We have moved our website to embl.org/events. The content below is no longer being updated.

EMBL Courses and Conferences during the Coronavirus pandemic

With the onsite programme paused, many of our events are now being offered in virtual formats.

Registration is open as usual for many events, with back-up plans in place to move further courses and conferences online as necessary. Registration fees for any events affected by the COVID-19 disruption are fully refundable.

More information for participants of events at EMBL Heidelberg can be found here.

Programme

Got something to say? Tweet it! #EMBOHealth

Day 1 - Wednesday 13 November 2019

<table>
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<tr>
<th>Time</th>
<th>Speaker</th>
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</table>
| 12:00 - 13:30| Arrival and Registration  
with light lunch |
<p>| 13:30 - 13:45| Opening Remarks       |</p>
<table>
<thead>
<tr>
<th>Time</th>
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</table>
| 13:45 - 18:00     | **Session 1**
|                   | *Chair: Lars Steinmetz*                                                                     |
| 13:45 - 14:15     | Understand the similarities and differences between normal and malignant stem cells to develop more efficient therapies for AML patients
|                   | Caroline Pabst - University Hospital Heidelberg, Germany                                    |
| 14:15 - 14:45     | Regulatory principles governing enhancer activity in development and disease
|                   | Emma Farley - University of California, San Diego, USA                                      |
| 14:45 - 15:00     | Understanding genetic and epigenetic T cell regulatory mechanisms in autoimmune diseases
|                   | Neha Daga - EMBL Heidelberg, Germany                                                        |
| 15:00 - 15:30     | Translating immune disease GWAS variants to causal cell types and genes
|                   | Gosia Trynka - Wellcome Sanger Institute, UK                                                |
| 15:30 - 16:00     | Coffee Break and Meet the Speakers in ATC Foyer with:
|                   | Caroline Pabst - University Hospital Heidelberg, Germany                                    |
|                   | Emma Farley - University of California, San Diego, USA                                      |
|                   | Gosia Trynka - Wellcome Sanger Institute, UK                                                |
|                   | Emma Lundberg - Science for Life Laboratory, KTH Royal Institute of Technology, Sweden      |
|                   | Christoph Bock - CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Austria |
|                   | Hiromitsu Nakauchi - Stanford University School of Medicine, USA                             |
| 16:00 - 16:30     | Dissecting spatiotemporal variations of the human proteome
|                   | Emma Lundberg - Science for Life Laboratory, KTH Royal Institute of Technology, Sweden      |
| 16:30 - 16:45     | Whole genome sequencing insights into infertility: Preliminary results from WGS of couples with repeated IVF failure
|                   | Anna Mantzouratou - Bournemouth University, UK                                              |
| 16:45 - 17:15     | Single cell sequencing of epigenetic disease landscapes and induced perturbations
|                   | Christoph Bock - CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Austria |
| 17:15 - 18:00     | Keynote Lecture: Growing organs in vivo: iPS cell derived, xeno created organs for transplantation
|                   | Hiromitsu Nakauchi - Stanford University School of Medicine, USA                             |
Day 2 - Thursday 14 November 2019

Time Speaker

09:00 - 12:30 **Session 2**

*Chair: Julien Gagneur*

09:00 - 09:30 Pinpointing disease causing regulatory genetic variants by multi-omics and machine learning
Julien Gagneur - Technical University of Munich, Germany

Characterizing the phenotypic effects of genetic variants associated with transcriptomic outliers in iPSC and differentiated cell types
Craig Smail - Stanford University, USA

09:30 - 10:00 Data integration for prediction of time to insulin in type 2 diabetes patients
Rikke Linnemann Nielsen - Technical University of Denmark, Denmark

10:00 - 10:30 The power of multi-omics for finding novel disease stratifications
Wolfgang Huber - EMBL Heidelberg, Germany

10:30 - 11:00 Coffee Break and Meet the Speakers in ATC Foyer with:
Julien Gagneur - Technical University of Munich, Germany
Wolfgang Huber - EMBL Heidelberg, Germany
Emmanouil Dermitzakis - University of Geneva Medical School, Switzerland
Barbara Prainsack - University of Vienna, Austria

11:00 - 11:30 Genetic variation in 3D cis and trans genome interactions in immune cells
Emmanouil Dermitzakis - University of Geneva Medical School, Switzerland

