

# PROGRAMME

**2<sup>nd</sup> Danube Conference on Epigenetics  
5-8 October 2016, Budapest, Hungary**

Organized by



**Hungarian  
Biochemical Society**



**Hungarian Academy of  
Sciences, Research Centre  
for Natural Sciences**



**Hungarian  
Academy of Sciences**

## Sponsors & Exhibitors

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## Wednesday, October 5 - Hungarian Academy of Sciences

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- 16:00 Introduction
- 16:30 **Keynote Lecture**  
**Chair: Laszlo Tora**  
**Eileen Furlong**  
Functional insights into chromatin topology  
and gene expression during embryonic development  
*Sponsored by EMBO*
- 17:30-19:00 **Single-cell epigenetics**  
**Chairs: Iannis Talianidis, Amos Tanay**
- 17:30-18:00 **Alexander van Oudenaarden**  
Revealing novel cell types, cell-cell interactions, and cell lineages by  
single-cell sequencing
- 18:00-18:15 **Juliette Dabin**  
Contribution of parental histone dynamics to epigenome stability after  
DNA damage
- 18:15-18:30 **Zichuan Liu**  
Daxx and PRC1 control integrity and segregation of paternal  
chromosomes in mouse early embryos
- 18:30-19:00 **Mario Nicodemi**  
Hierarchical folding of chromosomes in neuronal differentiation and its  
link to epigenetics
- 19:00-19:15 Coffee break
- 19:15-20:00 **Single-cell epigenetics**  
**Chairs: Iannis Talianidis, Amos Tanay**
- 19:15-19:30 **Guillaume Filion**  
HIV and human chromatin
- 19:30-20:00 **Christoph Bock**  
Epigenetic biomarkers: Ready for clinical diagnostics  
*Sponsored by Diagenode*
- 20:00 Welcome dinner





## Thursday, October 6 - RCNS

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- 9:00-10:30 **Metabolism and epigenetics**  
**Chairs: Erica Watson, Bálint L. Bálint**
- 9:00-9:30 **Iannis Talianidis**  
H4K20 monomethylation regulates RNA Pol-II elongation and plays an important role in the transcriptional control of hepatic metabolic pathways
- 9:30-9:45 **Florence Cammas**  
Functions of the HP1 network in liver homeostasis
- 9:45-10:00 **Tamas Arányi**  
Dynamic DNA methylation changes due to acute metabolic stress in mice
- 10:00-10:30 **Ueli Schibler**  
Posttranscriptionally controlled ribosome assembly rhythms drive diurnal cycles in global liver mass and macromolecular content
- 10:30-11:00 Coffee break
- 11:00-12:00 **Metabolism and epigenetics**  
**Chairs: Erica Watson, Bálint L. Bálint**
- 11:00-11:15 **Sabine Fraschka**  
Deciphering the transcriptional regulatory network of the human malaria parasite *Plasmodium falciparum*
- 11:15-11:30 **Tibor Pankotai**  
Transcriptional outcomes in response to DNA damage
- 11:30-12:00 **Andrew Pospisilik**  
 $\beta$ -cell PRC2 focuses transcription of select lineage genes and thus prevents de-differentiation and Diabetes in mouse and Man
- 12:00-13:00 Lunch break



- 13:00-14:30 **Developmental epigenetics**  
Chairs: **J. Andrew Pospisilik, Tibor Pankotai**
- 13:00-13:30 **Petra Hajkova**  
Epigenetic reprogramming in vivo: How and why?
- 13:30-13:45 **Pierre-Antoine Defossez**  
A histone mimic within DNA Ligase 1 recruits UHRF1 to sites of DNA replication: implications for DNA remethylation
- 13:45-14:00 **Ivett Baksa**  
Small RNA-based regulation during temperature adaptation in Arabidopsis
- 14:00-14:30 **Amos Tanay**  
Single cell approaches to cellular memory
- 14:30-15:00 Coffee break
- Live DEMO Show on the exhibition booth of**  **BioMarker** 
- Single cell analysis with QIAGEN: sample prep, amplification, NGS library prep and targeted panels
  - Fast and cost-effective methylation studies with a fully automated QIAGEN workflow (QIAcube, Rotor-Gene Q, Pyromark Q48 Advanced)
- 15:00-15:45 **Developmental epigenetics**  
Chairs: **J. Andrew Pospisilik, Tibor Pankotai**
- 15:00-15:15 **Alessio Zippo**  
MYC favors the onset of tumorigenesis by inducing epigenetic reprogramming of mammary epithelial cells towards a stem cell-like state
- 15:15-15:45 **Ferenc Mueller**  
Developmental dynamics of epigenomic features of cis-regulatory elements in early embryo development
- 15:45-16:15 Coffee break
- 16:15-18:00 **Poster viewing**
- 19:30 **Beer session**  
*Optional program, costs not covered by the registration fee.  
Participants should get to the pubs individually – maps will be provided.*



