

August 2014

# MONTHLY UPDATE



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## Participation Opportunities




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### IowaBio Legal Symposium: Intellectual Property

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On Wednesday, November 5, 2014 Iowa Biotechnology Association (IowaBio) will be hosting a Legal Symposium focused on Intellectual Property issues faced by biotech companies today. The event will take place at the State Hygienics Laboratory Center for the Advancement of Laboratory Science in Coralville, Iowa and will feature five of IowaBio's member law firms, who are top experts in the IP field. The event is FREE to IowaBio members and University of Iowa Research Park companies. Additional attendees will be charged \$25.00 per person. Please feel free to [share this event](#) with industry contacts and co-workers!

Event sponsored by PhRMA and participating law firms. Register by October 31<sup>st</sup> at [www.iowabio.org/IP](http://www.iowabio.org/IP).

<u>Agenda</u>	<u>Presentations</u>	<u>Participating Law Firms</u>
<b>9:00am – 11:45am</b> Welcome and Morning Presentations	<b><u>Morning Presentations</u></b> Introduction to License Agreements	 <b>BRICK GENTRY PC.</b> <i>We put clients first.</i>
<b>11:45am – 12:30pm</b> Lunch	Latest Trends in Patents	 <b>BrownWinick</b> ATTORNEYS AT LAW*
<b>12:30pm – 2:00pm</b> Afternoon Presentations	Impact of the Internet on IP	 <b>DAVISBROWN</b> LAW FIRM
<b>2:00pm – 3:00pm</b> Networking Reception and Facility Tours <i>Tour participants will need to bring a government-issued photo ID</i>	<b><u>Afternoon Presentations</u></b> Finding Financing for IP Development Efforts	<b>NYEMASTER</b> NYEMASTER   GOODE PC
	IP Pitfalls and Traps to Avoid - Protecting Your IP, Reducing Liability Risk	<b>Shuttleworth &amp; INGERSOLL</b> ATTORNEYS AT LAW • ESTABLISHED 1854

# STEM CAPS: Submit Your Proposal Today!

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As the Iowa Governor's STEM Initiative moves into its third year, The Governors STEM Advisory Council's priorities for FY2015 include establishing innovative, replicable models of the Center for Advanced Professional Studies (CAPS) based on the nationally acclaimed Northland CAPS of Kansas City (<http://www.northlandcaps.org/s/1625/start.aspx>). School-business collaboratives are invited to propose STEM CAPS that place high school students in work settings to solve real challenges while completing coursework. The Council has designated a portion of the state legislative funding for planning/implementation grants of up to \$25,000 to be awarded this fall. The number of proposals accepted will depend upon available funds and proposal requests. The deadline for proposals is October 15 with award notification tentatively planned for December 1, 2014. Together we can lead the development of STEM CAPS models across Iowa. [To View the RFP, please click here.](#)



## Survey on FDA/Sponsor Interactions During Drug Development

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You are invited to participate in BIO's first-of-its-kind survey tool on FDA/Sponsor Interactions During Drug Development. This is a new type of real-time survey initiative, and participants will have access to the survey tool 24 hours a day, 7 days a week so that responses can be updated on a continuous basis.

Participants will be asked to provide responses about individual clinical programs for products that are currently at any point from the pre-clinical testing phase through the clinical testing phase, prior to submission of an initial NDA/BLA (responses will be blinded, and aggregated; see Privacy Information below). BIO asks that a company representative be designated as the lead responder for each clinical program included in your response. **You do not have to be a BIO member company to participate.**

**TO PARTICIPATE IN THIS EXCITING NEW INITIATIVE PLEASE CLICK [HERE](#).**

### Purpose

Your participation and input to this survey will serve 3 high-priority goals:

1. Enable BIO to inform FDA in "real time" about FDA-sponsor interactions during drug development, i.e., prior to submission of the initial NDA/BLA. Note that FDA has requested this type of data to help them identify and address problems, particularly those that result from inconsistencies between review divisions.
2. This information will be a key factor in BIO's ability to:
  - a) Identify areas where policies, regulations, and practices are working well for sponsors and should not be changed; and
  - b) Identify areas where policies, regulations, and practices need improvement in order to make the process more efficient and effective.
3. This will serve to inform industry/FDA prescription drug user fee negotiations that will begin in 2015 and continue through 2017.

