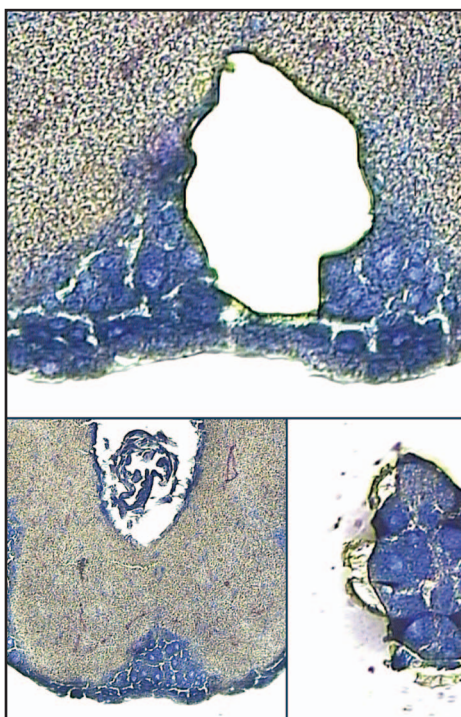




# IGB NEWS

Achievements, awards, and information about the IGB community

## IMAGE OF THE MONTH



This month's Core Facilities Image of the Month, "Laser Capture microdissection of neurons associated with reward processing in the honey bee brain," was made by Marsha Wheeler and Axel Brockmann from Gene E. Robinson's Lab.

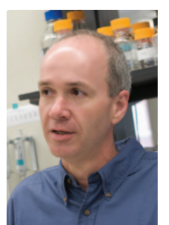
## AWARDS

### Goldenfeld Elected to National Academy of Sciences



IGB Theme Leader Nigel Goldenfeld has been elected to membership in the National Academy of Sciences. Goldenfeld is among 72 new members and 18 foreign associates announced by the academy on April 27. Election to the NAS is one of the highest professional honors a scientist can garner.

### Metcalf Elected to American Academy of Microbiology



IGB Theme Leader William Metcalf has been elected to Fellowship in the American Academy of Microbiology, a distinction awarded to microbiologists who have made original contributions to their field. Fellows of the American Academy of Microbiology "are elected annually through a highly selective peer-reviewed process based on their records of scientific achievement," according to the organization.

### Zhao, Shao Recieve Keck Futures Award

IGB Faculty member Huimin Zhao and postdoc Zengyi Shao received a \$100,000 Keck Futures Award for "Genome mining of novel natural products via synthetic biology."

The project, which will explore the use of microorganisms to develop new therapeutic agents, is one of 13 awarded by the National Academies Keck Futures Initiative in the Spring of 2010. The researchers aim to develop a new synthetic biology strategy to discover novel natural products from sequenced genomes and metagenomes. Such studies may lead to the discovery and development of new drugs for treatment of infectious diseases and cancers.



## Gerlt to Lead NIGMS “Glue Grant”

A multi-institutional team of researchers, led by John Gerlt, Gutsell Chair, Professor of Biochemistry and Chemistry and a member of the Mining Microbial Genomes for Novel Antibiotics Theme at the Institute for Genomic Biology at the University of Illinois, has received a prestigious and highly competitive “Glue grant” from the National Institutes of General Medical Sciences (NIGMS). Glue grants provide resources to tackle “complex problems that are of central importance to biomedical science but are beyond the means of any one research group,” so these “glue” together multidisciplinary groups of investigators. This Glue grant, known as the Enzyme Function Initiative (EFI), will develop a strategy for discovering the functions of unknown enzymes discovered in genome sequencing projects. The EFI will receive \$33.9 million in total costs for the five-year project.

“Genome projects have taught us that many of Nature’s enzymes have unknown functions that need to be discovered,” said Gerlt, an expert on the enolase superfamily of enzymes. “We don’t know every metabolic pathway. Organisms have metabolic

pathways that allow them to live under different conditions and we don’t know what many of those pathways are and, therefore, the substrates, transformations, and intermediates in those pathways.”

Enzymes are proteins that catalyze the chemical reactions required for life and, also, enable organisms to live in complex environments and adapt to a variety of conditions. Determining an enzyme’s substrate, the molecule to which the enzyme “docks” in order to begin a reaction, is vital to understanding an enzyme’s function. And understanding an enzyme’s function is fundamental to understanding the biology of an organism, as well as opening up enormous biomedical and commercial opportunities.

“We have sequences for more than 10 million proteins and we might know the specific functions of half of those,” said Gerlt. “But what do the other half do? If we knew their functions, imagine how we might use them to identify new drug targets or provide catalysts used in industry. Presumably there is a lot of functional diversity; but, how can you know what the functions are?”