## Friday, October 7 - RCNS

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- 9:00-10:30 **Chromatin architecture**  
**Chairs: Gábor Szabó, Petra Hajkova**
- 9:00-9:30 **Ana Pombo**  
Genome Architecture Mapping: A spatial approach to map chromatin contacts
- 9:30-9:45 **Judit Balog**  
Heterozygous mutations in DNMT3B cause derepression of the subtelomeric D4Z4 macrosatellite array and contribute to the development of muscle disease
- 9:45-10:00 **Lóránt Székvölgyi**  
A Set1C-centric view of meiotic recombination initiation
- 10:00-10:30 **Leonie Ringrose**  
Beyond memory: The secret life of Polycomb Response Elements
- 10:30-11:00 Coffee break
- 11:00-11:45 **Chromatin architecture**  
**Chairs: Gábor Szabó, Petra Hajkova**
- 11:00-11:15 **Irene Cantone**  
Cell fusion-mediated reprogramming reveals a link between variability of human X chromosome inactivation in somatic cells and pluripotency-induced gene reactivation
- 11:15-11:45 **Wouter de Laat**  
Multi-contact 4C reveals multi-way three-dimensional chromatin conformation
- 11:45-13:45 **Poster session**
- 13:45 Sandwiches, Free afternoon
- 20:00 Gala Dinner – Danube cruise



## Saturday, October 8 - RCNS

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- 9:00-10:30 **Transcriptional regulation and epigenetics**  
**Chairs: Imre Boros, Tamás Arányi**
- 9:00-9:30 **Laszlo Tora**  
The ATAC and SAGA coactivator complexes are highly dynamic in the nuclear environment with fast and slow chromatin interacting populations
- 9:30-9:45 **Salvatore Spicuglia**  
Epromoters define a new class of regulatory elements with dual promoter and enhancer functions in mammals
- 9:45-10:00 **Chantal Vaury**  
Silencing of transposable elements by PIWI-interacting RNAs
- 10:00-10:30 **Tamas Fischer**  
Epigenetic control of pervasive transcription and genomic stability
- 10:30-10:50 Coffee break
- 10:50-11:35 **Transcriptional regulation and epigenetics**  
**Chairs: Imre Boros, Tamás Arányi**
- 10:50-11:05 **Bálint L. Bálint**  
Super-enhancers and person-to-person genetic variability in the context of the 1000 Genomes Project
- 11:05-11:35 **Michaela Frye**  
RNA methylation in stem cells and cancer
- 11:35-13:00 Lunch break and poster viewing
- 13:00-14:30 **Transgenerational inheritance**  
**Chair: Ana Maria Pires Pombo, Lóránt Székvölgyi**
- 13:00-13:30 **Vincent Colot**  
Transgenerational Epigenetics: Lessons from Arabidopsis  
*Sponsored by Institut Français*
- 13:30-13:45 **Aman Zare**  
Drosophila gut microbiome is involved in transgenerational inheritance of acquired traits
- 13:45-14:00 **Kallayane Chawengsaksohak**  
The epigenetic modifier Fam208a is essential for mouse gastrulation
- 14:00-14:30 **Erica Watson**  
How abnormal folate metabolism haunts our descendants
- 14:30-15:00 Poster prizes and concluding remarks



