

Karolinska Institutet – Tohoku University Meeting June 2023

Dates: 7th and 8th of June, 2023

Place: Bioclinicum: meeting Rooms J3:06 Ulf von Euler and J3:14 Kerstin Hagenfeldt

Address: Solnavägen 30, 171 64 Solna, Stockholm

Program:

7th of June

Meeting Room J3:06 Ulf von Euler, Bioclinicum

- 9.00 Welcome by Robert Harris (KI-CN) and Japanese Ambassador Mr. Noke Masaki
9.15 Daniel Ferreira (KI)
“Center for Alzheimer’s Research at Karolinska Institutet”
- 9.30 Key Lecture Prof. Ryuta Kawashima (IDAC)
“Cognitive interventions for smart ageing”
- 10.00 Coffee break – visit from Japanese Society for the Promotion of Science
- 10.30 **Session 1 – Aging and cognition (Chair Daniel Ferreira)**
Assoc. Prof. Chihiro Hosoda (IDAC)
“The neural correlates of the cognitive and non-cognitive function”
Assoc. Prof. Serhiy Dekhtyar (KI-ARC)
“Cognitive resilience during aging: findings from Swedish population-based studies”
Assoc. Prof. Akiko Satoh (IDAC)
“Hypothalamic regulation of sleep and its role in mammalian aging”
Postdoc Yume Imahori (KI-ARC)
“Association of impaired lung function with dementia: the AGES-Reykjavik study”
- 12.00 Lunch

Meeting Room J3:14 Kerstin Hagenfeldt, Bioclinicum

- 13.00 **Session 2 – Aging, dementia and interventions (Chair Erika J Laukka)**
PhD student Jonatan Gustavsson (KI-ARC)
“Aging, Brain iron, and cognition”
Assoc. Prof. Taizen Nakase (IDAC)
“Investigation of Another Risks of Alzheimer’s Disease - from clinical view point -”
Assoc. Prof. Daniel Ferreira (KI-CG)
“Neuroimaging Ageing and Dementias”
Prof. Miia Kivipelto (KI-CG)
“Prevention of cognitive decline”

- 14.30 **Session 3 – Glia and synapses (Chair Maria Ankarcrone)**
 PhD student Hitoshi Yamagata (IDAC)
”Deterioration of clearance systems in dementia and its related quantitative MRI analysis”
 PhD student Mona-Lisa Malarte (KI-CG)
”Targeting Reactive Astroglia in 4R Tauopathies with PET tracer Imaging”
 Assoc. Prof. Maria Lindskog (UU)
”Synaptic deficits and depressive-like behavior in an early mice model of Alzheimer’s disease”
- 15.30 End of day

8th of June

Meeting Room J3:14 Kerstin Hagenfeldt, Bioclinicum

- 9.00 **Session 4 – Genes, plasticity and growth factors (Chair Dorota Religa)**
 Assoc. Prof. Jens Hjerling-Leffler (KI-MBB)
”Single cell analysis of the brain and why it matters to complex disorders”
 Assist. Prof. Rie Ryoke (IDAC)
”Understanding age-related changes of behaviors and brain volumes in aging wild-type mice”
 Assist. Prof. Luis Enrique Arroyo-Garcia (KI-NG)
”Early synaptic dysfunctions in animal models of Alzheimer’s disease”
 Assist. Prof. Sumonto Mitra (KI-CG)
”Neurotrophin therapy in Alzheimer’s disease”
- 10.30 **Session 5 – Mitochondria, transcriptomics and therapy (Chair Per Nilsson)**
 Prof. Maria Ankarcrone (KI-NG)
”Mitochondrial dysfunction in Alzheimer’s disease”
 Assist. Prof. Shohei Murakami (IDAC)
”Physiological effects of mitochondrial cysteine metabolism on hematopoiesis”
 Prof. Oscar Fernandez-Capetillo (KI-MBB)
”Targeting mitochondrial activity in polyQ diseases: lessons from a drug repurposing screen”
 Prof. Hozumi Motohashi (IDAC)
”NRF2-mediated stress response and sulfur metabolism”
- 12.00 Lunch
- 13.00 **Session 6 – Cancer (Chair Kristian Jeppsson)**
 Assoc. Prof. Shinpei Kawaoka (IDAC)
”Cancer-induced rewiring of metabolism and zonation in the liver”
 Assist. Prof. Kenji Iemura (IDAC)
”Cancer secretome induces chromosomal instability”
 Prof. Kozo Tanaka (IDAC)
”Chromosomal instability in cancer and aging”

- 14.00 **Session 7 – Genetics and Cancer (Chair Hozumi Motohashi)**
Assist. Prof. Akiko Ogawa (IDAC)
 “Metabolic regulation of modified RNA in immunity and disease”
Prof. Fanyan Wei (IDAC)
 “RNA Epitranscriptome in neurological disease”
Assist. Prof. Xiaofei Li (KI-NG)
 “Decoding the cell fate dynamics of neural stem cells in the human spinal cord with multi-omics”
Assist. Prof. Kristian Jeppsson (KI-BN and UT)
 “The Smc5/6 complex organizes DNA supercoils by loop extrusion”
- 15.30 Remarking notes and end (Daniel Ferreira and Hozumi Motohashi)
- 18.00 Joint Dinner KI + Tohoku speakers and attendees (Gamla Stan, Stockholm)
 Restaurant name: Sjötte Tunnan (<https://www.sjattetunnan.se/>)
 Restaurant address: Stora Nygatan 43, 111 27 Stockholm

Abbreviations:

IDAC = Institute of Development, Aging and Cancer, Tohoku University
KI-ARC = Karolinska Institutet, Aging Research Center at NVS Department
KI-BN = Karolinska Institutet, Department of Biosciences and Nutrition
KI-CG = Karolinska Institutet, Clinical Geriatrics at NVS Department
KI-CN = Karolinska Institutet, Department of Clinical Neuroscience
KI-MBB = Karolinska Institutet, Department of Medical, Biochemistry and Biophysics
KI-NG = Karolinska Institutet, Neurogeriatrics at NVS Department
NVS = Department of Neurobiology, Care Sciences and Society at Karolinska Institutet
UU = Uppsala University
UT = University of Tokyo

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