



March 2010

Biotech News

- A new study suggests that stem cells intentionally cut and repair their own DNA – via apoptosis protein caspase 3 – as a mechanism of activating genes that promote the development of new tissues, suggesting the potential for therapeutic purposes.
<http://www.ohri.ca/newsroom/newsstory.asp?ID=207>
- A team of researchers develop a new method using advanced computer vision technology to decode subtle cell movements allowing 99 percent accurate prediction of stem cell fate.
<http://news.rpi.edu/update.do?artcenterkey=2688>
- Tissue engineers develop a new method, using plates with special micropatterns, to successfully infect liver cells with Hepatitis C in the laboratory, providing a "significantly improved" alternative for testing new drugs.
<http://web.mit.edu/newsoffice/2010/liver-hepatitis.html>
- A team of researchers use an innovative high-throughput drug screening process designed to find compounds that target cellular energy metabolism, to identify Meclizine as an inhibitor of mitochondrial respiration amongst nearly 3,700 compounds – a promising find for treatment of ischemic injuries like strokes and heart attacks.
<http://www.thecrimson.com/article/2010/2/19/respiration-study-drug-heart/>
- Scientists develop "PARE" (Personalized Analysis of Rearranged Ends) where whole genome sequencing of cancer patients is used for individualized blood tests based on the detection of chromosome rearrangements in tumors to help physicians detect cancer and tailor patients' treatments by monitoring treatment response.
<http://www.hopkinskimmelcancercenter.org/index.cfm/cID/1684/mpage/item.cfm/itemID/1190>
- A joint venture between Shell and COSAN – if finalized, will cement Brazil's position as the world's alternative energy superpower with the potential to ship huge quantities of fuel to the United States and Europe, and make Shell a leading supplier in biofuels.
<http://www.reuters.com/article/idUSTRE6101TW20100201>

**SBE's 2nd
International Conference
on Stem Cell Engineering**

May 2-5, 2010 Boston, MA



Register Today!

Society News

Save the date for **SBE's April Webinar on "Systems Metabolic Engineering"** to be presented by **Professor Sang-Yup Lee**, Korean Advanced Institute for Science and Technology (KAIST) on **Thursday, April 23 from 2-3pm EST**.

SBE's 2nd International Conference on Stem Cell Engineering is fast approaching. We had a record 122 abstracts submitted and a lot of excitement about this meeting! The **early-bird registration deadline is March 15**. [Register now](#). Limited student travel support is available.

Call for Nominations! SBE's James E. Bailey Award For Biological Engineering – In memory of Professor Jay Bailey for his many pioneering contributions to biotechnology, the award is presented to an individual who has had an important impact on biological engineering. Deadline is **June 1st, 2010**.

You have voted and the **SBE Election** results are here! Please help congratulate our two newest members to the SBE Managing Board: **Todd M. Przybycien (Carnegie Mellon)** and **Eugene J. Schaefer (J&J)**. SBE has the pleasure to welcome three new advisory board members: **Ruben Carbonell (NC State)**, **Ravi Kane (RPI)** and **Paul McKenzie (J&J)** to the SBE family. For more info visit: <http://www.aiche.org/SBE/About/Leadership.aspx>.



Five (5) Excellent Reasons to Join SBE

- Access to an international professional network
- Free monthly webinars
- Discounts on Conferences, Events and Publications
- Free monthly e-newsletter and biannual CEP Biosupplement
- Career services

Member Highlights

Professor 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)**.

For more info visit: <http://www.sura.org/programs/awards.html>.

The **National Academy of Engineering (NAE)** has elected 68 new members and nine foreign associates, including SBE members: **Jeffrey Alan Hubbell**, **Jay D. Keasling**, **David Mooney**, **Sang Yup Lee**, and **Jens Nielsen**. For more details, [click here](#).

The **2010 AIMBE** Fellows were just inducted. Help us congratulate SBE Members: **Yu-Hsiang David Chang** (Genentech), **Francis J. Doyle, III** (University of California, Santa Barbara), **Paula Hammond** (MIT), **Kelvin Lee** (Delaware Biotechnology Institute), **David Schaffer** (University of California, Berkeley), **Mark Tracy** (Alnylam) and **Peter Zandstra** (University of Toronto).

Conference Updates

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Registration is now open! The 5th International Conference on **Bioengineering and Nanotechnology (ICBN)** will take place in Biopolis, Singapore from **August 1-4, 2010**. For more info, [click here](#).

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**. For more info, [click here](#).

Student Affairs

SBE Student Members **Krystina Laucik** and **William Bagdorf** at **Johns Hopkins University** presented their webinar, "**Maintaining Well Balanced AIChE/SBE Student Chapter Operations**". The archived version is available here: <https://www.aiche.org/SBE/Education/SBEwebinars/StudentWebinars.aspx>.

SBE has launched the "**What Protein Am I?**" **competition**. Winners will be recognized in the SBE newsletter. Check out the competition and give it a shot!
<https://www.aiche.org/sbe/education/wpai.aspx>

Interested in starting an SBE Student Chapter at your school?

Contact Jonathan Monk at jonam@aiiche.org

 **Comments?**

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

 **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 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.

*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.*

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