### Benefits for Participants

1. Participants will be provided with, **at minimum**, an annual report on the survey results. BIO will analyze the data at least twice a year (summer and late fall) for the next few years.
2. Participants will be able to download their individual surveys and share them with other members of their company to discuss and compare notes. We encourage companies to have multiple participants, with each participant providing information on different clinical programs. It is to your company's benefit to input all data so you may receive a comprehensive report.
3. Participants will be invited to exclusive webinars where BIO will discuss survey results and invite panelists from companies as well as other regulatory experts. During these webinars, survey participants will be able to submit questions and comments to BIO and other participants.

## **Protection of Privacy**

1. This survey will be conducted and maintained by a third-party contractor that will be prohibited from sharing individual survey responses with anyone.
2. Participants will be instructed to not provide names of products or molecules.
3. Individual surveys can only be accessed with a user name and password. (It is up to each individual participant whether to share log-in information with other people in the company, to assist in filling out the survey or for other reasons.)
4. BIO will only have access to aggregated data. We will know which companies are participating but will not have access to individual responses. BIO will use e-mail addresses of participants solely for the purpose of reminders about the survey and inviting them to special events, such as those described above.
5. The third-party contractor will also ensure cyber protection of database.
6. If you have questions regarding the third-party contractor's abilities to protect privacy please contact Merrill Raman at [mraman@ps-b.com](mailto:mraman@ps-b.com).

To participate in this exciting new initiative, [please click here!](#)

## New Member Spotlight

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### Green Biologics

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Renewable chemicals naturally designed and engineered to deliver the performance that adds value to everyday products

### **About Green Biologics**

Green Biologics, Inc. (GBI) is a North American company focused on designing, owning and operating commercial renewable chemical plants in the U.S. GBI was formed in 2012 as a transaction that brought together Green Biologics, Ltd (GBL), a U.K. based industrial biotechnology company founded in 2003 to develop and commercialize advanced microbial technology for the production of renewable n-butanol and other C4 chemicals; and, Butylfuel™ Inc., an Ohio biotechnology company founded in 1991 and recognized as a pioneer in the use of butanol as a fuel.

Green Biologics' development of Clostridia micro-organisms provides enabling technology for scale-up of renewable n-butanol, and transforms a process developed in the U.K. in the early 20th century and commercially practiced in the U.S. until 1954. Through the combination of advanced fermentation process development and solvent recovery with state-of-the-art industrial microbiology tools, GBI has developed an integrated, patent-pending process ready for commercial scale-up. With a massive library of over 320 Clostridia biocatalysts, GBI has successfully validated commercially viable yields of renewable n-butanol from a variety of feedstocks both at lab scale in Green Biologics' UK laboratories and at pilot scale in Gahanna, Ohio.



*Photo courtesy of Green Biologics*

### **Scale-Up Projects**

GBI is building an advanced fermentation demonstration facility in Emmetsburg, Iowa in a collaboration with Easy Energy. This project is a retrofit of an existing Easy Energy ethanol demo plant. It is a 1/30th scale plant to a CMR's full scale commercial retrofit of a 280,000 gallon Minnesota ethanol mill, and it builds on GBI's 10,000 gallon production run of n-butanol and acetone from corn mash at the Emmetsburg facility in 2012.

In late 2013, GBI entered into a commercial agreement to purchase a 23 MGPY ethanol plant in Little Falls, Minnesota owned by Central Minnesota Ethanol Cooperative. GBI plans to retrofit the facility to produce renewable n-butanol and acetone. The Little

Falls plant will be rechristened as Central Minnesota Renewables (CMR). This project represents GBI's commercial platform launch into the U.S. renewable chemical market. On-going process enhancements will enable the use of cellulosic and other non-grain feedstocks, opening the door to a wider range of low-cost inputs for GBI's next project.



