



Humanized Mice in Biomedicine: Challenges and Innovations

EMBO PRACTICAL COURSE



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 The content below is no longer being updated.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

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Day 1 - Sunday 3 November 2019

Time	Speaker	Location
10:40	Bus departure to EMBL Heidelberg	Holiday Inn ExpressHeidelberg - City Centre
11:00 - 12:00	Arrival and registrations with light lunch	

Time	Speaker	Location
12:00 - 12:15	Welcome & introduction Yvonne Yeboah - EMBL Heidelberg, Germany	Flex Lab A & B
12:15 - 13:00	Lecture: Humanized mice: from academia to a global market Leonard Shultz - The Jackson Laboratory, USA	Flex Lab A & B
13:00 - 15:00	5 min flash talks by speakers Chair: Renata Stripecke - Hannover Medical School, Germany	Flex Lab A & B
15:00 - 17:00	5 min flash talks by participants Chair: Brian Soper - The Jackson Laboratory, USA	Flex Lab A & B
17:00	Bus departure to Neckarmünzplatz	EMBL bus stop
17:30 - 20:00	Guided tour of Heidelberg and casual dinner (reservation for 19:30)	Urban Kitchen

Day 2 - Monday 4 November 2019

Time	Speaker	Location
08:25	Bus departure to EMBL Heidelberg	Holiday Inn Express Heidelberg - City Centre
09:00 - 09:45	Part 1: Reconstructing the human immune system in vivo Chair: Renata Stripecke - Hannover Medical School, Germany	
09:00 - 09:45	Lecture: HSCs and human hematopoiesis in vivo Dominique Bonnet - The Francis Crick Institute, UK	Flex Lab A & B
09:45 - 10:30	Lecture: New strains, immunity and autoimmunity Michael Brehm - University of Massachusetts Medical School, USA	Flex Lab A & B
10:30 - 11:00	Coffee break	Flex Lab A & B

11:00 - 11:45	Lecture: T and NK cell development James Di Santo - Institut Pasteur, France	Flex Lab A & B
11:45 - 12:30	Lecture: Human adaptive T and B immunity Renata Stripecke - Hannover Medical School, Germany	Flex Lab A & B
12:30 - 13:30	Lunch break	EMBL Canteen
13:30 - 14:00	Lecture: Tools and optimized workflows for the analysis of human cells from humanized mouse models David Agorklu - Miltenyi Biotech, Germany	Flex Lab A & B
14:00 - 14:30	Lecture: Multicolor flow cytometry Diana Ordonez - EMBL Heidelberg, Germany	Flex Lab A & B
14:30 - 18:00	Practical: Selection of human hematopoietic stem cells, T cells, monocytes for humanization, harvest tissues from humanized mice and analyses of immune reconstitutions by FACS Corinna Klein - Heidelberg Institute for Stem Cell technology and Experimental Medicine, Germany Diana Ordonez - EMBL Heidelberg, Germany Sebastian Theobald - Hannover Medical School, Germany	Training Lab B
18:00 - 19:00	Dinner	EMBL Canteen
19:00 - 21:00	Poster Session (Odd Numbers)	top of Helix B
21:00	Bus departure to Holiday Inn ExpressHeidelberg - City Centre	EMBL bus stop

Day 3 - Tuesday 5 November 2019

Time	Speaker	Location
08:25	Bus departure to EMBL Heidelberg	Holiday Inn ExpressHeidelberg - City Centre
	Part 2: Infections with human pathogens Chair: Christian Muenz - University of Zurich, Switzerland	

09:00 - 09:45	Lecture: EBV and KSV infections Christian Muenz - University of Zurich, Switzerland	Flex Lab A & B
09:45 - 10:30	Lecture: Adenovirus and Ebola virus infections Estefania Rodriguez-Burgos - Heinrich Pette Institute Hamburg, Germany	Flex Lab A & B
10:30 - 11:00	Coffee break	Flex Lab A & B
11:00 - 11:45	Lecture: B cell responses against HIV Florian Klein - Centre for Molecular Medicine Cologne, Germany	Flex Lab A & B
11:45 - 12:30	Lecture: Gene therapy against HIV Scott Kitchen - University of California Los Angeles, USA	Flex Lab A & B
12:30 - 13:30	Lunch break	EMBL Canteen
13:30 - 14:00	Lecture: Histopathology Estefania Rodriguez-Burgos - Heinrich Pette Institute Hamburg, Germany	Flex Lab A & B
14:00 - 14:30	Lecture: Quantitative PCR Kanika Vanshylla - Center for Molecular Medicine Cologne, Germany	Flex Lab A & B
14:30 - 18:00	Practical: RNA samples obtained from mice with infections (HIV, AdV, EBV,HCMV, Ebola) analyzed by real time quantitative PCR for quantification of infections. Pre-fixated tissue sections and cells analyzed for detection of viral antigens by microscopy Scott Kitchen - University of California Los Angeles, USA Kanika Vanshylla - Center for Molecular Medicine Cologne, Germany Estefania Rodriguez-Burgos - Heinrich Pette Institute Hamburg, Germany	Training Lab B
18:00 - 21:00	Pizza and Poster Session (Even Numbers)	top of Helix B
21:00	Bus departure to Holiday Inn ExpressHeidelberg - City Centre	EMBL bus stop

