

**TT2023 Scientific Programme**  
**Sunday 12<sup>th</sup> November – Wednesday 15<sup>th</sup> November 2023,**  
**Hyatt Regency Hotel, Houston, Texas**

Saturday 11 November		Location
08.00 – 12.00	<b>Allele Design Pre-Conference Morning Workshop: Animal Genome Editing: Strategies for Allele Design and Production</b> ( <i>must be pre-booked</i> )	Dogwood Room
13.00 – 17.00	<b>Allele Design Pre-Conference Afternoon Workshop: Animal Genome Editing: Strategies for Allele Design and Production</b> ( <i>must be pre-booked</i> )	Dogwood Room
17.00 – 19.00	<b>ISTT Board of Directors Meeting</b> <i>Invite Only</i>	Cottonwood Room

Sunday 12 November		Location
07.00 – 17.30	<b>Exhibition &amp; Poster Board Build</b> ( <i>Contractor Access Only</i> )	Imperial West
08.00 – 15.00	<b>Tours to Johnson Space Center (NASA)</b> Tour 1 (Private Tram Tour): 08.00 – 13.30 Tour 2 (General Admission Tour): 09.30 – 15.00 ( <i>must be pre-booked</i> )	Meeting Point at Hotel Reception
09.00 – 20.00	<b>Registration Open</b>	Imperial Foyer
15.00 – 18.00	<b>Speaker Preview Open</b>	Magnolia Room
17.45 – 18.00	<b>Welcome to TT2023</b> <i>Ernst-Martin Füchtbauer &amp; Jan Parker-Thornburg</i>	Imperial East
18.00 – 19.00	<b>Opening Keynote</b> <b>Understanding In Vivo Functions of the p53 Family to Target p53 Mutant Cancer Therapeutically</b> <i>Dr Elsa Flores, Associate Center Director of Basic Science, Moffitt Cancer, Tampa, Florida, United States.</i>	
19.00 – 21.00	<b>Welcome Reception &amp; Opening of Exhibition and Posters</b>	Imperial West

Monday 13 November		Location
07.30 – 17.30	<b>Registration Open</b>	Imperial Foyer
08.00 – 17.30	<b>Speaker Preview Open</b>	Magnolia Room
08.00 – 08.45	<b>Technical Focus Meetings (Limited Space – arrive early)</b> Technicians Focus Group Scientist & Manager Focus Group	Cottonwood Dogwood
08.30 – 19.00	<b>Exhibition &amp; Posters Open</b>	Imperial West
<b>09.00 – 10.25</b>	<b>Session 1: Precision Animal Models of Human Disease I</b> <i>Chairs: Dr Jason Heaney and Professor Thom Saunders</i>	<b>Imperial East</b>
09.00 – 09.30	<b>Roadmapping Therapeutic Strategies for Rare Diseases</b> <i>Professor Cat Lutz, Vice President, Rare Disease Translational Center, The Jackson Laboratory, Maine, United States.</i>	
09.30 – 09.50	<b>Humanization of <i>Drosophila</i> Genes for Rare Disease Diagnosis and Research</b> <i>Dr Shinya Yamamoto, Assistant Professor, Baylor College of Medicine, Houston, Texas, United States.</i>	

