



## Program

**Time:** October 19-22, 2011

**Venue:** Dalian World EXPO Center (DWEC), China

### Registration

*Time: 08:00-18:00, October 18, 2011 (Tuesday); Place: 1st Floor, DWEC*

### Jointly with LCES-2011's Opening Ceremony

*Time: 09:00-09:30, October 19, 2011 (Wednesday); Place: Multi-Functional Hall, Mezzanine, DWEC*

### Jointly with LCES-2011's Keynote Forum

*Time: 09:30-11:30, October 19, 2011 (Wednesday); Place: Multi-Functional Hall, Mezzanine, DWEC*

**Moderator**      **Dr. Jean Pasternak**, Global Director - Carbon Strategy & Alliances, Schneider Electric, China

09:30-10:00      **Title:** *Low Carbon Development in a Globalised World*  
**Dr. Rudolf Scharping**, CEO RSBK GmbH; Former Defense Minister; Former Minister President (Governor), Rhineland-Palatinate, Germany

10:00-10:30      **Title:** *Clean, Sustainable Energy Sources, Carriers and Storage Evolution*  
**Dr. Gustav R. Grob**, Fellow of the Energy Institute EI, London, Dean; Executive Secretary, International Sustainable Energy Organization ISEO; Chairman of ISO/TC203/WG3 Technical Energy Systems Analyses; President of the International Clean Energy Consortium ICEC; Switzerland

10:30-11:00      **Title:** *Global Finance of Renewable Energy*  
**Mr. Michael T. Eckhart**, Managing Director and Head of Environmental Finance and Sustainability, Citigroup, Inc., USA

11:00-11:30      **Title:** *Pathways to Low-carbon Personal Mobility - A GM Perspective*  
**Dr. Keith Cole**, Vice President, Public Policy and Government Relations, General Motors International Operations, China

### WCEB-2011's Keynote Forum

*Time: 13:30-16:15 October 19, 2011 (Wednesday); Place: Room No. 7-1, 2nd Floor, DWEC*

**Moderator**      **Dr. James Li**, Professor, Department of Civil Engineering, Ryerson University, Canada

13:30-14:00      **Title:** *Clean, Sustainable Energy Sources, Carriers and Storage Evolution*  
**Dr. Gustav R. Grob**, President, International Clean Energy Consortium ICEC, Switzerland

14:00-14:30      **Title:** *Bioaugmentation with Endophytic Bacteria to Improve Sustainable Biofuel Feedstock Production Combined with Bioremediation*

**Dr. Daniel van der Lelie**, Senior Director, Research Triangle Institute (RTI) International, Center for Agricultural and Environmental Biotechnology, USA

14:30-15:00      **Title:** *Application of AFC Technology for Making Renewable Energy and Fertilizer*  
**Dr. Alan F. Rozich**, Chairman & CTO, PMC BioTec LLC, USA

15:00-15:15      **Coffee Break**

15:15-15:45      **Title:** *Ten Questions about Contaminated Sites, Microbial Services and Management*  
**Dr. Verstraete Willy**, Professor, Laboratory of Microbial Ecology and Technology ( LabMET ), Ghent University, Belgium

15:45-16:15      **Title:** *Natural and Enhanced Bioremediation of Nitrate Contamination in Groundwater*  
**Dr. Richard L. Smith**, Project Chief, U.S. Geological Survey, USA

**Track 1: Environmental Bioscience****Session 1-1: Environmental Genomics, Proteomics, Molecular Cell Biology and Molecular Microbial Ecology***Time: 08:30-11:15, October 20, 2011 (Wednesday); Place: Room No. 6, 2nd Floor, DWEC*

- Chair**            **Dr. Seunghon Lee**, Professor, School of Civil and Environmental Engineering, Yonsei University, South Korea
- Co-Chair**        **Dr. Paulo Teixeira Lacava**, Professor, Institute of Natural Sciences, Federal University of Alfenas, Brazil
- 08:30-08:55      **Title:** *Dentrifying Bacterial Abundance and Diversity in Aquatic Ecosystems*  
**Dr. Seunghon Lee**, Professor, School of Civil and Environmental Engineering Yonsei University, South Korea
- 08:55-09:20      **Title:** *Diversity and Biotechnological Potential of Endophytic Bacteria from Mangrove Ecosystem*  
**Dr. João Lúcio Azevedo**, Professor, Department of Genetics, University of São Paulo, Brazil
- 09:20-09:45      **Title:** *Endophytic Methylophilic Bacteria in the Mangrove Ecosystem: Potential of Bioaccumulation*  
**Dr. Paulo Teixeira Lacava**, Professor, Institute of Natural Sciences, Federal University of Alfenas, Brazil
- 09:45-10:10     **Title:** *Biodiversity Monitoring of Anammox Bacteria in Membrane Bioreactor by PCR-DGGE*  
**Dr. Aleksandra Ziembinska**, Assistant Professor, The Silesian University of Technology, Poland
- 10:10-10:25      **Coffee Break**
- 10:25-10:50      **Title:** *Bioremediation of Chlorinated Ethenes: Understanding the Functional Players and Microbial Community*  
**Dr. Patrick Lee**, Assistant Professor, School of Energy and Environment, City University of Hong Kong, Hong Kong, China
- 10:50-11:15      **Title:** *Comparison of the Microbial Community Structure of Dewatered Sewage Sludges from Two Geographically Distributed Cities in China*  
**Dr. Chang-Ping Yu**, Researcher, Key Laboratory of Urban Environment and Health, Institute of Urban Environment, Chinese Academy of Sciences, China

**Session 1-2: Environmental Pollution, Law and Public Health***Time: 08:30-10:10, October 20, 2011 (Thursday); Place: Room No. 4, 2nd Floor, DWEC*

