

Green Innovation, including Sustainable Energy



Could the utilization of biofilms, surface attached microbial communities, lead to a game-change in green biotechnology?

Welcome to a lecture by Professor Masaaki Morikawa, Hokkaido University Japan on Wednesday October 24th 2012

Introductory remarks by H.E. Ambassador *Yoshiki Watanabe*. The discussion will be chaired by Dr. *Hans-Jürgen Federsel*, Senior Principal Scientist, AstraZeneca, and started with comments from him and Prof. *John Stenström*, Uppsala Biocenter, Swedish University of Agricultural Sciences (SLU).

“There are tremendous efforts on genetic modification of plants “GMO”, however these are not easy acceptable to public. Upgrading the abilities of both plants and microbes not by genetic modification but by symbiotic interaction should be an acceptable alternative with high potential.”

Professor Morikawa will report from his ongoing project “Development of highly-ordered vegetational bioprocesses utilizing interaction in rhizosphere” which is supported by the Japan Science and Technology Agency (JST). The challenge is to drive (trigger) various microbial activities by solar energy on the surface of plant root. The goal in five years is to establish co-benefit vegetational biosystems that enable both advanced water treatment and enhanced biomass production.

“I believe that learning from nature tells us the best way to go for the next generation technology. I would like to introduce a few examples of unrealized and sophisticated symbiotic interactions in the natural fields. These symbiotic interactions are beneficial plant-microbe, human-microbe, and microbe-microbe interactions. I will also give examples of applications on contaminated soils.”

Dr. *Masaaki Morikawa* is Professor of Environmental Earth Science, Hokkaido University. His work experience include Fermentation technology, Biotechnology, and Material and Life science at Osaka University; Nisshin Oil Mills Ltd, Bio-oriented technology Research Advancement Institute (BRAIN), and Department of Microbiology and Molecular Genetics, Harvard University. He is on a lecture trip in Sweden, Finland and Denmark in order to exchange knowledge with colleagues organized by the Ministry of Foreign Affairs of Japan.

More information

- Date:** Wednesday October 24th, 18:00–19:30 followed by buffet/mingle
Venue: IVA's Conference Centre, Grev Turegatan 16, Stockholm, Sweden
Registration: RSVP no later than October 23th to eco@st.mofa.go.jp. Please write the following information: Name, Title, Organisation, Position and Specialty and if you would like to subscribe to the News letter from the Embassy of Japan. The seminar and buffet is free of charge.
More info: Contact *Kicki Edman*, Sweden-Japan Foundation, info@swejap.a.se, +46-8-611 68 73.

