

## Emerging Methods and Technologies for Medical Research Conference

### Program

(updated 2015-08-11)

There is one dedicated poster session on Tuesday afternoon but there is also ample time during Lunch-breaks, coffee-breaks and Wednesday night and poster-presenters are encouraged to keep their posters up.

### Tuesday September 1

09:00 Coffee and registration

09:45 Opening address – Björn Högberg (Karolinska Institutet, Stockholm)

10:00 Invited talk: Thomas Carell (Ludwig Maximilian University, Munich)  
hmC, fC, and caC are DNA Bases Beyond Watson and Crick

10:40 Leila Motiei (Weizmann Institute of Science, Rehovot)  
Communicating with Fluorescent Molecular Sensors in a Biological Environment

11:05 Jinglin Kong (University of Cambridge)  
Specific Protein Detection Using Designed DNA Carriers and Nanopores

11:30 Invited talk: Fredrik Höök (Chalmers University of Technology, Gothenburg)  
Surface-Sensitive Imaging of Single Lipid Vesicles in Microfluidic Devices for Medical Applications

12:10 Lunch and posters

13:00 Invited talk: Owe Orwar (Karolinska Institute, Stockholm)  
Single Cell Pharmacology and a New Mechanistic Approach to Antibody Discovery

13:40 Anders Gunnarsson (Discovery Sciences - AstraZeneca R&D, Mölndal)  
Drug Discovery at the Single Molecule Level – Making Every Interaction Count

14:05 David Smith (Fraunhofer Institute for Cell Therapy and Immunology, Leipzig)  
Programming Macroscale Mechanics of Biomaterials Through Nanoscale Components

14:30 Sabine Sellner (Ludwig Maximilian University, Munich)  
DNA Nanotubes as Intracellular Delivery Vehicles in vivo

14:55 Coffee

15:30 Ola Nilsson (Stockholm University)  
Cotranslational Folding of Soluble Proteins Probed by Arrest-Peptide Mediated Force Measurements

15:55 Invited talk: Carlos Bustamante (University of California, Berkeley)  
Mechanical Force Releases Nascent Chain-mediated Ribosome Arrest in vitro and in vivo

16:35 – 19:00 **Poster-session**, with drinks

Dinner on your own

### Wednesday September 2

09:00 Invited talk: Jonas Frisé (Karolinska Institutet, Stockholm)  
Analysis of Cell Turnover in Humans

09:40 Christine Horejs (Karolinska Institutet, Stockholm)  
The Cryptic Extracellular Matrix: An Unexplored Component of the Epithelial-to-Mesenchymal Transition

10:05 Coffee

10:30 Invited talk: Ulf Landegren (Uppsala University)  
Detecting Molecules, Few and Many

11:10 Fredrik Westerlund (Chalmers University of Technology, Gothenburg)  
Identifying Bacterial Plasmids Coding for Antibiotic Resistance Using Optical DNA Mapping

11:35 Simon Elsässer (Karolinska Institutet, Stockholm)  
A Robust and Efficient Method for Amber Suppression in Mammalian Cells

12:00 Lunch

13:00 Invited talk: Sten Linnarsson (Karolinska Institutet, Stockholm)  
Molecular Anatomy of the Mouse Brain by Single-Cell RNA-Seq

13:40 Mark R. Morgan (University of Liverpool)  
Proteomic Analysis of Pro-Invasive and Pro-Angiogenic Receptor Crosstalk Mechanisms in Cancer

14:05 Tobias Zech (University of Liverpool)  
Identifying the Mechanisms of Cancer Cell Invasion in 3D Matrix Environments

14:30 Invited talk: Alan Rowan (University of Nijmegen)  
Biomimetic Polymer Networks, the Key to Cell Control?

15:10 Coffee

15:20 Invited talk: Ana Teixeira (Karolinska Institutet, Stockholm)  
Spatial Regulation of Membrane Protein Function

16:00 Sergio Bertazzo (University College London)  
Multi-Modal Biological Sample Preparation. From Nano to Centimetres. From Structure to Composition.

16:25 Nicola Crosetto (Karolinska Institutet, Stockholm)  
New Methods for Spatially Resolved Omics

16:50 Invited talk: Xiaowei Zhuang (Harvard University)  
Illuminating Biology at the Nanoscale With Single-Molecule and Super-Resolution Imaging

17:30 – 20:00 approx. **Party** – drinks and dinner food.