- Chair**            **Dr. K. J. Reddy**, Professor, Department of Renewable Resources, University of Wyoming, USA
- 08:30-08:55      **Title:** *Arsenic in Groundwater: A Global Health Crisis*  
**Dr. K. J. Reddy**, Professor, Department of Renewable Resources, University of Wyoming, USA
- 08:55-09:20      **Title:** *Human Health Impact of Biomass-fuelled Power Plants. Research Trends and Risk Management Approaches*  
**Dr. Luigi Manzo**, Professor, University of Pavia, Maugeri Foundation Medical Institute, Italy
- 09:20-09:45      **Title:** *New Laser Biotechnology for Bioremediation (Toxic Metals), Biodegradation (Petroleum Pollutants) Carbon Capture and Environmental Health and 44 Years of Environmental Education (of Experts and Knowledge-based Society) Focused on Sustainable Development*  
**Dr. Jan W. Dobrowolski**, Professor, AGH University of Science and Technology, Poland
- 09:45-10:10     **Title:** *The Effects of Bioaugmentation in Collection System on WWTP Operations, A Case Study*  
**Mr. Herman Cai**, Managing Director, FourWinds Capital Management, China

**Session 1-3 : Environmental Microbiology and Microbial Bioengineering**

Time: 13:30-14:20, October 20, 2011 (Thursday); Place: Room No. 4, 2<sup>nd</sup> Floor, DWEC

**Chair**            **Dr. Jeppe Lund Nielsen**, Associate Professor, Department of Biotechnology, Chemistry and Environmental Engineering, Aalborg University, Denmark

13:30-13:55      **Title:** *Metatranscriptomics of Denitrifying Bacteria in Activated Sludge*

**Dr. Jeppe Lund Nielsen**, Associate Professor, Department of Biotechnology, Chemistry and Environmental Engineering, Aalborg University, Denmark

13:55-14:20      **Title:** *Vibrio Parahaemolyticus: Incidence, Growth and Survival*

**Dr. Salina Parveen**, Associate Professor, University of Maryland Eastern Shore (UMES), USA

**Session 1-4 : Plant, Crop Biotechnology, Animal, Aquatic Biotechnology and Environmental Management**

Time: 13:30-16:40, October 20, 2011 (Thursday); Place: Room No. 5, 2<sup>nd</sup> Floor, DWEC

**Chair**            **Dr. Benoit Schoefs**, Professor of Plant Physiology, University of Maine at Le Mans, France

13:30-13:55      **Title:** *Biological Pumping of the Atmospheric Carbon by the Plants*

**Dr. Michal V. Marek**, Professor, CzechGlobe – Global Change Research Centre, Academy of Sciences of the Czech Republic, Czech Republic

13:55-14:20      **Title:** *Tobacco / Tomato Expressing HMA4 to Increase Zn/Cd Accumulation for the Purpose of Biofortification / Phytoremediation*

**Dr. Danuta Maria Antosiewicz**, Professor, University of Warsaw, Poland

14:20-14:45      **Title:** *The Synthesis of Secondary Carotenoids in Microalgae*

**Dr. Benoit Schoefs**, Professor of Plant Physiology, University of Maine at Le Mans, France

14:45-15:10      **Title:** *Simulation and Optimization of Recirculating System and Organic Matter Treatment in Salmon Aquaculture*

**Dr. Estrella Aspé**, Associate Professor, Department of Chemical Engineering, University of Concepcion, Chile

15:10-15:25      **Coffee Break**

15:25-15:50      **Title:** *Biotechnological Approaches to Improve Heavy Metal Accumulation by Flax/Linseed Plants for Phytoremediation Purposes*

**Dr. Miroslav Griga**, Head, Plant Biotechnology Department, AGRITEC Plant Research Ltd., Czech Republic

15:50-16:15      **Title:** *Forage Legumes in Northern Climate – Impact on Soil Fertility and Environment*

**Dr. Ievina Sturite**, Researcher, Norwegian Institute for Agricultural and Environmental Research, Norway

16:15-16:40      **Title:** *Irrigated Soils: Functioning, Monitoring, Degradation Processes Estimation, Preventing and Illumination*

**Dr. Valentina Ye. Prikhodko**, Leading Research Scientist, Institute of Physico-chemical and Biological Problems in Soil Science Russian Academy of Sciences, Russia

**Session 1-5: Environmental Biochemistry, Biophysics, Metagenomics and Soil Microbiology***Time: 08:30-09:45, October 21, 2011 (Friday); Place: Room No. 4, 2nd Floor, DWEC*

**Chair**            **Dr. Witold Stepniewski**, Full Professor, Department of Land Surface Protection Engineering, Lublin University of Technology, Poland

08:30-08:55      **Title:** *Physical Factors Effects on Methanotrophic Activity in Soil and Other Porous Media*  
**Dr. Witold Stepniewski**, Full Professor, Department of Land Surface Protection Engineering, Lublin University of Technology, Poland

08:55-09:20      **Title:** *Light-energy Conversion of Aquatic Microbe on the Surface of Water not from Photosynthesis*  
**Dr. Kwang-Hwan Jung**, Professor, Department of Life Science, Sogang University, South Korea

09:20-09:45      **Title:** *Molecular Quantification of Nitrifier and Denitrifier Populations: Progress and Applications in Natural and Disturbed Forest Habitats*  
**Dr. Richard Winder**, Research Scientist, Natural Resources Canada, Canadian Forest Service, Pacific Forestry Centre, Canada

**Session 1-6: Marine Biotechnology, Geomicrobiology and Environment Protection***Time: 10:10-12:05, October 21, 2011, (Friday); Place: Room No. 4, 2nd Floor, DWEC*

**Chair**            **Dr. Richard L. Smith**, Project Chief, U.S. Geological Survey, USA

10:00-10:25      **Title:** *Denitrification Coupled Iron (II) Oxidation: A Potential Remediation Process for Groundwater Contamination*  
**Dr. Richard L. Smith**, Project Chief, U.S. Geological Survey, USA

