



Molecular Mechanisms in Evolution and Ecology - Virtual

EMBL CONFERENCE

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! #EMBLEvoEco

To find out the equivalent time zone in your location, enter Berlin, the CEST programme time and your city into the [Time Zone Converter](#).

- All talks will be live-streamed with Q&A sessions after each talk.
- Information on the live stream and access to the discussion platform and digital posters will be provided shortly before the start of the event.
- Digital posters and pre-recorded talks (*including e-short talks from Vivian Chen, Timothy Fuqua, Natalia Gabrielli, Michelle Hays, Wenhong Jiang, Gurmeet Kaur, Sergey Kryazhimskiy, Antonio Di Pietro, Vikas Yadav*) will be available for registered participants throughout the virtual conference. E-short talk presenters will be available for discussion during the dedicated 'Meet the Speaker' sessions.
- Access to the recorded talks will be available for 2 weeks after the start of the event.

The following times are used in the programme below:

- Central European Summer Time (CEST): eg. Berlin, Amsterdam Paris
- Eastern Daylight Time (EDT): eg. New York, Quebec

Day 1 - Wednesday 30 September 2020

Time	Speaker
13:00-13:10 (CEST) 07:00-07:10 (EDT)	Opening remarks by Gianni Liti
13:10-15:50 (CEST) 07:10-09:50 (EDT)	Virtual Session 1 - Evolutionary Systems Biology Chair: Gianni Liti
13:10-13:40 (CEST) 07:10-07:40 (EDT)	Interactions between yeasts and other organisms: are these driven by exaptations or adaptations? Mat Goddard - University of Lincoln, UK <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
13:40-14:00 (CEST) 07:40-08:00 (EDT)	Within-gene epistatic selection shapes polymorphism in natural populations of the world's most variable eukaryotic species Anastasia Stolyarova - Skolkovo Institute of Science and Technology, Russia <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
14:00-14:30 (CEST) 08:00-08:30 (EDT)	Emerging by merging: origin and evolution of hybrid yeast pathogens Toni Gabaldón - Centre for Genomic Regulation, Spain <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
14:30-14:50 (CEST) 08:30-08:50 (EDT)	Multidimensional evolution of biophysical traits in a functionally divergent paralog pair Aaron M. New - Centre for Genomic Research (CRG), Spain <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
14:50-15:20 (CEST) 08:50-09:20 (EDT)	Genomics and the making of biodiversity across the budding yeast subphylum Antonis Rokas - Vanderbilt University, USA <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
15:20-15:50 (CEST) 09:20-09:50 (EDT)	Evolution of post-translational regulation Pedro Beltrao - EMBL-EBI Hinxton, UK <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
15:50-16:15 (CEST) 09:50-10:15 (EDT)	Coffee Break and Meet the Speaker - Session 1: Mat Goddard, Anastasia Stolyarova, Toni Gabaldón, Aaron New, Antonis Rokas, Pedro Beltrao and Gurmeet Kaur

Time	Speaker
16:15-17:15 (CEST) 10:15-11:15 (EDT)	Break and Virtual Poster Session 1 (odd numbers)
17:15-19:25 (CEST) 11:15-13:25 (EDT)	Virtual Session 2 - Systems and Synthetic Biology Chair: Kiran Patil
17:15-17:45 (CEST) 11:15-11:45 (EDT)	Fitness Landscapes and the Predictability of Evolution Claudia Bank - Instituto Gulbenkian de Ciência, Portugal AVAILABLE ON DEMAND AFTER LIVE STREAM
17:45-18:05 (CEST) 11:45-12:05 (EDT)	Genes involved in unfolded protein response and chromatin structure buffer the fitness effects of random mutations Jens Frickel - VIB-KU Leuven Center for Microbiology, Belgium
18:05-18:35 (CEST) 12:05-12:35 (EDT)	Exploring organelle evolution through synthetic approaches Angad Mehta - University of Illinois at Urbana-Champaign, USA
18:35-18:55 (CEST) 12:35-12:55 (EDT)	A roadmap of evolutionary trajectories toward cooperativity between ancient transcriptional regulators Kyle Fowler - University of California, San Francisco, USA AVAILABLE ON DEMAND AFTER LIVE STREAM
18:55-19:25 (CEST) 12:55-13:25 (EDT)	Synthetic genetic systems for continuous protein evolution <i>in vivo</i> Chang C. Liu - University of California, Irvine, USA AVAILABLE ON DEMAND AFTER LIVE STREAM
19:25-19:50 (CEST) 13:25-13:50 (EDT)	Coffee Break and Meet the Speaker - Session 2: Claudia Bank, Jens Frickel, Angad Mehta, Kyle Fowler and Chang C. Liu
20:00 - 21:00 (CEST) 14:00 - 15:00 (EDT)	Speed Networking (optional; visit the Slack channel for more details)
	End of day 1 - Continued access to digital posters, networking and discussion platforms, pre-recorded talks