## Posters

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- P-01      **Hakan Akca**  
miR-548as could be a novel suppressor of TGF $\beta$ R1 to inhibit epithelial-to-mesenchymal transition in NSCLC
- 
- P-02      **Caroline Bacquet**  
Applying environmental epigenomics to assess adaptation to global change in *Heliconius melpomene* butterfly populations
- 
- P-03      **Marine Baptissart**  
Developmental programming in response to maternal overnutrition
- 
- P-04      **Raymond Blind**  
Readers, writers and erasers of nuclear PIP3
- 
- P-05      **Laszlo Bodai**  
Exploring the role of histone modifications in Huntington's disease
- 
- P-06      **Dóra Bojcsuk**  
Canonical elements drive super-enhancer formation
- 
- P-07      **Pedro Castelo-Branco**  
Hypermethylation of the TERT promoter predicts biochemical relapse in prostate cancer
- 
- P-08      **Vin Yee Chung**  
The interplay between transcription factor GRHL2 and epigenetics in the regulation of EMT in ovarian cancer
- 
- P-09      **Sébastien Coassolo**  
Role of the chromatin-remodelling complex NURF and NuRD in epigenetic regulation of melanoma gene expression
- 
- P-10      **Ixchelt Cuaranta Monroy**  
Genome-wide studies during adipocyte differentiation from mouse pluripotent stem cells
- 
- P-11      **Luiza Diniz Ferreira Borges**  
Epigenetic in the development: Detection of histones deacetylases in *melipona scutellaris* (apidae, meliponini)
- 
- P-12      **Edina Erdős**  
Genome-wide mapping of COUP-TFII and ER $\alpha$  co-occupancy in breast cancer cells
- 
- P-13      **Sercan Ergun**  
In silico analysis of potential cernas in renal cell carcinoma





P-14	<b>Sercan Ergun</b> Analysis of 3'UTR shortening of ABCB1 gene in Imatinib-resistant CML cells in terms of potential ceRNAs by a computational study
P-15	<b>Dominique Fauvin</b> Next generation epigenetics – Innovative research tools for the accurate analysis of DNA modifications
P-16	<b>Erfaneh FirouziNiaki</b> Histone type, modification and cell cycle phasespecific characterization of nucleosome stability in situ
P-17	<b>Erfaneh FirouziNiaki</b> Measurement of interstrand DNA crosslinks generated by anticancer agents through a modified alkaline comet assay
P-18	<b>Anna Fortuny Gonzalez</b> Histone dynamics in response to DNA damage in heterochromatin domains
P-19	<b>Marybeth Francis</b> Inflammation differentially affects histone methylation state of promoters of inflammatory genes and structure proteins
P-20	<b>Zsuzsanna Gaál</b> Expression levels of Warburg-effect related microRNAs in hematological malignancies of the adults
P-21	<b>Kay Gully</b> Molecular mechanisms of elicitor-induced epigenetic changes in Apple and Arabidopsis thaliana
P-22	<b>Anca-Sarmiza Gültekin-Tigan</b> The cyclin-dependent kinase CDK6 as key regulator of the cancer epigenome
P-23	<b>Attila Horváth</b> Characterization and modeling of lineage-specific enhancer states and transitions in macrophages
P-24	<b>Mette Jacobsen</b> Adipocyte gene expression and DNA methylation patterns differ significantly between lean and obese pigs.
P-25	<b>Aeri Kim</b> Erythroid activator NF-E2, TAL1 and KLF1 play roles in forming the LCR HSs in the human adult $\beta$ -globin locus
P-26	<b>Gergő Kovács</b> Rybp plays essential role in neural differentiation of mouse embryonic stem cells



- P-27 **Janina Ličytė**  
Direct decarboxylation of 5-carboxylcytosine by DNA C5-methyltransferases
- 
- P-28 **Cha Min Ho**  
Free hemoglobin change gene expression involving in cell-cell signaling through different DNA methylation in THP-1-derived macrophages
- 
- P-29 **Celine Morey**  
The non-coding gene Ftx promotes Xist upregulation at the onset of X-chromosome inactivation
- 
- P-30 **Iraia Muñoa Hoyos**  
The epigenetic regulator complex Polycomb/H3K27me3 plays a role in the epigenetic memory induced by morphine upon EpiLC differentiation
- 
- P-31 **Gergely Nagy**  
IL-4 reshapes the RXR cistrome in mouse bone marrow-derived macrophages
- 
- P-32 **Péter Nánási**  
The effect of histone modifications and DNA superhelicity on nucleosome stability
- 
- P-33 **Péter Nánási**  
Nucleosome stability through the spectacles of quantitative imaging
- 
- P-34 **Csilla Emese Németh**  
Epigenetic role of Vitamin C in the pathomechanism of Arterial Tortuosity Syndrome
- 
- P-35 **Zsofia Nemoda**  
Controlling for cell composition of peripheral biological samples in candidate gene DNA methylation analyses
- 
- P-36 **Dragos Nica**  
Association of global DNA hydroxymethylation with cadmium in gastropod hepatopancreas
- 
- P-37 **Tünde Nyiko**  
Functional and molecular characterization of an epigenetically controlled PUMILIO-regulatory protein in Arabidopsis.
- 
- P-38 **Colleen ORyan**  
Differential DNA methylation associated with Autism Spectrum Disorder in a South African cohort
- 
- P-39 **Colleen ORyan**  
The serotonin transporter gene (SLC6A4) shows differential regulation between children with ASD and typically developing children in a South African population



