

# The 5th International Symposium on the Frontiers of Industrial and Environmental Biotechnology for 21st Century

**Gateway to More Sustainable Future**  
DATE : **Feb 9th, Tue. 2010,**  
**13:30 - 18:00**  
VENUE : **Sanwa Hall, Ichō Kaikan,**  
Suito Campus, Osaka University 2-2  
Yamdaoka, Suitashi, Osaka 565-0871, Japan  
**参加無料 (Admission Free)**

○13:30 ~ Opening Address

**Challenge to Frontiers of Industrial Biotechnology by Osaka University Inter-Faculty Group for Industrial Biotechnology**

**Prof Satoshi Harashima**

(Department of Biotechnology, Osaka Univ, Japan )

○13:40 ~

Invited Lecture ( Chair : Prof Hisao Ohtake, Osaka Univ )

**Industrial and Environmental Biotechnology Sector in Italy: State of the Art and Perspectives**

**Prof Lucia Gardossi** ( Università degli Studi di Trieste, Italy )

○14:20 ~

Invited Lecture ( Chair : Prof Eiichiro Fukusaki, Grad. Sch. Eng. Osaka Univ )

**Crude Drug and New Drug in China**

**Prof Che Qingming** ( School of Pharmaceutical Science, Beijing Univ, China )

○15:00 ~

Invited Lecture ( Chair : Prof Kazuhito Fujiyama, Int. Cent. Biotech. Osaka Univ. )

**Upstream and Downstream Manufacturing of Vaccines in Tobacco**

**Prof Charles J. Arntzen**

(Center for Infectious Diseases and Vaccinology, Biodesign Institute of Arizona State Univ, USA )

○15:40 ~

Coffee break

○16:00 ~

Invited Lecture ( Chair : Prof Satoshi Harashima, Grad. Sch. Eng. Osaka Univ )

**Genome Shuffling to Improve Thermotolerance, Ethanol Tolerance and Ethanol Productivity of *Saccharomyces Cerevisiae***

**Dr Fengjuan Li** ( Tianjin Univ of Science and Technology, China )

○16:40 ~

Lecture ( Chair : Prof Masahito Taya, Grad. Sch. Eng. Sci. Osaka Univ )

**Bioprocess Design for Manufacturing of Cultured Tissues Toward Clinical Application**

**Prof Masahiro Kino-oka** ( Department of Biotechnology, Osaka Univ, Japan )

○17:20 ~

Lecture ( Chair : Prof Shigenori Kanaya, Osaka Univ )

**Genomic Approaches for Evaluation of Chemicals Released into the Environment**

**Prof Hajime Watanabe** ( Department of Biotechnology, Osaka Univ, Japan )

○18:00 ~

Closing remarks

**Osaka University Inter-Faculty Group for Industrial Biotechnology as a Global leader in Industrial Biotechnology**

**Prof Hisao Ohtake** ( Department of Biotechnology, Osaka Univ, Japan )

○18:20

Convivial Party

本シンポジウムは講演会、交流会とも参加無料ですが準備の都合上、下記にE-mailまたはFAXでお申し込みください。

〈お申込み先・お問合せ先〉  
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主催 : 大阪大学 フロンティア産業バイオイニシアティブ国際研究拠点

共催 : 大阪大学 工学研究科、大阪大学 研究・産学連携室、  
大阪大学 国際連携大学院 FD ネットワークプログラム

後援 : 日本生物工学会、日本環境バイオテクノロジー学会、酵母研究会  
リン資源リサイクル推進協議会、国立医薬基盤研究所、近畿バイオインダストリー振興会議