Day 2 - Thursday 01 October 2020

Time	Speaker
13:00-16:00 (CEST)	Virtual Session 3 - Assembly and Evolution of Microbial Communities
07:00-10:00 (EDT)	Chair: Sara Mitri

13:00-13:30 (CEST) 07:00-07:30 (EDT)	Eco-evolutionary dynamics in a small bacterial community Sara Mitri - University of Lausanne, Switzerland AVAILABLE ON DEMAND AFTER LIVE STREAM
13:30-13:50 (CEST) 07:30-07:50 (EDT)	Polarization of microbial communities between competitive and cooperative metabolism Daniel Machado - EMBL Heidelberg, Germany AVAILABLE ON DEMAND AFTER LIVE STREAM
13:50-14:20 (CEST) 07:50-08:20 (EDT)	Evolution of gut bacterial communities Isabel Gordo - Instituto Gulbenkian de Ciência, Portugal AVAILABLE ON DEMAND AFTER LIVE STREAM
14:20-14:40 (CEST) 08:20-08:40 (EDT)	Multicellular dynamics and evolution in dense microbial populations Jona Kayser - Max Planck Institute for the Science of Light, Germany AVAILABLE ON DEMAND AFTER LIVE STREAM
14:40-15:10 (CEST) 08:40-09:10 (EDT)	The rapid evolution of a new metabolic interaction in cells suffering nutrient-growth dysregulation Wenying Shou - Fred Hutchinson Cancer Research Center, USA AVAILABLE ON DEMAND AFTER LIVE STREAM
15:10-15:30 (CEST) 09:10-09:30 (EDT)	Spatial structure limits on-person adaptive evolution of a prominent skin commensal Tami Liebermann - Massachusetts Institute of Technology, USA
15:30-16:00 (CEST) 09:30-10:00 (EDT)	Ecological interactions in cheese rind communities Rachel Dutton - University of California, San Diego, USA AVAILABLE ON DEMAND AFTER LIVE STREAM
16:00-16:25 (CEST) 10:00-10:25 (EDT)	Coffee Break and Meet the Speaker - Session 3: Rachel Dutton, Daniel Machado, Isabel Gordo, Jona Kayser, Wenying Shou, Tami Lieberman, Sara Mitri, Natalia Gabrielli, Sergey Kryazhimskiy and Vikas Yadav
16:25-17:30 (CEST) 10:25-11:30 (EDT)	Break and Virtual Poster Session 2 (even numbers)
17:30-18:30 (CEST) 11:30-12:30 (EDT)	Virtual Session 4 - Assembly and Evolution of Microbial Communities (continued)

17:30-18:30 (CEST)	Roundtable discussion with Jun-Yi (moderator), Maitreya Dunham, Isabel Gordo, Gianni Liti and Nassos Typas
11:30-12:30 (EDT)	<i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
18:30-18:55 (CEST)	Coffee Break and Meet the Speaker - Session 4: Jun-Yi Leu, Maitreya Dunham, Isabel Gordo, Gianni Liti and Nassos Typas
12:30-12:55 (EDT)	
19:15 - 20:15 (CEST)	Virtual Bar Mixer (optional; visit the Slack channel for more details)
13:15 - 14:15 (EDT)	
	End of day 2 - Continued access to digital posters, networking and discussion platforms, pre-recorded talks