10:25-10:50      **Title:** *Geoid and Sea Level Rise: Impact on Coastal Areas*  
**Dr. Alexey L Sadvski**, Professor, Texas A & M University-Corpus Christi, USA

10:50-11:15      **Title:** *Using Stable Isotope Probing and Bio-traps to Demonstrate the Biodegradation Potential of Contaminants in Groundwater*  
**Dr. Kerry Sublette**, Professor, University of Tulsa, USA

11:15-11:40      **Title:** *Contamination and Impact of Organotin Compounds at the Brazilian Coast*  
**Dr. Ana Flávia Locateli Godoi**, Professor, Environmental Engineering Department, UFPR -Federal University of Paraná, Brazil

11:40-12:05      **Title:** *Deep Biosphere in Earth Crust Aquifers – Global and Local Efforts to Understand the Role of Microbes in Deep Terrestrial Ecosystems*  
**Dr. Merja Itavaara**, Principal Scientist, VTT Technical Research Centre of Finland, Finland

**Session 1-7: Toxicology, Phytotechnology, Biodiversity Conservation, Mapping and Management***Time: 08:30-12:05, October 22, 2011 (Saturday); Place: Room No. 5, 2nd Floor, DWEC*

**Chair**            **Dr. Kari Heliovaara**, Professor, Department of Forest Sciences, University of Helsinki, Finland  
**Co-Chair**        **Dr. Natália G. Reyero Vinas**, Professor, Jackson State University, USA

08:30-08:55      **Title:** *Larch Monocultures as a Source of Pest Outbreaks in Northern China*  
**Dr. Kari Heliovaara**, Professor, Department of Forest Sciences, University of Helsinki, Finland

08:55-09:20      **Title:** *Mathematical Solution and Application of the Holdridge Life Zone Model*  
**Dr. Robert W. Meyer**, Professor, State University of New York, USA

09:20-09:45      **Title:** *Phytoremediation of Soil Supported by Plant Micorrhization*  
**Dr. Korneliusz Miksch**, Professor, Environmental Biotechnology Department, The Silesian University of Technology, Poland



- 09:45-10:10 **Title:** *Usefulness of Currently Available in Vitro Methods for Toxicity Assessment of Nanoparticles and Nanomaterials*  
**Dr. Konrad Rydzynski**, Professor, The Nofer Institute of Occupational Medicine, Poland
- 10:10-10:25 **Coffee Break**
- 10:25-10:50 **Title:** *Toxicogenomic Impacts of Effluents on the Fathead Minnow*  
**Dr. Natália G. Reyro Vinas**, Professor, Jackson State University, USA
- 10:50-11:15 **Title:** *Biotechnological Reactivation of Industrial Dumps*  
**Dr. Kozybaeva Farida Esenkozhanova**, Professor, Institute of Soil Science and Agro Chemistry after U.U.Uspanov, Republic Kazakhstan
- 11:15-11:40 **Title:** *Assessing the Efficacy of Advanced Tertiary Treatment Technology in Removing Endocrine Disrupting Chemicals Using Biological Approaches*  
**Dr. Richard Lim**, Associate Professor, School of the Environment, University of Technology Sydney, Australia
- 11:40-12:05 **Title:** *Systems Biology Modeling of Endocrine Disrupting Chemical Effects in Fish*  
**Dr. Edward J. Perkins**, Senior Research Scientist, US Army Engineer Research and Development Center, USA

## Track 2: Leading Technology in Environmental Biotechnology

### Session 2-1: Bioinformatics, Biochips, Microarrays, Gene Technology, Microbe Immobilization Technology and Environmental Biotechnology

*Time: 08:30-10:10, October 20, 2011 (Thursday); Place: Room No. 5, 2nd Floor, DWEC*

- Chair** **Dr. Dora Ogles**, Vice President, Microbial Insights, Inc., USA
- 08:30-08:55 **Title:** *Monitoring Gene Expression to Evaluate the Effectiveness of Oxygen Infusion*  
**Dr. Dora Ogles**, Vice President, Microbial Insights, Inc., USA
- 08:55-09:20 **Title:** *Anaerobic Processes (Methanogenesis and Anammox) in Aerobic Wastewater Treatment Installations with Immobilized Microorganisms*  
**Dr. Alla Nozhevnikova**, Professor, S.N. Winogradsky Institute of Microbiology (INMI) RAS, Russia
- 09:20-09:45 **Title:** *Biological Control of Microbial Attachment on Membrane Surfaces*  
**Dr. Yu Liu**, Associate Professor, Division of Environmental and Water Resources Engineering, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore
- 09:45-10:10 **Title:** *Immobilized Anaerobic Biomass for Improving Wastewater Treatment Systems*  
**Dr. Isam Sabbah**, Senior Researcher, The Galilee Society Research & Development Center, Israel

### Session 2-2: Environmental Biomarkers, Biosensors and Environmental Biotechnology

*Time: 10:25-11:40, October 20, 2011 (Thursday); Place: Room No. 5, 2nd Floor, DWEC*

- Chair** **Dr. Sisir K. Dutta**, Professor, Department of Biology, Howard University, USA
- 10:25-10:50 **Title:** *Biomarkers for PCB-exposed Population*  
**Dr. Sisir K. Dutta**, Professor, Department of Biology, Howard University, USA
- 10:50-11:15 **Title:** *Time Domain NMR Combined with Magnetic Nanoparticles as an Ultra-sensitive and Rapid Biosensor*  
**Dr. Zonghai Harry Xie**, Senior Scientist & Adjunct Professor, Bruker Corporation, University of Minnesota, USA



11:15-11:40 **Title:** *Innovative Sensor Technology for Effective Online Water Quality Monitoring and in Situ Target Detection*  
**Dr. Alagappan Palaniappan**, Researcher, Optiqua Technologies Pte Ltd., Singapore

