

Program IMM 2019
LUMC Leiden - Lecture hall 1

Wednesday 19 June, 2019

17:00	Registration & welcome	
17:55	Opening <i>Jos Jonkers</i>	5'
18:00	Keynote Lecture 1 Hellmut Augustin (German Cancer Research Center, Heidelberg, Germany) Crossing the valley of death: The need for better preclinical mouse tumor models	60'
19:00	Buffet	

Thursday 20 June, 2019

8:30	Registration & welcome with coffee	
9:00-10:30	Session 1: Novel in vivo applications of CRISPR/Cas9 technology (I) <i>Chair: Peter Hohenstein (Leiden University Medical Center)</i>	
9:00	Lukas Dow (Weill Cornell Medicine, New York, NY, USA) Building disease models with single base pair resolution	30'
9:30	Reza Kalhor (Harvard Medical School, Boston, MA, USA) Developmental lineage mapping by combinatorial genomic barcoding in the mouse	30'
10:00	Amine Bouchareb (University of Oxford, Oxford, United Kingdom) Electroporation and genetic supply of Cas9 increases the efficiency of CRISPR/Cas9 mutagenesis in mouse zygotes	15'
10:15	Lydia Teboul (MRC Harwell Institute, Molecular & Cellular Biology, Mary Lyon Centre, Harwell C, United Kingdom) Validation of increasingly complex alleles generated by genome editing: employing long-read sequencing	15'
10:30-11:00	Coffee Break	
11:00-12:30	Session 2: How to make mice in the CRISPR era? <i>Chair: Ivo Huijbers (The Netherlands Cancer Institute)</i>	
11:00	Søren Warming (Genentech Inc, South San Francisco, CA, USA) CRISPR off-targets and un-expected events	20'
11:20	Branko Zevnik (CECAD Cologne, Cologne, Germany) Benefits and limitations of zygote electroporation for mouse genome editing	20'
11:40	Lin Wu (Harvard Medical School, Boston, MA, USA) Mouse Genome Editing Using CRISPR/Cas9 Technology	20'
12:00-13:00	Lunch	
13:00-14:00	Posters	
14:00	Keynote Lecture 2 Channabasavaiah B. Gurumurthy (Nebraska Medical Center, Omaha, NE, USA) Redefining mouse transgenesis using <i>Easi</i> -CRISPR and <i>i</i> -GONAD technologies	45'
14:45	Discussion on 'how to make mice in the CRISPR era' <i>Introduction: Ivo Huijbers (The Netherlands Cancer Institute)</i>	30'
15:15-15:45	Break + posters	
15:45-17:15	Session 3: Microbiome→Impact on colony management <i>Chair: Hein te Riele (The Netherlands Cancer Institute)</i>	
15:45	Arthur Liesz (Ludwig Maximilian University of Munich, Munich, Germany) The gut-brain-axis in stroke	30'
16:15	Floor Hugenholtz (Amsterdam University Medical Center, Amsterdam, The Netherlands) Mouse models for human intestinal microbiota research	30'
16:45	Els Robanus-Maandag (Leiden University Medical Center, Leiden, The Netherlands) Gut microbiota modulate intestinal tumor development in mice	30'
17:15	Reception and dinner	

Friday 21 June, 2019

9:00-10:30	Session 4: Novel in vivo applications of CRISPR/Cas9 technology (II) <i>Chair: Paul Krimpenfort (The Netherlands Cancer Institute)</i>	
9:00	Keiichiro Suzuki (Osaka University, Osaka, Japan) Development of novel in vivo genome editing method "HITI" and applications for animal models	30'
9:30	Ivo Huijbers (The Netherlands Cancer Institute, Amsterdam, The Netherlands) New mouse models to accelerate cancer research	30'
10:00	Stefano Annunziato (The Netherlands Cancer Institute, Amsterdam, The Netherlands) In situ CRISPR-Cas9 base editing for the development of novel mouse models of breast cancer	15'
10:15	Natascha Gödecke (Helmholtz Centre for Infection Research, Germany) Epigenetic modulation of inducible expression cassettes reverts silencing of transgene expression	15'
10:30-11:00	Coffee Break	
11:00-12:30	Session 5: Imaging and phenotyping <i>Chair: Jeroen Essers (Erasmus University Medical Center)</i>	
11:00	Mark Henkelman (Mouse Imaging Centre, Toronto, Canada) Genes into Geometry: Imaging for Mouse Phenotyping	30'
11:30	Jacco van Rheenen (The Netherlands Cancer Institute, Amsterdam, The Netherlands) Intravital Microscopy reveals the dynamic nature of (cancer) stem cells during the development and homeostasis of tissues and the progression of cancer	30'
12:00	Mihail Todorov (Ludwig Maximilian University of Munich, Munich, Germany) Tissue clearing based imaging technologies for small animals	30'
12:30-13:30	Lunch	
13:30-14:30	Posters	
14:30-16:00	Session 6: Debate: Are mice essential or obsolete in fundamental and/or translational research? <i>Chair: Jos Jonkers (The Netherlands Cancer Institute)</i>	
14:30	Yann Hérault (Institute of Genetics and of Molecular and Cellular Biology, Strasbourg, France) Getting insights from the mouse models to understand the physiopathology and propose therapeutic avenues for neurodevelopmental disorders	20'
14:50	Sylvia Boj (Hubrecht Organoid Technology, Utrecht, The Netherlands) Organoids: a patient in the lab	20'
15:10	Christine Mummery (Leiden University Medical Center, Leiden, The Netherlands) Cardiovascular diseases and drugs: where are we with hiPSC models?	20'
15:30	Discussion on 'mouse models versus organoids and organs-on-chips' <i>Introduction: Hellmut Augustin (German Cancer Research Center)</i>	30'
16:00	Best Poster Prizes sponsored by  EACR European Association for Cancer Research	5'
16:05	Closing remarks <i>Peter Hohenstein</i>	5'
16:10	Drinks and snacks	

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