



EMBL Experimental Approaches to Evolution and Ecology Using Yeast and Other Model Systems

EMBO WORKSHOP



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 The content below is no longer being updated.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

The final programme is available as a PDF [here](#).

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Day 1 - Wednesday, 17 October 2018

Time	Speaker
15:30-17:00	Registration

Time	Speaker
	Session 1 - Systems and Synthetic Biology Chair: Peter Philippsen
17:00 – 17:15	Opening remarks
17:15 – 17:45	Writing genomes Jef Boeke - New York University, USA
17:45 – 18:15	WHO's yo' Momma, HO? Ken Wolfe - University College Dublin, Ireland
18:15 – 18:45	Epigenetic feedbacks linking DNA-dependent processes: how cells maintain expression homeostasis during DNA replication Naama Barkai - Weizmann Institute of Science, Israel
18:45 – 19:05	Molecular drivers of complex heritability revealed by a natural genotype to phenotype map Christopher M Jakobson, Stanford University School of Medicine, USA
19:05 – 19:25	Chemical genomics in genetically diverse strains of <i>Saccharomyces cerevisiae</i> Bede Busby, EMBL Heidelberg, Germany
19:25 - 23:00	Dinner and get together

Day 2 - Thursday, 18 October 2018

Time	Speaker
	Session 2 - Evolutionary Systems Biology I Chair: Anja Forche
09:00-09:30	Can microbes help explain the evolution of host cooperation? Lilach Hadany - Tel Aviv University, Israel
09:30-10:00	Yeast as a model to understand how new genes are born Anne-Ruxandra Carvunis - University of Pittsburgh, USA
10:00-10:20	Mapping genetic variation in gene expression by simultaneous quantification of mRNA and protein levels in single cells Christian Brion, University of Minnesota, USA
10:20-10:50	Coffee Break
10:50-11:20	Paralogous interference in cellular networks Christian Landry - Université Laval, Canada

Time	Speaker
11:20-11:50	Division of labour: laboratory evolution of a synthetic consortium of <i>Saccharomyces cerevisiae</i> strains for second generation bioethanol production Maarten Verhoeven - DSM, The Netherlands
11:50-12:10	Recombining your way out of trouble: Adaptation to stressful environments through hybridization Rike Stelkens, Stockholm University, Sweden
12:10-12:30	Dramatic variations in extrachromosomal DNA circle complement are caused by environmentally responsive gene expression Jonathan Houseley, Babraham Institute, UK
12:30-13:30	Lunch
13:30-14:10	Poster Introduction (odd numbers)
14:10-16:00	Poster Session I (odd numbers)
	Session 3. Experimental Evolution Chair: Jolanda van Leeuwen
16:00 -16:30	The complex underpinnings of genetic background effects Ian Ehrenreich - University of Southern California, USA
16:30-17:00	The shape of adaptation and trade-offs Gavin Sherlock - Stanford University, USA
17:00-17:20	Re-coding the <i>Saccharomyces cerevisiae</i> genome through evolution Ana Rita Guimarães, University of Aveiro, Portugal
17:20-17:50	Coffee Break
17:50-18:20	A renewable barcoding system for high-resolution lineage tracking in laboratory yeast Michael Desai - Harvard University, USA
18:20-18:50	Systems biology of yeast metabolism Jens Nielsen - Chalmers University of Technology, Sweden
18:50-19:10	Repurposing the function of a kleisin protein in budding yeast Yu Ying Phoebe Hsieh, Harvard University, USA
19:20-21:30	Dinner
21:30-24:00	After Dinner Drinks