**Session 2-3: Biofilm Reactors, Nanobiotechnology and Environmental Engineering**

*Time: 10:25-12:05, October 20, 2011 (Thursday); Place: Room No. 4, 2nd Floor, DWEC*

**Chair** **Dr. Östen Ekengren**, Vice President, Swedish Environmental Research Institute, Sweden

10:25-10:45 **Title:** *Swedish Experiences from Biogasproduction*  
**Dr. Östen Ekengren**, Vice President, Swedish Environmental Research Institute, Sweden

10:45-11:05 **Title:** *The Use of Compact Reactors to Treat Effluents with High Protein Content*  
**Dr. Marlene Roeckel**, Professor, Department of Chemical Engineering, Universidad de Concepción, Chile

11:05-11:25 **Title:** *Developing a Membrane Bioreactor System with Submerged Ceramic Flat Membranes for the Continual Production of Organic Acids*

**Dr. Hans-Jürgen Schmidt**, General Manager, Membrane-Engineering GmbH, Germany

11:25-11:45 **Title:** *Nanoparticles and Plants in Environment*  
**Dr. Tomas Vanek**, Head, Laboratory of Plant Biotechnologies, Joint Laboratory of Institute of Experimental Botany AS CR, Research Institute of Crop Production, Czech Republic

11:45-12:05 **Title:** *X-ray Contrast Media Removal in Membrane Bioreactors*  
**Dr. Sebastian Zabczynski**, Senior Professor's Assistant, Environmental Biotechnology Department, The Silesian University of Technology, Poland

**Session 2-4: Statistics, Environmental Isotopes in Bioremediation and Biodegradation**

*Time: 14:30-15:45, October 20, 2011 (Thursday); Place: Room No. 4, 2nd Floor, DWEC*

**Chair** **Dr. Kun-Shan Chen**, Professor, National Central University, Taiwan

14:30-14:55 **Title:** *Remote Sensing of Natural Disasters*  
**Dr. Kun-Shan Chen**, Professor, National Central University, Taiwan

14:55-15:20 **Title:** *Spatial Analysis of Three Remnant Waterbodies in the Basin of Mexico Using Satellite Imagery and Hyperspectral Data*

**Dr. Raúl Aguirre Gómez**, Researcher, Institute of Geography, University of Mexico, Mexico

15:20-15:45 **Title:** *Carbon Isotopes as Indicator of Biological Activity*  
**Dr. Nada Miljevic**, Physical-chemist, Jaroslav Cerni Institute for Development of Water Resources, Serbia

**Session 2-5: Microbial Cultivation Process, Bioreactors & Suspended-Growth and Attached-Growth Biotechnology**

*Time: 08:30-09:45, October 22, 2011 (Saturday); Place: Room No. 4, 2nd Floor, DWEC*

**Chair** **Dr. Chia-Yuan Chang**, Associate Professor, Chia Nan University of Pharmacy and Science, Taiwan

08:30-08:55 **Title:** *Denitrification in an Aerobic Nitrifying-Denitrifying MBR System for Treating ABS Resin Wastewater*

**Dr. Chia-Yuan Chang**, Associate Professor, Chia Nan University of Pharmacy and Science, Taiwan

08:55-09:20 **Title:** *Molecular Technique Applications in Environmental Biofilm Systems*

**Dr. Yang Liu**, Assistant Professor, Department of Civil and Environmental Engineering, University of Alberta, Canada

09:20-09:45 **Title:** *Early Warning Indicator in Terms of Over-acidification in Anaerobic Waste Digesters*  
**Ms. Anne Kleyboecker**, Scientist, Helmholtz Centre Potsdam, Germany

**Track 3: Environmental Biotech for Industrial Wastes****Session 3-1: Environmental Biotech for Industrial Wastes Part I**

Time: 13:30-17:05, October 20, 2011 (Wednesday); Place: Room No. 6, 2<sup>nd</sup> Floor, DWEC

- Chair**            **Dr. Ping-Yi Yang**, Professor, Graduate Program in Bioengineering, Department of Molecular Biosciences and Bioengineering, University of Hawaii at Manoa, USA
- Co-Chair**        **Dr. Robert Richardson**, President, Pacific Rim Design & Development Inc., USA
- 13:30-13:55        **Title:** *EMMC/MBR Processes for Biological Wastewater Treatment and Reuse*  
**Dr. Ping-Yi Yang**, Professor, Graduate Program in Bioengineering, Department of Molecular Biosciences and Bioengineering, University of Hawaii at Manoa, USA
- 13:55-14:20        **Title:** *Industrial Air Quality Using Integrated Biological & Chemical Process*  
**Dr. Robert Richardson**, President, Pacific Rim Design & Development Inc., USA
- 14:20-14:45        **Title:** *Odour and Air Pollution Control Biotechnologies*  
**Dr. Christian Kennes**, Professor of Chemical Engineering, University of La Coruña, Spain
- 14:45-15:10        **Title:** *Greenhouse Lab Screening Procedure Provides Controlled Bioremediation for Comparison of Base Fluids and Alternative Treatment Regimens for Managing of Drill Cuttings*  
**Dr. Clements Kayli A**, Senior Environmental Scientist, M-I SWACO a Schlumberger Company, USA
- 15:10-15:25        **Coffee Break**
- 15:25-15:50        **Title:** *Waste Management Practices at Hotel and Restaurant Establishments and It's Impacts to Environment*  
**Dr. Ahmet Akta**, Professor, Akdeniz University, Turkey
- 15:50-16:15        **Title:** *Utilization of Biological Solubilization Process for Food Waste Treatment*  
**Dr. Hazel B. Gonzales**, Associate Professor, Tokyo Institute of Technology, Japan
- 16:15-16:40        **Title:** *Application of Selected Decolourising Bacteria for the Treatment of Real Textile Wastewater- A Malaysian Case Study*  
**Dr. Zaharah Ibrahim**, Associate Professor, Universiti Teknologi Malaysia, Malaysia
- 16:40-17:05        **Title:** *Environmentally-friendly Lattices Processing by Ultrafiltration Membrane System*  
**Dr. Devaraj Veerasamy**, Senior Scientist, Technology and Engineering Division, Malaysian Rubber Board, Malaysia

