



October 2008

Biotech News

- Solazyme Inc. produces experimental jet fuel that is derived from algae and meets ASTM specifications for aviation turbine fuel. This development could remove barriers to commercialize a microbial-derived commercial and military jet fuel.
<http://www.solazyme.com/news090908.shtml>
- Genomatica Inc. has proven a new bio-manufacturing process using engineered microorganisms to produce 1,4-butanediol (BDO), a key raw material in the manufacturing of products such as polytetrahydrofuran. The company estimates that the economics of its BDO process will beat traditional hydrocarbon-based processes, even if oil prices drop to \$50 per barrel.
http://www.genomatica.com/media/pressrelease_09162008.pdf
- Scientists turn human skin cells into insulin-producing cells by first reprogramming them into "ES-like" induced pluripotent stem cells and then coaxing them to differentiate into cells that secrete insulin.
<http://www.med.unc.edu/biochem/news/unc-scientists-turn-human-skin-cells-into-insulin-producing-cells>
- Multi-discipline team develops optical biosensors that can rapidly identify inhibitors of protein-nucleic acid and protein-protein interactions that are essential for fundamental cellular processes such as transcription, apoptosis and DNA damage repair.
<http://www.news.uiuc.edu/news/08/0923biosensors.html>
- Researchers develop a new technique to collect micro-mediated messenger RNA's cleavage fragments in *Arabidopsis thaliana*. The technique should enable scientists to examine several regulatory pathways at once, instead of just one, thereby facilitating the identification of regulatory networks.
<http://www.udel.edu/udaily/2009/sep/trash091908.html>

Society News

The **AICHE Annual Meeting** is scheduled for November 16-21 in Philadelphia, PA. [Register now](#), so you don't miss these exciting bio-related events!

- "Biofuels Symposium: Future Fuels from Renewable Resources," Monday, November 17, 2008 from 3-5 PM in the Marriott Philadelphia Downtown Salon G/H. The renowned, keynote speakers will highlight the biomass availability, conversion technologies, and the policy, with a reception sponsored by the Colorado Center for Biorefining and Biofuels (C2B2) to follow:
 - James Dumesic, University of Wisconsin, "The Catalytic Conversion of Bioproducts to Fuels".
 - Bruce Dale, Michigan State University, "All Biomass is Local: Thinking Creatively about Biofuel Feedstocks"
 - Timothy Searchinger, Princeton University, "Supplying Biofuels: Implications for Costs, Food and Global Warming."
- Professional Progress Award Lecture by Jay Keasling of University of California, Berkeley entitled "Synthetic Biology in Pursuit of Low-Cost, Effective, Anti-Malarial Drugs," Tuesday, November 18, 2008, 11:15am - 12:15pm in the Marriott Philadelphia Downtown Salon G/H.
- James E. Bailey Award Lecture by James Swartz of Stanford University entitled "Look, Mom, NO CELLS! Providing New Freedom for Engineering Efficient Biological Systems," Tuesday, November 18 at 6:30 - 7:30 pm in Marriott Philadelphia Downtown Salon E/F.
- SBE's Hospitality Suite, sponsored by Merck Research Laboratories. Tuesday, November 18, 9:00-11:00pm. This suite is free for SBE members. Join SBE now at <https://www.aiche.org/apps/ecommerce/bio/index.asp>.
- Division 15's Pharma and Biotech Student Poster Session and reception sponsored by Invest in Austria, Wednesday, November 19, 2008, 6:00-8:30pm. Pennsylvania Convention Center Exhibit Hall A.

If you want to learn more about the field of biology, and how it applies to the biotech industry, SBE's short course "Biology for Chemical Engineers" may be perfect for you. It is designed to provide knowledge and tools for today's chemical engineers who are new or aspiring to practice biotechnology, on Sunday, November 16, 8:00am - 5:00pm. To find out more or to register, please go to

<http://www.aiche.org/SBE/Education/Courses.aspx>.

Check out more [Bio-related events](#) at the 2008 AIChE Annual Meeting and register online [here](#).

SBE Events

SBE's "Science and the Emerging Bioeconomy," an executive course on December 3-5, 2008 at the Hyatt Regency Scottsdale Resort and Spa in Scottsdale, organized by Doug Cameron, *Managing Director* and *Chief Science Advisor* of Piper Jaffray, and Mike Ladisch, *CTO* of Mascoma Corporation. Find out more and/or register at <http://www.aiche.org/sbe/events/biomass/index.aspx>.

Call for Papers Deadline on October 17 for SBE's 2nd International Conference on Biomolecular Engineering (ICBE), January 18-21, 2009 at the Fess Parker Doubletree Hotel in Santa Barbara, CA. The conference is the premier biomolecular engineering conference, attracting leading authorities that use quantitative approaches to advance the understanding and application of biology at the molecular level: Keynote speakers include:

- **Jay Keasling**, *Chief Executive*, Joint BioEnergy Institute, University of California, Berkeley
- **Peter Schultz**, *Scripps Professor of Chemistry*, The Scripps Institute, and Institute Director of the Genomics Institute of the Novartis Research Foundation
- **James Wells**, *Harry William and Diana V. Hind Distinguished Professorship in Pharmaceutical Sciences*, University of California, San Francisco

Find out more about this conference at <http://www.aiche.org/ICBE>.

Submit an abstract for SBE's 2nd International Conference on Accelerating Biopharmaceutical Development, on March 9-12, 2009 at the Marriott Coronado Island Resort in Coronado, CA. Keynote speakers include:

- **Janice Reichert**, *Senior Research Fellow*, Tufts Center for the Study of Drug Development, Boston, Massachusetts
- **John Carpenter**, *Professor of Pharmaceutical Biotechnology, Co-Director*, Center for Pharmaceutical Biology, University of Colorado Denver
- **Rob Garnick**, *Senior Vice President*, Regulatory, Quality and Compliance, Genentech.

To receive more information, go to <http://www.aiche.org/AcceleratingBio>.

Join Now

Not a current SBE member? It's never too late to join or renew. Costs are \$75 for regular members, \$25 for graduate students, \$10 for AIChE, ACS and IBE members, or free for undergraduates. Join now at <http://www.aiche.org/apps/ecommerce/bio/index.asp>.

Member benefits include:

- Subscription to SBE's semi-annual BioSupplement to Chemical Engineering Progress.
- Discounts on leading biological engineering conferences including SBE and SBE cosponsored meetings and courses.
- Access to online membership directory.
- A voice in education, employment and technology advancement topics.

Comments?

SBE's *e-Connections* is edited by Adrian Andrew Fay, Web Science Editor, with input from SBE staff. Contact us at bio@aiiche.org

The Society for Biological Engineering (SBE) is a new technological community of AIChE. Its mission is to promote the integration of biology with engineering and realize its benefits through bioprocessing, biomedical, and biomolecular applications. For comments and contributions to SBE Connections, email <mailto:bio@aiiche.org>

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