



# CUTTING EDGE BIO-CONVERSION TECHNOLOGY SHOWCASE

## Final Agenda

Tuesday, September 14, Day One

- 8-8:15            **Chairman's Opening Remarks**  
**Michael Holman**, *Research Director*, LUX RESEARCH
- 8:15-8:45        *Keynote Address*  
**Synthetic Genomes, Multi-virus Resistance & Evolution for Bioproduction**  
*Bio-production of chemicals is increasingly connected to genome reading and writing. In the past 5 years, we transitioned DNA sequencing from electrophoresis to multiplex fluidic cycles and imaging, bringing costs down by 50,000-fold. We also developed second generation synthesis of genes from oligonucleotides on chips such that DNA can be made for 30 Kbp/\$ (and less if one counts combinatorial strategies). Finally we integrated these with technology to program cells and viruses and greatly accelerate and monitor their lab evolution for metabolic chemical production optimization -- Multiplexed Automated Genome Engineering (MAGE). We are constructing a (4.7 Mbp) bacterial genome with a new translational code designed for resistance to multiple viruses (or all viruses). We are constructing a mirror-protein synthesis system based on E.coli in vitro reactions (a replicating 110 kbp genome) resistant to most existing enzymes, drugs, and predators. We do these in the context of developing new methods for synthetic biology licensing, surveillance, safety design, and testing.*  
**George Church**, *Professor of Genetics*, HARVARD UNIVERSITY
- 8:45-10:05      **New Compounds: New Performance and New Applications**  
*Session Chair:*  
**Bernard Hasson**, *COO*, SPECIALCHEM  
*Presenters:*  
**Richard Burlingame**, *Vice President, Research & Development*, ALLYLIX, INC.

**Dirk Den Ouden**, *Director New Business Development*, AVANTIUM  
**Steve DiBiase**, *Chief Scientific Officer*, ELEVANCE RENEWABLES, INC.  
**Daniela Grabs**, *President*, ARZEDA, INC.

**10:05-10:30 NETWORKING BREAK**

10:30-11:10 **New Compounds: New Performance and New Applications, Continued**  
**Kevin Jarrell, Ph.D.**, *CEO*, MODULAR GENETICS, INC.  
**Peter H. Shepard**, *Vice President, Business Development*, NOVOMER, INC.

11:10-12:30 **BioMass Pretreatment into Feedstocks**  
**Rajai Atalla** *CEO & Chief Scientific Officer*,  
CELLULOSE SCIENCES INTERNATIONAL, INC.  
**Steven D. Brown**, *Staff Scientist, DOE BioEnergy Science Center*,  
OAK RIDGE NATIONAL LABORATORY  
**Dave A. Hogsett, Ph.D.**, *V.P. External Research & Development*,  
MASCOMA CORPORATION

**12:30-1:50 GROUP LUNCHEON**

*[Poster-sessions commence in separate room, and run until 7pm]*

1:50-2:40 *Panel Discussion:*  
**Government R&D Policy for Bio-Based Chemicals**  
*Thus far, bio-based chemicals have been largely in the shadow of biofuels and bioplastics. However in 2010 that appears to be changing. What is the status now of government R&D priorities for bio-based polymers and chemicals? Where are the 'leading markets' for adoption of renewable materials and industrial chemicals? Are Europe and Canada ahead of the US in terms of green manufacturing policies and incentives? This panel will bring together government officials and industry advocates from the US, Canada and Europe to examine the global 'bow wave' of research and development and market stimulus.*

*Moderator:*

**Corinne Young**, *CEO*, CORINNE YOUNG, LLC

*Panelists:*

**Harry Baumes**, *Acting Director, Office of Energy Policy & New Uses, Office of the Chief Economist, USDA*

**George Mallay**, *Vice-Chair, BIOTECanada Industrial & Environmental Committee and General Manager of Sarnia-Lambton Economic Partnership, BIOTECANADA*

**Rina Singh**, *Director, Policy, BIOTECHNOLOGY INDUSTRY ORGANIZATION*

2:40-3:20 **Converting Feedstocks into Drop-In Chemicals**  
**Edward G. Ludwig**, *Business Development Manager*, PURAC  
**Jim Millis**, *Chief Technology Officer*, DNP GREEN TECHNOLOGY

