



September 2009

Biotech News

- Researchers engineer "foldamers" - synthetic peptide-like molecules that are hybrids of natural and unnatural amino acid monomers - to successfully block HIV infection by interrupting protein interactions between virus and host.
<http://www.news.wisc.edu/16972>
- Researchers have developed a highly sensitive test known as MS-qFRET: a quantum dot-based method for analysis of DNA methylation, which can lead to early detection of cancer. [Read more here.](#)
- A new study, that involved genetic profiling of human cancer cells, shows that tumors in which both proteins p53 and ATM are defective are highly susceptible to chemotherapy agents that damage DNA; these are findings that should have an immediate impact on cancer treatment.
<http://web.mit.edu/newsoffice/2009/cancer-personal-0806.html>
- Researchers transfer for the first time genomes between two Kingdoms of life - from a prokaryote to eukaryote and back to a prokaryote - a potentially important step forward in creating and booting up synthetic genomes. [Read more here.](#)
- Researchers have uncovered the possibility that antioxidants, typically thought to be protective because they prevent genomic damage, may also allow for early-stage tumor cell survival. [Read more here.](#)
- A team led by SBE member Professor Sang Yup Lee have succeeded in metabolically engineering E. coli to produce putrescine, providing a renewable alternative to the production of this important chemical - used to synthesize nylon-4,6 - that is traditionally created using fossil fuels.
<http://www.wiley.com/WileyCDA/PressRelease/pressReleaseId-56538.html>
- A new graphical standard for molecular and systems biology applications was released by Caltech known as the Systems Biology Graphical Notation (SBGN), making it easier for biological engineers to understand each other's models.
http://media.caltech.edu/press_releases/13281

Society News

- The **Raphael "Ray" Katzen Memorial Fund**, benefiting students pursuing careers in biological engineering, was established by Ray Katzen's family in 2009 to honor and celebrate Ray's distinguished life and career as a talented chemical engineer and passionate industry leader of the bioenergy sector. SBE would like to extend its warmest appreciation to the Katzen Family for establishing this fund. For additional info, [click here.](#)

- Register now! The **2009 AIChE Annual Meeting** will take place in Nashville, TN from **November 8-13**. The AIChE Annual Meeting is a leading educational forum for chemical engineers interested in innovation and professional growth. [Click here to learn more.](#)

Special SBE Events include:

- **SBE's Bioenergy Symposium: Transportation Fuels from Coal and Biomass: Review of an NRC Report- Monday, November 9th** from **3:15-5:45** pm. This session will explore the technological status, costs, and environmental impacts of coal and biomass conversion.
 - Please join us in congratulating **James C. Liao** from UCLA, the **2009 James E. Bailey Award** recipient. Professor Liao will give his award lecture at the American Institute of Chemical Engineers' Annual meeting on Tuesday, November 10th at 6:00 – 7:00 pm (EST). The title of his talk is **"A Tale of Two Energy Problems: Fuel Shortage and Obesity."**
 - The **SBE Hospitality Suite** will take place on the same evening as the award reception, at 9:00-11:00 pm. We hope to see you there!
 - Due to popular demand, SBE will once again offer its **Biology for Chemical Engineers** course, designed for professionals who would like to learn more about biotechnology in medicine. Learn more at: <http://www.aiche.org/conferences/09annual/shortcourses.aspx>
 - SBE strives to encourage and recognize undergraduate and graduate students in biological engineering and related fields. SBE is currently sponsoring a \$1000 award for the **Best Use of a Biological Reaction to Power a Car** during this year's **Chem-E-Car Competition**. To learn more, [click here](#).
- Come join us! SBE is now on LinkedIn, Facebook and Twitter. SBE has gone live with social media platforms in order to create an online community where we can share the latest information in biological engineering and discuss trends and best practices. Look for us on [LinkedIn](#), [Facebook](#) and [Twitter](#)!
- **Biotechnology Progress**, published six times a year in print and continuously online by Wiley-Blackwell on behalf of AIChE and SBE, is looking for candidates for an Associate Editor who can succeed to the Editorship. For more information, [click here](#).
- SBE is launching a new **Industrial Biotechnology Newsletter**. Keep up to date with what's going on in the industrial biotech industry. If you want to start receiving the SBE Industrial Biotechnology monthly newsletter, send us an email at bio@aiiche.org.
- **Call for Papers:** SBE's 2nd International Conference on **Stem Cell Engineering** 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 our invited speakers, check out the [conference website](#).
- The entry deadline for this year's **International Science & Engineering Visualization Challenge Competition** which is co-sponsored by the National Science Foundation and AAAS's journal Science is fast approaching: **September 15th, 2009**. For more information, go to www.nsf.gov/news/scivis.
- SBE will soon be holding an election for its **Managing Board**, as board members complete the third year of their term. If you would like to nominate a candidate for consideration by the Election Committee, please email us at bio@aiiche.org with the candidate's name.
- Attend the **American Institute for Medical and Biological Engineering's Council of Societies 4th Annual Federal Symposium on September 14-15, 2009** in Washington. As a member of SBE, you can participate in this symposium organized by AIMBE to meet face-to-face with members of Congress and their staff and raise awareness of the long-term value of medical and biological engineering. To register, contact Benjamin Corb, AIMBE's Director of Public policy at bcorb@aimbe.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.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 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 bio@aiiche.org***

AIChE © 2009 American Institute of Chemical Engineers