



Bioenergy: Harnessing Plant Metabolism

February 23-26, 2009

Program

Monday, February 23rd

18:00 Get-together

18:30 Welcome

History of the Otto Warburg Minerva Center for Agricultural Biotechnology

19:00 *Frank Leimkugel* - Heinrich-Heine-University, Düsseldorf
The legacy of Otto Warburg

19:30 Reception

Tuesday, February 24th

9:00 Opening and greetings

Session 1. Bioenergy: State of the art

Chairperson: Yehuda Yarmut

9:30 *Avraham Arbib* - Deputy Chief Scientist and Director, Division of R&D - Ministry of National Infrastructures, Israel
Renewable energy in Israel: The present status and the possible role of bioenergy

10:00 *Ami Ben-Amotz* - NBT Ltd., Eilat, & Seambiotic Ltd., Ashkelon and Tel-Aviv
Production of marine microalgae on electric power plant flue gas for feasible bio-fuels

10:30 – Coffee break

Session 2. Photosynthesis and plant productivity

Chairperson: Güntar Feix

11:00 *Stephen Long* - University of Illinois, Urbana, USA
Designing and selecting ideal bioenergy crops to maximize economic gain and minimize environmental impact

11:30 *Yehoshua Saranga* - Institute of Plant Sciences, Faculty of Agriculture, Rehovot
Genetic diversity for drought resistance in wild emmer wheat—a potential for wheat improvement

12:00 *Dan Yakir* - Weizmann Institute of Science, Rehovot
Trade-offs among water use, C sequestration and radiation budgets in semi-arid afforestation during climate change

12:30 *Thomas Altmann* - University of Potsdam, Germany
Analysis of Arabidopsis natural variation in biomass accumulation and metabolism

13:00 – Lunch

Session 3. Carbon metabolism

Chairperson: Arie Altman

14:30 *Lothar Willmitzer* - Max-Planck-Institute of Molecular Plant Physiology, Germany
Response of plants to changing environmental conditions: Time-resolved integrated analysis of the transcriptome and metabolome

15:00 *Elisha Tel-Or* - The Institute of Plant Sciences, Faculty of Agriculture, Rehovot
Phytoremediation: Plant-based technologies for the removal of pollutants

15:30 *Staffan Persson* - Max-Planck-Institute of Molecular Plant Physiology, Germany
A systems approach to cellulose biosynthesis

16:00 *Oded Shoseyov* - The Institute of Plant Sciences, Faculty of Agriculture, Rehovot
Genetic engineering of cell walls to facilitate saccharification for bio-ethanol

16:30 *Christoph Benning* - Michigan State University, USA
Harnessing plant biomass: Design of new biofuel crops

Wednesday, February 25th

Session 4. Utilization of organic matter

Chairperson: Aloys Huttermann

9:00 *Yitzhak Hadar* - The Department of Plant Pathology and Microbiology, Faculty of Agriculture, Rehovot
*Utilization of agricultural byproducts by the mushroom *Pleurotus ostreatus**

9:30 *Liisa Viikari* - Applied Chemistry and Microbiology, University of Helsinki, Finland
Improving the enzymatic hydrolysis of lignocellulosic materials

10:00 *Ed Bayer* - Biological Chemistry, Weizmann Institute of Science, Rehovot
Cellulases, cellulosomes and bioenergy

10:30 *Yuri Gleba* - Icon Genetics GmbH, Halle/Saale, Germany
Maximizing the yield of recombinant proteins in plants

11:00 – Coffee break

Session 5. New resources: Biodiversity and genetic engineering

Chairperson: Amram Ashri

11:30 *Andrea Polle* - Institute for Forest Botany, University of Göttingen, Germany
Poplars: Emerging energy plants with high diversity

12:00 *Yoav Waisel* - Faculty of Life Sciences, Tel-Aviv University, Tel-Aviv
Harnessing the deserts

12:30 *Eyal Fridman* - The Institute of Plant Sciences, Faculty of Agriculture, Rehovot
The Barley1K: A new genetic resource for studying adaptation

13:00 *Yedidya Gafni* - ARO Volcani Center, Bet-Dagan
The use of genetic engineering to improve non-edible crops for biodiesel production

13:30 – Lunch

Session 6. New challenges

Chairperson: Yehudith Birk

15:00 *Hagai Karchi* - Evogene Ltd., Rehovot
Using advanced technologies enhancing breeding process of new crops for the biofuel industry

15:30 *Sammy Boussiba* - Jacob Blaustein Institutes for Desert Research, Ben Gurion University of the Negev, Sede-Boqer
Green solution to global problems

16:00 *Stanley Hirsch* - CBD Technologies, Rehovot
New feedstock approaches for cellulosic biofuels

16:30 *Jonathan Gressel* - Plant Sciences, Weizmann Institute of Science and TransAlgae Ltd., Rehovot
Critical summary