



July 2007

Biotech News

- Researchers at the McMaster Institute showed that there is more than a single cell population when human embryonic stem cells regenerate, by discovering they can produce fibroblast-like "niche" cells that release stem-cell nourishing proteins.
http://www.fhs.mcmaster.ca/pubrel/stem_cell_discovery.htm.
The Scientific Director of this team, Dr. Bhatia's, will be speaking at SBE's 1st International Conference on Stem Cell Engineering on January 20-23, 2008 in Coronado, CA. <http://www.aiche.org/StemCellEng>.
- Biomedical researchers are applying synthetic biology to engineer viruses that can attack and destroy surface biofilms, which harbor harmful bacteria on the insides of food processing machines and on medical devices such as catheters.
<http://web.mit.edu/newsoffice/2007/biofilm-0706.html>
(See also [Oct. 2006 Connections](#))
- Professor George Georgiou, of the University of Texas at Austin, explained his methodology of mass-producing antibodies in bacteria at SBE's 1st International Conference on Biomolecular Engineering (See [April 2007 Connections](#))
<http://www.aiche.org/sbe/publications/bookscds/1sticbecd.aspx>
- The U. S. Department of Energy (DOE) Office of Science announced the formation of three new Bioenergy Research Centers, to accelerate R&D of cellulosic ethanol and other biofuels:
 - The "DOE BioEnergy Science Center" led by Oak Ridge National Laboratory, Tennessee.
 - The "DOE Great Lakes Bioenergy Research Center" led by the University of Wisconsin in Madison, in close collaboration with Michigan State University.
 - The "DOE Joint BioEnergy Institute" led by Lawrence Berkeley National Laboratory.

http://www.er.doe.gov/News_Information/News_Room/2007/Bioenergy_Research_Centers/index.htm

- BP, Associated British Foods, and DuPont announced a \$400MM investment for a 420 MM liter ethanol plant using wheat feedstock, alongside a high technology pilot plant to advance R&D for next generation biofuels. The partners will examine the potential to convert the plant to biobutanol when the technology is available.
<http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7034350>
- BioEthanol Japan, is constructing the world's first commercial plant to produce cellulosic ethanol from wood construction waste. Technology used, licensed through Verenium, was developed by SBE Advisory Board member Lonnie Ingram of the University of Florida. <http://domesticfuel.com/?p=2590>

Society News

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

- The James E. Bailey Award Lecture will be given on Monday, November 5th, at 6pm.
- SBE's Hospitality Suite, sponsored by Merck Research Laboratories. This suite is free for SBE members – so make sure your colleagues are members as well!
- 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.

Professor Robert Langer, one of last year's recipients of the James E Bailey Award, will be receiving the country's highest recognition, the National Medal of Science, for his amazing contributions such as founding 12 companies or filing over 500 patents. He joins a list of prestigious chemical engineers that have received the award that include Warren K. Lewis, Manson Benedict, John Sinfelt, Donald Katz, Robert Bird, Harry Drickamer, Eli Ruckenstein, Andreas Acrivos, John Prausnitz, and Edwin Lightfoot. For more information, click [here](#).

SBE Events

Last chance to attend **SBE's 3rd International Conference on Bioengineering and Nanotechnology (ICBN 2007)** on August 13-15, 2007 in Biopolis, Singapore. Professor Jackie Ying, head of Singapore's Institute for BioNanotechnology, is chairing the event. Some of our speakers include:

- Kam Leong, *Johns Hopkins University*
- Benjamin List, *Max Planck Institute*
- D. Tyler McQuade, *Cornell University*
- Vladimir Mironov, *Medical University of South Carolina*
- Teruo Okano, *Tokyo Women's Medical University*
- Buddy Ratner, *University of Washington*
- Myron Spector, *Harvard Medical School*
- Galen Stucky, *University of California, Santa Barbara*
- Viola Vogel, *ETH Zurich*
- Gordon Wallace, *University of Wollongong*
- David Weitz, *Harvard University*
- Feng-Shou Xiao, *Jilin University*
- Shuguang Zhang, *Massachusetts Institute of Technology*

Register [now](#).

Meet the movers and shakers of the biopharmaceutical world at 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 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. More information is available 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. 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>.

You can become involved in issues that impact the current federal initiatives, including the government's budget, programmatic priorities, and funding opportunities through AIMBE, which has invited participation from its supporting societies such as SBE, in its **2nd Annual Federal Symposium, Boost the Budget: Invest in Medical and Biological Engineering**. This event will be held on September 10-11, 2007 in Washington DC. To learn more about the Federal Symposium, AIMBE, local accommodations, please visit <http://www.aimbe.org/fedsymposium> or call 202-496-9660.

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

*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>