Photo courtesy of Green Biologics

### **Renewable n-Butanol Market Advantage**

Bio-based n-butanol offers unique performance characteristics compared to petroleum-based n-butanol, including higher purity and fewer trace impurities that materially impact downstream derivative production. Renewable n-butanol also offers significant Life Cycle Analysis (LCA) benefits and a resulting improved carbon profile. This is an important contribution to the \$4.2 trillion global chemicals industry. As downstream markets transition to greener products, bio-based alternatives will become more competitive, replacing their petro-based equivalents and creating a platform for new high performance products.

To learn more, please visit our website at <http://www.greenbiologics.com>.

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## Upcoming Events

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### Midwest Events

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#### [Livestock Biotech Summit](#)

**September 16-18, 2014 / Sioux Falls, SD**

This unique conference offers a focus on genetic engineering of agricultural animals including benefits, research and development, regulatory system, and challenges to advancing health, food and industrial applications of animal biotechnology.

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#### [BioBreak September 2014](#)

**September 18, 2014 / Kansas City, MO**

The group meets at locations throughout the Heartland region. Dates and locations are announced here and through the HEARTLAND bioBreak and BioKansas groups on LinkedIn. Other social media announcements are encouraged. BioBreak welcomes students, scientists, nurses, physicians, managers, teachers, entrepreneurs, job seekers, employers, executives and policy makers to join in the monthly, informal gatherings for networking and building our bioscience community.

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#### [2<sup>nd</sup> Bioplastic Materials Topical Conference](#)

**September 30 – October 2, 2014 / Chicago, IL**

This conference is intended for a range of companies and individuals involved in bioplastics development, production, sales, marketing, processing and end-use. Keynote speakers include Kenneth Miller, President of KFM Associates and Willem Devos, CEO of Society of Plastics Engineers.

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## **[Bioproducts World 2014](#)**

**October 5-8, 2014 / Columbus, OH**

The OBIC Bioproducts Innovation Center (OBIC) at The Ohio State University will host the Showcase. OBIC seeks to promote the biobased materials and products industry. While OBIC has historically promoted the industry through cluster development strategies to accelerate bioproducts commercialization, it is now expanding through this new event in 2014. The Bioproducts World Showcase is for: Government Procurement Officials, Buyers for major retailers and distributors, Producers of biobased materials, Product manufacturers (biobased and conventional) and Entrepreneurs.

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## **[Moving Iowa Forward Conference](#)**

**October 21, 2014 / Des Moines, IA**

You are invited to attend the fifth Moving Iowa Forward Conference, hosted by the Iowa Economic Development Authority and Iowa Department of Transportation. The conference will help attendees understand how transportation and economic development can and is working together to make Iowa a better place to do business. Don't miss this opportunity to learn how Transportation Matters in the quest to grow and strengthen Iowa's economy.

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## **[2014 Medical Innovation Summit](#)**

**October 27-19, 2014 / Cleveland, OH**

Cleveland Clinic's 12th annual Medical Innovation Summit will convene over 1,500 great thinkers and leaders for a candid exchange on new medical technology, its future, recent breakthroughs and continuing challenges. Many regard the meeting as among the premier healthcare gatherings in the United States.

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## **[IowaBio Legal Symposium: Intellectual Property](#)**

**November 5, 2014 / Coralville, IA**

IowaBio is hosting a Legal Symposium focused on Intellectual Property issues faced by biotech companies today. The event will take place at the State Hygienics Laboratory Center for the Advancement of Laboratory Science in Coralville, Iowa and will feature five of IowaBio's member law firms, who are top experts in the IP field. The event is FREE to IowaBio members and University of Iowa Research Park companies.

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## **[Women in Science & Entrepreneurship Conference](#)**

**November 14, 2014 / St. Louis, MO**

The Women in Science and Entrepreneurship (WISE) Conference will be held on Friday, November 14th, 2014 at the Donald Danforth Plant Science Center. This free program aims to inspire and enable women to reach new heights in science by fostering connections and conversations among researchers, students, entrepreneurs, members of industry, and university faculty. It is a unique opportunity for women and men engaged or interested in science to learn, share, and connect across university, corporate, and entrepreneurial endeavors.

