

The 2nd NanoLSI Symposium in London

- Towards Establishment of New Research Field: Nanoprobe Life Science -

Date: Monday, November 19, 2018

Venue: The Cumberland Hotel

Address: Great Cumberland Place, London W1H 7DL, UK

Timetable:

* Each lecture includes time for Q & A.

08:30 am to 09:00 am **Registration and Arrival tea**

(MC: Kenji Nakashima, Head of WPI-NanoLSI Administrative Office, Kanazawa University)

09:00 am to 09:05 am **Opening remarks** Yoshihiro Fukumori, PhD
Vice President of Kanazawa University,
Deputy Administrative Director of WPI-NanoLSI

09:05 am to 09:10 am **Opening remarks** Takeshi Fukuma, PhD
Director of WPI-NanoLSI Kanazawa University

• **Session 1** - Chairperson: Assoc. Prof Yasufumi Takahashi (from NanoLSI)

09:10 am to 09:40 am Lecture 1-1 Prof Yuri Korchev (from Imperial College London/NanoLSI)
Nanopipette biosensors for single-cell analysis

09:40 am to 10:00 am Lecture 1-2 Assoc. Prof Mikihiro Shibata (from NanoLSI)
High-speed atomic force microscopy for nano-scale imaging of biological samples

10:00 am to 10:20 am Lecture 1-3 Assist. Prof Shinji Watanabe (from NanoLSI)
Development of High-Speed Ion Conductance Microscope

Tea break, Poster viewing 10:20 am to 10:50 am

• **Session 2** - Chairperson: Prof Rikinari Hanayama (from NanoLSI)

10:50 am to 11:20 am Lecture 2-1 Invited speaker, Prof Julia Gorelik (from Imperial College London)
Nanoscale SICM/FRET insights into beta-adrenergic receptor distribution and cAMP compartmentation in cardiac myocytes

11:20 am to 11:40 am Lecture 2-2 Prof Takeshi Fukuma (from NanoLSI)
Three-Dimensional Atomic Force Microscopy for Visualizing Distribution of Water and Molecular Chains at Solid-Liquid Interfaces

11:40 am to 12:00 pm Lecture 2-3 Prof Adam S. Foster (from Aalto University/NanoLSI)
Probing molecular processes at solid-liquid interfaces

12:00 pm to 12:10 pm **Photo Session**

Lunch, Poster viewing 12:10 pm to 01:30 pm

• **Session 3** - Chairperson: Prof Shigehisa Akine (from NanoLSI)

01:30 pm to 02:00 pm Lecture 3-1 Invited speaker, Prof Joshua Edel (from Imperial College London)
Novel strategies in molecular sensing

02:00 pm to 02:30 pm Lecture 3-2 Invited speaker, Prof Patrick Unwin (from University of Warwick)
Multifunctional Nanoscale Imaging with Nanopipettes

02:30 pm to 02:50 pm Lecture 3-3 Prof Atsushi Hirao (from NanoLSI)
Metabolic control of cancer stemness

02:50 pm to 03:10 pm Lecture 3-4 Prof Mark MacLachlan (from University of British Columbia/NanoLSI)
Cellulose Nanocrystals: Materials for Photonic Structures

Tea break, Poster viewing 03:10 pm to 03:40 pm

• **Session 4** - Chairperson: Prof Masanobu Oshima (from NanoLSI)

03:40 pm to 04:10 pm Lecture 4-1 Invited speaker, Prof David Klenerman (from University of Cambridge)
New fluorescence based methods for imaging single molecules

04:10 pm to 04:40 pm Lecture 4-2 Invited speaker, Prof Bart Hoogenboom (from University College London)
Assembly and membrane perforation by immune proteins

04:40 pm to 05:00 pm Lecture 4-3 Prof Richard Wong (from NanoLSI)
The nuclear pore complex: nanomachine as gatekeeper of molecular transport across nuclear membranes

05:00 pm to 05:20 pm Lecture 4-4 Prof Kunio Matsumoto (from NanoLSI)
Macrocyclic Peptide Technology Targeting HGF and MET receptor

05:20 pm to 05:30 pm **Closing remarks** Prof Korchev from Imperial College London

05:30 pm to 05:50 pm **Break**

05:50 pm to 07:50 pm **Banquet**

Toast speech Seizo Morita, PhD
Administrative Director of WPI-NanoLSI

Closing Takeshi Fukuma, PhD
Director of WPI-NanoLSI Kanazawa University