



The 3rd Symposium on Membrane Stress Biotechnology

Date: November 4th (Fri.)

Place: Seminar Room, Machikaneyama Kaikan, Toyonaka Campus, Osaka University

<http://www.cheng.es.osaka-u.ac.jp/kuboilabo/MSB/>

9:30 Opening Remarks

Ryoichi Kuboi
(Osaka Univ.)

(Chairman: Ryoichi Kuboi)

Session I Liposome as Bio-Inspired Membrane

9:40 Liposome-Assisted Change of Conformation and Activity of Peptides under Stress -Anti-Oxidative Roles of A β -Metal Complex on Membrane-

Hiroshi Umakoshi
(Osaka Univ.)

10:00 Optimal Preparation and Immobilization of Liposome-Bound Cellulase for Hydrolysis of Insoluble Cellulose in Airlift Bioreactor

Makoto Yoshimoto
(Yamaguchi Univ.)

10:20 Structure of The Vesicle Membrane of Nonionic Surfactants Span80 and Span85

Kei-ichi Kato
(Ehime Univ.)

11:00 The Interaction of Oligopeptides with Lipid Vesicles and Its Potential Relevance for the Origin(s) of Life.

Peter Walde
(ETH-Zurich)

12:00 Luncheon

Session II Stress Response on Biomembrane

(Chairman: Toshihide Kobayashi)

13:00 The Role of Sterylglucoside in Stress-responsive Signal Transduction

Kimiko Murofushi
(Ochanomizu Univ.)

13:40 Action Mechanism of Free Bile Acids in Intestinal Lactic Acid Bacteria Leading to Growth Inhibition

Atsushi Yokota
(Hokkaido Univ.)

14:20 Characterization of Multiple Isozyme Knockout Mutants of *Bacillus subtilis* --- DNases and Antioxidative Enzymes

Jin Sakamoto
Tetsuaki Tsuchido
(Kansai Univ.)

14:35 Stress Monitoring of Bacterial Membrane By Using Green Fluorescent Protein-Based Sensors

Jin Sakamoto,
K. Hayashi, T. Tsuchido
(Kansai Univ.)

14:55 Break

Session III Network Built-up on Membrane

(Chairman: Keiichi Kato)

15:10 Lipid Probes: Interaction with Specific Lipids and Application to Cell Biology

Toshihide Kobayashi
(Riken)

15:50 Micro-Patterned Lipid Bilayer Membranes on Solid Substrates: A Versatile Model System of the Biological Membrane

Ken-ichi Morigaki
(AIST)

16:10 Novel Hybrid Vector, Fusogenic Liposome, for the Drug Carrier

Shinsaku Nakagawa
(Osaka Univ.)

16:40 Study on Stress Responsive Dynamics of Liposome Membrane and Its Application

Toshinori Shimanouchi
(Osaka Univ.)

17:00 Poster Session

18:30 Mixing Party

Supported by

Research Group on Membrane Stress Biotechnology,
21COE "Integrated EcoChemistry", JSPS,
 Σ MRL "Bio-Inspired Nano Chemical Factory"