11:30 - 11:45 A longitudinal big data approach for precision health
Sophia Miryam Schüssler-Fiorenza Rose - Stanford University, USA
11:45 - 12:00
Multiplexed Cas12a Cpf1 based screening enables machine learning prediction of an optimal evolving barcoding strategy for lineage tracing
Nicholas Hughes - Stanford University, USA

12:00 - 12:30
The value(s) of precision health: Patients and society
Barbara Prainsack - University of Vienna, Austria

12:30 - 14:00
Lunch and Meet the Editors in ATC Foyer with:
Celine Carret - EMBO, Germany
Joao Duarte - Springer Nature, Germany
Maria Polychronidou - Molecular Systems Biology, Germany

14:00 - 18:00
Session 3
Chair: Ami Bhatt

14:00 - 14:30
Precision medicine from liquid biopsies
Stephen Quake - Stanford University, USA

14:30 - 14:45
Microbiome in active and inactive older people
Nathan O'Callaghan - CSIRO, Australia

14:45 - 15:15
Functional precision medicine for tailoring treatments to patients with acute myeloid leukemia
Olli Kallioniemi - Science for Life Laboratory, Karolinska Institutet, Sweden

15:15 - 15:45
21st Century medicine: Big data, wellness and disease
Leroy Hood - Institute for Systems Biology, USA

15:45 - 16:15
Coffee Break and Meet the Speakers in ATC Foyer with:
Stephen Quake - Stanford University, USA
Olli Kallioniemi - Karolinska Institutet, Sweden
Leroy Hood - Institute for Systems Biology, USA
Ewan Birney - EMBL-EBI Hinxton, UK
Edith Heard - EMBL Heidelberg, Germany

16:15 - 16:45
Big data in health and biology
Ewan Birney - EMBL-EBI Hinxton, UK

16:45 - 17:30
Keynote Lecture: Exploring the dynamic relationship between gene expression and chromosome organisation during X chromosome inactivation
Edith Heard - EMBL Heidelberg, Germany
Flash Talks Session

#47 Katharina Beuke - Sanofi, Germany  
#48 Etienne Boileau - Klaus Tschira Institute for Integrative Computational Cardiology, Germany  
#51 Giacomo Corleone - Istituti Fisioterapici Ospitalieri, Italy  
#53 Annisa Fitriani - Ananda Purworejo Hospital, Indonesia  
#60 Bence Keömley-Horváth - Pázmány Péter Catholic University, Hungary  
#64 Roman Kurilov - German Cancer Research Center, Germany  
#66 Chen Li - ETH Zürich, Switzerland  
#70 Vladislav Lysenkov - Turku Bioscience, Finland  
#72 Enrico Mossotto - University of Southampton, United Kingdom  
#76 Wendelin Schramm - GECKO Institute, Heilbronn University, Germany  
#81 George Spyrou - The Cyprus Institute of Neurology and Genetics, Cyprus  
#82 Ben Story - EMBL Heidelberg, Germany

17:30 - 18:00  
#64 Roman Kurilov - German Cancer Research Center, Germany  
#68 Chen Li - ETH Zürich, Switzerland  
#70 Vladislav Lysenkov - Turku Bioscience, Finland  
#72 Enrico Mossotto - University of Southampton, United Kingdom  
#76 Wendelin Schramm - GECKO Institute, Heilbronn University, Germany  
#81 George Spyrou - The Cyprus Institute of Neurology and Genetics, Cyprus  
#82 Ben Story - EMBL Heidelberg, Germany

18:00 - 19:30  
Poster Session 1 (odd numbers)  
with beer, wine and snacks

19:30 - 21:00  
Dinner in EMBL Canteen

Day 3 - Friday 15 November 2019

Time  
09:00 - 12:30  
Speaker  
Session 4  
Chair: Emma Lundberg

09:00 - 09:30  
Microfluidic approaches in personalized cancer therapy  
Christoph Merten - EMBL Heidelberg, Germany

09:30 - 09:45  
Identification of a reproducible epigenetic risk profile for schizophrenia linked to post mortem brain methylation and prefrontal hippocampal connectivity  
Emanuel Schwarz - Central Institute of Mental Health, Germany

09:45 - 10:00  
The use of iPSCs for in vivo personalized organ generation using cross species chimeras: A primate model  
Morteza Roodgar - Stanford University, USA

