



Top 100 People in the Bioeconomy

Congratulations Jonathan Male, Valerie Reed, and Joyce Yang of the Bioenergy Technologies Office (BETO) for being voted into the “[Top 100 People in the Bioeconomy](#).” In December 2013, the readers and editors of *Biofuels Digest* announced BETO’s own staff members as the 15th most influential leaders in the bioeconomy for 2013–2014, outranking Members of Congress, leaders of large trade associations, and international bioenergy companies.

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BETO Announces February Webinar: The Potential for Natural Gas to Enhance Biomass Technologies

BETO will be presenting a live webinar titled “[The Potential for Natural Gas to Enhance Biomass Technologies](#)” on Thursday, February 6, from 1:00 p.m. to 2:00 p.m. Eastern Daylight Time. Mr. Zia Haq and Mr. Prasad Gupte, of BETO, Mr. Timothy Skone, of the Office of Fossil Energy, and Dr. Chad Haynes, of the Advanced Research Projects Agency-Energy, will present the results of the [Natural Gas-Biomass to Liquids Workshop](#) that was held in Chicago, Illinois, on September 3, 2013. The webinar will provide attendees with an overview of the technology, advantages of using natural gas, and some key themes that were identified at the September event. [Register for the webinar today](#) to reserve your spot.

Call for Abstracts: tcs2014

The Symposium on Thermal and Catalytic Sciences for Biofuels and Biobased Products, [tcs2014](#), announced its call for abstracts on January 15, 2014. Organizers are soliciting abstracts for oral presentations and posters on topics covering advances in pyrolysis and solvent liquefaction, gasification, and catalytic upgrading of bio-oil and syngas to fuels and chemicals. The symposium will be held September 2–5, 2014, in Denver, Colorado, and is co-hosted by Iowa State University’s Bioeconomy Institute and the National Renewable Energy Laboratory. Visit the [tcs2014 abstract page](#) to learn more.

Demonstration & Deployment Strategy Workshop in February

The BETO Demonstration & Deployment (D&D) team is hosting a workshop on March 12–13, 2014, to assess the current state of technology of drop-in hydrocarbon fuels, as well as supportive bioproducts and biopower. This workshop, which will be held on the Argonne National Laboratory Campus outside of Chicago, Illinois, is intended to inform the Department of Energy's D&D strategy and will focus on the technical, logistical, and market barriers to bioenergy deployment. BETO also expects to gain insight into what efforts will best support and impact the industry. For more information, please visit the [D&D Workshop Web page](#).

Algal Biofuels Strategy Workshop in March

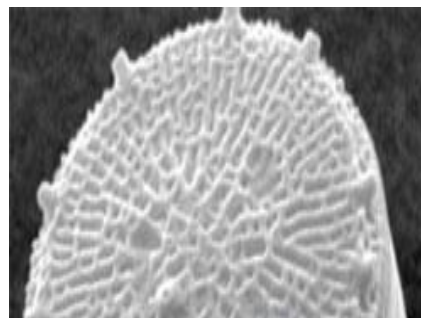
Attend the spring Algal Biofuels Strategy Workshop on March 26–27, 2014, in Charleston, South Carolina, to discuss the research and development needed to achieve affordable, scalable, and sustainable algae-based biofuels. Visit the [Algal Biofuels Strategy Workshop Web page](#) to register today.

BETO Releases Symbiosis Biofeedstock Conference Summary Report

BETO hosted the two-day “Symbiosis Biofeedstock Conference” at Cornell University in Ithaca, New York, on June 20–21, 2013, and has subsequently compiled the discussions, findings, and resulting recommendations from the conference into a [summary report](#). During the event, attendees reviewed the scientific accomplishments, to date, in microbial-plant mutualism and also discussed the potential benefits and challenges of using native, mutualistic systems to address biofeedstock production. Some conclusions included utilizing classic and novel technologies (e.g., breeding, plant, or microbe engineering) employed in the food agronomy sectors in biofeedstocks production to expand commercialization of the microbial symbionts, increase producer profits, and reduce the direct and indirect negative impacts of crop production on the environment. For more information about the Symbiosis Biofeedstock Conference, please visit BETO's [Past Meetings Web page](#).

Bioenergy Accomplishments: Breakthrough in Algal Biology

Researchers at the Scripps Institution of Oceanography at the University of California, San Diego, have made a significant breakthrough in algal biology with implications for biofuels. The Scripps team was able to metabolically engineer a disruption in fat-reducing enzymes called lipases to allow for an increase in lipids while maintaining productive growth. Using transcriptomics to guide identification of target



lipases in the *Thalassiosira pseudonana* diatom, the team was able to demonstrate a genetics technique that could have broader implications to other algae species and significantly enhance the productivity of algae, leading to improved economics of algal biofuel production.

The report, "[Metabolic engineering of lipid catabolism increases microalgal lipid accumulation without compromising growth](#)," was published November 18, 2013, in the proceedings of the National Academy of Sciences of the United States of America. Visit BETO's [Accomplishments and Project Highlights Web page](#) to learn more.

[Above] A scanning electron microscope image of the diatom *Thalassiosira pseudonana*.

Credit: Scripps Institution of Oceanography at UC San Diego.

Barbara Twigg Retires After 33 Years of Public Service

This month, Barbara Twigg, Communications Lead for BETO, retired after 33 years of dedicated federal service. Barbara joined the Department of Energy after teaching English at the National Cathedral School for Girls in Washington, D.C. She began her federal career working in the Office of Intergovernmental Affairs before joining the Office of Energy Efficiency and Renewable Energy. Barbara was a member of the first class of female students to attend Yale University, and went on to receive her Master of Arts Degree in Teaching from Harvard.



BioBlogs: 2013 Advancements in Algal Biofuels Make Production More Efficient, Less Expensive

2013 was a great year for algae! Among the highlights are a new process developed by Pacific Northwest National Laboratory that turns algae into bio-crude oil in minutes (watch this 2-minute [video](#) to learn more), new funding awards for integrated research and development on algal biology and downstream processing, and two new Arizona outdoor algae production testing facilities. Read more about these exciting new developments and accomplishments on the [BETO blog](#) and the [EERE blog](#).

Past and Upcoming Events with Bioenergy Office Representation

- [BIO Pacific Rim Summit](#); December 8–11, 2013; Jim Spaeth; San Diego, California

- [PLEN Science and Health Policy Seminar](#); January 6–9, 2014; Cyd Hamilton; Washington, D.C.
- [2014 CAAFI General Meeting](#); January 28–29, 2014; Jonathan Male; Washington, D.C.
- [RFA National Ethanol Conference](#); February 17–19, 2014; Jonathan Male; Orlando, Florida
- [ARPA-E Energy Innovation Summit](#); February 24–26, 2014; Jonathan Male and Mark Elless; Washington, D.C.
- [Kansas State University: 2014 Energy Symposium](#); April 9–10, 2014; Valerie Reed; Manhattan, Kansas
- [tcs2014 Symposium on Thermal and Catalytic Sciences for Biofuels and Biobased Products](#); September 2–5, 2014; Jonathan Male; Denver, Colorado

Upcoming Industry Events

- [Algae Production Workshop](#); February 28, 2014; Richmond, California
- [World Bio Markets](#); March 4–6, 2014; Amsterdam, Netherlands
- [2014 Spring Meeting and 10th Global Congress on Process Safety](#); March 30–April 3, 2014; New Orleans, Louisiana

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