



TT2022

17th Transgenic Technology Meeting
17-20 September, 2022
Helsinki, Finland
www.TT2022.org



Saturday 17th September – Tuesday 20th September 2022
Scandic Marina Congress Centre, Helsinki

www.TT2022.org

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Dear TT2022 attendees,

Wish We Were There!



Cosmo Bio USA sends our very best wishes to all TT2022 participants and organizers for yet another exciting, stimulating, and motivating week. Great reagents do drive great research (we've got lots), but great research comes only from great researchers. Even though we couldn't make it to Helsinki this year, we're again proud to be a meeting sponsor. Thank you to all of you who put your trust in the products we offer!


*Take care, stay safe, and see you soon,
Your friends at Cosmo Bio USA*





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Saturday 17th September

Opening Session	
08.00-17.30	Exhibition & Poster Build
09.00-13.00	Pre-meeting workshop: Engineered Allele Validation Workshop (private event and not part of the main conference.) (Nautica Meeting Room)
15.00-18.30	Registration Open
17.45-18.00	Welcome
18.00-19.00	Keynote Lecture: Translational Insights into Vascular Growth Factors <i>Kari Alitalo, University of Helsinki, Finland</i>
19.00-21.00	Welcome Reception & Opening of Exhibition & Posters 

Sunday 18th September

08.00-17.30	Registration, Exhibition & Posters Open
09.00-10.30	Session 1: Animal Models: From Bench to Bedside Chair: <i>Lydia Teboul</i>
09.00-09.30	NEPTUNE (Neural plate targeting with in utero nano-injection): a method for rapid genetic manipulation of gene expression in embryonic nervous system to reduce the numbers of mice used in research <i>Emma Andersson, Karolinska Institute, Stockholm, Sweden</i>
09.30-10.00	The role of oxidative stress and antioxidants in cancer progression and metastasis <i>Martin Bergö, Karolinska Institutet, Halland, Sweden</i>
Oral Presentations	
10.00-10.15	Genome editing in an era of precision medicine: Generation of personalized human-variant animal models <i>Daniel Davis, University of Missouri, United States</i>
10.15-10.30	Patient-specific mutations reproduce the cardinal characteristics of a rare genetic disorder, Barth Syndrome, in a humanised mouse model <i>Douglas Strathdee, CRUK Beatson Institute, United Kingdom</i>
10.30-11.00	Posters and Exhibition (Even numbered posters) 
11.00-12.30	Session 2: Advances of In Vivo Genome Editing Chair: <i>Lauryl Nutter</i>
11.00-11.30	Establishing the AID degraon system in transgenic mice <i>Philip W Jordan, Johns Hopkins University, Baltimore, USA</i>
11.30-12.30	Quality control requirements for Cas9-derived animals Moderator: <i>Lydia Teboul, Mary Lyon Centre at MRC Harwell, UK</i> Experts: <i>Sören Warming, Genentech, San Francisco, CA, USA</i> <i>Lauryl Nutter, SickKids, Toronto, Canada</i> <i>Marie-Christine Birling, Igbmc Gie Cerbm, France</i>
12.30-13.30	Lunch, Posters & Exhibition 

