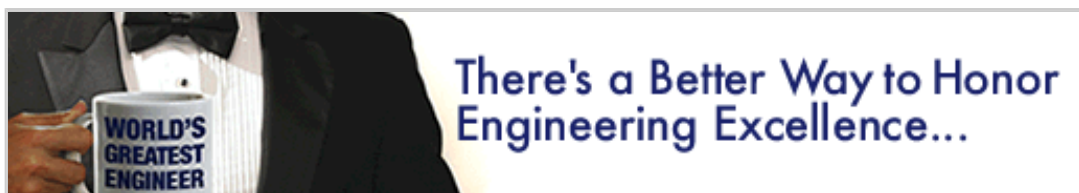




January 2010

Biotech News

- Researchers expect to end the 'hit-and-miss' design in nanomedicine by using single-particle tracking methods to capture the dynamics of nanoparticle movement inside live cells.
<http://www.media.rice.edu/media/NewsBot.asp?MODE=VIEW&ID=13443>
- Researchers demonstrate how human blood stem cells can be engineered into cells that can target and kill HIV-infected cells.
<http://newsroom.ucla.edu/portal/ucla/ucla-researchers-demonstrate-that-149694.aspx>
- Researchers genetically manipulate photosynthetic microbes to develop two new processes to recover renewable biofuels and reduce greenhouse gasses.
 - 1) <http://www.biodesign.asu.edu/news/self-destructing-bacteria-improve-renewable-biofuel-production>
 - 2) <http://newsroom.ucla.edu/portal/ucla/ucla-researchers-engineer-bacteria-149726.aspx>
- Researchers develop new RNA interference delivery procedure resulting in the ability to silence up to five genes - a much more effective method than previously shown.
<http://web.mit.edu/press/2009/rna-release>
- Caltech and UCLA have announced the establishment of the Joint Center for Translational Medicine to advance experimental research into clinical applications.
http://media.caltech.edu/press_releases/13311



Society News

Register today! SBE's next webinar on "*Molecular Elucidation and Engineering of Stem Cell Microenvironments*" will be presented by **Professor David Schaffer** (University of California, Berkeley) on **January 21, 2010** from **2-3pm EST**. Professor Schaffer will discuss how the processes controlling stem cell differentiation are regulated by signals from the stem cell microenvironment. He will describe some exciting applications of biomimetics, including a way to precisely control stem cell function for biotechnological and biomedical applications. For more info, [click here](#).

SBE's Bioenergy Symposium brought together four authors of the America's Energy Future Panel Report on **Alternative Liquid Transportation Fuels** at the 2009 Annual Meeting in Nashville, TN to explore the technological status, costs, and environmental impacts of coal and biomass conversion. For more information, [click here](#).

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

Join now! Raise your profile in the biological engineering community and gain access to physical property data for biomass and biofuels by becoming an **SBE Green Corporate Member** today. Check out www.aiche.org/SBE/DIPPR today for more information.

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](#).

Member Highlights

Recent paper by SBE member, **Antonios G. Mikos**, highlights progress in advanced biomaterials. For more info, [click here](#).

Mikos, A. G., et al., "*Injectable Biomaterials for Regenerating Complex Craniofacial Tissues.*" *Advanced Materials*, 21 (32-33), pp. 3368-3393 (2009).

Conference Updates

Deadline is fast approaching! **Call for Papers – January 22, 2010**. 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](#).

Mark your calendar! 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](#).

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**.

Register now! 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](#).

Student Affairs

Students from the Johns Hopkins SBE student chapter will present a webinar on "**How to effectively balance an AIChE/SBE chapter**" in February! Stay tuned to learn best practices from one of SBE's most successful student chapters!

SBE welcomes its newest student chapter at **Rensselaer Polytechnic Institute!**

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.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.

***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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