

PROGRAM 6th ANNUAL hDMT CONSORTIUM MEETING 25 November 2022

Venue: Eenhoorn Meeting Center Amersfoort – STUDIO33 Barchman Wuytierslaan 2, 3818 LH Amersfoort Chair: Amalia Dolga, University of Groningen Walk in with coffee and tea 09:00 - 9.30Opening and welcome 09.30 - 9.45Amalia Dolga, RUG Christine Mummery, Chair Executive Board hDMT / LUMC 09.45 – 10.00 hDMT today and tomorrow Janny van den Eijnden-van Raaij, hDMT 10:00 - 10.30 **Keynote Lecture** Organ-on-Chip technology development at hDMT: from single chips to standardized platforms Jaap den Toonder, TU Eindhoven **Special Topics** 10.30 – 10.45 Metabolism in Organ-on-Chip models Dirk Lefeber, Radboudumc 10.45 – 11.00 hDMT theme group Bone-on-Chip: challenges and opportunities Nathalie Bravenboer, Amsterdam UMC 11.00 – 11.30 Break **hDMT** Research Highlights 11.30 – 11.45 Open technology platforms for Organs-on-Chip: the Moore4Medical project Massimo Mastrangeli, TU Delft 11.45 – 12.00 Engineered 3D Vessels-on-Chip to model inflammatory responses using hiPSC-derived vascular cells and monocytes Merve Bulut, LUMC 12.00 – 12.15 Intestine-on-Chip: establishment of human intestinal Organoids-on-Chip for drug absorption & metabolism studies Marit Keuper-Navis, TNO 12.15 – 12.30 Cancer-on-Chip for chemotherapy testing in breast cancer tissue ex vivo Zofia Komar, Erasmus MC

12.30 - 13.30 Lunch



hDMT Research Highlights – continued

13:30 – 13:45 An open-top OoC-platform to generate a fully hiPSC-derived model of the outer blood-retinal barrier with a functional microvascular network

Tarek Gensheimer, UTwente

13.45 – 14.00 The characterization of Liver-on-Chip to study nutriceuticals in non-alcoholic fatty liver disease (NAFLD)

Victoria Palasantzas, UMCG

14.00 – 14.15 Falsifying computational models of angiogenesis through quantitative comparison of in vitro to in silico endothelial cell networks

Tessa Vergroesen, Leiden University

14.15 - 14.30 Interplay between interstitial flow and TGF- β during lung cancer invasion of spheroids embedded in a microfluidic chip Zaid Rahman, TU Delft

14.30 – 15.00 **Keynote Lecture**

Opportunities and challenges for a Multi-Organ-on-Chip platform to predict pharmacokinetics Roos Masereeuw, Utrecht University

15.00 - 15.30 Break

hDMT Research Highlights – continued

- 15.30 15.45 Modelling the support function of vascularized lung endothelial cells for alveolar progenitor function using an open-top Alveolus-on-Chip Abilash Ravi, LUMC
- 15.45 16.00 One-line-fits-all: a knockdown strategy for rapid, generic and versatile modelling of muscular dystrophies in 3D tissue-engineered skeletal-muscle

 Stijn in 't Groen, Erasmus MC

16.00 – 16.15 Prize ceremony 'PhD student Spotlight competition'

16:15 – 17.30 Drinks and networking