

Plant Biology and Biotechnology Symposium

The Biology and Business of Biofuels

January 28, 29 and 30, 2008

Monday, January 28, 2008

Lignocellulose and Biomass Crops

- 8:45 – 9:00 **Steve Kay**, UCSD-Biological Sciences, Welcome
- 9:00 – 9:30 **Richard Somerville**, UCSD-SIO
"The path to a sustainable future"
- 9:35 – 10:05 **Chris Somerville**, Carnegie Institution/Stanford
"Which technological problems need to be solved to produce ethanol from biomass?"
- 10:10 – 10:25 Discussion of the big picture. Chair: **Steve Kay**
- 10:30 – 11:00 *BREAK*
- 11:00 – 11:30 **Dave Ehrhardt**, Carnegie Institution/Stanford
"How do plants make cellulose?"
- 11:35 – 12:00 **Neal Stewart**, University of Tennessee
"Pros and cons of different biomass crops"
- 12:05 – 12:25 **James Zhang**, Mendel Biotechnology
"Genetic improvement of biomass crops."
- 12:30 – 1:30 *Box LUNCHES provided. Sponsored by*
- 1:30 – 2:00 **Clint Chapple**, Purdue University
"Altering lignin quantity and quality: low hanging fruit for biomass crop improvement."
- 2:05 – 2:35 **Bärbel Hahn-Hägerdal**, University of Lund
"Can black "gunk" be fermented efficiently?"
- 2:40 – 3:10 **Justin Stege**, Verenum Corporation
"Improved Enzymes for Sugar Production from Biomass"
- 3:15 – 3:45 *BREAK*
- 3:45 – 4:15 **George W. Huber**, University of Massachusetts
"Chemical conversion of biomass"

- 4:20 – 4:50 **Charles Wyman**, University of California, Riverside
"Opportunities and challenges for the production of ethanol from cellulose"
- 5:00 – 6:00 *RECEPTION IN THE SALK FOYER* – Socializing / Networking

Dinner on your own

Tuesday, January 29, 2008

The Business of Biofuels: beyond crops

- 9:00 – 9:30 **Jeff Severinghaus, UCSD-SIO**
"Biofuels, agriculture and the Earth's atmosphere"
- 9:35 – 10:05 **David Tilman**, University of Minnesota
"The ecological burden of a biomass revolution in the US."
- 10:10 - 10:30 Discussion: Fuel or food, which shall it be?
Chair:
- 10:30 – 11:00 *BREAK*
- 11:00 – 11:30 **Greg Mitchell, UCSD**
"Are microalgae a viable alternative?"
- 11:30 – 12:00 **Stephen Mayfield**, The Scripps Research Institute
"Genetic Engineering of algae for oil production"
- 12:30 – 1:30 *LUNCH in the SALK Foyer sponsored by Morrison Foerster*
- 1:30 – 2:00 **M. Ward**, Morrison & Foerster LLP
"IP barriers and protection of the IP space"
- 2:05 - 2:30 **William Hitz**, DuPont Crop Genetics
"Second generation fuels"
- 2:35 – 3:30 PANEL DISCUSSION: Technology constraints for biofuels
Chair: **Steve Briggs**, UCSD
- 3:30 – 4:00 *BREAK*
- 4:00 – 4:30 **Bernhard Palsson**, UCSD
"Genome-scale in silico models to engineer microbes."
- 4:35 – 5:15 **Ari Patrinos**, *Synthetic Genomics*.
"Advanced Fuels through Synthetic Genomics"
- 7:00 – 9:30 RECEPTION AND DINNER for speakers, guests, UCSD faculty

Wednesday, January 30, 2008

The Business of Biofuels

- 9:00 – 9:35 **Bill Jones (invited)**, Pacific Ethanol
"The business of biofuels in California."
- 9:40 – 10:15 **Michael Swanson (accepted)**, Wells Fargo
"Economic impacts of biofuels"
- 10:20 – 10:45 **TBA**
- 10:45 – 11:15 BREAK
- 11:15 – 11:40 **Arun Sharma (accepted)**, Sempra Energy
"Down to Earth: Meeting the California Mandate"
- 11:45 – 12:30 **TBA**
- Lunch in the Foyer. **PANEL DISCUSSION/WRAP-UP**
Mary Wenzel, Wells Fargo, Chair