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## **[Global Events](#)**

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### **[BIO Latin America Conference](#)**

September 9-11, 2014  
Rio de Janeiro, Brazil

### **[5th Biobased Chemicals: Commercialization and Partnering](#)**

September 18-19, 2014  
San Francisco, CA

### **[Life Sciences Future](#)**

October 13-14, 2014  
Philadelphia, PA

### **[7th Annual Biotech Supply Chain Conference](#)**

October 23-24, 2014  
Foster City, CA

### **[9th Annual Veterinary Vaccines](#)**

December 3-4, 2014  
Brussels, Belgium

### **[Pacific Rim Summit on Industrial Biotechnology & Bioenergy](#)**

December 7-9, 2014  
San Diego, CA

**View All Upcoming Events on our [Events Calendar](#)**



# Industry News

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*\*News stories containing company logos indicate IowaBio members\**

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## Food & Agriculture

### Food & Agriculture

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- ❖ **EFSA rejects French move to ban GM crop** in Europe



*The miracles of science™*

- ❖ **DuPont** to announce **soybean research center**



- ❖ **ISU** researcher to **test altered bananas**



- ❖ **Iowa Food/Ag Company Opportunities** - Reimbursements, Buyer Missions, Free Webinars & More
- ❖ **Corn Oil ONE™** Breaks Ground on first-of-its-kind **Distillers Corn Oil Frac Facility**
- ❖ New alliance formed for **tropical livestock farming**
- ❖ Strong, Clear **Bioplastic** Containers Could Be Made from **Rice**
- ❖ Biotech **Tomatoes** for **Cosmetics**
- ❖ Company Uses **Bacon Grease** To **Fuel Motorcycle**
- ❖ **Syngenta** working with farmers on **new trait**
- ❖ **Zoetis** expects to have **PEDv vaccine** ready this year
- ❖ **Glowing Plant** Is One Of **Y Combinator's** Very First Biotech Startups
- ❖ **Genetically 'edited' fruit** could soon hit supermarket shelves

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## Healthcare & Pharmaceutical



- ❖ **Braasch Biotech** to Participate at Informa's 9th Annual **Veterinary Vaccine Conference**



- ❖ **NewLink Genetics/BioProtection Systems** Secures Contract for Testing and Evaluation of **Ebola Virus Vaccine**
- ❖ **NewLink** says **Ebola vaccine trial** could start in weeks



- ❖ Development and translational imaging of a **TP53 porcine tumorigenesis model**



- ❖ Human Longevity, **Celgene** Ink **Placental Stem Cell Deal**



- ❖ **Pfizer** explores **IBD** in pact with **23andMe**
- ❖ Three Questions for **J. Craig Venter**
- ❖ **Sarepta** leaps into **Ebola** spotlight with a shelved therapy
- ❖ **Sanofi** sees **first dengue vaccine** filings in first quarter of 2015
- ❖ Wow of the Week: **Animals** that have **inspired amazing medical science**
- ❖ Positive interim results reported for **Arzerra** as **maintenance therapy for relapsed CLL**
- ❖ FDA Approves **Exact Sciences' Cologuard®**; First and Only Stool DNA **Noninvasive Colorectal Cancer Screening Test**
- ❖ **Spotting Cancer** in a **Vial of Blood**

*\*News stories containing company logos indicate IowaBio members\**

## [Industrial & Environmental](#)

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# Industrial & Environmental

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- ❖ **Corn Oil ONE™** Breaks Ground on first-of-its-kind **Distillers Corn Oil Frac Facility**
- ❖ **Grassley Files** Wind Energy, **Biodiesel Amendments** to “Jobs” Bill Before the Senate
- ❖ **Murphy USA** quadruples its **E15, E85 and biodiesel** line-up in Iowa
- ❖ U.S. Trade Rep Tours **Grant Kimberley’s Family Farm**, Discusses **RFS Threats**
- ❖ **Project Liberty** to Celebrate with **Grand Opening**
- ❖ **First International Commercial Flight** Completed with Newly Approved **Amyris-Total Aviation Biofuel**
- ❖ **MSU** to Develop **Hardier Switchgrass** for Biofuels
- ❖ Strong, Clear **Bioplastic** Containers Could Be Made from **Rice**
- ❖ Increasing **Ethanol Yield**
- ❖ **M&G Chemicals, Anhui Guozhen** ink pact to build **world’s largest cellulosic biofuels plant**
- ❖ **Cigarette Butt Batteries?** Researchers Say That’s Simple
- ❖ Singapore company brings **3D bioprinting** to the masses
- ❖ **REG’s biodiesel sales continue to expand**, despite tough price environment, as Q2 earnings drop
- ❖ Company Uses **Bacon Grease To Fuel Motorcycle**
- ❖ CRFA Member **First to Bring E85 Ethanol to Western Canada**



