



June 2008

Biotech News

- Researchers find that the nitric oxide (NO) biochemical system, which is analogous to the phosphorylation system, is regulated by enzymes that remove NO from proteins to regulate that activity.
<http://www.dukemednews.org/news/article.php?id=10330>
- Engineers discover how to reduce the accumulation of harmful bacteria to polymer films by controlling their mechanical stiffness.
<http://web.mit.edu/newsoffice/2008/surfaces-0516.html>
- Scientists discover how plants control the flow of solar energy through the system of light harvesting proteins.
<http://www.lbl.gov/Science-Articles/Archive/PBD-CP29.html>
- SBE member and James Bailey Award winner Nicholas Peppas engineers breakthrough hydrogel technology that may enable the replacement of insulin injections with insulin pills for people with diabetes.
<http://www.engr.utexas.edu/news/articles/200804281462/index.cfm>
- Genetic sequencing of the fungus *Trichoderma reesei* is providing important information about how the organism efficiently breaks down plant fibers (i.e., cellulose and hemicellulose) into simple sugars, an important process for producing biofuels.
http://www.lanl.gov/news/index.php/fuseaction/home.story/story_id/13268
- SBE Supplement Articles – Become an SBE member to view these articles. Join now at <https://www.aiche.org/apps/ecommerce/bio/index.asp>
 - Speeding the Design of Bioprocesses, *CEP*, May 2008
 - Moving Bioprocesses to Market, *CEP*, May 2008
 - SBE Explores the Scale-Up of Stem Cell Technology, *CEP*, May 2008
 - SBE/DTU Sets an Example for Student Chapters, *CEP*, May 2008

Society News

AICHE/SBE Acquires ACS Interest in *Biotechnology Progress*

Biotechnology Progress will become the official publication of SBE with AICHE's acquisition of the American Chemical Society's 50% ownership. The journal is edited by SBE member Jerome S. Schultz of the University of California, Riverside. It focuses on the application of

biological and engineering principles in fields such as applied cellular physiology and metabolic engineering, biocatalysis and bioreactor design, bioseparations and downstream processing, cell culture and tissue engineering, biosensors and process control, bioinformatics and systems biology, biomaterials and artificial organs, and stem cell biology and genetics. John Wiley & Sons will provide the publishing services. This acquisition will enable AIChE and SBE to better serve the biological engineering community. The 4th volume (July/August) will be SBE's first. Subscription information is available by contacting subinfo@wiley.com.

New Advisory Board Members

We would like to welcome our new Advisory Board members and thank those long-standing representatives who have completed their three-plus year term. Please thank outgoing members Kristi Anseth, John Birch, John Frost, Lonnie Ingram, Yukimitsu Nakagawa, Andrew Russell, Marcel Wubbolts and Liangzhi Xie for their valuable contributions. In addition, please welcome the following new Advisory Board members:

- **Stefanos Grammatikos**, *DSM*
- **James Liao**, *UCLA*
- **Andrew Livingston**, *University College of London*
- **James McMillan**, *NREL*
- **Terry Papoutsakis**, *University of Delaware*
- **Nigel Titchener-Hooker**, *University College of London*.

SBE Events

SBE has extended its early bird registration date for its **4th International Conference on Bioengineering and Nanotechnology (ICBN)** to June 30, 2008. This Gordon-style conference will be held on July 22-24, 2008 at the University College of Dublin, Ireland. The meeting offers an interesting mix of nanoscale science and bioengineering topics that cover nanosystems for drug delivery, nanomaterials for cellular engineering and nanotools for bioengineering. Keynote speakers will be discussing the following topics:

- **"Materials Activity in Modulating Morphogenesis and Cell-Specific Responses,"** *Jeff Hubbell, Ecole Polytechnique Federale de Lausanne*
- **"Nanomedicines – Science and Policy,"** *Ruth Duncan, Cardiff University*
- **"Experiments on Self Assemblies of Magnetic Colloids,"** *Jerome Bibette, ESPCI.*

Register now at www.iche.org/icbn.

SBE would like to announce 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. To find out more, go to www.iche.org/sbe/events/biomass.

Save the Date 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. Keynote speakers include:

- **Jay Keasling**, *Chief Executive, Joint BioEnergy Institute, University of California, Berkeley*
- **Peter Schultz**, *Scripps Professor of Chemistry, The Scripps Research Institute, and Institute*

Director of the Genomics Institute of the Novartis Research Foundation (GNF) in San Diego, CA

- **James Wells, Harry William and Diana V. Hind**, *Distinguished Professorship in Pharmaceutical Sciences, University of California, San Francisco.*

Submit an abstract or sign up for our conference update at www.aidhe.org/ICBE.

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.aidhe.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** 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.

Between now through September 2008, any SBE member can [join TekScout](#) with a one year subscription for FREE. After your first year, if you choose to continue your subscription, you'll pay a special SBE rate of \$50.00 per year. The rate for scientists who are not SBE members will be \$100 per year. Register today to be notified of opportunities in your area of expertise, and start earning money for your knowledge. **Learn more about UTEK.**

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 \$5 for undergraduates. Join now at <https://www.aidhe.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@aidhe.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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