09.50 – 10.10	<b>Efficient DNA Knock-In Using AAV-Mediated Delivery with 2-cell Embryo CRISPR-Cas9 Electroporation</b> <i>Dr Daniel Davis, Assistant Director, Animal Modeling Core, University of Missouri, Missouri, United States.</i>	
10.10 – 10.25	<b>O-1 Efficiencies of Different Genetic Modification Techniques in Rat Embryos</b> <i>Dr James F. McNew, Graduate Fellow, University of Missouri, Missouri, United States.</i>	
10.25 – 10.55	<b>Tea &amp; Coffee Break &amp; Exhibition/ Poster Viewing</b>	Imperial West
10.55 – 12.45	<b>Session 2: Precision Animal Models of Human Disease II: Tiered Talk Chairs: Dr Richard Behringer and Fabien Delerue</b>	Imperial East
10.55 – 11.35	<b>From Genes to Morphology – Linking Congenital Malformations</b> <i>Professor Loydie Jerome-Majewska, Principal Investigator, McGill University, Montreal, Canada.</i>	
11.35 – 12.00	<b>Requirement of Sf3b4 During Axial and Craniofacial Development in Mouse Embryos</b> <i>Shruti Kumar, PhD Student, McGill University, Montreal, Canada.</i>	
12.00 – 12.15	<b>Developing Animal Models with Craniofacial Anomalies; Tips and Tricks</b> <i>Mitra Cowan – Associate Director Of McGill Integrated Core For Animal Modeling, McGill University, Montreal, Canada.</i>	
12.15 – 12.30	<b>O-2 Random Insertion Transgenesis - A Fluorescence Based Selection Approach</b> <i>Tabitha Toombe, Research Technician, Vancouver Prostate Centre, Vancouver, Canada.</i>	
12.30 – 12.45	<b>O-3 Dual Flex Transgenic Systems: Paired Genetic Switches for Leakproof Conditional Transgenes and Intersection Biology</b> <i>Roger Askew, PhD, Ozgene</i>	
12.45 – 13.45	<b>Lunch, Posters &amp; Exhibition</b>	Imperial West
13.00 – 13.30	<b>Charles River Sponsored Lunchtime Symposium: “Outside-the-Box” Generation of Targeted Mutant Rodent Models</b> <i>Dr Jean Cozzi, Innovation Manager at Charles River &amp; Dr Guillaume Pavlovic, Head Of Genetic Engineering and Model Validation at PHENOMIN.</i> No pre-booking required. All delegates are invited to join.	Imperial East
13.45 – 15.45	<b>Session 3: Animal Models in Space Biology I</b> <b>Chairs: Professor Bob Hammer and Dr Soren Warming</b>	Imperial East
13.45 – 14.15	<b>Space Radiation Exposure and Risk Mediated by Clonal Hematopoiesis</b> <i>Professor Kenneth Walsh, University of Virginia, Virginia, United States</i>	
14.15 – 14.45	<b>Cx43 and Bone Adaptation to the Mechanical Environment</b> <i>Dr Henry Donahue, Professor and Chair, Virginia Commonwealth University, Virginia, United States</i>	

14.45 – 15.15	<b>Novel Transgenic Technologies and Animal Models to Evaluate Spaceflight Hazards and Confer Human Radioresistance for Deep Space Exploration and Colonization</b> <i>Dr Xiao-Hong Lu, Assistant Professor, LSU Health Shreveport, Los Angeles, United States.</i>	
15.15 – 15.25	<b>Advancing Translational Biomedical Research: Gene-Edited Rabbit Models at CAMTraST</b> <i>Dr Dongshan Yang, Assistant Professor, University of Michigan</i>	
15.25 – 15.35	<b>O-4 Adaptive Sampling Long-read Sequencing for Characterization of CRISPR/Cas9-Generated Founder Transgenic Mice</b> <i>Zach Freeman, PhD, University of Michigan</i>	
15.35 – 15.45	<b>Generation and Comprehensive Analysis of CRISPR-Mediated NHEJ Profiles in F0 Founders</b> <i>Charleen Hunt, Scientist, Regeneron Pharmaceuticals</i>	
15.45 – 16.30	<b>Tea &amp; Coffee Break &amp; Exhibition/ Poster Viewing</b>	Imperial West
<b>16.30 – 17.30</b>	<b>Session 4: ISTT Prize Lecture</b> <b>Chair: Ernst-Martin Füchtbauer</b>	<b>Imperial East</b>
16.30 – 17.30	<b>Prize Lecture Talk: Building a Better Mouse, One Base Pair at a Time</b> <i>Dr Philippe Soriano, Professor, Icahn School of Medicine at Mt. Sinai, New York, United States.</i>	
17.30 – 19.00	<b>Poster Session 1, Happy Hour and Exhibition</b> <i>(Only odd paper numbers will be presenting their poster in session 1)</i>	Imperial West

