Conference Program

Sunday, October 11

14:00 – 15:00 Registration
15:00 Welcome and introductions
   Nessa Carey & Wolf Reik

Session 1: Introduction into the three fields
   Chair: Wolf Reik

15:00 – 15:45 Adrian Bird (University of Edinburgh, UK)
   DNA methylation and the brain

15:45 – 16:30 Stephen O’Rahilly (University of Cambridge, UK)
   Metabolic Disease: lessons from human genetics

16:30 – 17:15 Jens Bruning (Max Planck Institute, Germany)
   Neonatal insulin action impairs hypothalamic neurocircuit formation in response to
   maternal high-fat feeding

17:15 – 17:30 Abcam

17:30 – 19:30 Poster Session and welcome reception
   Dinner

Monday, October 12

07:30 – 09:00 Breakfast

Session 2: How circadian rhythms link with, and are linked by, the three topics
   Chair: Stephen O’Rahilly and Jens Bruning

09:30 – 10:05 Wolfgang Wagner (Helmholtz Institute for Biomedical Engineering, Germany)
   DNA Methylation changes in replicative senescence and aging

10:05 – 10:40 Sung Hee Baek (Seoul National University, South Korea)
   Phosphorylation of LSD1 by PKCalpha is crucial for circadian rhythmicity and phase resetting

10:40 – 10:55 Guillaume Rey (University of Cambridge, UK)
   Central carbon metabolism regulates circadian oscillations

   Break
11:30 – 12:05 Andrew Loudon (University of Manchester, UK)
The generation of the seasonal rhythm: role of circadian clock genes and epigenetics in the circannual clockwork

12:05 – 12:40 Ueli Schibler (University of Geneva, Switzerland)
Systemic regulation of circadian gene expression: food, time, and temperature

12:40 – 13:15 Steven Brown (University of Zurich, Switzerland)
Circadian control of physiology, from metabolomics to mitochondria

Lunch

Session 3: Early programming and lifelong consequences
Chair: Nessa Carey

14:15 – 14:50 Caroline Relton (University of Bristol, UK)
Epidemiological approaches to understanding early life influences on the epigenome and their persistence across the lifecourse

14:50 – 15:05 Anne Gabory (INRA, France)
The epigenetic basis of sexual dimorphism in nutritional programming of health and diseases

15:05 – 15:40 Catherine Williamson (King’s College London, UK)
Maternal cholestasis is associated with metabolic disease in the adult offspring

Break

Session 4: Longevity
Chair: Caroline Relton

16:10 – 16:45 Eric Greer (Harvard Medical School, US)
DNA methylation on N6-adenine in C. elegans

16:45 – 17:20 Shelley Berger (University of Pennsylvania, US)
Histone acetylation pathways in learning and memory

17:20 – 17:55 Anne Brunet (Stanford University, US)
Epigenetic regulation of fat metabolism and aging

17:55 – 19:55 Networking session and drinks reception

Dinner

Tuesday, October 13

07:30 – 09:00 Breakfast

Session 5: Genetic and epigenetic mapping
Chair: Anne Ferguson-Smith

09:00 – 09:35 John Todd (Cambridge Institute of Medical Research, UK)
Humans as the model organism

09:35 – 09:50 Mattia Frontini (University of Cambridge, UK)
Enhancer promoter long-range interactions define intra chromosomal regulatory hubs in megakaryopoiesis

09:50 – 10:25 Gavin Kelsey (Babraham Institute, UK)
Methylation dynamics in the early embryo

Break
Session 6: Probing the pathways
Chair: Adrian Bird
10:55 – 11:30 Andrew Pospisilik (Max Planck Institute, Germany)
Chromatin-based control of phenotypic variation and stochastic disease
11:30 – 12:05 Wolfgang Fischle (Max Planck Institute, Germany)
Molecular analysis of signaling to and from chromatin modifications
12:05 – 12:20 Michael Hottiger (University of Zurich, Switzerland)
ADP-ribosylation of histones: An additional epigenetic mark?
Lunch

Session 7: Transgenerational inheritance
Chair: Shelley Berger and Andrew Pospisilik
14:25 – 15:00 Anne Ferguson-Smith (University of Cambridge, UK)
tbc
15:00 – 15:35 Eric Miska (University of Cambridge, UK)
tbc
15:35 – 15:50 Noam Meiri (ARO, The Volcani Center, Israel)
Epigenetic programming of hypothalamic mechanisms that regulate feeding and obesity by high fat diet: is there a transgenerational effect?
Break
16:20 – 16:55 Craig Hunter (Harvard University, US)
Genetic analysis of multi-generational epigenetic inheritance in C. elegans
16:55 – 17:10 Antonis Kirmizis (University of Cyprus, Cyprus)
Loss of histone N-terminal acetylation mimics calorie restriction-induced longevity
17:10 – 17:45 Christian Wolfrum (ETH Zurich, Switzerland)
Epigenetic regulation of adipose tissue formation and function
17:45 Closing remarks
Nessa Carey and Wolf Reik
Gala dinner

Wednesday, October 14
07:30 – 09:00 Breakfast
Depart