



文部科学省知的クラスター創成事業 (第II期) 広域
 化プログラム 第3回ワークショップ
**Knowledge Cluster Initiative (The 2nd Stage),
 Expansion Program, The 3rd Workshop**

1st International Workshop on the Biosensing Technologies Utilizing the Structures & Functions of Living Organisms

(Mar. 3-5, 2008, Kitakyushu, Japan)

Location: The University of Kitakyushu (Hall: N115), 1-1 Hibikino, Wakamatsu-ku, Kitakyushu, Fukuoka, Japan

Hosting Unit: The team working for the Theme 13 of Knowledge Cluster Initiative (The 2nd Stage) at Univ. Kitakyushu, Japan

Team Manager:

Prof. Kazuya Uezu

Team Leaders:

Prof. Hiroshi Morita

Prof. Tomonori Kawano

Theme 13: R&D of novel multi-sensory materials utilizing the bio-composite structures and functions of living organisms

Multiple signal-responsive bio-sensing device equipped with the BPU (bio-processing unit) complex and optical components

- Expected applications: Environmental monitoring, Bioassays, Alternative to animal experiments

Characteristics of BPU complex

- Multiple signal-responsiveness (multiple signal/concerted process)
- Real time responsiveness
- Controllable sensitivity and selectivity
- Array configurated cells allowing 2-D imaging
- Self-organizing capability
- Living body affinity
- Lower environmental load
- Small space requirement due to packed lamination of biota in the device

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List of Speakers and the Talks Planned



Dr. Toyoki Kunitake (Prof., Vice- President, Univ. Kitakyushu, JAPAN), **OPENING ADDRESS** (Mar. 4th, 9:00-9.30 a.m.)



Dr. William LEE (President & CEO, eMEMBRANE Inc., USA)
“Commercialization and marketing strategy for bio-sensing technologies in USA” (Mar. 4th, 10:00-11:00 a.m.)



Dr. Shigeori TAKENAKA (Prof., Kyushu Institute of Technology, JAPAN) *“Development of ferrocenylcarbodiimide as a simple DNA labeling reagent and its application for the DNA-based biochip”* (Mar. 4th, 11:00-12:00 a.m.)



Dr. Francois BOUTEAU (Assoc. Prof., Université Paris Diderot, FRANCE) *“Use of microelectrode voltage-clamp to study the role of ion channels in plant-microbe interaction”* (Mar. 4th, 13:30-14:30 p.m.)



Dr. David WENDEHENNE (Prof., Université de Bourgogne, INRA, CNRS, FRANCE) *“Nitric oxide: a key signaling molecule in plants challenged by biotic and abiotic stresses”* (Mar. 4th, 14:30-15:30 p.m.)

Guest Chair



Dr. Min KIM (Prof., Dongguk Univ., KOREA), Organizing the Poster Session (Mar. 4th, 15:30-16:50 p.m.)

Totally 11 oral and 20 poster presentations are planned. For details visit

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