



May 2006

Biotech News

- Bioprocessing systems go disposable.
<http://www.aiche.org/uploadedFiles/SBE/Publications/DisposableBioreactors.pdf>
- Nanotubes carry electronic signals to nerve cells.
<http://www.utmb.edu/newsroom/06pr/may/nanotubes.htm>
- Researchers devise deceptively simple approach to enable low-cost, high-volume production of "lab-on-a-chip" microfluidics devices.
<http://www.physorg.com/news66667700.html>
- Scientists engineer adenovirus to infect and kill brain cancer cells in mice.
<http://www.mdanderson.org/departments/newsroom/display.cfm?id=2BFBE8C5-BA5B-421D-96E235C4CF443D07&method=displayFull&pn=00c8a30f-c468-11d4-80fb00508b603a14>
- Global team identifies a protein that silences thousands of nearly identical genes in hybrid plants.
<http://news-info.wustl.edu/tips/page/normal/7109.html>
- Plant biologists learn how plants protect themselves from cold temperatures.
<http://www.newsroom.ucr.edu/cgi-bin/display.cgi?id=1342>

SBE Highlights

Join us at SBE's upcoming International Conference on Bioengineering and Nanotechnology (ICBN) on September 5-7 in Santa Barbara, California. If you are working at the interface of bioengineering and nanotechnology, this conference is perfect for you. Plus, we are still accepting abstracts for poster and oral presentations with a new deadline of June 15th. Simply use the attached template (**word document**) and send the document to icbn@aiche.org. Funding for students and low cost dormitory housing is available.

Renowned speakers include:

- Annelise Barron of Northwestern
- Angie Belcher of MIT
- Carlos Bustamante of UC Berkeley
- Arup Chakraborty of MIT
- Morinobu Endo of Shinshu University
- Dan Hammer of University of Pennsylvania
- Suzi Jarvis of University of Dublin
- Jong-Duk Kim of Korea Advanced Institute of Science and Technology
- Deborah Leckband of UC San Diego
- Carlo Montemagno of University of Cincinnati
- Chris Murray of IBM
- Erkki Ruoslati of Burnham Institute
- Tom Soh of UC Santa Barbara

- **Joachim Spatz** of Stuttgart MPI and University of Heidelberg
- **Janos Voeroes** of ETH Zurich
- **Karen Wooley** of Washington University
- **Peidong Yang** of UC Berkeley.

To find out more, go to <http://bio.aiche.org/icbn>.

It's time to recognize your candidate to receive SBE's highest honor, the James Bailey Award. Cytos Biotechnology sponsors this award in memory of Professor Jay Bailey for his many pioneering contributions to biotechnology. Information on the award and the nomination process can be found at <http://www.aiche.org/SBE/About/Awards.aspx>. Deadline - June 30.

SBE has added several new Board Members, including Georges Belfort of Rensselaer Polytechnic Institute, Matt Caple of SAFC Biosciences, Jaime Finguerut of the Centro de Tecnologia Canavieira in Brazil, Stefanos Grammatikos of Boehringer Ingelheim in Germany, Robert Greenberg of Schering Plough, Bernhard Helk of Novartis in Switzerland, Eugene Schaeffer of Bristol-Myers Squibb, and Gary Welch of Abbott Laboratories. Dr. Finguerut will be helping us keep in touch with the global biofuels technology. Dr. Finguerut is a chemical engineer by training with post graduation studies in Biochemical Engineering in University of São Paulo. We worked for the São Paulo state environmental protection agency CETESB and at the chemical engineering school FEI (Faculdade de Engenharia Industrial) in São Paulo. He currently works for the Centro de Tecnologia Canavieira ((Sugar)Cane Technology Center) in ethanol fermentation R&D. During his career at CTC, he has optimized the industrial ethanol yield and productivity through research projects on fermentation microbiology, fermentation engineering, and yeast population dynamics. He also helped develop a new Continuous Fermentation Process based on a cascade of different capacity fermenters working with total cell recycle and yeast treatment. This process reached almost 50% of Copersucar ethanol production in the early 1990's. He is currently R&D Programs Manager of CTC including all the industrial process such as milling and sugar extraction, juice treatment, sugar production, ethanol production and other biorefinery products, as well as quality control, analysis and control and instrumentation R&D.

Meetings Update

A US-Japan Joint Topical Conference on "Medical Engineering, Drug Delivery Systems and Therapeutic Systems" will be held at the San Francisco Hilton in San Francisco, California in conjunction with the Annual AIChE meeting on November 13 through 15, 2006. This event will include featured speakers, plenary speakers, a poster session and social events. Save the date!

SBE has two new conferences scheduled in 2007. Matt DeLisa of Cornell and Jason Haugh of the University of South Carolina are chairing SBE's 1st International Conference on Biomolecular Engineering. Scheduled for January 14-18th at the Marriott Hotel in Coronado Island, California (outside of San Diego), this conference promises to bring together experts working in the exciting field of biomolecular engineering. The preliminary program follows:

- **Engineering Functional Biomolecules**
 - Evolutionary engineering of proteins
 - Design and synthesis of biomolecular probes as diagnostic and therapeutic reagents
 - Molecular biological tools for detection, quantification and engineering of biomolecules
- **Molecular Interactions and Intracellular Pathways**
 - Evolutionary and combinatorial approaches to metabolic pathway and strain improvement
 - Intracellular and intercellular signaling pathways and networks (including live-cell imaging and single-molecule imaging)
 - Biophysical and microscale analysis of molecular and cellular function
- **Systems Biology and Multi-scale Integration**
 - Synthetic biology
 - Computational systems biology
 - Development and application of genomics, proteomics and metabolomics tools for

modifying cellular processes

Find out more at <http://www.aiche.org/sbe/events/ICBE/index.aspx>.

Geoff Slaff of Amgen and Chuck Goochee of Merck are chairing SBE's 1st Conference on Accelerating Biopharmaceutical Development. Scheduled March 19-22 at the Loews Resort in Coronado Island, California, this conference is perfect for the biological R&D technologist who is challenged to bring new products to production more efficiently and rapidly. The preliminary program is starting to take shape:

- Rapid Cell Line Development and Improved Expression System Development
- High Throughput Process, Analytical and Formulation Development
- Emerging, "Disruptive" Technologies
- Technology Transfer: Case Studies and Business Practices
- Phase-specific Quality Systems and/or Standards, and Phase-specific Analytical Comparability Studies
- Strategies for Production -In-house Production or External Launch/Commercialization Facilities
- Development Organizations and Metrics.

Learn more about this exciting new conference at
<http://www.aiche.org/sbe/events/abpd/index.aspx>

A complete bio-event calendar can be found at
<http://www.aiche.org/SBE/Events/index.aspx>

Career Central

Check out the many jobs listed on our website. - You can post you position to be filled or look at our extensive listing for academic and industrial positions at companies throughout the U.S. at <http://www.aiche.org/SBE/Careers/Find.aspx>.

Join SBE

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.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 various SBE staff. Contact us at bio@aiiche.org with your comments.

Find out more at <http://www.aiche.org/SBE/index.aspx>

*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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