

The Brain Conferences

Neuronal Protein Synthesis Mechanisms in Health and Disease

13 – 16 October 2024

[Rungstedgaard](#), Denmark

PRELIMINARY PROGRAMME

Sunday, 13 October 2024	
From 14:15	Arrival and registration
16:00-16:10	Erin Schuman, Giovanna Mallucci, Emily Osterweil Welcome address from the Conference Chairs
RNA Translation in Synaptic Function <i>Session Moderator: Emily Osterweil</i>	
16:10-16:50	Beatriz Rico , King's College London, United Kingdom Assembly of cortical neurons in a dynamic circuit
16:50-17:30	Antonella Riccio , University College London, United Kingdom RNA methylation in developing axons
17:30-18:00	Coffee Break
18:00-18:40	Erin Schuman , Max Planck Institute for Brain Research, Germany Neuronal Protein Synthesis and Translational Stress
19:00-21:30	Welcome Drink & Dinner

Monday, 14 October 2024

RNA Processing and Translation in Neurons

Session Moderator: Eric Klann

09:00-09:40	Pablo Castillo , Albert Einstein College of Medicine, United States Presynaptic local protein synthesis and synaptic plasticity in the hippocampus
09:40-10:20	Sandrine Da Cruz , KU Leuven, Belgium Local mechanisms of axonal maintenance and demise in Amyotrophic Lateral Sclerosis
10:20-10:40	Short talk 1: Haiyan He , Georgetown University, United States Temporal dynamics of experience-induced proteostasis in the optic tectum of <i>Xenopus laevis</i> tadpoles
10:40-11:10	Group Picture and Coffee Break
11:10-11:50	Gary Bassell , Emory University, United States RNA dysregulation driving synapse dysfunction in fragile X syndrome and myotonic dystrophy
11:50-12:30	Marie Laure Baudet , University of Trento, Italy circRNAs: a novel mode of transport in subcellular compartments
12:30-12:40	Yoland Smith , EJM Editor-in-Chief European Journal of Neuroscience
12:40-14:00	Lunch

RNA Translation Mechanisms in Neuronal Development and Function

Session Moderator: Joel Richter

14:00-14:40	Susan Ackerman , University of California San Diego, United States Transfer RNAs as modifiers of neurological disorders
14:40-15:20	Jean Michel Cioni Endosome-mRNA association in neurons
15:20-15:40	Coffee Break
15:40-16:20	Jernej Ule , King's College London, United Kingdom Homeostasis of misfolding-prone proteins in neuronal condensates
16:20-17:00	Poster Spotlights I (90 seconds each)
17:00-19:00	Poster Session I
19:00-22:00	Dinner

Tuesday, 15 October 2024

Translation and Proteostasis in the Brain

Session Moderator: Susan Ackerman

09:00-09:40	Martine Cohen-Salmon , Collège de France, France Local translation in astrocytes for the development and regulation of glio-neuro-vascular interfaces
09:40-10:20	Nancy Bonini , University of Pennsylvania, United States Senescence in the Drosophila brain
10:20-10:40	Short talk 2: Jennifer Heck , EMBL Heidelberg, Germany Subcellular spatial transcriptomics to resolve local regulatory mechanisms of neuronal function and pathology
10:40-11:10	Coffee Break
11:10-10:50	Matthew Kraushar , Max Planck Institute for Molecular Genetics, Germany A matter of time and place: Translating rates into fates in neurodevelopment
10:50-11:30	Judith Frydman , Stanford University, United States Neuronal Proteostasis dysfunction in aging and disease
11:30-11:50	Short talk 3: Maria Menafra , Donders Institute, Netherlands A loss of function mechanism underlies histidyl-tRNA synthetase-associated peripheral neuropathy
11:50-12:10	Short talk 4: Wren Kim , UC Berkeley, United States Activity-Associated Gene Expression in the Brain
12:10-16:00	Lunch and social programme
RNA Regulation in Neurodevelopmental Disorders	
<i>Session Moderator:</i> Giovanna Mallucci	
16:00-16:40	Peter Schieffele , Biozentrum - University of Basel, Switzerland Selective mRNA translation control in models of autism-spectrum disorders
16:40-17:20	Poster Spotlights II (90 seconds each)
17:20-18:10	Coffee Break
17:20-19:00	Poster Session II
19:00-21:30	Dinner

Wednesday, 16 October 2024

RNA Translation in Neurodevelopmental Disorders

Session Moderator: Peter Schieffele (TBC)

09:00-09:40	Emily Osterweil , Boston Children's Hospital/Harvard Medical School, United States Protein synthesis dysregulation in Fragile X Syndrome
09:40-10:20	Eric Klann , New York University, United States Cell type-specific translation in memory: tools, translatoemes, and de novo proteomes
10:20-10:40	Short talk 5: Eva Martin-Solana , University of Pittsburgh, United States Ribosome-Associated Vesicles promote activity-dependent local translation
10:40-11:00	Coffee Break
11:00-11:40	Lynne Maquat , University of Rochester Medical Center, United States Effects of the RNA-binding protein, FMRP, on mRNA translation and decay
11:40-12:10	Joel Richter , University of Massachusetts Amherst, United States Translational Dysregulation in Fragile X Syndrome Leads to a Potential Therapeutic Approach
12:10-12:30	Short talk 6: Giordano Lippi , Scripps Research Institute, United States Cell type specific translatoemics in the mouse hippocampus at single-cell and single-molecule resolution
12:30-14:00	Lunch
Translation Regulation and Proteostasis in Neurodegenerative Disorders	
<i>Session Moderator:</i> Jernej Ule	
14:00-14:40	Mauro Costa-Mattioli , Altos Labs, United States Harnessing Proteostasis Networks to Reverse Cognitive Dysfunction
14:40-15:20	Nicole Calakos , Duke University, United States How the ISR sets the stage for learning and memory via steady-state activity in neuromodulatory neurons
15:20-15:40	Short talk 7: Tessa Robberechts , KU Leuven – VIB, Belgium Deciphering the compartment-specific role of ALS-causing RNA binding proteins in motor axons
15:40-16:00	Coffee Break
16:00-16:40	Giovanna Mallucci , Altos Labs, United Kingdom Modulating translation for neuronal resilience in Neurodegeneration
16:40-17:00	Short talk 8: Hanna Hörnberg , Max Delbruck Center for Molecular Medicine, Germany Distinct roles for MNK1 and MNK2 in social and cognitive behavior through kinase-specific regulation of the synaptic proteome and phosphoproteome
17:00-17:20	Tying it all together: Group Discussion & Closing Remarks
19:00-22:00	Farewell Dinner & Poster Awards

Thursday, 17 October 2024

Breakfast & Departure