**Session 3-2: Environmental Biotech for Industrial Wastes (Part II)**

Time: 08:30-12:05, October 21, 2011 (Friday); Place: Room No. 5, 2<sup>nd</sup> Floor, DWEC

- Chair**            **Dr. Steven Hart**, Director of Aquaculture, Indiana Soybean Alliance, USA
- Co-Chair**        **Dr. Yeoung-Sang Yun**, Associate Professor & Director, Chonbuk National University, South Korea
- 08:30-08:55        **Title:** *Developing Economic Value Out of Traditional Aquaculture Waste Products*  
**Dr. Steven Hart**, Director of Aquaculture, Indiana Soybean Alliance, USA
- 08:55-09:20        **Title:** *Photoinduced and Biological Degradation of Persistent Toxic Substances*  
**Dr. O. N. Tchaikovskaya**, Professor, Tomsk State University, Russia
- 09:20-09:45        **Title:** *Removal of Chromium (VI) from Waste Plating Solution by Using Adsorption Gels Prepared from Wastes of Persimmon and Grape*  
**Dr. Katsutoshi Inoue**, Professor Emeritus, Saga University, Japan
- 09:45-10:10        **Title:** *Start-up, Modeling and Simulation of the Anammox Process in a Membrane Reactor*  
**Dr. Surmacz-Gorska Joanna**, Associate Professor, Environmental Biotechnology Department, Silesian University of Technology, Poland



- 10:10-10:25      **Coffee Break**
- 10:25-10:45      **Title:** *Design Strategies for High-performance Biosorbents*  
**Dr. Yeoung-Sang Yun**, Associate Professor & Director, Chonbuk National University, South Korea
- 10:45-11:05      **Title:** *Practical Applications of In Situ Microcosm Studies as a Predictive Tool*  
**Dr. Anita Biernacki**, Operations Manager, Microbial Insights, Inc., USA
- 11:05-11:25      **Title:** *Outline Plan of The First Two Site Investigation Stages of the Japanese Geological Disposal Project*  
**Mr. Kenichi Kaku**, Group Manager, Nuclear Waste Management Organization of Japan (NUMO), Japan
- 11:25-11:45      **Title:** *Overview of the Japanese Geological Disposal Project and NUMO's Activities*  
**Dr. Hiroyuki Tsuchi**, Managing Director, Nuclear Waste Management Organization of Japan (NUMO), Japan
- 11:45-12:05      **Title:** *Polylactic Acid Biodegradable Polymer Building Unit, Lactic Acid: Recovery from Beverages Using Ionic Liquids*  
**Dr. Huma Lateef**, Research Associate, Imperial College London, UK

#### Track 4: Biotech for Municipal and Countryside Waste Management

##### Session 4-1: Biotech for Municipal and Countryside Waste Management

Time: 13:30-17:10 October 20, 2011 (Thursday); Place: Room No. 7-1, 2nd Floor, DWEC

- Chair**              **Dr. Siu-Wai Chiu**, Professor, School of Life Sciences, The Chinese University of Hong Kong, China  
**Co-Chair**          **Dr. Rosa Galvez**, Professor, Department of Civil Engineering, Laval University, Canada
- 13:30-13:50      **Title:** *Biotechnological Conversion of Municipal and Countryside Solid Wastes into Mushrooms and Spent Mushroom Compost as a Bioremediating Agent and Biofuel*  
**Dr. Siu-Wai Chiu**, Professor, School of Life Sciences, The Chinese University of Hong Kong, China
- 13:50-14:10      **Title:** *Sequential Chemical Extraction Heavy Metals as a Basis for the Evaluation of Municipal Sewage Sludge in the Aspect of Their Interaction with the Environment*  
**Dr. Czelawa Rosik-Dulewska**, Professor, Institute of Environmental Engineering, Polish Academy of Science, Poland
- 14:10-14:30      **Title:** *Multispecies Biofilm Growth: Numerical Modeling and Simulations*  
**Dr. Berardino D'Acunto**, Professor, University of Naples "Federico II", Italy
- 14:30-14:50      **Title:** *Biological Technology (Biobeds) for Pesticides Mitigation in the Environment*  
**Dr. M. Cristina Diez**, Professor, Chemical Engineering Department, University of La Frontera, Chile
- 14:50-15:10      **Title:** *A Geo-filter Bed and Halophyte Wetland: An Eco-engineering System for the Treatment of Saline Highway Runoff*  
**Dr. Rosa Galvez**, Professor, Department of Civil Engineering, Laval University, Canada
- 15:10-15:25      **Coffee Break**
- 15:25-15:50      **Title:** *Mixed Culture Polyhydroxyalkanoates Production*  
**Dr. María C. Veiga**, Professor, University of A Coruña, Spain
- 15:50-16:10      **Title:** *Enhanced of Waste Activated Sludge Hydrolysis and Acidification by Combined of Sodium Dodecyl Sulfate and Enzyme*  
**Dr. Xiao-ming Li**, Professor, Hunan University, China
- 16:10-16:30      **Title:** *Best Management Practices for Odors and Emissions Control from Greenwaste Composting*  
**Dr. Fatih Buyuksonmez**, Associate Professor, Director of Environmental Engineering Program, San Diego State University, USA



