



February 2010

## ▼ Biotech News

- A collaboration of researchers develops new method to engineer a significant amount of genetically identical "humanized" mice to produce human immune cells, including NK cells, dendritic cells and macrophages, allowing for the larger scale studies required to test human vaccines for HIV and other diseases.  
<http://web.mit.edu/newsoffice/2010/human-mice-0113.html>
- SBE member Bill Bentley and his team use synthetic biology and biofabrication principles to create new all-biological nanofactories that can confuse bacteria by triggering a quorum sensing response, and potentially stop them from spreading without the use of antibiotics.  
[http://www.bioe.umd.edu/news/news\\_story.php?id=4635](http://www.bioe.umd.edu/news/news_story.php?id=4635)
- Engineers develop a much simpler new biosensor - a paper strip infused with carbon nanotubes - to quickly detect cyanobacterial toxins in drinking water.  
<http://www.ns.umich.edu/htdocs/releases/story.php?id=7481>
- SBE member Jeff Hasty and his team synchronize blinking bacterial "genetic clocks" - a step that might one day achieve synthetic biology technologies that provide humans with advance information about temperature, poisons and other potential environmental hazards.  
[http://www.jacobsschool.ucsd.edu/news/news\\_releases/release.sfe?id=914](http://www.jacobsschool.ucsd.edu/news/news_releases/release.sfe?id=914)
- The California Institute for Regenerative Medicine - created by 2004's Proposition 71 - is refocusing its large financial resources toward stem cell research with the most potential for near-term benefits such as for age-related macular degeneration, AIDS, sickle cell disease and various types of cancer.  
[http://www.latimes.com/news/nationworld/nation/la-sci-stem-cells10-2010jan10,0,2536499\\_story?page=1](http://www.latimes.com/news/nationworld/nation/la-sci-stem-cells10-2010jan10,0,2536499_story?page=1)
- BIOFAB (International Open Facility Advancing Biotechnology) opens as the world's first biological design-build facility, with the goal to produce free standardized DNA parts to shorten the development time and lower the cost of synthetic biology for academic and biotech laboratories.  
<http://www.biofab.org/>

## ▼ Society News

**Join other SBE members** for a presentation by **Professor John Dordick** from Rensselaer Polytechnic Institute on **Tuesday March 2nd from 2-3pm EST** where he will detail his research on the design and optimization of high-throughput, microscale development platforms and how to use bioprocessing strategies at early stages of drug discovery. [Register today!](#)

**Interested in Developing Energy Education Modules for the Undergraduate Chemical Engineering Curriculum?** Apply for an AIChE Grand Energy Challenges Energy Education Module Grant. Submit your application by February 15, 2010 to [energymodules@aiche.org](mailto:energymodules@aiche.org). For more info, [click here](#).

**Writing a Book? Tell AIChE/Wiley Press About It.** AIChE is looking for material for original books to be published by AIChE/Wiley Press. Content should focus on chemical engineering topics in both conventional and emerging areas, including bioengineering, nanotechnology, environment and sustainability, and alternative energy. If you or someone you know have completed or are working on a book on these topics, contact Haeja Han at [haejh@aiche.org](mailto:haejh@aiche.org).

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**Subscribe today! Biotechnology Progress**, SBE's official publication, delivers peer-reviewed research reports, reviews, and descriptions of emerging techniques for the development and design of new processes, products, and devices for the fast-evolving biotechnology and bioprocessing industries. For more info, [click here](#).

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**Elections are here!** SBE is looking for two new Managing Board Members. If you are an SBE member, please [click here to vote](#).

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### **Member Highlights**

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SBE member **Nicholas Peppas**, chairman of the Department of Biomedical Engineering and the Fletcher Stuckey Pratt Chaired Professor of biomedical engineering, chemical engineering and pharmacy, is the recipient of the **2010 Distinguished Scientist Award from the Southeastern Universities Research Association (SURA)**. Find more information about the award read <http://www.sura.org/programs/awards.html>.

SBE member **Eleftherios (Terry) Papoutsakis**, Eugene du Pont Chair of Chemical Engineering at the University of Delaware, has been selected to receive the **Elmer Gaden, Jr. Award** for his paper "Genome-scale Model for Clostridium acetobutylicum." For more info, [click here](#).

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### **Conference Updates**

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**Register Now!** 2010 AIChE Spring Meeting & 6th Global Congress on Process Safety in San Antonio, March 21-25. For more info, [click here](#).

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**Register Today!** SBE's 2nd International Conference on **Stem Cell Engineering (ICSCE)** will be held at the Hyatt Harborside Hotel in Boston, MA from **May 2-5, 2010**, co-chaired by **Peter Zandstra** (University of Toronto) and **George Daley** (Children's Hospital, Harvard Medical School). To see a complete list of invited speakers, check out the [conference website](#).

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**Call for Abstract!** The 5th International Conference on **Bioengineering and Nanotechnology (ICBN)** will take place in Biopolis, Singapore from **August 1-4, 2010**. Chaired by **Jackie Ying**, for more info, [click here](#).

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**Save the Date!** The 3rd International Conference on **Biomolecular Engineering (ICBE)** will be co-chaired by Jeff Varner (Cornell University) and Kurt Deshayes (Genentech) and held at the Grand Hyatt San Francisco on **January 16-19, 2011**.

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**It's not too late!** The **Annual Event of American Institute for Medical and Biological Engineering (AIMBE)** will be held on **February 21-23, 2010** at the Mandarin Oriental Hotel in Washington DC. For more info, [click here](#).

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### **Student Affairs**

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Students from the Johns Hopkins SBE student chapter will present a webinar on "**How to effectively balance an AIChE/SBE chapter**" on February 11th at 6:00 pm. Please visit <http://www.aiche.org/SBE/Education/SBEwebinars/StudentWebinars.aspx> for more information.

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**Interested in starting an SBE Student Chapter at your school?**  
Contact Jonathan Monk at [jonam@aiche.org](mailto:jonam@aiche.org)

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### **Comments?**

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SBE's e-Connections is edited by Adrian Andrew Fay, Web Science Editor, with input from SBE staff. Contact us at [bio@aiiche.org](mailto:bio@aiiche.org).

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**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 free for undergraduates. Join now at <http://www.aiiche.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.

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*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 [bio@aiiche.org](mailto:bio@aiiche.org)*

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