Karlsruhe Institute of Technology

1st German-Chinese Workshop on Biotechnology in a Bioeconomy

May 26th to May 28th, 2014

INSTITUTE OF PROCESS ENGINEERING IN LIFE SCIENCES
CHAIR OF TECHNICAL BIOLOGY

The bioliq® project at KIT is aimed at transforming residual biomass such as straw into synthetic fuels. The pilot plant in Karlsruhe is now operational. © BIOPRO Baden-Württemberg GmbH

Program Monday, May 26th, 2014

8:45 Uhr ***Greetings from KIT***
Prof. Dr. Wilfried Juling
KIT, Bereichsleiter Bereich II - Informatik, Wirtschaft und Gesellschaft, Karlsruhe

9:00 Uhr ***Greetings from Baden-Württemberg***
Michael Kleiner
Ministerialdirigent, Ministerium für Wissenschaft, Forschung und Kunst, Stuttgart

9:15 Uhr ***Development of biotechnology an new medicine industry in Jiangsu***
Yafang LI
Jiangsu Provincial Department of Science and Technology

10:00 Uhr ***The potential of miscanthus as bioeconomy crop***
Prof. Dr. agr. Iris Lewandowski
Universität Hohenheim, Leiterin Zentrum für Bioenergie und Nachwachsende Rohstoffe, Hohenheim

11:00 Uhr ***Biogas production from biomass and waste water***
Prof. Dr. rer. nat. Harald Horn
KIT, Institutsleitung Lehrstuhl für Wasserchemie und Wassertechnologie, Karlsruhe

11:30 Uhr ***Fundamental research on high-efficient conversion in biogas production***
Prof. Xiaohua LU
Nanjing Tech University

12:00 Uhr ***Development of new biogas feedstock options based on agricultural residues: Example of a biomethane plant of badenova in Baden-Württemberg***
Dr. Robert Greb
badenova AG & Co. KG, Leiter Unternehmensbereich Bioenergie, Breisach

12:20 Uhr ***Lignocellulosic material: Fragmentation and anaerobic digestion***
Prof. Honghua JIA
Nanjing Tech University

12:40 Uhr ***Production and use of biogas***
Dr.-Ing. Ursula Schließmann
Fraunhofer-Institut für Grenzflächen- und Bioverfahrenstechnik IGB, Abteilungsleiterin Umweltbiotechnologie und Bioverfahrenstechnik, Stuttgart

14:00 Uhr ***Succinic acid production from renewable resources by metabolically engineered Escherichia coli***
Prof. Min JIANG
Nanjing Tech University

14:30 Uhr ***Modified fatty acids as intermediates for novel polymers***
Prof. Dr. Bernhard Hauer
Universität Stuttgart, Leiter Institut für Technische Biochemie, Stuttgart

15:00 Uhr ***Applications of Bio-based Thermoplastic Compounds – ARBOFORM®, ARBOFILL® and ARBOBLEND®***
Dr. Lars Ziegler
TECNARO GmbH, Director R&D, Innovation Management, Ilsfeld-Auenstein

15:15 Uhr ***Research on the production of functional sugars and related enzymes***
Prof. Sha LI
Nanjing Tech University

16:00 Uhr ***A Novel ARTP High Throughput Mutagenesis as a Toolkit of Integrative Biotechnology for Green Bioeconomy***
Prof. Xinhui XING
Tsinghua University

16:30 Uhr ***Bioeconomy: the German roadmap, and Baden-Wuerttemberg's State Program***
Prof. Dr. Thomas Hirth
Fraunhofer-Institut für Grenzflächen- und Bioverfahrenstechnik IGB, Institutsleiter, Stuttgart

Program Tuesday, May 27th, 2014

9:00 Uhr ***Biobased polyamides***
Dr. Ralf Kindervater,
BIOPRO Baden-Württemberg GmbH, Geschäftsführer, Stuttgart

9:30 Uhr ***Neurospora crassa, a model system for understanding the mechanism of biomass deconstruction and utilization by filamentous fungi***
Prof. Chaoguang TIAN
Tianjin Institute of Industrial Biotechnology, CAS

10:00 Uhr ***Cellulolytic Enzyme Production and Enzymatic Hydrolysis for Bioethanol Production***
Prof. Xu FANG
Shandong University

11:00 Uhr ***Process Integration for Biomass-to-Biodiesel***
Prof. Zhongbao ZHAO
Dalian Institute of Chemical Physics, CAS

