

## Institute of Molecular and Cell Biology and Institute of Genomics

### Annual Conference 2020

#### PROGRAMME

<https://ut-ee.zoom.us/j/94274492720?pwd=Z05aNmluNG1OZjFwUG1EM3JDSUMxQT09>

(Meeting ID: 942 7449 2720 Passcode: 567853)

#### Monday January 18<sup>th</sup>, 2020

9:30 Opening of the conference: Director of the IG Prof. **Mait Metspalu**, Director of the IMCB  
Prof. **Maia Kivisaar**

#### Morning session (moderated by **Aivar Liiv**)

9:50 - **Rita Hõrak** "Functional and structural insights into *Pseudomonas putida* toxin-antitoxin systems"

10:10 - **Vi Ngan Tran** "Mechano-chemical feedback leads to refinement of BMP signaling during cell fate specification"

10:30 - **Kaspar Reier** "Ribosomal proteins in the *Escherichia coli*'s proteome during extended stationary growth phase"

10:50-11:10 Stretching break

#### 11:10 Pre-recorded poster session flash talks 1 (contact person **Liis Karo-Astover**)

1. **Natalia Pujol Gualdo\*** "Genetic association analyses identify links between pelvic organ prolapse and connective tissue biology, gastrointestinal disorders and reproductive health"

<https://us04web.zoom.us/j/79506911869?pwd=ZVc1aWtuL25kUm5vK2tjRVV6SkIjdz09>

Meeting ID: 795 0691 1869 Passcode: xY4d7z

2. **Hanna Maria Kariis\*** "The role of treatment adherence in CVD and MDD comorbidity"

<https://us04web.zoom.us/j/77107641992?pwd=NVNzYWZlWHZGUjpwWlhxQld0MTNoQT09>

Meeting ID: 771 0764 1992 Pass code: J8CGvT

3. **Shrinidhi Madhusudan\*** "Understanding the origins of GnRH neurons"

<https://helsinki.zoom.us/j/61431446131?pwd=bS9NTGtpdFILUStoSjRrZXQ0cWx0UT09>

Meeting ID: 614 3144 6131 Passcode: 738449

4. **Kertu Liis Krigul** "Comparison of fecal sample collection methods to improve microbiome-based colorectal cancer screening"

<https://us04web.zoom.us/j/76109655050?pwd=U1BaTmtYcTA0VVIKU3NZY3IKUXVvQT09>

Meeting ID: 761 0965 5050 Passcode: Eh4cr5

5. **Erki Aun** "Molecular characterization of *Enterococcus* isolates from different sources in Estonia reveals cross-species transmission"  
<https://us04web.zoom.us/j/78501770094?pwd=QTRzWnpLbFgvUUx5YVRvbnhQaU0zQT09>  
Meeting ID: 785 0177 0094 Passcode: enterokokk
6. **Anette Kalnapenkis** "Genetic determinants of plasma protein levels in Estonian population"
7. **Marili Palover** "Genotype-first approach to the detection of hereditary breast and ovarian cancer risk, and effects of risk disclosure to biobank participants"  
<https://zoom.us/j/4670550181?pwd=Qk9Jc0g2dk9WWm9sY2NubjZYZjkwdz09>
8. **Maarja Lepamets** "Comprehensive pQTL-eQTL colocalisation study in Estonian Biobank samples using single nucleotide and copy number variations"  
<https://zoom.us/j/93528827816?pwd=NmZlOXNGRGJKR1AwZldlTVp5RDhKdz09>  
Meeting ID: 935 2882 7816 Passcode: unqt8m
9. **Oliver Aasmets** "First glance into the Estonian population microbiome profile"  
<https://zoom.us/j/95782292587?pwd=aHEza1ZzOUxhMWRUYS9acnc4SVRuZz09>  
Meeting ID: 957 8229 2587 Passcode: pv6ryd
10. **Arina Lavrits** "The role of regenerative proteins in the pathogenicity of endometriosis"  
<https://zoom.us/j/99023137145?pwd=c0h6U3BZbk1qQVVrekJQVHgwY2l1dz09>  
Meeting ID: 990 2313 7145 Passcode: Xkn3aa
11. **Tina Saupe** "A genetic overview of movements and transitions in Italy from the Paleolithic to the Iron Age"  
<https://zoom.us/j/5279842658?pwd=TzAwOUtCTWJQSktleXRTSGgwSG9lUT09>  
Meeting ID: 527 984 2658 Passcode: 8t6n8r
12. **Karl Mumm** "Effects of ColRS signal system on membrane homeostasis under conditions of iron excess"  
<https://us05web.zoom.us/j/89453193643?pwd=YjJmMHd1RStWSG1LNFBSaDhseHdvUT09>  
Passcode: 81vM86

12:20 -14:00 Lunch break

#### Afternoon session (moderated by Jon Anders Eriksson)

14:00 - **Keynote: Kaili Rimfeldt** "Genetics and education – elephant in the classroom"

14:40 - **Margit Nõukas** "The impact of clinically relevant CNVs in the general population – the health consequences and personalized management of undiagnosed adult CNV carriers"

15:00 - **Nele Taba** "Mendelian randomization identifies the potential causal impact of dietary patterns on circulating blood metabolites"

15:20-15:40 Stretching break

15:40 - **Katri Pärna** "Assessing the predictive value of methylation profiles on prevalent type 2 diabetes and fasting plasma glucose"

16:00 - **Karl Jürgenstein** "Translational fidelity in the absence of  $\Psi$ 32 and  $\Psi$ 38-40 in the anticodon stem-loop of tRNAs"