10:00 - 10:30  
Harnessing big data for personalized medicine  
Eran Segal - Weizmann Institute of Science, Israel
Coffee Break and Meet the Speakers in ATC Foyer with:
Christoph Merten - EMBL Heidelberg, Germany
Eran Segal - Weizmann Institute of Science, Israel
Angela Rogers - Stanford University, USA
Oliver Stegle - EMBL Heidelberg and German Cancer Research Center, Germany

Personalizing ICU medicine: How ‘omics is advancing our understanding of ARDS
Angela Rogers - Stanford University, USA

Integrated personalized diabetes management goes Europe: Adding value to diabetes care through digital innovation and integrated care
Allan Jones - Roche Diabetes Care Deutschland, Germany

Navigating causal reasoning pathways to identify personalize drug treatments through multi omics using multi task learning
Rosa Hernansaiz Ballesteros - Heidelberg University, Germany

Unravelling the genotype-to-phenotype map in human pluripotent cells
Oliver Stegle - EMBL Heidelberg and German Cancer Research Center, Germany

Session 5
Chair: Angela Rogers

Unlocking the secret genes and genomes from the human microbiome
Ami Bhatt - Stanford University, USA

DNA methylation relates to cardiac alternative splicing in dilated cardiomyopathy
Weng-Tein Gi - Heidelberg University, Germany

Single molecule, full length transcript sequencing reveals disease associated isoforms in human cells
Chenchen Zhu - Stanford University, USA

Pathological mutations in LSD1 interfere with ZEB1/2 transcription factor and alter developmental gene expression
Daria Bunina - EMBL Heidelberg, Germany

Patient centered data in real world medicine
Christof von Kalle - Berlin Institute of Health - Charité Clinical Study Center, Germany
**Coffee Break and Meet the Speakers in ATC Foyer with:**
Ami Bhatt - Stanford University, USA
Christof von Kalle - Berlin Institute of Health - Charité Clinical Study Center, Germany
Ruedi Aebersold - ETH Zürich, Switzerland
Christina Curtis - Stanford University, USA

15:45 - 16:15

**The modular proteome and its clinical significance**
Ruedi Aebersold - ETH Zürich, Switzerland

16:15 - 16:45

**From bench to bedside: Identifying and targeting the genomic drivers of breast cancer progression and therapeutic resistance**
Christina Curtis - Stanford University, USA

16:45 - 17:15

**Industry Panel Discussion: Commercialising Precision Health**
Moderator: Michael Snyder
Panel members:
- Gitte Neubauer - Cellzome, Germany
- Eran Segal - Weizmann Institute of Science, Israel
- Christian Fegeler - MOLIT Institute, Germany

17:15 - 18:00

**Poster Session 2 (even numbers)**
with beer, wine and snacks

18:00 - 19:30

**Conference Dinner in EMBL Canteen**

19:30 - 21:00

**Conference Party with Live Band "The Taylor Brothers" in ATC Foyer**

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**Day 4 - Saturday 16 November 2019**

**Time** | **Speaker**
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09:00 - 12:15 | **Session 6**
**Chair: Judith Zaugg**

- Making meaningful biomarker measurements with digital ELISA technology
  - David Walt - Wyss Institute at Harvard University, Harvard Medical School, Brigham and Women's Hospital, USA

09:30 - 09:45 | **The NASA Twins Study: A multidimensional analysis of a year-long human spaceflight**
  - Tejaswini Mishra - Stanford University, USA

09:45 - 10:15 | Designing cell-based treatment strategies of the future
  - Martin Fussenegger - ETH Zurich, Switzerland
10:15 - 10:45  Extracellular electrophysiological characterization of neurons and networks at subcellular resolution  
Andreas Hierlemann - ETH Zürich, Switzerland

Coffee Break and Meet the Speakers in ATC Foyer with: 
David Walt - Wyss Institute at Harvard University, Harvard Medical School, Brigham and Women's Hospital, USA
Martin Fussenegger - ETH Zurich, Switzerland
Andreas Hierlemann - ETH Zürich, Switzerland
Patrick Aloy - Institute for Research in Biomedicine, Spain
Benjamin Meder - University Hospital Heidelberg, Germany

10:45 - 11:15  Extending the small molecule similarity principle to all levels of biology  
Patrick Aloy - Institute for Research in Biomedicine, Spain

11:15 - 12:15  The failure uncovers heart's wonderful principles  
Benjamin Meder - University Hospital Heidelberg, Germany

12:15 - 12:30  Closing Remarks and Poster Prizes

12:30  Packed Lunch and Departure