Day 4 - Wednesday 6 November 2019

Time	Speaker	Location
08:25	Bus departure to EMBL Heidelberg	Holiday Inn ExpressHeidelberg - City Centre
	Part 3: Patient derived transplants (PDX) for oncology research Chair: J.J. Schuringa - University of Groningen, The Netherlands	
09:00 - 09:45	Lecture: Ossicle implants for engraftment of hematopoietic stem cells and leukemia J.J. Schuringa - University of Groningen, The Netherlands	Flex Lab A & B
09:45 - 10:30	Lecture: PDX models combined with human immune system Brian Soper - The Jackson Laboratory, USA	Flex Lab A & B
10:30 - 11:00	Coffee break	Flex Lab A & B
11:00 - 11:45	Lecture: Minimal Information for Patient-Derived Tumor Xenograft Models Terrence Meehan - EMBL-EBI Hinxton, UK	Flex Lab A & B
11:45 - 12:30	Lecture: Population-scale studies with PDX for precision medicine for colorectal cancer research Livio Trusolino - University of Torino Medical School, Italy	Flex Lab A & B
12:30 - 13:30	Lunch break	EMBL Canteen
13:30 - 14:30	Lecture: In silico genomics analyses Terrence Meehan - EMBL-EBI Hinxton, UK J.J. Schuringa - University of Groningen, The Netherlands Livio Trusolino - University of Torino Medical School, Italy	Flex Lab A & B

Practical: In silico genomics analyses of mutations and tumor heterogeneity analyses, representative examples

14:30 - 18:00	Terrence Meehan - EMBL-EBI Hinxton, UK Ross Thorne - EMBL-EBI Hinxton, UK J.J. Schuringa - University of Groningen, The Netherlands Livio Trusolino - University of Torino Medical School, Italy	Computer Training Lab
18:00 - 19:00	Dinner	EMBL Canteen
19:00 - 21:00	Selected short talks (4x) and round table discussion: challenges in the field	Flex Lab A & B
21:00	Bus departure to Holiday Inn Express Heidelberg - City Centre	EMBL bus stop

Day 5 - Thursday 7 November 2019

Time	Speaker	Location
08:25	Bus departure to EMBL Heidelberg	Holiday Inn Express Heidelberg - City Centre
	Part 4: Immuno-oncology and transplantation Chair: Brian Soper - The Jackson Laboratory, USA	
09:00 - 09:45	Lecture: Genetic heterogeneity of AML and pancreatic cancer Andreas Trumpp - German Cancer Research Center, Germany	Flex Lab A & B
09:45 - 10:30	Lecture: Immuno-oncology of breast cancer Anja Wege - University Medical Center Regensburg, Germany	Flex Lab A & B
10:30 - 11:00	Coffee break and Group Photo	Flex Lab A & B
11:00 - 11:45	Lecture: Application of PDX for triple negative marker breast cancer research Carol Bult - The Jackson Laboratory, USA	Flex Lab A & B

11:45 - 12:30	Lecture: Humanized mice and organoids in transplantation research Kourosh Saeb-Parsy - University of Cambridge, UK	Flex Lab A & B
12:30 - 13:30	Lunch break	EMBL Canteen
13:30 - 14:30	Lecture: Video Brian Soper - The Jackson Laboratory, USA Li-Chin Yao - The Jackson Laboratory, USA	Flex Lab A & B
14:30 - 18:00	Practical: Humanized mice implanted with patient-derived malignancies Anja Wege - University Medical Center Regensburg, Germany Li-Chin Yao - The Jackson Laboratory, USA Kourosh Saeb-Parsy - University of Cambridge, UK	Training Lab B
18:00	Bus departure to Holiday Inn Express Heidelberg - City Centre	
19:00	Bus departure to Wirtshaus zum Nepomuk (walk from the Old Bridge)	Old Bridge
19:30	Dinner Downtown	Wirtshaus zum Nepomuk

Day 6 - Friday 8 November 2019

Time	Speaker	Location
08:25	Bus departure to EMBL Heidelberg	Holiday Inn Express Heidelberg - City Centre
09:00 - 09:30	Part 5: Regenerative medicine and the regulatory perspective Karl-Dimiter Bissig - Duke University Medical Center, USA Lecture: Human liver chimeric mouse models – the chances & challenges Karl-Dimiter Bissig - Duke University Medical Center, USA	Flex Lab A & B

09:30 - 10:00	Lecture: Overcoming liver injury through regenerative medicine Amar Sharma - Hannover Medical School, Germany	Flex Lab A & B
10:00 - 10:30	Lecture: Tissue immunophenotyping and cell quantifications Silvia Guionaud - AstraZeneca, UK	Flex Lab A & B
10:30 - 11:00	Coffee break	Flex Lab A & B
11:00 - 11:45	Lecture: Humanized mice in drug discovery Johannes Sam - Roche Zurich, Switzerland	Flex Lab A & B
11:45 - 12:30	Lecture: The regulatory perspective of the FDA Kristina Howard - Food and Drug Administration, USA	Flex Lab A & B
12:30 - 13:30	Lunch break	EMBL Canteen
13:30 - 14:30	Round table discussion and closing remarks	Flex Lab A & B
14:30	Bus departure to Hauptbahnhof, Crowne Plaza, Holiday Inn Express Heidelberg City Centre	EMBL bus stop