



August 2007

Biotech News

- Team of biomedical researchers discovers how to create in the lab large quantities of elusive cancer stem cells, which initiate tumors. This finding might significantly aid cancer research.
<http://web.mit.edu/newsoffice/2007/breast-cancer-0813.html>
- Microbiologists find a new bacterium that transforms light into chemical energy. The discovery is only the third in the past 100 years that a new phylum has been added to the chlorophyll-producing bacteria.
<http://live.psu.edu/story/25129>
- Lab demonstrates how the YY1 transcription factor works with a chromatin remodeling complex INO80 and controls gene expression. Because YY1 is important for regulating genes that can control cell division, development, and differentiation, it may be a good target for cancer therapy.
<http://www.stowers-institute.org/WhatsNew/pr2007/PR082707.asp>
- Researchers design a nanoscale system to create sensors that depict how cells respond to outside forces and how they relate to their environment.
<http://www.upenn.edu/pennnews/article.php?id=1206>
- Chemical Engineering and Virology: Challenges and Opportunities at the Interface, AICHE Journal, September 2007. Courtesy of Wiley Interscience.
- A Renewable Route to Propylene Glycol, Chemical Engineering Progress, August 2007.
<http://www.aiche.org/uploadedFiles/SBE/Publications/Renewable%20PG.pdf>

Society News

SBE is proud to announce the winner of its James E. Bailey Award, endowed by Cytos Biotechnology – Professor George Georgiou for his research and advancements in protein engineering and therapeutics. Dr. Georgiou is the Crockell Family Regents Chair in Engineering and Professor for the Department of Chemical Engineering at the University of Texas, Austin. In particular, Professor Georgiou has increased the fundamental understanding of protein biogenesis. Dr. Georgiou has invented technologies for facilitating protein manufacturing (currently being used for the commercial production of several therapeutic proteins), for high throughput screening of biological molecules and for the efficient engineering of therapeutic antibodies. He is also co-inventor of Anthim™ (Elusys Therapeutics Inc), the lead therapeutic antibody for protection against inhalation anthrax (NDA scheduled for 2007).

Professor Georgiou will give his award lecture at the American Institute of Chemical Engineers' Annual meeting on Monday, November 5 at 6 – 7 pm. The title of his talk is "Engineering the Next Generation of Therapeutic Proteins." It will take place in the **Grand Ballroom A/B/C/D of the Salt Palace Convention Center.**

Mark your calendar for additional, bio-related events during the **AICHE's Annual Meeting** on November 4-9, 2007, in Salt Lake City, Utah:

- SBE's Hospitality Suite, sponsored by Merck Research Laboratories. This suite is free for SBE members. Join SBE now at <https://www.aiche.org/apps/ecommerce/bio/index.asp>
- The Institute Lecture on Wednesday, November 7th (note corrected date). Nicholas Peppas, a former Bailey Award recipient, will be giving the AIChE Institute lecture at 12 noon. His talk is entitled "

SBE Events

This is your last chance to register for the Biotechnology Council's conference on **Bioeconomics: Developing an Economic Strategy for Healthcare Bio and Information Technologies**. The conference will be held at NIST on September 24-25, 2007 in Gaithersburg, MD. SBE as a member of the Biotech Council is cosponsoring a conference, together with the Department of Commerce's National Institute of Standards and Technology. Jerome Grossman, Senior Fellow and Director of the Harvard/Kennedy School Health Care Delivery Policy Program is chairing the event. Janet Woodcock, deputy commissioner of the FDA will speak as will Patrick Yang, Sr. VP, Genentech. Register now at <http://www.itl.nist.gov/Healthcare/conf/index.htm>.

The Call for Papers is open for [SBE's 1st International Conference on Stem Cell Engineering](#) on January 20-23, 2008 in Coronado, CA. This conference will focus on the important engineering challenges associated with stem cell development, growth, and scale-up. Confirmed, invited speakers include:

- [Mick Bhatia](#), *McMaster University*
- [Sangeeta Bhatia](#), *MIT*
- [Christopher Chen](#), *University of Pennsylvania*
- [George Daley](#), *Children's Hospital Boston*
- [Sheng Ding](#), *Scripps Research Institute*
- [Dennis Discher](#), *University of Pennsylvania*
- [Fred Gage](#), *Salk Institute*
- [Douglas Lauffenburger](#), *MIT*
- [Ram Mandalam](#), *Cellerant Therapeutics*
- [Irving Weissman](#), *Professor, Stanford University*
- [Peter Zandstra](#), *University of Toronto*

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

Save the Date – **SBE's 4th International Conference on Bioengineering and Nanotechnology** will be held on July 22-24, 2008 at the University College Dublin, Ireland. Conference co-chairs are Nicholas Abbott of the University of Wisconsin, Madison and Gil Lee, Purdue University. Find out more at <http://www.aiche.org/icbn>.

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

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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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