- 16:30-16:50 **Title:** *Fly Ash Aided Phytostabilisation of Soils Highly Contaminated by Cd, Pb and Zn: Assessment after an 8-year Field Trial*  
**Dr. Bertrand Pourrut**, Assistant Professor, Lille Catholic University (Groupe ISA), France
- 16:50-17:10 **Title:** *Greenhouse Gas Flux in Korean Mountainous Wetlands*  
**Dr. Min Jung Kwon**, Researcher, Yonsei University, South Korea

**Session 4-2: Air Pollution Monitoring, Sediments and Modeling**

*Time: 13:30-16:40, October 21, 2011 (Friday); Place: Room No. 4, 2nd Floor, DWEC*

- Chair** **Dr. Peter Suppan**, Head, Research Group "Regional Coupling of Ecosystem-Atmosphere Processes", Institute for Meteorology and Climate Research (IMK-IFU) of the Karlsruhe Institute of Technology (KIT), Germany
- 13:30-13:55 **Title:** *Linking Measurement with Modeling Tools - A Challenge for Air Pollution Research*  
**Dr. Peter Suppan**, Head, Research Group "Regional Coupling of Ecosystem-Atmosphere Processes", Institute for Meteorology and Climate Research (IMK-IFU) of the Karlsruhe Institute of Technology (KIT), Germany
- 13:55-14:20 **Title:** *Urban Air Particles and Acute Health Effects on Susceptible Populations*  
**Dr. Deborah R. Tasat**, Professor, University of San Martin, Argentina
- 14:20-14:45 **Title:** *LES of Air-pollution Transport in a Complex Geometry*  
**Dr. Josef Brechler**, Associate Professor, Charles University, Czech Republic
- 14:45-15:10 **Title:** *Air Pollution Monitoring Using Colorimetric Sensor based on Nano Porous Material*  
**Dr. Yasuko Yamada Maruo**, Senior Research Engineer, NTT Energy and Environment Systems Laboratories, Japan
- 15:10-15:25 **Coffee Break**
- 15:25-15:50 **Title:** *Airborne Microorganisms from Livestock Production Systems and Their Relation to Dust*  
**Dr. Peter W. Groot Koerkamp**, Professor, Wageningen University and Research Centre, The Netherlands
- 15:50-16:15 **Title:** *Sources and Transport of Atmospheric Particles from South America to Antarctic: Past, Present and Future of Monitoring*  
**Dr. Ricardo H. M. Godoi**, Professor, Department of Environmental Engineering, Federal University of Parana - UFPR, Brazil
- 16:15-16:40 **Title:** *Indoor Radon Concentration in the Living Places of Mashhad*  
**Dr. Ali Asghar Mowlavi**, Associate Professor, Sabzevar Tarbiat Moallem University, Iran

**Track 5: Biological Treatment Processes of Pollutants****Session 5-1: Biological Treatment Processes of Pollutants (Part I)**

*Time: 08:30-11:15, October 20, 2011 (Thursday); Place: Room No. 7-I, 2nd Floor, DWEC*

- Chair** **Dr. Hong J. Di**, Professor, Centre for Soil and Environmental Research, Lincoln University, New Zealand
- Co-Chair** **Dr. Ole Martin Eklo**, Professor, Norwegian Institute for Agricultural and Environmental Research, Norway
- 08:30-08:55 **Title:** *Inhibition of Nitrification to Mitigate Greenhouse Gas Nitrous Oxide Emissions and Nitrate Leaching in Pastoral Agriculture*  
**Dr. Hong J. Di**, Professor, Centre for Soil and Environmental Research, Lincoln University, New Zealand



- 08:55-09:20 **Title:** *Combined Biological Treatment of Mine Effluents Contaminated with Arsenic*  
**Dr. Christophe Dagot**, Professor, ENSIL – GRESE – University of Limoges, France
- 09:20-09:45 **Title:** *The Phytoextraction of Zn(II) and Cu(II): An Opportunity for Green Chemistry*  
**Dr. Claude Grison**, Professor, Center for Evolutionary and Functional Ecology, France  
**Presenter: Mr. Guillaume Losfeld**, Ph.D. Student, Centre for Evolutionary and Functional Ecology, France
- 09:45-10:10 **Title:** *Denitrification of Industrial Wastewater with High Concentrations of Nitrates and Sulfates*  
**Dr. Zabraska Jana**, Professor, Faculty of Environment Protection Technology, Department of Water Technology and Environmental Engineering, Institute of Chemical Technology Prague, Czech Republic
- 10:10-10:25 **Coffee Break**
- 10:25-10:50 **Title:** *Application of Sequencing Batch Bioreactors in the Detoxification Waste Water Technologies*  
**Dr. Yana Topalova**, Professor, Faculty of Biology, Sofia University "St. Kliment Ohridski", Bulgaria
- 10:50-11:15 **Title:** *Bioreactive Filters and Effects on Pesticide Leaching*  
**Dr. Ole Martin Eklo**, Professor, Norwegian Institute for Agricultural and Environmental Research, Norway

**Session 5-2: Biological Treatment Processes of Pollutants (Part II)**

*Time: 13:30-17:05, October 21, 2011 (Friday); Place: Room No. 5, 2nd Floor, DWEC*