P-40	<b>Lilla Ozgyin</b> Genomic determinants of molecular phenotype differences between B-lymphoblastoid cells of a CEU trio
P-41	<b>Luca Pagliaroli</b> MicroRNA regulation in Tourette Syndrome candidate genes
P-42	<b>Luca Pagliaroli</b> Changes in DNA methylation profiles followed by sub-chronic treatment with psychiatric drugs aripiprazole and riluzole in the rat striatum and prefrontal cortex
P-43	<b>Cristina Popescu</b> Dynamic changes of epigenetic biomarkers (5mC and 5hmC) in biofluids of prostate cancer patients undergoing hormonal treatment
P-44	<b>Petra Prišćáková</b> Plasma DNA methylation profiles of genes associated with metastasis in breast cancer patients
P-45	<b>Vanda Repiská</b> Methylation of genes associated with invasiveness of breast cancer
P-46	<b>Helene Royo</b> The histone H3 lysine 36 demethylase KDM2A/FBXL11 is essential for Polycomb-mediated gene repression during germ cell development
P-47	<b>Hussein Sabit</b> Epigenetic regulation of P21, RASSF1, PTEN, and P53 in human breast cancer cells using different chemotherapeutic drugs
P-48	<b>Osama Said</b> Procaine induces epigenetic changes in HCT 116 colon cancer cells
P-49	<b>Kristine Salmina</b> Retrotransposition caused and autophagy-aided heterochromatin release in etoposide treated senescent teratocarcinoma PA1 cells
P-50	<b>Rita Seeböck</b> What happens to the Epigenome in 2D/3D cell culture?
P-51	<b>Ioan-Ovidiu Sirbu</b> qRT-PCR evaluation of selected microRNAs' expression in amniotic fluid and chorionic villus samples from Down syndrome pregnancies
P-52	<b>Ioan-Ovidiu Sirbu</b> Plasma microRNA expression profiles in Parkinson's disease
P-53	<b>Gordana Supic</b> miR-183 and miR-21 Expression as Biomarkers of Progression and Survival in Tongue Carcinoma Patients



- P-54      **Gábor Szabó**  
The effect of histone modifications and DNA superhelicity on nucleosome stability
- 
- P-55      **Agnes Tantos**  
Intrinsic protein disorder in histone lysine methylation
- 
- P-56      **Violeta Trusca**  
Apolipoprotein E upregulation by dexamethasone in macrophages
- 
- P-57      **Borbála Vető**  
Inhibition of DNA methyltransferase leads to increased genomic 5-hydroxymethylcytosine levels in lymphoid cells



# General information

## Venue

**October 5, 2016**

**Hungarian Academy of Sciences, The Academy Club**

Budapest

Széchenyi tér 9.

H-1051

**October 6-8, 2016**

**Research Centre for Natural Sciences, Hungarian Academy of Sciences**

Budapest

Magyar tudósok körútja 2.

H-1117

## Registration desk

Wednesday, 5 October 2016	14:00-20:00
Thursday, 6 October 2016	8:00-18:00
Friday, 7 October 2016	8:00-14:00
Saturday, 8 October 2016	8:00-15:00

## Important phone numbers

English is usually spoken at the emergency numbers listed below.

**Central help number: 112**

Ambulance: 104

Police: 107

General enquiries: 197

International enquiries: 199

Hungarian Automobile Club help number: 188

Fire brigade: 105

Central help number: 112

Inland enquiries: 198



## Social programs

### Welcome reception

Wednesday, 5 October 2016 20:00

Hungarian Academy of Sciences, The Academy Club

The organisers invite you for a dinner on the evening of your arrival. We wish to serve you with some refreshment after your travel. Our other aim is to create a familiar atmosphere where you can meet old friends, and make new relationships, too.

*Included in the registration fees.*

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### Beer session

Thursday, 6 October 2016 19:30

We arrange a "Beer session" in local pubs during the evening. This time participants will have the opportunity to assign for the program, and have a short discussion about their preferred questions with the invited speakers (5 minutes/participant). We would like to invite you to join us that night, and if you wish, present a short elevator pitch.