12.45-13.15	Charles River Lunchtime Symposium (lunch can be taken into room) Contributing to reproducibility, animal welfare & 3Rs in phenogenomics <i>Jean Cozzi, Innovation Manager, Charles River</i> <i>Guillaume Pavlovic, Head Of Mutagen & Trans- Pheno Mol, Igbmc Gie Cerbm</i>
13.30-13.50	Session 3: Poster Flash Presentations Chair: <i>Mitra Cowan</i>
13.30-13.34	Generation and characterization of novel human ace2 rat models for the study of SARS-Cov-2 and COVID-19 <i>Elizabeth Bryda, University of Missouri- Columbia, USA</i>
13.34-13.38	Establishing a robust and efficient workflow for the generation of complex knock-in alleles, via delivery of AAV donor reagents and CRISPR electroporation <i>Graham Duddy, The Francis Crick Institute, United Kingdom</i>
13.38-13.42	Innovative mouse models by replacement or insertion of large genomic fragments (humanization) <i>Marie-Christine Birling, Igbmc Gie Cerbm, France</i>
13.42-13.46	Fusion Transcript Screening: Repurposing the PolyA Trap as a Fast and Robust Screen for Gene Targeted Alleles <i>Roger Askew, Ozgene, Pty Ltd, USA</i>
13.46-13.50	Recovery of live Copenhagen rats after 25 years in cryo-storage <i>Kathy Krentz, University Of Wisconsin, USA</i>
13.50-15.00	Session 4: Animal Ethics and 3Rs Chair: <i>Branko Zevnik</i>
13.50-14.10	Murphy meets 'Go': The intricacies of planning complex breedings <i>Thorsten Buch, University of Zurich, Switzerland</i>
14.10-14.30	Ethically acceptable and scientifically valid use of animals in research - beyond the Three Rs <i>Vootele Voikar, Helsinki Institute of Life, Finland</i>
14.30-15.00	3Rs Prize Reducing the number of breeding cages and of experimental animals using IVF by accurate prediction of expected germline transmission rate <i>Ronald Naumann, Max Planck Institute Cbg, Germany</i>
15.00-15.30	Posters & Exhibition (Odd numbered posters) ☕
15.30-17.00	Session 5: Cancer Chair: <i>Soren Warming</i>
15.30-16.00	LoL - Links of Lin28: microRNA to mRNA <i>Jihan Osborne, UT Southwestern Medical Center, Texas, USA</i>
16.00-16.30	Mouse models in deciphering the roles of extracellular matrix in cancer <i>Ritva Heljäsvaara, University of Oulu, Finland</i>
Oral Presentation	
16.30-16.45	Inducible dominant negative ErbB2 rat spermatogonial line for generation of transgenic rat model and dissecting ERBB2 tyrosine kinase mediated pathways <i>Andrew Syvyk, Texas A&m University, USA</i>
16.45-17.15	Posters & Exhibition ☕
17.15-18.30	Session 6: ISTT Prize Lectures Chair: <i>Ernst-Martin Füchtbauer</i> <i>Elizabeth Lacy, Sloan Kettering Institute, New York, USA</i> <i>Frank Costantini, Columbia University, New York, USA</i>
19.30-23.00)	Conference Dinner (included in registration free, but must be pre-booked) <i>Fennia II, Scandic Marina Congress Centre</i>



Monday 19th September

08.00-16.00	Registration, Exhibition & Posters Open	
09.00-10.30	Session 7: <i>Non-Mammalian Models</i> Chair: Cheryl Bock	
09.00-09.30	Drosophila transgenetics for studying mitochondrial function and dysfunction <i>Howy Jacobs, University of Tampere, Finland</i>	
09.30-10.00	Tissue-specific transgenesis in non-vertebrate chordate models: the case study of <i>Ciona robusta</i> <i>Annamaria Locascio, Stazione Zoologica Anton Dohrn, Napoli, Italy</i>	
Oral Presentations		
10.00-10.15	Repair of the C57Bl/6 inbred mouse genome <i>Ralf Kuehn, Max Delbrueck Center For Molecular Medicine, Germany</i>	
10.15-10.30	An optimized workflow for efficient generation of large knock-in mouse models by a combination of IVF and CRISPR-mediated genome editing in C57Bl/6 mice <i>Mitra Cowan, McGill University (micam), Canada</i>	
10.30-11.00	Posters & Exhibition (Odd numbered posters)	☕
11.00-12.20	Session 8: <i>Running a Transgenic Service Facility</i> Chair: Ben Davies Panel Discussion <ul style="list-style-type: none"> • <i>Petra Sipilä, University of Turku, Finland</i> • <i>Benjamin Low, Jackson Laboratory</i> • <i>Pawel Pelczar, Biozentrum, Basel, Switzerland</i> • <i>Natalia Moncaut, Cancer Research UK Manchester Institute, UK</i> 	
12.20-14.00	Lunch, Posters Presentations I (Odd Numbers) & Exhibition	✕
12.45-13.15	Merck Lunchtime Symposium (lunch can be taken into room) Beyond the Limitations : Fully Guaranteed Synthetic sgRNA and high fidelity, high efficiency Cas9 proteins for gene edited animal model and cell line creation <i>Gurpreet Balrey, Head of EMEA Business, Merck</i>	
14.00-15.30	Session 9: <i>Neuroscience</i> Chair: Tim Nottoli	
14.00-14.30	Targeting 3'UTR to modulate gene expression provides new insight into etiology and treatment of schizophrenia <i>Jaan-Olle Andressoo, University of Helsinki, Finland</i>	
14.30-15.00	Investigating regulatory non-coding RNA networks in ischemic stroke <i>Tarja Malm, University of Eastern Finland, Finland</i>	
Oral Presentations		
15.00-15.15	Mouse development after embryo culture in HTF medium <i>Lev Fedorov, Oregon Health & Science University, USA</i>	
15.15-15.30	Creation of the four core genotypes mouse model by inducible CRISPR/dCas9-based systems <i>Yueh-Chiang Hu, Cincinnati Children's Hospital Medical Center, USA</i>	
15.30-16.00	Posters & Exhibition (Even numbered posters)	☕
16.00-16.45	Orbis Pictus Lecture - Sponsored by CCP Introduction <i>Radislav Sedlacek, Director of Czech Centre for Phenogenomics</i> Illuminating the brain's choroid plexus – CSF system <i>Maria Lehtinen, Boston Children's Hospital, USA</i>	
		