Gerlt and his longtime collaborator and colleague, Patricia Babbitt at the University of California, San Francisco (UCSF), have spearheaded a way to more efficiently determine an unknown, or uncharacterized, protein’s function. Their approach uses computational methods to narrow the range of possible substrates for the enzyme. Gerlt says this project is a potentially powerful way to more fully exploit the sequence data that have not yet been deciphered and to learn more about metabolic pathways, so crucial to all organisms.

This approach focuses on identifying an enzyme’s substrate. Typically, if an enzyme’s substrate is unknown, investigators could try countless different substrates, in essentially a trial-and-error method.

“That approach, however, is not efficient,” said Gerlt. “We’d like to

predict the substrate, or restrict the number of possible substrates, so that instead of assaying every compound from the Sigma catalog we could try, say, 20 compounds.”

For the EFI Glue grant, Gerlt and Babbitt have assembled a team of researchers from several disciplines who can determine the structure of an unknown enzyme and then, computationally, determine a “hit list” of possible substrates, numbering in the tens, rather than the thousands. The “hit list” will be evaluated by experimentalists, and the substrate will be identified. In addition, members of this team will knock out the gene encoding the enzyme to determine its biological function, as well as its role in a metabolic pathway.

Babbitt will lead a bioinformatics team that will manage and analyze the sequence data and help identify like “target” sequences of interest. Computational biologists, including Matthew Jacobson, Andrej Sali, and Brian Shoichet at UCSF, will use computers for “in silico” docking of possible substrates with the “target” and develop a “hit list” of possible substrates. A high-throughput protein production and structure determination group lead by Steven Almo at Albert Einstein College of Medicine will purify the “targets” and determine their structures by X ray crystallography. Wladek Minor at the University of Virginia will oversee a laboratory information management system to facilitate data exchange both within the EFI as well as with the scientific community.

The EFI team also includes experimentalists, like Gerlt, who have expertise in different enzyme families, to test the functional predictions. A team at Texas A & M led by Frank Raushel specializes in the amidohydrolase superfamily; the University of Utah group led by C. Dale Poulter specializes in the isoprenoid synthase superfamily; Richard Armstrong at Vanderbilt University School of Medicine is an expert in the glutathione transferase superfamily; and a team of scientists led



by Karen Allen and Debra Dunaway-Mariano at Boston University and the University of New Mexico, respectively, specializes in the haloalkanoic acid dehalogenase superfamily.

The EFI also will have a microbiology group led by John Cronan, a professor in the Department of Microbiology at the U of I, that will knock out the gene encoding a “target” to further help determine its metabolic function. U of I Chemistry Professor Jonathan Sweedler will determine how the knocked out

gene alters the metabolism of the organism.

The first Glue grant was awarded in 2000. The EFI and an additional new Glue grant join only four that are currently supported by NIGMS.

“This program gathers together an outstanding group of researchers who will use their expertise in enzymology, structural biology, computational modeling, and bioinformatics to develop an approach to associate enzymatic

functions with genes in thousands of organisms,” said Warren Jones, Ph.D., who oversees the program at the NIH’s National Institute of General Medical Sciences. “The effort will add considerable value to genome sequencing data by finding the functions of genes with unknown roles, advancing our understanding of life-sustaining biochemical processes, and possibly suggesting important new targets for human therapeutics.”

## 2010 FELLOWS SYMPOSIUM HIGHLIGHTS THEMATIC RESEARCH AT IGB



Over 100 members of the IGB community gathered on April 16 for the 2010 Fellows Symposium. Five themes presented their research findings and IGB students and researchers showcased their work at the poster session.

Special guest speaker Bernhard Palsson, the Galetti Professor of Bioengineering at the University of California, San Diego, discussed systems biology and his work in genome network reconstruction.

“We want to get a full picture of the genome, not just snapshots,” Palsson said.

IGB researchers in Biocomplexity, Molecular Bioengineering of Biomass Conversion, Energy Biosciences Institute, Precision Proteomics, and Mining Microbial Genomes for Novel Antibiotics also presented their work.

In the afternoon, undergraduates, grad students, postdocs, and faculty members presented their research and results during the poster session. More than 30 projects were on display, and the top three deemed to have the best posters received awards.

### 1st: SOO RIN KIM

Elucidating Bactericidal Mechanisms of ZNO Nanoparticles through Genomic Library Selection (poster 35)

### 2nd: DAN XIE

Rewirable Gene Regulatory Networks in the Preimplantation Embryonic Development of the Three Mamalian Species (poster 31)

### 3rd: STEVEN WALTERSDORF

Bacterial Decoder (poster 28)

Posters were judged by:

Jian Ma

Michael Dietz

Victor Jongeneel

# ADMINISTRATIVE NEWS

News from the administrative departments that support the research mission of the IGB

## OPERATIONS AND FACILITIES



### Parking at the Dock

Parking at the IGB dock during off-hours puts you at risk for receiving a parking citation. Tickets will be issued to vehicles parked in locations posted NO PARKING, including the dock. If you have any questions, please contact IGB Operations and Facilities at [facilities@igb.illinois.edu](mailto:facilities@igb.illinois.edu).