16:20 **Pre-recorded poster session flash talks 2** (contact person Liis Karo-Astover)

**13. Yan Zhao\*** "Unravelling the mechanisms of chromosomal instability during early embryogenesis"

<https://zoom.us/j/93067014904?pwd=dFhEMnQ1Q1F5bFd2MlphdVVmRFc4QT09>

Meeting ID: 930 6701 4904 Passcode: ONWGLn

**14. Danat Yermakovich\*** "The evolutionary history of complex traits"

<https://zoom.us/j/4247790050?pwd=RVpjdWVHeUpXMjBGV1NKUWo5S0JpUT09>

Meeting ID: 424 779 0050 Passcode: etz991

**15. Baris Yasar \*** "Early development of in vitro fertilization (IVF) bovine embryos"

<https://us05web.zoom.us/j/89625130009?pwd=UVAwZG95UGU2UjNQNFU5SzBnakljdz09>

Meeting ID: 896 2513 0009 Passcode: 7LJrL3

**16. Mathilde Frédérique E André** "Papua New Guineans show unique phenotypic traits at altitude"

<https://us04web.zoom.us/j/77576278039?pwd=Qjlld1FySTBnOCTJSXI5d1p5VjBpUT09>

Meeting ID: 775 7627 8039 Passcode: aD58y3

**17. Ludovica Molinaro** "A chromosome-painting based pipeline to infer local ancestry under limited source availability"

<https://us02web.zoom.us/j/85999320286?pwd=Ly9lcFNsSjFEMWhyc2p2K1BqcVg1dz09>

Meeting ID: 859 9932 0286 Passcode: 9DgDtd

**18. Burak Yelmen** "Improving selection detection with population branch statistic on admixed populations"

<https://us05web.zoom.us/j/88670385284?pwd=NXFiZzgvTHdsSEZydm0ra3pzMzdSdz09>

Meeting ID: 886 7038 5284 Passcode: 6WrLKT

**19. Arun Kumar Devarajan\*** "Foliar application of rice phyllosphere bacteria confers induction of systemic tolerance against water stress in *Oryza sativa* (L.)"

<https://us04web.zoom.us/j/73174826376?pwd=aktGZjJXcUx2SHI4RGdsNUFsRzBodz09>

Meeting ID: 731 7482 6376 Passcode: 123456

**20. Angela Peeb** "Genome-resolved metagenomics of oil degrading microbial community in Arctic sea-ice"

<https://us05web.zoom.us/j/81627391094?pwd=T1Fpd1IFcHhXRvFRcWVIRcT5NEFPz09>

Meeting ID: 816 2739 1094 Passcode: Angela

**21. Vlad-Julian Piljukov** "Irc3 is a thermostable mtDNA helicase from *Ogataea parapolymorpha*"

<https://us05web.zoom.us/j/88025725015?pwd=ekRKek91bmRhb082WkNuR29la0NLUT09>

Meeting ID: 880 2572 5015 Passcode: 3NkNza

**22. Evgeniy Briik** "Image and functional analysis of TNTs in *Drosophila* pupal wing"

<https://us04web.zoom.us/j/73554578196?pwd=SFJ6ai9KcGp3Y3RjZkM2TFVqa1JzUT09>

9

Meeting ID: 735 5457 8196 Passcode: dEvF9a

17:20 End of Day 1

## Tuesday January 19<sup>th</sup>, 2020

### Morning session moderated by Angela Ivask

9:30 - **Keynote: Allan-Hermann Pool** "Mapping and re-engineering neural circuits mediating biological motivations"

10:10 - **Ermo Leuska** "The biological role of pseudouridines in eukaryotic mRNA"

10:30 - **Kreete Lüll** "The Gut Microbiome in Polycystic Ovary Syndrome (PCOS) and its Association with Metabolic Traits"

10:50-11:10 Stretching break

11:10 - **Sirli Rosendahl** "The unstructured C-terminus of the chaperon DnaK facilitates the toxicity of GraT"

11:30 - **Rain Inno** "miR-QTLs - influencers of placental gene expression"

11:50 - **Linda Ongaro** "Post-admixture selection in American populations"

12:10-13:00 Lunch break

13:00-13:40 **Poster session questions and answers** in breakout rooms. All poster presentations are to host a Zoom session for questions and answers.

**Moderated by each speaker, evaluators and conference participants visit each room for asking questions.**

### Afternoon session (moderated by Marcel Keller)

14:00 - **Sirelin Sillamaa** "Transcription independent maintenance of *S. cerevisiae* mitochondrial DNA "

14:20 - **Rita Kreevan\*** "Functional characterization of genetic variants linked to past adaptations and medicine through massively parallel reporter assays."

14:40 - **Stefania Sasso** "Ancient DNA perspective on the origins and structure of a Merovingian population in Belgium"

15:00-15:20 Stretching break

15:20 - **Tarmo Puurand** "k-mers for detecting the presence or absence of Alu insertions and VNTR copy number"

15:40 - **Triin Laisk** "Genome-wide association study identifies five risk loci for pernicious anemia and implicates the role of HLA-DR15 haplotype"

16:00 **Ending of the conference**, closing remarks and the award ceremony (**Lili Milani and Erik Abner**)

Notes:

\* is a 1<sup>st</sup> year PhD student

Poster Session flash talks – 2-3 minutes talk, landscape poster (1 slide!), separate breakout session for questions to be prepared by the speaker.

Oral presentations – 15 minutes talk (prepare slides!), 5 minutes for questions

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