

## The Second NIBB-EMBL Symposium Frontiers in Bioimaging

**Organizing Chair: Naoto Ueno**

**Jan Ellenberg (EMBL Heidelberg, Germany)**

**March 22 (Wed) ~ 23 (Thu), 2006**

Bioimaging is one of the chief subjects of the collaboration between NIBB and EMBL. This meeting was held with the aim of exchanging information and discussing emerging and innovative technologies including chemical probes, microscopes with new concepts, and image data processing.

Dr. Stelzer (EMBL) reported on the Selective Plane Illumination Microscopy (SPIM), which is a recently developed microscope that allows scientists to observe large-sized (up to a few millimeters) and even living specimens. Dr. Sedat (UCSF) talked about the advanced

microscopic system i OMX, the first practical implementation of structured illumination (SI) in which the grid is superimposed onto the sample to gain sharper images. Dr. Ellenberg talked about the genome-wide screening of mitosis-regulating genes called iMitoCheck based on the mass image analysis of cultured cells combined with the disruption of genes with RNA interference.

Because of the high quality of the presentations and the lively discussions among the participants, this meeting was of significant importance for the field of bioimaging.

### Scientific topics:

**Imaging Diffusion & Activity**

**Emerging Technologies**

**Bioluminescence**

**Networks & Screening**

**3D Imaging**

**Mitosis/Trafficking**

**Organism Model**



### Speakers

BASTIAENS, Philippe I. (European Molecular Biology Laboratory (EMBL), Germany), BRUNNER, Damian (European Molecular Biology Laboratory (EMBL), Germany), DENK, Winfried (Max-Planck Institute for Medical Research, Germany), ELLENBERG, Jan (European Molecular Biology Laboratory (EMBL), Germany), ISSAD, Tarik (CNRS, France), JOHNSON, Kai (Ecole Polytechnique Federale de Lausanne, Switzerland), KERPPOLA, Tom K. (University of Michigan and Howard Hughes Medical Institute, USA), LIPPINCOTT-SCHWARTZ, Jennifer A. (National Institutes of Health, USA), MEYER, Tobias (Stanford University School of Medicine, USA), SEDAT, John W. (University of California, San Francisco, USA), SINGER, Robert H. (Albert Einstein College of Medicine, USA), SO, Peter T. C. (Massachusetts Institute of Technology, USA), STELZER, Ernst H. K. (EMBL Heidelberg, Germany), SWEDLOW, Jason (University of Dundee, UK), WEIJER, Cornelis J. (University of Dundee, UK), WITTBRODT, Joachim (European Molecular Biology Laboratory (EMBL), Germany)

HAMADA, Hiroshi (Osaka University, Japan), HIRAOKA, Yasushi (Kansai Advanced Research Center, NICT, Japan), ITO, Kei (The University of Tokyo, Japan), KASAI, Haruo (The University of Tokyo, Japan), KINJO, Masataka (Hokkaido University, Japan), KODAMA, Ryuji (National Institute for Basic Biology, Japan), KUSUMI, Akihiro (Kyoto University, Japan), MIYAWAKI, Atsushi (Brain Science Institute, RIKEN, Japan), NAGAYAMA, Kuniaki (National Institute for Physiological Sciences, Japan), OHSUMI, Yoshinori (National Institute for Basic Biology, Japan), OZAWA, Takeaki (Institute for Molecular Science, Japan), TABATA, Tetsuya (The University of Tokyo, Japan), TANAKA, Minoru (National Institute for Basic Biology, Japan), TERAKAWA, Susumu (Hamamatsu University School of Medicine, Japan), UENO, Naoto (National Institute for Basic Biology, Japan), WADA, Masamitsu (National Institute for Basic Biology, Japan)

## The Fourth NIBB-EMBL Symposium Biology of Protein Conjugation: Structure and Function

**Organizing Chair: Yoshinori Ohsumi**  
**Winfried Weissenhorn (EMBL Grenoble, France)**  
**December 3 (Sun) ñ 5 (Tue), 2006**

The Fourth NIBB-EMBL Symposium was held gathering distinguished researchers in the field of the biology of protein conjugation from Europe, USA and Japan. There were 27 oral presentations, of which 12 were by foreign invitees, and 18 poster presentations. The symposium was a successful one as shown in the following comment given by a participant.

The NIBB-EMBL conference in Okazaki, Japan this past December was an outstanding international conference that included scientist from Japan, Europe and the US. It was an exciting meeting with considerable discussion both during the meeting sessions and the social

activities. The program included innovative technologies in structural biology, live cell imaging and molecular biology. Each speaker presented new unpublished data and discussed the key questions that need to be addressed in their field. New insights into the roles for ubiquitin and ubiquitin-related molecules in cell signaling, membrane trafficking and protein turn-over were presented. It was the best meeting in 2006 that I attended covering these key topics in cell and molecular biology. (Scott D. Emr, UCSD, USA)

### Scientific topics:

**SUMO**

**Membrane Biology**

**Ubiquitin**

**Mechanism of UBL Conjugation**

**Modification by Lipid and Sugar**



### Speakers

DIKIC, Ivan (Johann Wolfgang Goethe University Hospital, Germany), EMR, Scott D. (UCSD School of Medicine, USA), GOODY, Roger S. (Max-Planck-Institute of Molecular Physiology, Germany), KLEVIT, Rachel E. (University of Washington, USA), LIMA, Christopher D. (Sloan-Kettering Institute, USA), POLO, Simona (IFOM, The FIRCI Institute for Molecular Oncology, Italy), RORTH, Pernille (European Molecular Biology Laboratory, Germany), SCHULMAN, Brenda A. (St. Jude Children's Research Hospital, USA), SOMMER, Thomas (Max-Delbrück-Center for Molecular Medicine, Germany), ULRICH, Helle D. (Cancer Research UK, UK), WALTERS, Kylie J. (University of Minnesota, USA), WEISSENHORN, Winfried (European Molecular Biology Laboratory, France)

INAGAKI, Fuyuhiko (Hokkaido University, Japan), IWAI, Kazuhiro (Osaka City University, Japan), KAMURA, Takumi (Nagoya University, Japan), KATO, Shigeaki (The University of Tokyo, Japan), KATO, Koichi (Nagoya City University, Japan), KAWAHARA, Hiroyuki (Hokkaido University, Japan), KIHARA, Akio (Hokkaido University, Japan), KONDO, Takao (Nagoya University, Japan), MOROHASHI, Ken-ichirou (National Institute for Basic Biology, Japan), OHNO, Ayako (RIKEN, Japan), OHSUMI, Yoshinori (National Institute for Basic Biology, Japan), SAITOH, Hisato (Kumamoto University, Japan), SHIRAKAWA, Masahiro (Kyoto University, Japan), SUZUKI, Tadashi (Osaka University, Japan), TANAKA, Keiji (The Tokyo Metropolitan Institute of Medical Science, Japan), TENNO, Takeshi (Kyoto University, Japan), WAKATSUKI, Soichi (KEK (High Energy Accelerator Research Organization), Japan), YOSHIDA, Minoru (RIKEN, Japan)