- Chair** **Dr. Sabo Franjo**, Professor, RheinMain University of Applied Sciences, Germany  
**Co-Chair** **Dr. R. J. Haynes**, Professor, School of Land, Crop and Food Sciences/CRC CARE, The University of Queensland, Australia
- 13:30-13:55 **Title:** *Composting Biotechnology: An Overview of the Process and Its Role in Waste Management*  
**Dr. R. J. Haynes**, Professor, School of Land, Crop and Food Sciences/CRC CARE, The University of Queensland, Australia
- 13:55-14:20 **Title:** *Realising the Environmental Biotechnology Engine Potentials*  
**Dr. Eric Senior**, Professor & Director, Clean Environment Management Centre, School of Science and Engineering, Teesside University, UK
- 14:20-14:45 **Title:** *New Developments in High Efficiency Biofiltration*  
**Dr. Franjo Sabo**, Professor, RheinMain University of Applied Sciences, Germany
- 14:45-15:10 **Title:** *Vermicomposting of Industrial Organic Wastes and Its Application in Mine Rehabilitation Strategies – An Overview from a South African Perspective*  
**Dr. Mark Maboeta**, Associate Professor, School of Environmental Sciences and Development, North-West University (Potchefstroom Campus), South Africa
- 15:10-15:25 **Coffee Break**
- 15:25-15:50 **Title:** *Biological Removal of Hydrogensulphide from Biogas*  
**Dr. Pokorna Dana**, Assistant Professor, Faculty of Environment Protection Technology, Department of Water Technology and Environmental Engineering, Institute of Chemical Technology, Czech Republic
- 15:50-16:15 **Title:** *Phytoremediation by High-Cd-accumulating Rice in Low-level Cd Contaminated Paddy Field*  
**Dr. Toshimitsu Honma**, Researcher, Niigata Agric. Res. Inst., Japan
- 16:15-16:40 **Title:** *Advanced Photo-oxidative Treatments for the Degradation of Azo Dyes in Textile Wastewaters*  
**Dr. Antonio Zuurro**, Research Fellow, Department of Chemical Engineering Materials Environment, "Sapienza" University of Rome, Italy



- 16:40-17:05 **Title:** *The Effect of Mixed Industrial and Domestic Wastewater on Treatment Processes*  
**Dr. El Monayeri D. S.**, Professor, Department of Environmental Engineering, Faculty of Engineering, Zagazig University, Egypt
- 17:10-17:30 **Title:** *Membrane Bioreactor for Biological Nutrient Removal from High-rise Building Wastewater for Hot Climate Region*  
**Dr. Chavalit Ratanatamskul**, Associate Professor, Department of Environmental Engineering, Faculty of Engineering, Chulalongkorn University, Thailand

## Track 6: Monitoring Toxins

### Session 6-1: Monitoring Toxins

*Time: 08:30-11:15, October 20, 2011 (Thursday); Place: Room No. 3, 2nd Floor, DWEC*

- Chair** **Dr. Dayanthi Nugegoda**, Professor, The Royal Melbourne Institute of Technology University, Australia
- Co-Chair** **Dr. James Li**, Professor, Department of Civil Engineering, Ryerson University, Canada
- 08:30-08:55 **Title:** *Biomarkers of Exposure to Endocrine Disrupting Chemicals in Fish*  
**Dr. Dayanthi Nugegoda**, Professor, The Royal Melbourne Institute of Technology University, Australia
- 08:55-09:20 **Title:** *Development of Correction Factors for ELISA Detection of Dioxins in Contaminated Soil and Sediments*  
**Dr. James Li**, Professor, Department of Civil Engineering, Ryerson University, Canada
- 09:20-09:45 **Title:** *Microbial Fuel Cell Enables Phosphate Recovery as Struvite*  
**Dr. Fabian Fischer**, Professor, University of Applied Sciences Western Switzerland, Member of Biotechnet, Switzerland
- 09:45-10:10 **Title:** *Micro-bioassay Platform based on Nano-spintronics*  
**Dr. Cheolgi Kim**, Professor, Chungnam National University, South Korea
- 15:10-15:25 **Coffee Break**
- 10:25-10:50 **Title:** *Effects of Ammonia-toxicity on the Submersed Macrophytes*  
**Dr. Songhe Zhang**, Associate Professor, College of Environment Hohai University, China
- 10:50-11:15 **Title:** *Integrative Strategies for Trace Analysis and In Vitro Screens of Selected Oestrogen Mimics*  
**Dr. James J. Roche**, Lecturer in Chemistry, Department of Life & Physical Sciences, School of Science, Athlone Institute of Technology, Ireland

## Track 7: Case Studies of Promising Bio-products and Bio-Methodologies

### Session 7-1: Case Studies of Promising Bio-products and Bio-Methodologies

*Time: 14:30-17:00, October 22, 2011 (Saturday); Place: Room No. 4, 2nd Floor, DWEC*

- Chair** **Dr. Jyh-Wei (Al) Sun**, Senior Vice President, Clean Development Mechanism, USA
- 14:30-14:55 **Title:** *Converting Conventional Activated Sludge to Biological Nutrients Removal System – A Case Study of Big Dry Creek WWTF*  
**Dr. Jyh-Wei (Al) Sun**, Senior Vice President, Clean Development Mechanism, USA
- 14:55-15:20 **Title:** *Thermophilic Dry Anaerobic Co-digestion of Poultry Litter and Energy Crops for the Generation of Renewable Methane Fuel, the Production of Organic Fertilizers and the Environmental Protection of Water Resources in the Mid-atlantic Region of the United States*  
**Dr. John Gregory Ingersoll**, President & CEO, ECOCORP, USA



- 15:20-15:45 **Title:** *Bio-based Dental Restorative Material to Replace Mercury Amalgam*  
**Dr. Seng Neon Gan**, Professor, University of Malaya, Malaysia
- 15:45-16:10 **Title:** *Development of Self-oscillating Polymer Gel Robot Fueled by Chemical Energy*  
**Dr. Yusuke Hara**, Researcher, Nanosystem Research Institute (NRI), National Institute of Advanced Industrial Science and Technology (AIST), Japan
- 16:10-16:35 **Title:** *Response of Soil Enzyme Activities to Drought Condition in Constructed Wetlands*  
**Dr. Nguyen Xuan Que Vo**, Researcher, School of Civil and Environmental Engineering, Yonsei University, South Korea
- 16:35-17:00 **Title:** *Novozymes Biosolutions – Towards Environmental Renaissance*  
**Dr. Jegannathan Kenthorai Raman**, LCA Specialist, Novozymes South Asia Pvt. Ltd., India