<b>Tuesday 14 November</b>		<b>Location</b>
07.30 – 18.00	<b>Registration Open</b>	Imperial Foyer
08.00 – 18.00	<b>Speaker Preview Open</b>	Magnolia Room
<b>08.15 – 08.45</b>	<b>GemPharmatech Sponsored Breakfast Symposium: KOAP: The Largest Collection of Genome Engineered Mouse Models.</b> <i>Hongyu Wang, Director at GemPharmatech</i>	<b>Imperial East</b>
08.30 – 18.00	<b>Exhibition &amp; Posters Open</b>	Imperial West
<b>09.00 – 10.20</b>	<b>Session 5: Alternative Animal Models</b> <b>Chairs: Dr Martina Crispo &amp; Marina Gertenstein</b>	<b>Imperial East</b>
09.00 – 09.40	<b>Genetic Approach in New Animal Models with Genome Editing</b> <i>Dr Hiroshi Kiyonari, Team Leader, RIKEN, Kobe, Japan.</i>	
09.40 – 10.00	<b>Establishing a Reptile Research Colony for Developmental Genetic Studies</b> <i>Dr Richard Behringer, Professor, MD Anderson Cancer Center, Houston, Texas, United States</i>	
10.00 – 10.20	<b>Understanding the Role of Steroid Hormone Signalling in Sex-Specific Development of Reptiles</b> <i>Dr Bonnie Kirscher, Postdoctoral Fellow, University Of Texas, Md Anderson Cancer Center, Houston, Texas, United States.</i>	

10.20 – 10.40	<b>Tea &amp; Coffee Break &amp; Exhibition/ Poster Viewing</b>	Imperial West
<b>10.40 – 11.20</b>	<b>Session 6: Animal Models to Inform Space Biology II</b> <i>Chairs: Dr Maki Wakamiya and Dr Fernando Benavides</i>	<b>Imperial East</b>
10.40 – 11.00	<b>Genetic Variation affects the musculoskeletal response to disuse in the diversity outbred mouse population</b> <i>Dr Michael Friedman, Research Assistant Professor, Virginia Commonwealth University, Virginia, United States</i>	
11.00 – 11.20	<b>The role of simulated microgravity duration and Connexin 43 deficiency on bone fracture healing</b> <i>Dr Evan Buettmann, Postdoctoral Researcher, Virginia Commonwealth University, Virginia, United States.</i>	
<b>11.20 – 13.00</b>	<b>Session 7: Transgenic Roundtable</b> <i>Chairs: Dr Melissa Larson and Dr Lauryl Nutter</i> <b>Roundtable Panelists:</b> Dr Steve Bischoff (Chief Scientific Officer & Founder, NovoHelix), Dr Martha Koerner (Transgenic Core Facility Manager, University of Edinburgh), Raehum Paik (Director, Discovery Biology).	<b>Imperial East</b>
13.00 – 14.00	<b>Lunch, Posters &amp; Exhibition</b>	Imperial West
<b>14.00 – 15.30</b>	<b>Session 8: 3Rs – Lecture and Award Oral Presentations</b> <i>Chairs: Dr Lydia Teboul and Geraldine Schlapp</i>	<b>Imperial East</b>
14.00 – 14.20	<b>The effects of mouse substrain on effective generation of animal models</b> <i>Dr Fernando Benavides, Professor, MD Anderson Cancer Center, Houston, Texas, United States.</i>	
14.20 – 14.50	<b>O-5 3Rs Award &amp; Lecture: Long Read Sequencing reveals high frequency of bystander mutations following AAV-driven electroporation of CRISPR RNP complexes in mouse zygotes</b> <i>Dr Fabien Delerue, Director at Transgenic Lab, MD Anderson Cancer Center</i>	
14.50 – 15.30	<b>(Virtual Presentation) Culture of Care - a new ethical approach in animal research?</b> <i>Fabienne Ferrara, Dr Veterinary Med, MS Medicine – Ethics and Law, ConScienceTrain</i>	
15.30 – 17.00	<b>Poster Session 2 and Exhibition (Tea &amp; Coffee Break)</b> <i>(Only even paper numbers will be presenting their poster in session 1)</i>	Imperial West
17.00 – 18.00	<b>ISTT General Assembly</b>	Regency Room
19.30 – 23.00	<b>Conference Dinner</b> <i>(Pre-booking required)</i>	Imperial East

