WCMM-LiU symposium Linköping 6 - 7 December 2018

Lecture hall Hugo Theorell, Northern entrance, level 9, Campus US

(Abstracts will be available at https://people.ifm.liu.se/stekl/posterwcmm2018.pdf)

We invite you to partake in the third annual WCMM-LiU symposium, an initiative focusing on the Medicine-Technology Interface.

- Invited keynote speakers
- WCMM group leaders
- Poster sessions presenting the Medicine Technology Interface at WCMM-LiU

Preliminary program

Thursday 6 December 2018

13:00 - 13:15 Presentation WCMM

13:15 – 15:15 Structural Electrophysiology

15:15 – 16:15 Poster session with Coffee (all areas are presented)

16:15 – 18:15 Neurobiology with Brain Disorders

19:00 - Dinner

Friday 7 December 2018

08:30 – 09:30 Poster session with Coffee (all areas are presented)

09:30 – 11:30 Molecular Cell Signalling

11:30 – 12:30 Poster session with Wraps (all areas are presented)

12:30 – 14:30 Imaging: from DNA to Tissue

14:30 – 14:45 Closing remarks

WCMM

Linköping University, the University Hospital and the County Municipality of the region Östergötland, has received a generous donation from the Knut and Alice Wallenberg to launch one of the four Wallenberg Centre for Molecular Medicine (WCMM) nodes in Sweden. Our node focus on the medicine-technology interface and build upon our existing strengths in research within medical technology, materials science and bioengineering.

Organized by <u>Wallenberg Center for Molecular Medicine at Linköping University</u> together with the research school and network <u>Forum Scientium</u>



WCMM = Wallenberg Center for Molecular Medicine at Linköping University

For questions on the arrangement contact Stefan Klintström at stefan.welin.klintstrom@liu.se

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Thursday afternoon 6 December

Presentation WCMM

13:00-13:15 WCMM Linköping Mikael Sigvardsson

First session -

Structural Electrophysiology

Chairperson Fredrik Elinder

Division of Neurobiology, Faculty of Medical and Health Sciences, LiU

13:15 - 13:50

"Capturing the dynamic structure of conducting ion channels with a new optical approach"

Antonios Pantazis, WCMM Fellow, Division of Neurobiology, Faculty of Medical and Health Sciences, LiU

13:50 - 14:25

"Structural dynamics of voltage-gated ion channels and implications for health and disease"

Lucie Delemotte, SciLifeLab and KTH, Stockholm, Sweden

14:25 - 15:00

"Conformational flexibility of AMPA-type glutamate receptors - a functional perspective"

Jelena Baranovic, Edinburgh University, Scotland

15:00 - 15:15

"Rational design of compounds targeting the cardiac IKs channel"

Sara Liin

Neurobiology, Linköping University

15:15-16:15

Poster session with Coffee

(all areas presented)

Second session -Neurobiology and Brain Disorders

Chairperson Stefan Koch

Division of Radiological Sciences, Faculty of Medical and Health Sciences, LiU

16:15 - 16:50

"A Swiss army knife to dissect disease"

Walker Jackson, WCMM Fellow, Division of Neurobiology, Faculty of Medical and Health Sciences, LiU

16:50 - 17:25

"Prion behaviour of a low complexity domain in mammalian cells"

Ina Vorberg, German Center for Neurodegenerative Diseases (DZNE), Bonn, Germany

17:25 - 18:00

"Protein misfolding and fibril polymorphism in amyloid diseases"

Per Hammarström, Division of Chemistry, Faculty of Science and Engineering, LiU

18:00 - 18:15

"The effect of reduced retromer function on the clearance and transfer of intra- and extracellular beta-amyloid and alphasynuclein in neurons.

Nazira J. Albargothy Division of Neurobiology, Linköping University

Dinner

19:00 -

at "Livgrenadjärmässen" Brigadgatan 8, Linköping Ten minutes' walk from US Södra entrén



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Maps will be available at the symposium.

Friday 7 December

08:30 - 09:30

Poster session with coffee

(all areas presented)

Third session –

Molecular Cell Signalling

Chairperson Francisca Lottersberger

WCMM Fellow, Division of Microbiology, Infection and Inflammation, Faculty of Medicine & Health Sciences, LiU

09:30 - 10:05

"Wnt Signalling at the Interface Between Development and Cancer"

Claudio Cantú, WCMM Fellow, Division of Microbiology, Infection and Inflammation, Faculty of Medicine & Health Sciences, LiU

10:05 - 10:40

"The epitranscriptome: a new layer of gene expression regulation"

Francesca Aguilo, WCMM Fellow, Medical Biosciences, Umeå University, Sweden

10:40 - 11:15

"Correcting genetic liver diseases with CRISPR/Cas9-base editors"

Gerald Schwank, Molecular Health Sciences, ETH, Zürich, Switzerland

11:15 - 11:30

"Multi-level mechanistic mathematical models that brings cell signalling research to end-usage in pharma and the clinic."

Tilda Herrgårdh

Biomedical Engineering and Clinical, and Experimental Medicine, Linköping University

11:30 - 12:30

Poster session with wraps

(all areas presented)

Fourth session –

Imaging: from DNA to Tissue

Chairperson Frank Hernandez

WCMM Fellow, Division of Drug Research, Faculty of Medicine & Health Sciences, LiU

12:30 - 13:05

"Emerging Optical Techniques for Wide-Field, Quantitative Imaging of Tissue"

Rolf Saager, WCMM Fellow, Division of Biomedical Engineering, Faculty of Science and Engineering, LiU

13:05 - 13:40

"Illuminating Genome Organization through integrated Microscopy and Sequencing"

Magda Bienko, Division of Translational Medicine and Chemical Biology, SciLifeLab, Karolinska Institutet, Stockholm, Sweden

13:40 - 14:15

"Structural analysis of mammalian telomere replication"

Ylli Doksani, Institute of Oncology (IFOM), Milan, Italy

14:15 - 14:30

"Understanding Viral Entry Mechanisms through Multi-Level Structural Analysis"

Eleonore von Castelmur, WCMM Fellow, Structural Biology, Linköping University

14:30 – 14:45

Closing remarks

Mikael Sigvardsson



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