adipose tissue: phenotypic, metabolic and lipidomic characterization of a fat deficient mouse model
- 15:15-15:30 Abhirup Shaw:
Mitophagy is downregulated upon thermogenic stimulus in human beige adipocytes
- 15:30-15:45 Rini Arianti:
Potential significance of cell membrane SLC transporters in human adipocytes browning
- 15:45-16:00 Kinga Lénárt:
Tissue transglutaminase knock-out preadipocytes and beige cells with epididymal fat origin possess lower mitochondrial functions
- 16:00-16:15 Ádám Diós:
New approach to investigate celiac disease pathomechanism: Screening for possible deamidated gliadin-binding partners in mammalian cells

16:15-16:30 Éva Márton:
Study the role of miR-200s in the carcinogenic action of estrogens in ovarian cell cultures

19:00- Gala Dinner
Aula, Main Building, University of Debrecen, Egyetem tér 1.

January 10

9:00-10:15 Section 4 Chair: Gábor Koncz

Regular talks

9:00-9:15 Nikolaos Giannakis:
Myeloid ALX/FPR2 regulates vascularization following tissue injury

9:15-9:30 Andrea Tóth:
Potential procalcifying effect of Daprodustat on vascular smooth muscle cells

9:30-9:45 Zsófia Budai:
Impaired muscle regeneration and altered inflammatory cytokine and Gdf3 production in transglutaminase 2 knock out mouse

9:45-10:00 Hajnalka Emese Halász:
The role of neutrophil granulocytes in skeletal muscle regeneration

10:00-10:15 Nour Al Zaeed:
Investigating the role of A2B, A2A and MerTK receptors in muscle regeneration

10:15-11:00 Coffee Break and Poster Viewing Session

Nadra Al-Zain: Chromatin dynamics and gene regulation in inflammatory macrophages during skeletal muscle regeneration upon an acute sterile injury

Eduárd Bíró and Adél Lengyel: Differential expression of Nod-like receptors (NLRs) in the skeletal muscle of myostatin mutant Compact mouse

Dóra Csige: Epitope mapping of mouse monoclonal 885 antibody recognizing a celiac-related surface in transglutaminase 2

Vo Minh Doan: Analysis of salivary protein profiles in oral leukoplakia, oral lichen planus and oral squamous cell carcinoma using Proximity Extension Assay and ELISA

Máté Fekete and Petra Pázmándi: The mammalian target of rapamycin regulates the T cell activating capacity of RIG1-like receptor-stimulated human dendritic cells

Nubar Hamidova: Effect of polyamines on nucleosome stability

Gréta Kemenes: Characterization of Egr2 transcription factor in the LPS-induced inflammatory response of alveolar macrophages

Zsuzsanna Kolostyák: Egr2 transcription factor is a potential regulator of alveolar macrophage phagocytosis

Renáta Kovács: Metabolomic analysis of Hungarian white wines from Tokaj region

Szabolcs Muzsai: Effects of lactobacterial compounds/metabolites on the antiviral functions of mesenchymal stromal cells

Fanni Tatai: Functional characterization of the Tks4 scaffold protein in tumor-associated myeloid-derived suppressor cells

Alexandra Varga: Study the toxic effect of estradiol, zearalenone and bisphenol A to ovarian cells

Vivien Varga: The role of HIV-2 Vpx in dual HIV infection and analysis of its function in the viral life cycle

Attila Vámos: Gene expression pattern of human primary adipocytes during beige to white transition

11:00-12:25 Section 5

Chair: Endre Kristóf

Introductory lecture

11:00-11:25 Zsolt Czimmerer:
Prior IL-4 exposure induces chromatin remodeling and the rearrangement of LPS-activated p65 cistrome, leading to synergistic transcriptional activation of a specific gene set in macrophages

Regular talks

11:25-11:40 Judit Erdei:
The role of hemoglobin oxidation products in triggering inflammatory response upon intraventricular haemorrhage in premature infants

11:40-11:55 Beatrix Ágics:
mTOR controls the RIG-I-like receptor-mediated antiviral and pro-inflammatory responses in human plasmacytoid dendritic cells

11:55-12:10 Dóra Bencze:
Investigating the NLPR3 inflammasome activity in human plasmacytoid dendritic cells

12:10-12:25 Ahmad Alatshan:
Retinoic acid enhanced the inflammatory response in human macrophage through upregulation of aerobic glycolysis

12:25-13:15 Lunch

13:15-14:35 Section 6

Chair: Szilárd Póliska

Introductory lecture

13:15-13:35 Gergely Nagy:
Unravelling the hierarchy of cis and trans factors that determine the DNA binding by PPAR γ

Regular talks

13:35-13:50 Edina Erdős:
Characterization of COUP-TFII Orphan Nuclear Receptor in estrogen receptor alpha-mediated transcriptional regulation in breast cancer cells

13:50-14:05 Rosevalentine Bosire:
Intercalation of small molecules into DNA in chromatin is primarily controlled by superhelical constraint

14:05-14:20 Sham Jdeed:
The linkage of genomic stability to breast cancer chemoprevention by rexinoid-based drug combinations

14:20-14:35 Ilona Tornyi:
Molecular analysis of the biomarker value of C9 epitopes in lung cancer

14:35-15:00 Coffee Break

15:00-16:00 Section 7

Chair: Tünde Fekete

15:00-15:15 Károly Jambrovics:
Role of transglutaminase 2 (TG2) in the differentiation and apoptotic processes of all-trans retinoic acid (ATRA) and arsenic trioxide (ATO) treated NB4 leukemic cell lines

15:15-15:30 Tamás Molnár:
The role of caspase-9 in necroptosis

15:30-15:45 Zsófia Varga:
M2 macrophages are sensitive, but M1 cells are resistant to TAK1 inhibitor induced necroptosis

15:45-16:00 Éva Fige:
Macrophage heme oxygenase-1 in the clearance of apoptotic cells

16:00 Concluding remarks

József Tózsér (Chair), László Fésüs, Gábor Szabó, István Balogh, Szilvia Benkő, Mónika Fuxreiter, Bálint Nagy, Zsuzsa Szondy