

Institute of Molecular and Cell Biology and Institute of Genomics

Annual Conference 2019

Program

Tuesday December 3rd 2019

9.15-9.30 Opening of the conference: Director of the IMCB Prof. **Toivo Maimets**,
Director of the IG PhD **Mait Metspalu**

Morning session

9.30-9.50 **Prof. Osamu Shimmi** “Mechano-chemical feedback leads to cell competition for cell fate during pattern formation in the *Drosophila* wing epithelium”

9.50-10.10 **Priit Jõers** “Mitochondrial DNA – regulator of global metabolic balance”

10.10-10.30 **Kristi Krebs** “Genome-wide study identifies association between HLA-B*55:01 and penicillin allergy using electronic health records of biobank participants”

10.30-11.00 *Coffee break*

11.00-11.20 **Oliver Aasmets** “The interplay between gut microbiota and host metabolism in the development of Type 2 diabetes”

11.20-11.40 **Kadi Ainsaar** “TonB-PocAB complex is required for maintaining membrane integrity and polar localization of flagella in *Pseudomonas putida*”

11.40-12.00 **Marcel Keller** “Plague and pestilence in the Baltic region - a palaeogenomic approach”

12.00-12.40 **Uku Vainik** University of Tartu, Institute of Psychology, Department of Experimental Psychology, and Adjunct Professor, Department of Neurology and Neurosurgery, McGill University, Montreal, Canada
“Personality causes obesity - evidence from polygenic scores and twins”

12.40-14.00 *Lunch break*

Afternoon session

- 14.00-14.20 **Erki Aun** “PhenotypeSeeker: a k -mer-based method for modeling and predicting phenotypes of sequenced bacteria”
- 14.20-15.05 **Prof. Scott Gilbert** Howard A. Schneiderman Professor Emeritus of Biology at Swarthmore College, Swarthmore, PA, USA, and a Finland Distinguished Professor at the University of Helsinki
“Evolution through acquiring genomes: New appreciations of symbiosis during development”

15.05-17.00 *Poster session*

Wednesday December 4th 2019

Morning session

- 9.10-9.30 **Jaanika Kronberg-Guzman** “Systems biology - a tool for understanding environmental stress”
- 9.30-9.50 **Burak Yelmen** “Creating artificial human genomes using generative neural networks”
- 9.50-10.10 **Antti Matvere** “FSH/LH-dependent upregulation of Ahr in murine granulosa cells is controlled by PKA signaling and involves epigenetic regulation”
- 10.10-10.30 **Ivan Kisly** “Functional interactions of ribosomal intersubunit bridges in *Saccharomyces cerevisiae*”
- 10.30-11.00** *Coffee break*
- 11.00-11.20 **Margus Leppik** “Assembly and functionality of the ribosome with tethered subunits”
- 11.20-11.40 **Mihkel Vaher** “StrainSeeker2: beyond abundance-based bacterial identification from unassembled NGS reads”
- 11.40-12.00 **Anne Menert** “Feasibility of two-step sulfidogenic bioleaching of metals from graptolite argillite tested”
- 12.00-12.20 **Ludovica Molinaro** “Characterizing ancient genomes embedded into modern human populations”
- 12.20-14.00** *Lunch break*

Afternoon session

- 14.00-14.20 **Katri Pärna** “Prediction versus transferability of betas: a PCA informed strategy”
- 14.20-14.40 **Sirelin Sillamaa** “Transcription dependent changes in *S. cerevisiae* rho- mutants mtDNA replication intermediates topology”
- 14.40-15.30** *Coffee break*
- 15.30-15.50 **Kaspar Reier** “Ribosomal proteins in *Escherichia coli*’s proteome in the stationary growth phase”
- 15.50-16.30 **Prof. Tanel Tenson** University of Tartu, Faculty of Science and Technology, Institute of Technology, professor in the technology of antimicrobial compounds,
“Spread of antibiotic resistance”
- 16.30** **Ending of the conference, closing remarks and the award ceremony**