**3:20-3:45 NETWORKING BREAK**

3:45-5:25 **Converting Feedstocks into Drop-In Chemicals, continued**  
**Rich LaDuca**, *Senior Director Business Development*,  
GENENCOR, A DIVISION OF DANISCO  
**Alif Saleh, Sr.** *Director of Global Business, Specialty Chemicals*,  
MYRIANT TECHNOLOGIES  
**Greg Coil**, *Director of Engineering*, QTEROS  
**Mikhail Balakshin**, *Senior Research Scientist*, LIGNOL INNOVATIONS, LTD.  
**David Sudolsky**, *President & CEO*, ANELLOTECH, INC.  
**Johan Van Walsem**, *Vice-President of Strategy & Commercial Development*,  
METABOLIX

5:30-7:00 **SPONSORED NETWORKING RECEPTION**  
[TAKES PLACE IN POSTER-SESSION ROOM NEXT DOOR]

Wednesday, September 15, Day Two

8:00-8:15 **Chairman's Recap**

8:15-8:45 **Day Two Keynote**

**Enabling the Bio Based Economy: the Importance of Open Innovation**

*The world faces major challenges which are so complex that individual companies or countries cannot solve them alone. Open Innovation turns out to be a crucial tool to find, develop and implement solutions. The presentation will explain DSM's Innovation priorities and with several examples it will be illustrated how new business opportunities are created in the fields of enzymes, fermentation organisms, (bio) renewable chemicals and performance materials. A three-stage implementation strategy will be elaborated.*

**Robert Kirschbaum**, *Vice President Open Innovation*, ROYAL DSM, NV

8:45-9:45

*Panel Discussion:*

**The Petroleum, Chemical and Agribiz Majors Respond**

*VPs and Directors of R&D from leading oil, refining, chemical and agribusiness globals respond to Day One presentations. Panelists will address what they see as the most exciting technology breakthroughs, their own experience thus far with licensing, acquiring or joint venturing with technology companies, bio-based chemicals' cost-parity with fossil fuel chemicals, the impact of government funding, what kinds of future partnering they are interested in, and prospects for the development of a commodity market for sugars.*

*Moderator:*

**Doug Cameron**, *Founder & Managing Director*, ALBERTI ADVISORS, LLC

*Panelists:*

**Linda A. Beltz, Ph.D.**, *Director, Technology Partnerships*, WEYERHAEUSER

**Alicyn M. Rhoades**, *Innovation Manager, New Technologies Group*,

BAYER MATERIAL SCIENCE, LLC  
**Stephan Tanda**, *Managing Board*, ROYAL DSM, NV  
**Steven Tuttle**, *Business Director Ventures & Business Development*,  
THE DOW CHEMICAL COMPANY

**9:45-10:15 NETWORKING BREAK**

10:15-11:45 **Converting Feedstocks into Drop-In Chemicals, Continued**  
*This session allows for added coverage continuing from Day 1.*

**Charles R. (Chas) Eggert**, *President & CEO*, OPX BIOTECHNOLOGIES, INC.  
**Lucius Kemp**, *Vice President, US Commercial Operations*,  
CHEMSPEED TECHNOLOGIES, INC.  
**Damien Perriman**, *Vice President of Business Development*,  
VERDEZYNE, INC.  
**Jim Stoppert**, *CEO*, RIVERTOP RENEWABLES, INC.  
**Robert Wedinger**, *President & CEO*, RENNOVIA, INC.

**11:45-1:15 GROUP LUNCHEON**

1:15-1:35 **Converting Feedstocks into Drop-In Chemicals, Continued**  
**Seth Snyder**, *Section Leader, Process Technology Research*,  
ARGONNE NATIONAL LABORATORY

1:35-2:15 **Session IV: Downstream and Scale-Up**  
**Peter F. Stansky**, *Director of Sales Development, Chemical, Life Science  
and Manufacturing Sectors*, SIEMENS  
**Richard Wilson**, *President*, APPLIED CHEMICAL TECHNOLOGY, INC.  
*Additional Presentation TBA*

2:15-2:30 Chairman's Wrap-Up, Showcase Adjourns

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