HOW TECHNOLOGY CAN SUPPORT BETTER SCIENCE

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2nd International DIGITAL VIVARIUM FORUM

Preliminary program

6th - 8th September, 2022

Tecniplast Congress Centre, Buguggiate (VA) - Italy

TECNIPLAST
innovation through passion

Tuesday, September 6th

Welcome and Opening - Pietro Bernardini..	2:00 PM

Moderator: TBD	
Improving biomedical research by automated behavior monitoring in the animal home-cage – importance of communication and networking (*Vootele Voikar* - Research coordinator, Neuroscience Center / Laboratory Animal Center, Helsinki Institute of Life Science, University of Helsinki, Finland)	2:10 PM
Spontaneous bouts of rest, activity, and locomotion of C57BL76J mice in their home-cage (*Brun Ulfhake* - Department of laboratory medicine, Karolinska Institutet and ECF at Stockholms University)	2:35 PM
Validation of the Digital Ventilated Cage System for Circadian and Sleep Phenotyping (*Selma Tir* - PhD student in Clinical Neurosciences, University of Oxford)	3:00 PM
The Impact of exercise on brain structure and function. A combination of ultra-high field imaging and 24/7 behavior monitoring. (*Amanda Kiliaan* - Professor Anatomy-Translational Neuroanatomy, head of research Anatomy Dept Medical Imaging, Anatomy Donders Institute for Brain, Cognition, and Behavior, Chair Preclinical Imaging Center PRIME Radboud university medical center	3:25 PM
Coffee Break	3:50 PM
Partner Presentations	4:20 PM
Automated home-cage for continuous activity monitoring in different mouse models (*Fabrizio Scorrano* - Principal Scientist, Novartis AG)	4:50 PM
Assessing the DVC analytic capacity to detect sciatic nerve crush induced motor impairments and recovery (*Michael Tsoory* - Head of the Behavioral and Physiological Phenotyping Unit, Department of Veterinary Resources, Weizmann Institute of Science, Rehovot, Israel)	5:15 PM
Closing session	5:40 PM
Dinner	7:50 PM

Wednesday, September 7th

Moderator: TBD	
Phenotyping spontaneous in cage activity and place preference in inbred and outbred mice using DVC. (*Sara Fuochi*, GMO Data Manager Experimental Animal Centre, Universität Bern)	9:00 AM
Digital Ventilated Cage activity monitoring uncovers rest-related phenotypes in mouse models of neurodegenerative diseases (*Silvia Mandillo* - PhD Research Scientist CNR – National Research Council - Italy)	9:25 AM
How well do you know your mice? (*Sonia Bains* - Neurological Phenotyping Manager and Phenotyping Technical Developer, Mary Lyon Centre at MRC Harwell)	9:50 AM
Establishing Homecage Monitoring in Neuroscience Drug Discovery (*Eoin O'Connor* - Principal Scientist Neuroscience & Rare Diseases, Roche Pharma Research and Early Development, Roche Innovation Center Basel, F. Hoffmann-La Roche Ltd)	10:15 AM
Proof of concept: Evaluation of a Digital Ventilated Cage (DVC) System for Facility Management, assessment of animal welfare and potential research use cases (*Michaela Socher* - Principal Veterinarian and Associate Director Comparative Medicine)	10:40 AM
Coffee Break	11:05 AM
The Effects of Light on Mouse Physiology and Behaviour (*Stuart Peirson* - Professor of Circadian Neuroscience, Sleep and Circadian Neuroscience Institute (SCNi), Nuffield Department of Clinical Neurosciences, University of Oxford)	11:35 AM
Introduction of Digital Ventilated Cages in the Central Animal Facility of UMCG (*Catriene Thuring* - DVM, PhD, Deputy Head Central Animal Facility, University Medical Center Groningen, The Netherlands, Designated veterinarian)	12:00 AM
Potential use of DVC to detect fight events in male mice (F*abrizio Scorrano, Mara Rigamonti e Dimitri Diomaiuta* - Principal Scientist, Novartis AG; Tecniplast S.p.A.)	12:25 AM
Lunch Break	12:50 AM
Partner Presentations	2:20 PM
Can DVC technology replace standard actimetry testing in safety assessment studies? (*Cèline Gommet* - Projects & Innovation / In Vivo Research Center France, Sanofi)	3:05 PM
Coffee Break	3:30 PM
The Inspire Aging Mouse Cohort: DVC Analytics and the measure of spontaneous/voluntary mobility (*Angelo Parini* - MD, PhD,Professor of Physilogy, Health Faculty - Toulouse,Coordinator of the INSPIRE animal cohort project, : Institute of metabolic and cardiovascular diseases INSERM U 1297)	4:00 PM
Using Polyuria to Diagnose Sustained Hyperglycemia in a Mouse Model of Spontaneous Type 2 Diabetes (*Thomas Svava Nielsen* - Senior Scientist Novo Nordisk Foundation Center for Basic Metabolic Research, University of Copenhagen)	4:15 PM
Exploitation of DVC's data collection to support scientific questions (*Sebastian Brachs* - Head of Research Lab - Department of Endocrinology and Metabolism - Charité – Universitäts-medizin Berlin)	4:40 PM
(Automatic Food intake in home cage - Regeneron)	5:05 PM
Home cage-based phenotyping from improved animal welfare monitoring to better science (Oliver Stiedl - Chairman of the Animal Welfare Body VU University Amsterdam and VU University Medical Center)	5:30 PM
Event + Dinner	5:50 PM

Thursday, September 8th

Moderator: TBD	
Automated identification of pups delivery by using novel in-cage microphones (*Marcello Raspa/Marco Garzola*, PhD Technology Executive (CNR-IBBC), Head of Biological Resources at the CNR European Mouse Mutant Archive and National Centre for Phenogenomics (EMMA/Infrafrontier/IMPC)	9:00 AM
Deciphering the genetics of healthspan through life-long monitoring of a large murine genetic reference population (*Giacomo Von Alvensleben* - Scientific Assistant in the Laboratory of Integrative Systems Physiology (LISP) EPF, Lausanne, Switzerland)	9:25 AM
The DVC system for the automated detection of abnormal repetitive behaviors (*Daniela Pollak*- Professor for Behavioral Biology, Medical University of Vienna, Austria)	9:50 AM
Use of activity measurement for severity assessment (*Andrè Bleich* - Director of the Institute for Laboratory Animal Science and Central Animal Facility & Animal Welfare Officer of the Hannover Medical School)	10:15 AM
Partner Presentations	10:40 AM
Coffee Break	11:10 AM
A multicentre study on spontaneous in-cage activity and micro-environmental conditions of IVC housed C57BL/6J mice during consecutive cycles of bi-weekly cage-change (*Hervè Lerat*- Director of the "hTAG" Core Facility, University of Grenoble Alpes)	11:40 AM
The use 24 hour activity monitoring to determine whether male C57BL/6J mice are more social compared to female C57BL/6J mice (*Joanna Moore* (remote) Investigator and Named Information Officer, Laboratory Animal Medicine, UK, iVIVT, Research, GSK)	12:05 AM
Which construction works are likely to influence mouse behavior? An approach to the problem (*Markus Brielmaier* - DVM, Head of Core Facility Laboratory Animal Science (CF-LAS) at HelmholtzMunich)	12:30 AM
Partner Presentations	12:55 AM
Lunch Break	1:10 PM
Final Wrap up	1:30 PM