*Optional program, costs not covered by the registration fee*

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### Gala dinner & River cruise

Friday, 7 October 2016 20:00

Budapest by night on the board of the "Primus" Boat

Gathering is a green area next to the Petöfi bridge latest at 19:45. Please check our map below to see the meeting point.

During this event we wish to serve you an excellent feast. PLEASE NOTE! The boat cruises on the river during the banquet, so there is no possibility to arrive later or leave earlier.



## **Presenters' guidelines**

### **Invited presentations**

Each presentation takes 20+10 minutes discussion.

### **Oral presentations**

Each presentation takes 10+5 minutes discussion.

### **Technical instructions:**

Please prepare your presentation in .ppt, .pptx (Microsoft Office PowerPoint 97-2013 format) or .pdf file. If you wish to have a video, please contact the technician in the lecture hall in a break before your presentation (or preferably earlier) to check it in advance.

**Please upload your presentation at latest in the break before your session.**

If you wish to use your own notebook please contact the technician.

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### **Posters**

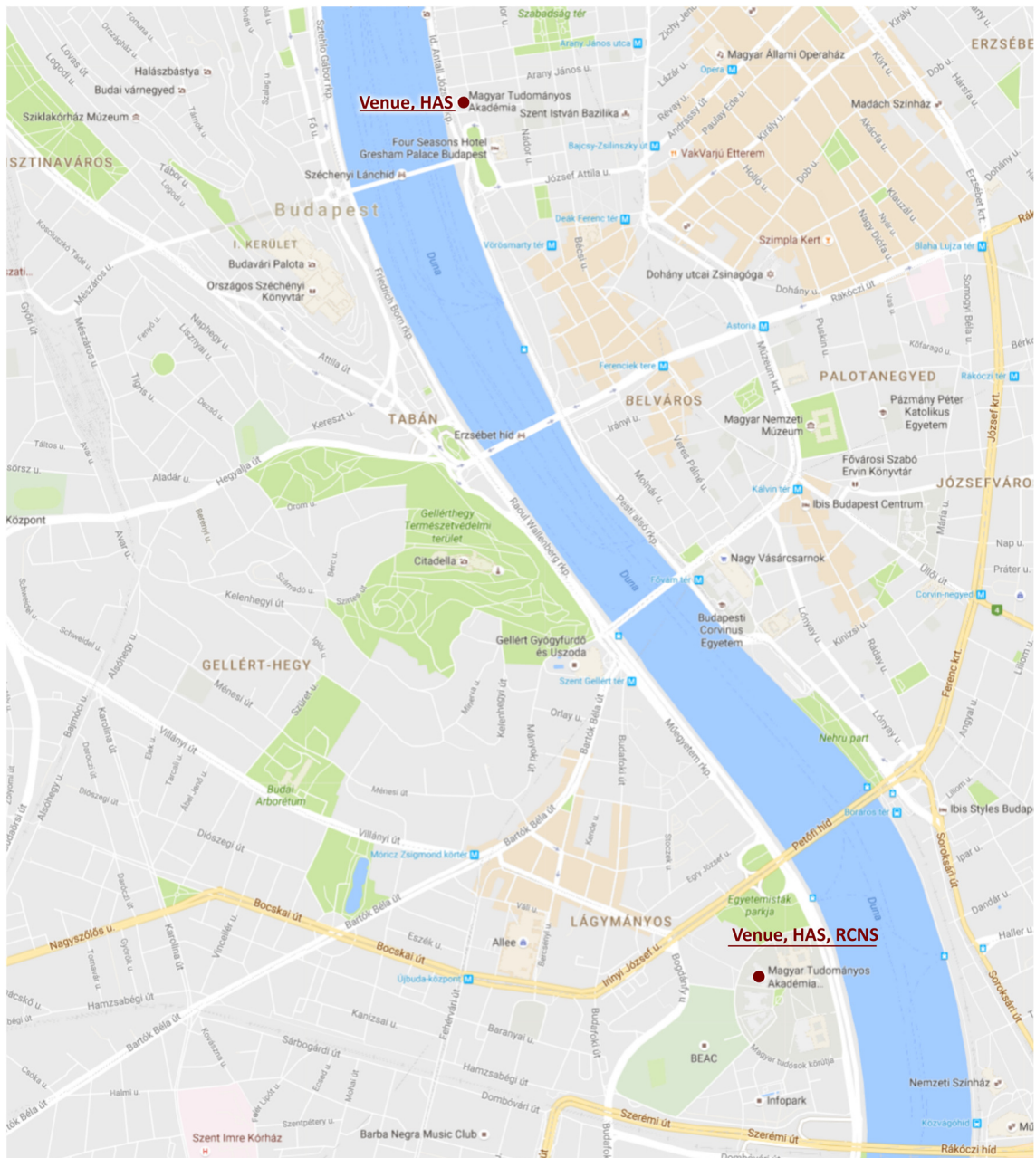
Each poster might be mounted during the whole Conference. Posters left on the boards after the removal deadline will be removed by the organisers.