11:30 Uhr ***Microbial single cell oils***
Prof. Dr. Christoph Syldatk
KIT, Bereichsleiter Technische Biologie/ Prodekan für Forschung der Fakultät für Chemieingenieurwesen und Verfahrenstechnik, Karlsruhe

12:00 Uhr ***Bioeconomy Science Centre - Expertise and Technologies for a Sustainable Bioeconomy***
Prof. Dr. Ulrich Schwaneberg
RWTH Aachen, Leitung Lehrstuhl für Biotechnologie, Aachen

13:30 Uhr ***Cyanobacterial Production of Glucosylglycerol***
Prof. Xuefeng LU
Qingdao

14:00 Uhr ***Photobioreactors - concepts and new developments***
Prof. Dr.-Ing. Clemens Posten
KIT, Leiter des Bereichs Bioverfahrenstechnik, Karlsruhe

14:30 Uhr ***Demonstration of integrated novel microalgae cultivation technology for producing both high value bioproducts and biofuels as well as CO2 biofixation***
Prof. Yuanguang LI
East China University of Science and Technology

15:00 Uhr ***Food and Fuel! Sustainable production of algae biomass in a closed system***
Prof. Dr. Walter Trösch
Subitec GmbH, Stuttgart

16:00 Uhr ***Gas fermentation by acetogens: a novel production platform in biotechnology***
Prof. Dr. Peter Dürre
Universität Ulm, Direktor Institut für Mikrobiologie und Biotechnologie, Ulm

16:30 Uhr ***Omega-3 biotechnology: with focus on algal DHA-rich oil production***
Prof. Xiaojun JI
Nanjing Tech University

17:00 Uhr ***Untapped thermophilic bacterial resources for cellulose and brown algae bioconversion***
Prof. Shiqi JI
Qingdao

17:30 Uhr ***A successful example of Chinese-German cooperation***
Dr. Xiaojun MA
Dalian Institute of Chemical Physics, CAS
Dr. Xin XIONG
Universität Tübingen, Projektleiter NMI Naturwissenschaftliches und Medizinisches Institut, Tübingen

Program Wednesday, May 28th, 2014

9:00 Uhr ***Microbial biosurfactants***
Prof. Dr. Rudolf Hausmann
Universität Hohenheim, Institut für Lebensmittelwissenschaft und Biotechnologie, Hohenheim

9:30 Uhr ***The regulatory mechanism of ATP on physiology function and metabolic network of microbe***
Prof. Yong CHEN
Nanjing Tech University

9:50 Uhr ***L-malate production by Aspergillus oryzae***
Dr. Katrin Ochsenreither
KIT, Technische Biologie, Karlsruhe

10:10 Uhr ***A New Microbial Cell Factory for Production of 1-Alkenes***
Prof. Shengying LI
Qingdao

11:00 Uhr ***Metabolic engineering towards new products from the chorismate pathway of E.coli: Violacein, vitamin E, and novel building blocks***
Prof. Georg Sprenger
Universität Stuttgart, Leitung Institut für Mikrobiologie, Stuttgart

11:30 Uhr ***Molecular and kinetic modeling of enzymes in organic solvents***
Prof. Dr. Juergen Pleiss
Universität Stuttgart, Institut für Technische Biochemie, Stuttgart

11:50 Uhr ***Insilico Biotechnology AG - Software for the Simulation of Living Cells***
Dr. Klaus Mauch
CEO Insilico Biotechnology GmbH, Stuttgart

Followed by a panel discussion

Greetings from the Ministry of Science, Research and the Arts:

Baden-Württemberg started special programs and measures to promote biotechnology in the early nineties. As a cross-sectional technology between life-sciences and engineering, biotechnology is necessary for innovation in many fields of industry. Modern bio-economy cannot exist without biotechnology. In 2013 the Ministry of Science, Research and the Arts established a strategy panel for bio-economy. 2014 the ministry started a new program which aims at implementing the ministries' strategy on bio-economy.

We expect that research and development for a bio-economy will provide the answers for important global challenges like the shortage of resources and the climate change. But these global challenges can only be addressed on an international level.

The Chinese Government has been pursuing a national strategy in biotechnology for several years now. Thus, there are very good conditions for international cooperation in this field.

Together with our Chinese partners, namely the provinces of Jiangsu and Liaoning and the city of Shanghai, Baden-Württemberg will try to identify new solutions for tomorrow's bio-economy. The workshop "Biotechnology in bio-economy" provides an ideal opportunity for this. It is a prime example for the fruitful cooperation between China, Germany and Baden-Württemberg.

Baden-Württemberg
MINISTRY OF SCIENCE, RESEARCH AND THE ARTS

Contact

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