

PROGRAM 7th ANNUAL hDMT CONSORTIUM MEETING 1 December 2023

Venue: Eenhoorn Meeting Center Amersfoort – STUDIO33
Barchman Wuytierslaan 2, 3818 LH Amersfoort

Chair: Nathalie Bravenboer, Amsterdam UMC

09:00 – 9.30 Walk in with coffee and tea

09.30 – 9.45 **Opening and welcome**

Nathalie Bravenboer, chair hDMT Bone-on-Chip group / Amsterdam UMC
Christine Mummery, Chair Executive Board hDMT / LUMC

09.45 – 10.00 **hDMT in perspective**

Janny van den Eijnden-van Raaij, hDMT

10:00 – 10.25 **Keynote Lecture**

Biodegradable materials in Organ-on-Chip
Clémentine Boutry-Vieillard, TU Delft

Special Topics

10.25 – 10.35 Analytical methods for drug research with Organs-on-Chips

Peter Lindenburg, Hogeschool Leiden

10.35 – 10.45 hDMT theme group Lung-on-Chip: challenges and opportunities

Anne van der Does, LUMC

10.45 – 10.55 Training center Skeletal Muscle-on-Chip

Pim Pijnappel, Erasmus MC

10.55 – 11.25 Break

hDMT Research Highlights

11.25 – 11.40 The Smart Multi-Well Plate: from concept to use

Massimo Mastrangeli, TU Delft

11.40 – 11.55 Beyond phenotyping: Computational modeling to unravel patient-hiPSC derived neuronal networks.

Nina Doorn, UTwente

- 11.55 – 12.10 Lumina Chip; a lumen-based microfluidic approach for enhanced physiological relevance in cancer metastasis
Mohammad Jouybar, TU Eindhoven
- 12.10 – 12.25 Engineered 3D Vessels-on-Chip to model inflammatory responses using hiPSC-derived vascular cells and monocytes
Merve Bulut, LUMC
- Poster pitches**
- 12.25– 12.28 Understanding pathological implications of exercise in LMNA patients using a 3D hiPSC-CM disease model
Carla Cofiño Fabrés, UTwente
- 12.28 – 12.31 Exploring osteoblast-osteoclast interactions in an organ-on-chip model via biomimetic bone-remodeling micro-units
Francisco Conceição, UTwente
- 12.31 – 12.34 Blood perfused Vessels-on-Chip show endothelial dysfunction after perfusion with CAR-T Tumor-on-Chip effluent
Huub Weener, UTwente
- 12.34 – 12.37 CDK4/6 inhibitor Ribociclib induces cardiotoxicity in dynamic engineered heart tissues, mitigated by E2F1 overexpression
Itamar Braga Dias, UMCG
- 12.37 – 12.40 A novel KCNJ16 kidney organoid model recapitulates the disease phenotype and shows restoration upon treatment with statins
Manoe Janssen, Utrecht University
- 12.40 – 13.00 **Special announcement and group photo**
- 13.00 – 13.45 Lunch
- 13.45 – 14.45 **Poster session**

hDMT Research Highlights

- 14.45 – 15.00 Development of a pneumatically actuated system to study the effects of cyclic strain on 3D muscle- like constructs
Sofia Gomez, TU Eindhoven
- 15.00 – 15.15 An iPSC-derived Intestine-Chip with physiologically relevant cellular diversity
Renée Moerkens, UMCG
- 15.15 – 15.30 Connecting Cerebral Organoids to the Blood-Brain Barrier
Henrique Nogueira Pinto, Amsterdam UMC
- 15.30 – 15.45 Miniaturized joint tissues and living microfluidics to study cartilage degenerative diseases (MINI-JOINT)
Núria Ginés Rodriguez, UMC Utrecht
- 15.45 – 16.00 Engineered cardiac chamber recapitulating the pump function of the heart
Mariel Cano-Jorge, UTwente
- 16.00 – 16.15 Enabling long-term liquid handling in digital microfluidics platforms for cell culture settings
Oksana Savchak, TU Eindhoven
- 16.15 – 16.40 **Keynote lecture**
The power and limitations of adult stem cells
Jeffrey Beekman, UMC Utrecht
- 16.40 – 16.55 **Prize ceremony**
Best oral presentation award (€ 500)
Best poster presentation award (€ 500)
- 16.55 – 17.00 **Closure**
- 17:00 – 18.00 Drinks, snacks and networking