<b>Wednesday 15 November</b>		<b>Location</b>
07.30 – 16.00	<b>Registration Open</b>	Imperial Foyer
08.00 – 12.30	<b>Speaker Preview Open</b>	Magnolia Room
08.00 – 08.45	<b>Technical Focus Meetings (Limited Space – arrive early)</b>	

	Technicians Focus Group Scientist & Manager Focus Group	Cottonwood Dogwood
08.30 – 13.45	<b>Exhibition &amp; Posters Open</b>	Imperial West
<b>09.00 – 10.30</b>	<b>Session 9: Transgenic Resources</b> <i>Chairs: Dr Bill Shawlot and Professor Toru Takeo</i>	<b>Imperial East</b>
09.00 – 09.40	<b>Perspectives for Equine Chorionic Gonadotropin (eCG) in Mice: Dilemma Between Drug Production, Animal Welfare, and Synthetic Compounds</b> <i>Dr Alejo Menchaca, Director Animal Health, INIA, Montevideo, Uruguay.</i>	
09.40 – 10.00	<b>Xenopus Mutant Resource</b> <i>Dr Marko Horb, Senior Scientist, Marine Biological Laboratory, Massachusetts, United States.</i>	
10.00 – 10.10	<b>O-6 FinnDisMice project: CRISPRing the Finnish Disease Heritage</b> <i>Satu Kuure, PhD University of Helsinki</i>	
10.10 – 10.20	<b>O-7 A strategy for the efficient production of CRISPR interference mouse models</b> <i>Leesa Sampson, PhD Vanderbilt University</i>	
10.20 – 10.30	<b>O-8 Efficient large knockins using rAAV donors in mouse embryos</b> <i>Xiaoxia Cui, PhD. Washington University</i>	
10.30 – 11.00	<b>Tea &amp; Coffee Break &amp; Exhibition/ Poster Viewing</b>	Imperial West
<b>11.00 – 11.40</b>	<b>Session 10: Assisted Reproductive Technologies</b> <i>Chairs: Dr Rachel Mullen and Dr Aimee Stablewski</i>	<b>Imperial East</b>
11.00 – 11.20	<b>Advancing Reproductive Technology for Robust Laboratory Animal Science</b> <i>Professor Toru Takeo, Kumamoto University, Kumamoto, Japan.</i>	
11.20 – 11.30	<b>O-9 Consideration of surrogate dam gut microbiome to improve animal model rigor and reproducibility</b> <i>James Amos-Landgraf, PhD University of Missouri</i>	
11.30 – 11.40	<b>O-10 Modeling disease-associated variants in mice using prime editors</b> <i>Denise Grant Lanza, PhD. Baylor College of Medicine</i>	
<b>11.40 – 12.00</b>	<b>Young Investigator Award and Lecture</b> <i>Dr Ashley Rasys, Postdoctoral fellow, National Eye Institute – National Institutes of Health, Maryland, United States</i>  The Young Investigator award is available due to the generous contribution from Regeneron via an educational grant for TT2023.  The award will be presented by Dr. Benoit Kanzler.	<b>Imperial East</b>
12.00 – 13.45	<b>Lunch, Posters &amp; Exhibition</b> <i>Posters and Exhibition will close after lunch.</i>	Imperial West
<b>13.45 – 14.30</b>	<b>Orbis Pictus Lecture sponsored by CCP</b> <i>Chairs: Radislav Sedlacek (Director of CCP) and Mitra Cowan</i>	<b>Imperial East</b>



	<b>Understanding Gene Essentiality using Mammalian Models</b> <i>Dr Mary Dickinson, Senior Vice President And Dean Of Research, Baylor College Of Medicine, Houston, Texas, United States.</i>	
14.30 – 15.30	<b>Awards, Presentation on TT2025 and Closing Remarks</b>	Imperial East