



May 2009

Biotech News

- Scientists probe deeper into temperature treatment of cellulose by understanding in more detail how specific hydrogen bonds can be manipulated via temperature differences to make this plant material more susceptible to attack by enzymes that can break the fibers into sugars for cost-effective biofuel production.
http://www.lanl.gov/news/index.php/fuseaction/home_story/story_id/16342
- Scientific collaboration successfully deploys a new single cell sequencing approach that bypasses the need for culturing before sequencing to provide insight into the genomes of 2 different ocean proteorhodopsin flavobacteria - microorganisms known for their biopolymer degradation capacity.
http://www.jgi.doe.gov/News/news_09_04_21.html
- Researchers have developed a technique to construct synthetic gene networks in a more predictable manner. The technique has applications in biofuels and drug production, as well as beer brewing by allowing for the precise timing and strength of flocculation in yeast.
<http://www.bu.edu/phpbin/news/releases/display.php?id=1823>
- A group of biomedical researchers find that prion proteins are more common than previously thought by discovering some candidates in yeast that are beneficial to this organism.
http://www.sciencenews.org/view/generic/id/42450/title/Prionsare_common,_at_least_in_yeast
- Learn about the H1N1 Flu and the basics of the influenza vaccine production by downloading this free Biotech Primer:
http://www.biotechprimerinc.com/assets/Events/pdf/The_Science_of_Swine_Flu.pdf

Society News

In memory of Professor Jay Bailey for his many pioneering contributions to biotechnology, SBE's James E. Bailey award is presented annually to an individual who has had an important impact on bioengineering and whose achievements have advanced this profession in any of its aspects. You can nominate your colleague by following the instructions at <http://www.aiche.org/SBE/About/Awards.aspx>.

The deadline for 2009 nominations is June 1, 2009.

Interested in bioengineering? Submit an abstract or attend [AICHE's Annual Meeting](#) at the Gaylord Opryland Hotel in Nashville, TN from November 8 -13. It will be the place to discuss a wide range of subjects relevant to the latest research and the newest technologies in the field of bioengineering. Topics of interest include:

- [Advances in Algal Biorefineries](#)
- [Advances in Metabolic Engineering](#)
- [Bio and Pharmaceutical Process Design](#)
- [Biobased Fuels and Chemicals](#)
- [Biomass Processing to Liquid Biofuels beyond Ethanol](#)
- [Biomaterial-Cell Interactions in Tissue Engineering](#)
- [Biosensors, Bioprocess Monitoring and Control](#)

- [Engineering the Stem Cell Niche](#)
- [Gene Delivery from Tissue Engineering Scaffolds](#)
- [MEMS and Biosensors](#)
- [Metabolic Engineering for Tissues and Organs](#)
- [Self Assembled Biomaterials](#)
- [Systems Biotechnology](#)

[Click here](#) to view all session topics.

Time is running out to share your research. But the deadline has been extended. Please [submit an abstract](#) by May 18, 2009.

Mark your calendar! SBE's next webinar on Ultrafiltration in Bioprocessing is scheduled for May 28 from 2 to 3 PM EST and presented by Herb Lutz of Millipore Corporation. The webinar will present ultrafiltration applications, principles of operation, process design and analysis for practicing engineers and students. You will find practical recommendations to improve design and operation of ultrafiltration processes from one of the industry experts. [Click here](#) to register.

Save the date! SBE's 2nd International Conference on Stem Cell Engineering

will be held at the Hyatt Harborside Hotel in Boston, MA from May 2-5, 2010.

This Gordon-style conference will emphasize how efforts in stem cell biology and engineering can combine to aid in the development of stem cell therapeutics and bioprocesses. Co-chairs are Peter Zandstra from the University of Toronto and George Daley from Harvard University. [Find Out More](#), or [Join our Stem Cell Conference Mailing List](#) to keep up to date as details firm up.

Are you interested in developing renewable fuels metrics along the supply chain?

At its recently completed spring meeting in Tampa, the AIChE conducted an industry roundtable and exploratory workshop to address renewable fuels metrics along the supply chain. Interested companies are invited to assist in developing measurement criteria which will be used to help guide technology developers and inform the federal government of our efforts in this area. For additional information and to join our monthly teleconference, please email sustainability@aiiche.org.

Check out some other options for bio-related Training/Continuing Education this summer.

[Learn more](#)

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.aiiche.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 bio@aiiche.org*