## Track 8: Renewable Energy from Wastes

### Session 8-1: Renewable Energy from Wastes

Time: 13:30-17:30, October 20, 2011 (Thursday); Place: Room No. 3, 2<sup>nd</sup> Floor, DWEC

- Chair** **Dr. Guenter Busch**, Professor, Brandenburg University of Technology, Germany
- Co-Chair** **Dr. Salvador Malheiro**, Professor, Engineering Department, University of Trás-os-Montese Alto Douro, Portugal
- 13:30-13:55 **Title:** *Biogas from Organic Waste Via Double Stage Technology*  
**Dr. Guenter Busch**, Professor, Brandenburg University of Technology, Germany
- 13:55-14:20 **Title:** *Next Generation Biorefineries: Producing Chemicals & Fuels without any Waste*  
**Dr. Franck Dumeignil**, Professor, Université Lille Nord de France, France
- 14:20-14:45 **Title:** *Local Energy Production for Local Use of Energy*  
**Dr. Erkki Hiltunen**, Director, Vaasa Energy Institute, Finland
- 14:45-15:10 **Title:** *Sustainable Bioenergy: Challenges and Opportunities*  
**Dr. Shakinaz Taha El Shelawi**, Professor, Department of Chemical Engineering, Faculty of Engineering, Cairo University, Egypt
- 15:10-15:25 **Coffee Break**
- 15:25-15:50 **Title:** *Electricity Production from Forest and Animal Biomass Using an Internal Combustion Engine - Case Study*  
**Dr. Salvador Malheiro**, Professor, Engineering Department, University of Trás-os-Montese Alto Douro, Portugal
- 15:50-16:10 **Title:** *Co-expression of Cellulose Genes in Transgenic Wheat as Feedstock for Bioethanol Production*  
**Dr. Trevor W. Stevenson**, Associate Professor, School of Applied Sciences, The Royal Melbourne Institute of Technology, Australia
- 16:10-16:30 **Title:** *The Feasibility of Using Plantations, Logging Residues, and Other Wood Wastes for Bioenergy- Cost and Scale Considerations*  
**Dr. Roger A. Williams**, Associate Professor, The Ohio State University, USA
- 16:30-16:50 **Title:** *Production of High Quality Biodiesel from Waste Cooking Oil*  
**Dr. Yong Wang**, Associate Professor, Department of Food Science and Engineering, Jinan University, China
- 16:50-17:10 **Title:** *Oil Palm Sap Squeezing System for Bioethanol Production*  
**Dr. Yoshinori Murata**, Senior Researcher, Japan International Research Center for Agricultural Sciences, Japan
- 17:10-17:30 **Title:** *Method of Producing Biomass Fuel by Means of Pyrolyzing and Liquefying Biomass*  
**Dr. Hongxin Tan**, Deputy Director, National Technology Transfer Center (NTTC) of Tsinghua University, China



## Track 9: Law and Business of Environmental Biotechnology

### Session 9-1: Law and Business of Environmental Biotechnology

Time: 13:30-14:20, October 22, 2011 (Saturday); Place: Room No. 4, 2<sup>nd</sup> Floor, DWEC

**Chair**                    **Dr. Alan F. Rozich**, Chairman & Chief Technology Officer, PMC BioTec Company, USA

13:30-13:55            **Title:** *Application of AFC Technology for Making Renewable Energy and Fertilizer*

**Dr. Alan F. Rozich**, Chairman & CTO, PMC BioTec LLC, USA

13:55-14:20            **Title:** *Development of the AIS Technology as a Cost-effective Alternative to Conventional Activated Sludge, Sequencing Bio-Reactors, or Membrane Systems for Industrial Waste Treatment*

**Mr. Sam Shelby**, P.E., Managing Principal, ENVIRON International Corporation, USA

## Track 10: Session for Young Scientists

### Session 10-1: Session for Young Scientists

Time: 09:50-12:20, October 22, 2011 (Wednesday); Place: Room No. 4, 2<sup>nd</sup> Floor, DWEC

**Chair**                    **Dr. Huma Lateef**, Research Associate, Imperial College London, UK

**Co-Chair**                **Dr. Huarong Guo**, Associate Professor, Ocean University of China, China

09:50-10:15            **Title:** *Pulp and Paper Mill Sludges as Substrates for Anaerobic Digestion: Analysis of Chemical and Physical Properties*

**Ms. Alina Hagelqvist**, Ph.D. Student, Department of Energy, Environmental and Building Technology, Karlstad University, Sweden

10:15-10:40            **Title:** *A Contribution to the Understanding of the H<sub>2</sub> Metabolism in Chlamydomonas Reinhardtii*

**Dr. Alberto Scoma**, Ph.D., Department of Civil, Environmental and Materials Engineering, University of Bologna, Italy

10:40-11:05            **Title:** *Effects of Silver Nanoparticles on Early Life Stages of Japanese Medaka: Inferences of Different Coating Materials*

**Dr. Kevin Wing Hin Kwok**, Postdoctoral Research Associate, Center for the Environmental Implications of Nanotechnology and Nicholas School of the Environment, Duke University, USA

11:05-11:30            **Title:** *An In-well Bioreactor for the Biodegradation of Hydrocarbons and Chlorinated Hydrocarbons*

**Dr. Katherine Key**, Department of Chemical Engineering, University of Tulsa, USA

11:30-11:55            **Title:** *Establishment of a New Genotoxicity Bioassay System From Fish Cell Line Fg*

**Dr. Huarong Guo**, Associate Professor, Ocean University of China, China

11:55-12:20            **Title:** *Prediction of Sorption Performance Enhancement of Chemically Modified Biosorbents using Buffering Capacity*

**Mr. Sok Kim**, Student of Ph.D. Candidate, School of Semiconductor and Chemical Engineering, Chonbuk National University, South Korea