Day 3 - Friday 02 October 2020

Time	Speaker
11:30-12:30 (CEST)	Career Development Session (optional; visit the Slack channel for more details)
05:30-06:30 (EDT)	
13:00-15:40 (CEST)	Virtual Session 5 - Experimental Evolution
07:00-09:40 (EDT)	Chair: Jun-Yi Leu
13:00-13:30 (CEST)	Learning from synthetic genomic applications in yeast
07:00-07:30 (EDT)	Lars Steinmetz - EMBL Heidelberg, Germany <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
13:30-13:50 (CEST)	Probing the impact of drugs on in vitro gut microbial communities
07:30-07:50 (EDT)	Sarela Garcia-Santamarina - EMBL Heidelberg, Germany <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>
13:50-14:20 (CEST)	Experimental evolution to understand microbial response to climate change
07:50-08:20 (EDT)	Sinead Collins - The University of Edinburgh, UK <i>AVAILABLE ON DEMAND AFTER LIVE STREAM</i>

- 14:20-14:40
(CEST)
08:20-08:40
(EDT)
- Genomic stability and adaptation of beer brewing yeasts during serial repitching in the brewery**
Christopher Large - University of Washington, USA
AVAILABLE ON DEMAND AFTER LIVE STREAM
- 14:40-15:10
(CEST)
08:40-09:10
(EDT)
- Characterization of transient hypermutator cell subpopulations in yeast colonies**
Gilles Fischer - Sorbonne Université, France
AVAILABLE ON DEMAND AFTER LIVE STREAM
- 15:10-15:40
(CEST)
09:10-09:40
(EDT)
- Expanding the Synthetic Capabilities of Yeast**
Virginia Cornish - Columbia University, USA
- 15:40-16:05
(CEST)
09:40-10:05
(EDT)
- Coffee Break and Meet the Speaker - Session 5:** Lars Steinmetz, Sarela Garcia-Santamarina, Sinead Collins, Christopher Large, Gilles Fischer, Virginia Cornish, Vivian Chen, Antonio Di Pietro, Timothy Fuqua and Wenhong Jiang
- 16:05-17:00
(CEST)
10:05-11:00
(EDT)
- Break and Virtual Poster Session 3 (odd and even numbers)**
- 17:00-19:30
(CEST)
11:00-13:30
(EDT)
- Virtual Session 6 - Evolution of Complex Traits**
Chair: Maitreya Dunham
- 17:00-17:30
(CEST)
11:00-11:30
(EDT)
- Species-wide survey of genetic complexity and phenotypic expressivity of traits in yeast**
Joseph Schacherer - University of Strasbourg, France
AVAILABLE ON DEMAND AFTER LIVE STREAM
- 17:30-17:50
(CEST)
11:30-11:50
(EDT)
- A yeast living ancestor reveals the origin of genomic introgressions**
Melania Jennifer D'Angiolo - Institute for Research on Cancer and Aging (IRCAN), France
AVAILABLE ON DEMAND AFTER LIVE STREAM
- 17:50-18:20
(CEST)
11:50-12:20
(EDT)
- Saccharomyces cerevisiae: a journey from the insect gut to the lab bench**
Irene Stefanini - University of Turin, Italy
AVAILABLE ON DEMAND AFTER LIVE STREAM
- 18:20-18:40
(CEST)
12:20-12:40
(EDT)
- A high frequency mutation-independent mechanism of drug resistance**
Jing Lin Xie - Stanford University, USA

- 18:40-19:10
(CEST)
12:40-13:10
(EDT)
- Multiple convergent events of mating-type loci linkage through different rearrangements**
Tatiana Giraud - Evolution et Systématique Laboratoire ESE, Université Paris-Sud XI, France
AVAILABLE ON DEMAND AFTER LIVE STREAM
- 19:10-19:40
(CEST)
13:10-13:40
(EDT)
- Databasing, Analyzing, and Leveraging Laboratory Evolution Data for Systems and Synthetic Biology, ALEdb**
Adam Feist - Technical University of Denmark, Denmark
AVAILABLE ON DEMAND AFTER LIVE STREAM
- 19:40-19:50
(CEST)
13:40-13:50
(EDT)
- Closing remarks by Kiran Patil**
- 19:50-20:15
(CEST)
13:50-14:15
(EDT)
- Coffee Break and Meet the Speaker - Session 6:** Joseph Schacherer, Melania Jennifer D'Angiolo, Irene Stefanini, Jing Lin Xie, Tatiana Giraud, Adam Feist and Michelle Hays
- End of day 3 - Continued access to digital posters, networking and discussion platforms, pre-recorded talks**