## In Other News

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# Iowa Biotech Educator

## Fall 2014 Issue of ISU's "Educator" Released

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Highlights of this season's edition include:

- 21st year of free biotechnology resources for Iowa educators
- Free help from ISU experts and master biotechnology teachers
- Biotechnology Outreach Education Center (BOEC) news and opportunities
- Field trips and free visits to Iowa schools by BOEC
- Microbiology workshop for high school students November 14
- Iowa Math and Science Teachers fall conference October 21-22
- October and April career conferences for young women in grades 6-12
- Recycle lab supplies from the Office of Biotechnology
- Award programs for educators
- Iowa Biotech Educator newsletter phasing to e-mail only subscriptions

[Click here to view the newsletter](#)

# # #

## IOWA STATE UNIVERSITY

### Iowa State, Des Moines schools win \$4.5 million grant to enhance STEM education

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[View Original Article](#)

Iowa State University and Des Moines Public Schools have won a \$4.5 million grant from the National Science Foundation to enhance teacher education and improve the teaching of science, technology, engineering, and mathematics in elementary schools.

"This grant will serve a dual purpose of supporting schools and teacher preparation while also enabling Iowa State to conduct research on the impacts of changes made to the teacher education program," said Joanne Olson, an associate professor in the School of Education who's also president of the national Association for Science Teacher Education.

The grant will support a project that will have teams that include a cooperating teacher from Des Moines, a student teacher from Iowa State, and a graduate student in engineering from Iowa State.

The teams will work together to serve as role models to the students and provide knowledge support for each other. Overall, the group aims to improve teachings in science, technology, engineering, and mathematics at the elementary school level.

"Being able to bring together Iowa State students with our teachers will enhance learning in our classrooms, which will help our students succeed in school and beyond," said Phil Roeder, director of communications and public affairs at the Des Moines Public Schools.

Iowa State's teacher education program will also upgrade its courses so students are prepared to teach subjects as recommended by Next Generation Science Standards, a process that has developed new K-12 teaching standards.

The project is an effort between Des Moines Public Schools, the Center for Biorenewable Chemicals, and the Center for Excellence in Science, Mathematics, and Engineering Education. It will back the National Science Foundation's mission to support research and education in science and engineering

Olson will be managing and coordinating the project with help from a team including two faculty members from the College of Human Sciences: Heidi Doellinger, director of teacher education services in the School of Education, and Anne Estapa, assistant professor in the School of Education.

The project will start in the spring, after a planning period during the fall semester. It will continue for five years.

## Subscriber Information

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This message was sent to you as a benefit of membership with IowaBio and/or a subscriber of our monthly newsletter. If you know of a company that would benefit from the Association's advocacy, financial savings and education/workforce focus, please have them contact the Association at 515-327-9156 or email [info@iowabio.org](mailto:info@iowabio.org). Membership details are also available at [www.iowabio.org/membership](http://www.iowabio.org/membership).

If you would like more information on any topic or no longer wish to receive these messages, please email [melissa@iowabio.org](mailto:melissa@iowabio.org) or call 515-494-9242.

## Speaker Opportunities

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IowaBio staff members are available to give 15-60 minute speeches to interested groups, such as Rotary Clubs, trade associations, or civic groups. A broad range of topics could be discussed, included biotechnology, healthcare, food vs. fuel, legislative policy, investment and more. Contact Melissa Moyer at (515) 327-9156 or [melissa@iowabio.org](mailto:melissa@iowabio.org).