



The Brain Conferences

Neuronal Protein Synthesis Mechanisms

in Health and Disease

13 – 16 October 2024

Rungstedgaard, Denmark

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		
Session Moderator: Emily Osterweil		
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	
	Short talk 1: Haiyan He, Georgetown University, United States	
10:20-10:40	Temporal dynamics of experience-induced proteostasis in the optic tectum of	
	Xenopus laevis tadpoles	
10:40-11:10	Group Picture and Coffee Break	
	Gary Bassell, Emory University, United States	
11:10-11:50	RNA dysregulation driving synapse dysfunction in fragile X syndrome and myotonic	
	dystrophy	
11.20-12.30	Marie Laure Baudet, University of Trento, Italy	
11.50 12.50	circRNAs: a novel mode of transport in subcellular compartments	
12.20-12.40	Yoland Smith, EJN Editor-in-Chief	
12:30-12:40	European Journal of Neuroscience	
12:40-14:00	Lunch	
12.10 2.100		
RI	NA Translation Mechanisms in Neuronal Development and Function	
Session Moderator: Joel Richter		
14.00 14.40	Susan Ackerman, University of California San Diego, United States	
14:00-14:40	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	

15:20-15:40	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 Moder	<i>rator</i> : 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-	
	Nancy Bonini, University of Pennsylvania, United States	
09:40-10:20	Senescence in the Drosophila brain	
	Short talk 2: Jennifer Heck, EMBL Heidelberg, Germany	
10:20-10:40	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	
11.20 11.50	Short talk 3: Maria Menafra, Donders Institute, Netherlands	
11:30-11:50	neripheral neuropathy	
	Short talk 4: Wren Kim, UC Berkeley, United States	
11:50-12:10	Activity-Associated Gene Expression in the Brain	
12:10-16:00	Lunch and social programme	
	RNA Regulation in Neurodevelopmental Disorders	
Session Moder	rator: Giovanna Mallucci	
	Peter Scheiffele, Biozentrum - University of Basel, Switzerland	
16:00-16:40	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 Moder	ator: Peter Scheiffele (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	
00110 10120	Cell type-specific translation in memory: tools, translatomes, 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	
11.00 11.40	Effects of the RNA-binding protein, FMRP, on mRNA translation and decay	
	Joel Richter, University of Massachusetts Amherst, United States	
11:40-12:10	Translational Dysregulation in Fragile X Syndrome Leads to a Potential Therapeutic Approach	
	Short talk 6: Giordano Lippi, Scripps Research Institute, United States	
12:10-12:30	Cell type specific translatomics in the mouse hippocampus at single-cell and single- molecule resolution	
12:30-14:00	Lunch	
Tra	nslation Regulation and Proteostasis in Neurodegenerative Disorders	
Session Moder	<i>ator</i> : Jernej Ule	
14.00 14.40	Mauro Costa-Mattioli, Altos Labs, United States	
14:00-14:40	Harnessing Proteostasis Networks to Reverse Cognitive Dysfunction	
	Nicole Calakos, Duke University, United States	
14:40-15:20	How the ISR sets the stage for learning and memory via steady-state activity in	
	neuromodulatory neurons	
	Short talk 7: Tessa Robberechts, KU Leuven – VIB, Belgium	
15:20-15:40	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