



July 2008

Biotech News

- SBE member Irina Conboy of UC Berkeley and a bioengineering team modified adult stem cells in old muscle to repair cells almost as well as in much younger tissue. This was made possible by first identifying two key regulatory pathways that control cell repair and tissue replacement.
http://www.berkeley.edu/news/media/releases/2008/06/16_stemcell.shtml
- A team of bioscientists has discovered how to grow denser new bone using a novel scaffold with stick-like carbon nanotubes.
<http://www.media.rice.edu/media/NewsBot.asp?MODE=VIEW&ID=11120>
- Scientists have demonstrated for the first time in living animals that insulin receptors in the brain can regulate both the structure and function of neural circuits giving possible links to adult disease states.
http://www.cshl.edu/public/releases/08_insulin_receptor.html
- Chemist members of the recently announced Solar Revolution Project (SRP) of MIT, and Caltech collaborators, see closer the promise of harnessing the sun's energy by [mimicking photosynthesis](#).
<http://web.mit.edu/newsoffice/2008/chem-solar-0620.html>
- Biofuels Company LS9, that has shown to be able to produce fuel from agricultural waste such as wheat straw or woodchips, develops a plan to scale up its 1000-liter lab reactor to demonstration size in 2010 and, in parallel, a commercial-scale facility to open in 2011.
<http://www.timesonline.co.uk/tol/news/environment/article4133668.ece>
- Steve DelCardayre of LS9 will be speaking at SBE's 2nd International Conference on Biomolecular Engineering on January 18-21, 2009, in Santa Barbara, California
www.aiche.org/ICBE

SBE Events

SBE is offering a new executive course on **"Science and the Emerging Bioeconomy"** on December 3-5, 2008 at the Hyatt Regency Scottsdale Resort and Spa in Scottsdale, Arizona. This intensive course is targeted for those who need to understand the developing field of biomass for energy and chemicals, the rapidly advancing science, regulatory and policy shifts, the economics of the technology and its competition, and research and development

alliances. Key learnings will include:

- An overview of the biotechnology in converting biomass to liquid fuels
- Available and alternative feedstocks
- The processes including pretreatment, fermentation, enzymatic hydrolysis, and thermochemical conversion
- Key challenges for economical processes
- How to evaluate different processes
- The impact of policy and politics on the bioeconomy

To find out more, go to www.aiche.org/sbe/events/biomass.

Invited Speakers Set for SBE's 2nd International Conference on Biomolecular Engineering

SBE's 2nd ICBE will be held on January 18-21, 2009 at the Fess Parker Doubletree Hotel in Santa Barbara, CA. Invited speakers include:

- Frances Arnold, California Institute of Technology
- Available and alternative feedstocks
- Steve DelCardayre, LS9
- John Desjarlais, Xencor
- Andrew Ellington, University of Texas, Austin
- Klaus Hahn, University of North Carolina at Chapel Hill
- Sang Yup Lee, Korea Advanced Institute of Science and Technology
- Stephen Michnick, University of Montreal
- Bernard Palsson, University of California, San Diego
- Andreas Plückthun, University of Zürich
- Uwe Sauer, ETH Zürich
- Gideon Schreiber, Zeizmann Institute of Science
- James Swartz, Stanford University
- Bruce Tidor, Massachusetts Institute of Technology
- Stefan Wildt, Merck

Submit an abstract or sign up for our conference update at www.aiche.org/ICBE. The abstract deadline closes on October 17, 2008

Save the Date for SBE's 2nd International Conference on Accelerating Biopharmaceutical Development

This conference will be held March 9-12, 2009 at the Marriott Coronado Island Resort in Coronado, CA. The meeting will highlight recent developments and particularly novel "disruptive" technologies, which will be crucial to increasing speed and efficiency. To receive more information, go to www.aiche.org/AcceleratingBio.

SBE Partners with UTEK

SBE has partnered with UTEK, a leader in Open Innovation, to help our individual and corporate members connect with external sources of R&D. Now open to all members of SBE is **free membership** for one year to UTEK's TekScout, an online network of scientists and engineers. Membership to TekScout provides you with access to hundreds of unfinished R&D projects that companies have posted. SBE scientists can earn valuable fees and contribute in their fields of expertise and success if they can solve these challenges. . Learn more about [UTEK](#). Or [joinTekScout](#).

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>*

AIChE © 2008 American Institute of Chemical Engineers