

**Hybrid Conference Programme**

Start (GMT)	Finish (GMT)	Presenter details
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**Wednesday 15 November 2023**

**12:00 12:50 Registration, lunch and networking**

12:35 12:50 *Briefing for Keynote & Session 1 speakers, microphone runners, chair, moderator & committee - Auditorium*

**12:50 13:00 Welcome**

**Scientific Programme Committee:**

*Bas Heijmans, Leiden University Medical Center, Netherlands*

*Claudia Kleinman, McGill University, Canada*

*Charlotte Ling, Lund University Diabetes Center, Sweden*

*Jon Mill, University of Exeter, UK*

**13:00 14:00 Keynote 1**

*Chair: Claudia Kleinman*

*Moderator: Bas Heijmans*

Laminopathies, heterochromatin and muscle integrity: chromosome structure and disease

*Susan Gasser, Friedrich Miescher Institute, Switzerland*

14:00 14:05 Comfort break

**14:05 15:35 Session 1: Epigenetics and common disease: establishing causality**

*Chair: Charlotte Ling*

*Moderator: Bas Heijmans*

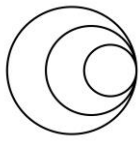
14:05 14:35 3D chromatin maps of the human pancreas reveal cell type-specific regulatory architecture of T2D risk  
*Klaus Kaestner, University of Pennsylvania, USA*

14:35 15:05 Current practices and challenges in using genetic factors to infer causal relationships between molecular phenotypes and disease risk  
*Gibran Hemani, University of Bristol, UK*

15:05 15:20 DNA methylation is a mechanism leading to aberrant protein N-glycosylation in hepatocellular carcinoma cell line  
*Ana Vujić, University of Zagreb, Faculty of Science, Croatia*

15:20 15:35 Examining Causality between Cigarette Smoking and Peripheral Blood DNA Methylation Using Mendelian Randomization Analyses in Twin Data  
*Madhurbain Singh, Virginia Commonwealth University, USA (VIRTUAL)*

15:35 16:20 Refreshment break and networking



16:05 16:20 Briefing for Session 2 speakers, microphone runners, chair & moderator - Auditorium

**16:20 18:05 Session 2: Technical and methodical advances in epigenomics**

*Chair: Claudia Kleinman*

*Moderator: Jon Mill*

16:20 16:50 Remodeling of genome-lamina contacts is an early event during random X-chromosome inactivation  
*Jop Kind, Hubrecht Institute, Netherlands*

16:50 17:20 Studying DNA methylation using nanopore long-read sequencing approaches  
*Lucia Clemens-Daxinger, Leiden University Medical Center, Netherlands*

17:20 17:35 Physiological roles of aberrant DNA methylation in vitro and in vivo  
*Gabi Ficiz, Barts Cancer Institute, UK*

17:35 17:50 Analytical Approaches for Predicted Blood Cell Counts: an application to DNA methylation age  
*Thomas Jonkman, Leiden University Medical Center, Netherlands*

**17:50 18:05 Poster pitch talks for odd number posters**

**18:05 19:15 Poster session 1 - odd number posters**

19:15 21:00 Dinner

Bar open (card payments only)

**Thursday 16 November 2023**

07:30 09:00 Breakfast

09:15 09:30 Briefing for Session 3 speakers, microphone runners, chair & moderator - Auditorium

**09:30 11:00 Session 3: Epigenomics: from bench to bedside**

*Chair: Bas Heijmans*

*Moderator: Jon Mill*

09:30 10:00 Targeted methylation sequencing to transform cancer detection

*Sir Harpal Kumar, GRAIL Bio UK Ltd, UK*

10:00 10:30 Ultra-fast deep-learned pediatric CNS tumor classification during surgery

*Jeroen de Ridder, University Medical Center Utrecht, Netherlands*

10:30 10:45 Detailed DNA methylation characterisation of phyllodes tumours identifies a signature of malignancy and distinguishes phyllodes from metaplastic breast carcinoma

*Braydon Meyer, Garvan Institute of Medical Research, Australia*

10:45 11:00 DNA methylation in cord blood partially mediates the effects of the pre-pregnancy BMI in pregnant women with obesity on offspring's BMI z-score at 36 months of age.