Mounting: 6th October, from 8:00

Removal: 8th October, before 15:00

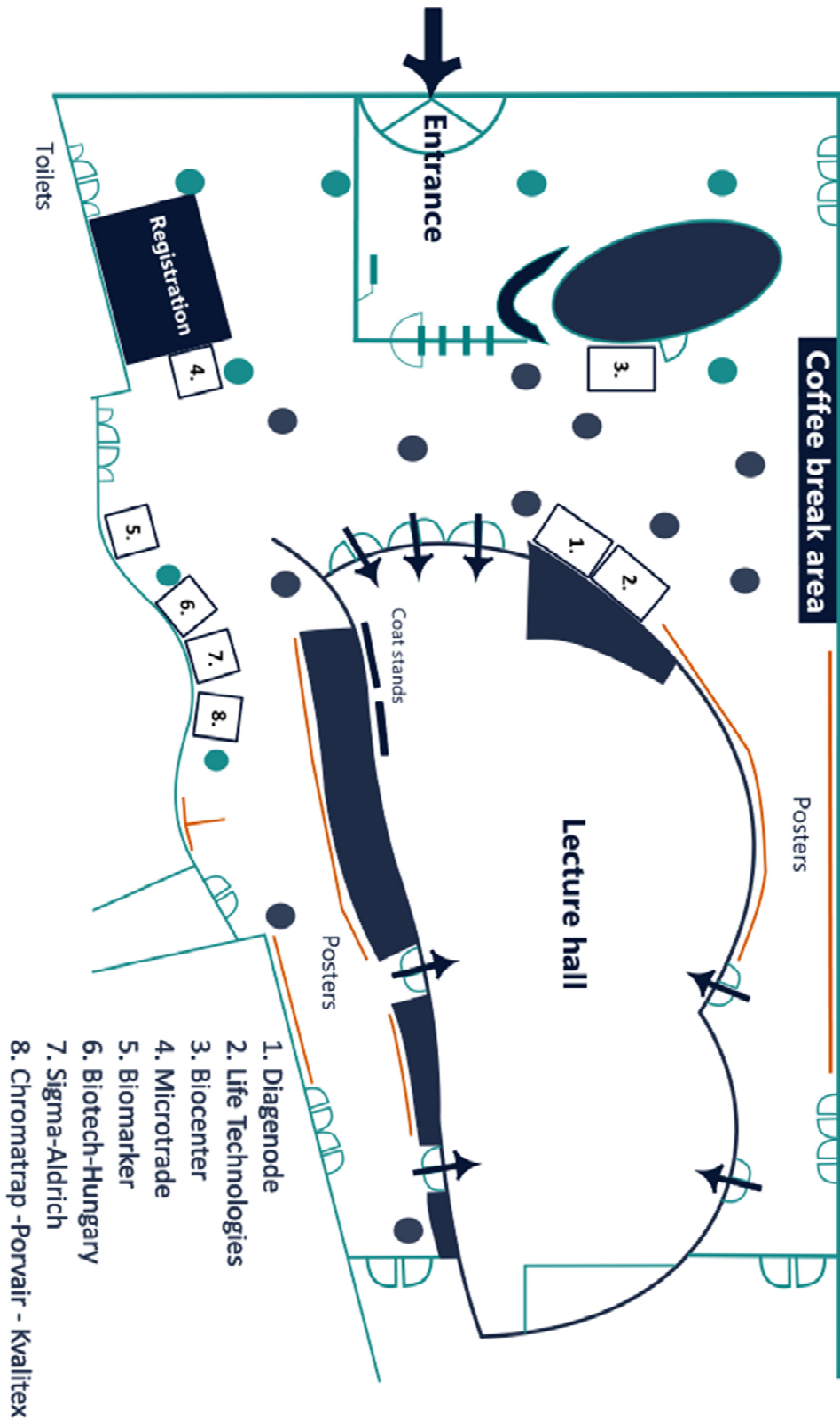


# VENUES





# FLOORPLAN



# NOTES



# NOTES



# NOTES

