

THURSDAY SEPT 23, 2021

8:45 Welcome and opening remarks: Organizing Committee

***Interactions between ion transporters and the plasma membrane***

9:00-9:30 Gunnar von Heijne, Stockholm University, Sweden:  
*Biogenesis of integral membrane proteins*

9:30-10:00 Sara Liin, Linköping University, Sweden:  
*Natural and synthetic lipids as activators of voltage-gated potassium channels*

10:00-10:15 Oral presentation: Elisa De Grandis  
*Alternating Hemiplegia of Childhood: genotype-phenotype correlations in a cohort of 39 Italian patients*

10:15-10:45 Steve Karlish, Weizman institute, Israel:  
*Specific Na,K-ATPase-lipid interactions. A role in neurological disease?*

*Break 10:45-11:00*

11:00-11:30 Erdinc Sezgin, Karolinska Institutet, Sweden:  
*Structure and function relationship in plasma membrane*

11:30-12:00 Maria Dahlin, Karolinska Institutet/University Hospital, Sweden:  
*The ketogenic diet - clinical aspects and mechanisms of action*

12:00-12:30 General discussion

Lunch break 12:30-13:15

***Pain***

13:15-14:00 Håkan Olausson, Linköping university, Sweden:  
*The physiology of pain and novel aspects of pain recording and diagnosis (preliminary title)*

14:00-14:30 Philipp Mittermaier, Karolinska University Hospital, Sweden:  
*Pediatric aspects of pain and pain treatment (preliminary title)*

14:30-15:15 Cecilia Lidbeck and Kickie Löwing, Karolinska Institutet/Karolinska University Hospital, Sweden:  
*Exploring motor function and everyday activity in a child with ATP1A3*

*Break 15:15-15:30*

15:30-15:45 Oral presentation: Michael Habeck  
*Cryo-EM structures of human Na,K-ATPase  $\alpha$ 1 and  $\alpha$ 3 isoforms*

15:45-16:00 Oral presentation: Sofia Ygberg  
*Molecular pathology of ATP1A mutations*

16:00-16:30 Kathleen Sweadner, Harvard university, USA:  
*The impact of cellular responses on the spectrum of ATP1A3 disease*

16:30-17:00 General discussion

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FRIDAY SEPT 24, 2021

9:00-10:00 Keynote lecture: Majken Nedergaard, Copenhagen University, Denmark:  
*The Glymphatic System*

10:00-10:15 Oral presentation: Maria Papadopoulou  
*Sleep disorders in children with Alternating Hemiplegia of Childhood: preliminary results of the HEPNOS study*

#### ATP1A3 in motor neurons, role for motor function

10:15-10:45 Ihtsham Ul Haq, University of Miami, USA:  
*Rapid onset-dystonia-parkinsonism is a movement disorder (preliminary title)*

10:45-11:15 Gareth Miles, St Andrews University, UK:  
*Gait control; role of motor neurons (preliminary title)*

*Break 11:15-11:30*

11:30-11:45 Oral presentation: To be announced

11:45-12:00 Oral presentation: Frankie Sorell  
*Effects of the Rapid-Onset Dystonia-Parkinsonism gene mutation T613M on spinal motor networks in mice*

12:00-12:30 Eva Weidenhielm Broström, Karolinska Institutet/Karolinska University Hospital, Sweden:  
*Gait and motion analysis in pediatric disorders causing motor dysfunction, - how, what and why?*

Lunch break 12:30-13:15

#### Molecular manifestation and genetics

13:15-13:45 Hendrik Rosewich, Göttingen University, Germany:  
*Identifying patients suffering from AHC by screening more children with neurologic symptoms (preliminary title)*

13:45-14:15 Anna Lindstrand, Karolinska Institutet, Sweden:

*Reverse phenotyping after whole genome sequencing allows for high diagnostic rates across a broad spectrum of rare diseases*

14:15-14:30 Oral presentation: Monica Dahlstrup Sietam

*Spontaneous development of motor deficits in a mouse model carrying the CAPOS mutation*

*Break 14:30-14:45*

14:45-15:30 Christopher A. Walsh, Harvard Medical School, USA:

*Early role for a  $Na^+, K^+$ -ATPase (ATP1A3) in brain development*

15:30-16:00 Mohamad Mikati, Duke University, USA:

*Gene Therapy of Alternating Hemiplegia of Childhood*

16:00-16:30 General discussion and closing remarks