Day 3 - Friday 19 October 2018

Time	Speaker
	Session 4 - Metabolic and Inter-species Networks I Chair: Frank Albert
09:00-09:30	Nematode pheromone mediated prey sensing is highly polymorphic among the wild isolates of nematode trapping fungi Yen-Ping Hsueh - Academia Sinica, Taiwan
09:30-10:00	Rapid adaptation to the host environment by <i>Cryptococcus neoformans</i> involves genomic changes Kirsten Nielsen - University of Minnesota, USA
10:00-10:20	Comparative pangenome analysis across yeast species reveals a variability shaped by introgression events Anne Friedrich, University of Strasbourg / CNRS, France
10:20-10:50	Coffee break
10:50-11:20	Talk title to be announced Markus Ralser - University of Cambridge, UK
11:20-11:50	Unravelling inter species metabolite exchange by combining modeling, genetic and metabolomic approaches Kiran Patil - EMBL Heidelberg, Germany
11:50-12:10	Induction of aneuploidy enables yeast to grow without the major membrane lipid phosphatidylcholine Xue Bao, Utrecht University, The Netherlands
12:10-12:30	The landscape of <i>S. paradoxus</i> introgression in <i>S. cerevisiae</i> strains from diverse environments Anne Clark, University of Washington, USA
12:30-13:30	Lunch
13:30-14:10	Poster Introduction (even numbers)
14:10-16:00	Poster Session II (even numbers)
	Free evening
17:00-18:30	Optional: Brewery Tour to Brauerei zum Klosterhof (additional costs may apply, limited spaces)

Day 4 - Saturday 20 October 2018

Time	Speaker
	<p>Session 5. Evolutionary Systems Biology II Chair: Shay Ben Aroya</p>
09:00-09:30	<p>Proteotoxic stress due to loss of interaction partners induces reproductive isolation in yeast hybrids Jun-Yi Leu - Academia Sinica, Institute of Molecular Biology, Taipei</p>
09:30-10:00	<p>Feedbacks on cyclin dependent kinase activity: evolution of safety nets for cell cycle control Damien Coudreuse- Institute of Genetics & Development of Rennes, France</p>
10:00-10:20	<p>Compensated deleterious mutations as drivers of morphological evolution Balazs Papp, Biological Research Centre of the Hungarian Academy of Sciences, Hungary</p>
10:20-10:50	<p>Coffee break</p>
10:50-11:20	<p>Mechanisms controlling variation in yeast growth Mark Siegal - New York University, USA</p>
11:20-11:50	<p>Genetic assimilation of epigenetic adaptation in experimental yeast populations Jonas Warringer - University of Gothenburg, Sweden</p>
11:50-12:10	<p>Interactions between two transcription factors modulate positive feedback in a eukaryotic bistable system Naomi Ziv, University of California, San Francisco, USA</p>
12:10-12:30	<p>Host virus coevolution in laboratory populations of yeast Sean Buskirk, Lehigh University, USA</p>
12:30-14:00	<p>Lunch</p>
	<p>Session 6. Evolution of complex traits I Chair: Giulia Rancati</p>
14:00-14:30	<p>Evolving cross resistance via aneuploidy in <i>Candida albicans</i> Judith Berman - Tel Aviv University, Israel</p>
14:30-15:00	<p>Natural variation in the response to gene over expression in wild <i>Saccharomyces cerevisiae</i> strains Audrey Gasch, University of Wisconsin Madison, USA</p>

Time	Speaker
15:00-15:20	Single cell copy number variant detection reveals the dynamics and diversity of adaptation David Gresham, New York University
15:20-15:50	Coffee Break
	Session 7. Metabolic and Inter-species Networks II Chair: Hsin Hung Chou TBA
15:50-16:20	Genetic conflicts and developmental constraints shape centromeric histone function Harmit Malik - Fred Hutchinson Cancer Research Center, USA
16:20-16:50	Evolution of functional promoters from random sequences Jeff Gore, Massachusetts Institute of Technology, USA
16:50-17:10	Genetic dissection of an ancient divergence in yeast thermotolerance Rachel Brem, University of California, Berkeley, USA
17:10 – 17:40	Coffee Break
	Session 8. Evolution of complex traits II Chair: Gianni Liti
17:40-18:10	Surrogate Genetics: Science at the interface of precision medicine and synthetic biology Aimee Dudley - Pacific Northwest Research Institute, USA
18:10:18:40	Gain of function mutations in yeast evolved in and out of the lab Maitreya Dunham - University of Washington, USA
18:40-19:00	High resolution yeast meiotic recombination landscape and its genomic modulators Jia Xing Yue, Université Côte d'Azur, CNRS, Inserm, IRCAN, France
19:00-20:30	Dinner
20:30-24:00	Party