16.45-18.15	ISTT General Assembly	
Evening free for networking		

Tuesday 20th September

08.00-17.30	Registration, Exhibition & Posters Open (<i>exhibition closes after lunch</i>)
09.00-10.30	Session 10: Large Animal Transgenesis Chair: <i>Lluís Montoliu</i>
09.00-09.30	Generation of Transgenic Marmosets as Non-human Primate Models for Brain Disorders and Neuroscience Research <i>Qiangge Zhang, MIT, Massachusetts, USA</i>
09.30-10.00	From Egg to Chicken: Novel Ways in Livestock Using Genome Editing <i>Benjamin Schusser, Technical University Munich, Germany</i>
Oral Presentations	
10.00-10.15	Optimised genome engineering of a transgenic mouse platform for the discovery of canine therapeutic antibodies <i>Stuart Newman, PetMedix LTD, UK</i>
10.15-10.30	Discussing about the variability of the mouse gut microbiota <i>Guillaume Pavlovic, Igbmc Gie Cerbm, France</i>
10.30-11.00	Posters & Exhibition ☕
11.00-12.00	Session 11: Emerging Technologies Chair: <i>Stephan Teglund</i>
11.00-11.30	SCON conditional intron for conditional knockout and confetti to mosaic genetics tool <i>Bon-Kyoung Koo, Institute of Molecular Biotechnology, Vienna, Austria</i>
Oral Presentations	
11.30-11.45	One-step generation of a conditional allele in mice using a short artificial intron <i>Stephane Pelletier, Indiana University School of Medicine, USA</i>
11.45-12.00	A novel system for mouse sperm cryopreservation using multilayer insulation and immersion in liquid nitrogen for cooling rate control, using 20 mm MicroStraw and batch labeling technology to increase storage capacity and labeling efficiency <i>Xiaojun Xing, Yale University, USA</i>
12.00-13.30	Lunch, Posters Presentations II (Even Numbers) Exhibition closes after lunch ✕
13.30-14.00	Session 12: ISTT Young Investigator Award Chair: <i>Benoît Kanzler</i> <i>Davide Seruggia, St Anna Children's Cancer Research Institute, Vienna</i>
14.00-14.55	Session 13: The EMBO Keynote Lecture Chair: <i>Thom Saunders</i>
	Mice with humanised genes, to model neurodegeneration: amyotrophic lateral sclerosis <i>Elizabeth Fisher, UCL Institute of Neurology, UK</i>
14.55-15.15	Awards, Presentation on TT2023 and Closing Remarks