*Alice Maguolo, Lund University, Sweden*

11:00 11:45 Refreshment break and networking

11:30 11:45 Briefing for Session 4 speakers, microphone runners, chair & moderator - Auditorium

**11:45 13:15 Session 4: Reference data and computational epigenomics**

*Chair: Charlotte Ling*

*Moderator: Claudia Kleinman*

11:45 12:15 DNA methylation throughout life and aging

*Tommy Kaplan, The Hebrew University, Israel*

12:15 12:45 Gene regulatory networks integrate genetic and non-genetic factors of disease mechanisms

*Judith Zaugg, EMBL, Germany*

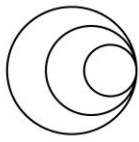
12:45 13:00 Cell-specific methylomic variation in neurodevelopment and Schizophrenia

*Emma Dempster, Exeter University, UK*

13:00 13:15 Modeling the genome and prenatal exposome contribution to newborn DNA methylome variability with the RAMEN package

*Erick Navarro-Delgado, The University of British Columbia, Canada*

13:15 14:30 Lunch and networking



14:15 14:30 Briefing for Session 5 speakers, microphone runners, chair & moderator - Auditorium

**14:30 16:00 Session 5: Inheritance, development and epigenetic mechanisms**

*Chair: Jon Mill*

*Moderator: Claudia Kleinman*

14:30 15:00 Transgenerational inheritance of acquired epigenetic signatures at CpG islands in mice  
*Yuta Takahashi, Altos Labs, USA*

15:00 15:30 Transgenerational epigenetic inheritance of polycystic ovary syndrome  
*Elisabet Stener-Victorin, Karolinska Institute, Sweden*

15:30 15:45 Genetic impacts on DNA methylation variance in monozygotic twins capture gene-environment interactions and cell-specific effects  
*Xiaopu Zhang, King's College London, UK*

15:45 16:00 Aberrant EZHIP Expression Drives Tumorigenesis in Osteosarcoma  
*Alva Annett, McGill University, Canada*

16:00 16:30 Refreshment break

**16:30 17:15 Meet the speakers**

**17:15 17:35 Poster pitch talks for even number posters**

**17:35 17:50 Sponsored talk**

17:35 17:50 What You're Missing Matters  
*Sayonika Mohanta, Oxford Nanopore Technologies*

**17:50 19:00 Poster session 2 - even number posters**

19:00 21:00 Dinner

Bar open (card payments only)

**Friday 17 November 2023**

07:30 09:00 Breakfast

09:15 09:30 Briefing for Session 6 speakers, microphone runners, chair & moderator - Auditorium

**09:30 11:00 Session 6: Epigenetic epidemiology**

*Chair: Bas Heijmans*

*Moderator: Charlotte Ling*

09:30 10:00 Lipid metabolism and the human methylome: Meta-analysis of epigenome-wide association studies of blood lipid levels  
*Melanie Waldenberger, Helmholtz Munich, Germany*

10:00 10:15 Sex differences in DNA methylation across gestation: a large scale, cross-cohort, multi-tissue analysis  
*Darina Czamara, Max-Planck-Institute of Psychiatry, Germany*

10:15 10:30 Meta-analysis of genome-wide DNA methylation in schizophrenia: Does sex stratification improve discovery?  
*Markos Tesfaye Woldeyohannes, University of Oslo, Norway*

10:30 10:45 What makes clocks tick? Decomposing adult epigenetic clocks to probe the early origins of accelerated epigenetic ageing  
*Rosa Mulder, Erasmus Medical Center, Netherlands*

10:45 11:00 Epigenetic insights into chronic inflammation and brain ageing  
*Eleanor Conole, University of Edinburgh, UK*

11:00 11:45 Refreshment break and networking

11:30 11:45 Briefing for Keynote, microphone runners, chair, moderator & committee - Auditorium

**11:45 12:45 Keynote lecture**

*Chair: Jon Mill*

*Moderator: Claudia Kleinman*

Fundamental equations linking methylation dynamics to maximum lifespan in mammals  
*Steve Horvath, Altos Labs, USA*

**12:45 13:00 Closing remarks and prize presentation**

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13:00 13:50 Lunch and departures

13:50 Coach departures for Stansted and Heathrow airports

14:00 Coach departures for Cambridge train station and city centre