### Moving Furniture

Furniture and equipment is inventoried with specific locations in the IGB. Please do not move any furniture (including chairs) from their existing location without returning them to that location. If you are moving equipment with a PTag, please email facilities ([facilities@igb.illinois.edu](mailto:facilities@igb.illinois.edu)) about the relocation.

### Scrap or Surplus Equipment

If you have equipment for scrap or surplus, please complete the form located on the IGB webpage under “Property Accounting/Equipment Inventory” ([www.igb.illinois.edu/facilities&services/building\\_operations.html](http://www.igb.illinois.edu/facilities&services/building_operations.html)) and send it to [facilities@igb.illinois.edu](mailto:facilities@igb.illinois.edu).

## COMMUNICATIONS



### IGB on Facebook

Become a fan of the IGB on Facebook! Check the daily lunch specials in the Array Café and be the first to learn what's happening around the IGB. Search for “Institute for Genomic Biology.”

## COMPUTER AND NETWORK RESOURCE GROUP



Need a poster printed? CNRG offers high-quality poster printing for \$1.00 to \$1.50 per inch with a maximum width of 42 inches. A variety of paper choices are available to meet the needs of any project: regular, premium, canvas, and vinyl.

Lamination, core backing, and poster tubes also are available for a flat rate. To place an order, visit [www-app.igb.illinois.edu/posterprinter](http://www-app.igb.illinois.edu/posterprinter). There is a guaranteed turnaround of less than three business days for poster printing projects.



### PubPDF: Easily Download PDFs for Articles Found in PubMed

Many of you have eagerly embraced PubGet (Illinois.pubget.com) as a way to easily view and obtain PDFs from your PubMed searches (see August 2009 IGB Newsletter). Here's another option: PubPDF. (Currently only available for PCs; not Macs.)

PubPDF, from Quosa, will enable you to immediately view and download PDFs for articles you've located via a standard search of PubMed. Once the PubPDF plugin is installed to work with your browser (Firefox or IE), you will immediately see on the PubMed search results screen an Acrobat (PDF) icon in front of all the titles of articles to which we have access! You can click on the icon to view the article. Or, you can select multiple articles (click on the box in front of the citation) and download the PDFs using a file-naming structure that you choose (e.g., author name – date – journal abbreviation).

Watch the short video, "Introducing PubPDF":

<http://quosa.com/quosa-labs>

For tips on installing the PubPDF plugin, please visit the Biotechnology Information Center's blog entry: <http://tinyurl.com/35wcbcr>

Questions? Contact Biotechnology Librarian Katie Newman  
2130 IGB  
[florador@illinois.edu](mailto:florador@illinois.edu)  
217.265.5386

## BUSINESS



### P-Card Responsibilities

Below is a summary of policies and procedures which apply to those University of Illinois employees who have been issued a University Procurement Card (P-Card):

The P-Card may be used only for University purchases, and the cardholder is personally responsible for all charges made on his or her P-Card. A P-Card may be used only by the person to whom it is issued. It may not be loaned to others, including employees in the same department.

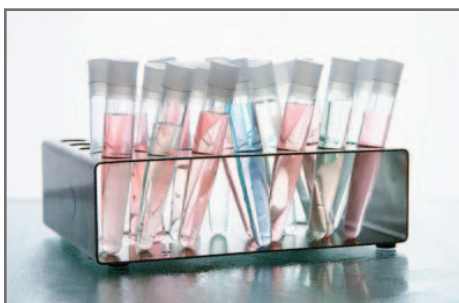
#### Cardholder Responsibilities:

- Notify the bank issuing the P-Card (by calling number on back of P-Card), the cardholder's DCM, and the OBFS, CCO immediately if the P-Card is lost or stolen. (The cardholder's department may be liable for all charges incurred until the P-Card is reported lost or stolen to the bank.)
- Make purchases that are for University projects or activities and comply with any funding restrictions applicable to the C-FOAPAL.
- Understand and comply with the list of prohibited and restricted purchases in this policy.
- Provide complete shipping instructions when placing orders to vendors, and ask vendors to include receipts with the shipment.
- Pay no sales tax on purchases from vendors registered in Illinois. Cardholders should emphasize the University's tax exempt status and exemption number when placing orders.
- Create an Order Log with the P-Card Web Solution™ software for each transaction made with a P-Card.
- Provide the cardholder's reconciler with original receipts for all P-Card transactions.
- Verify that small equipment and supplies purchased with the P-Card are received, and follow up with the vendor on any delivery problems, discrepancies, or damaged goods.
- Provide the unit with all documents related to the P-Card purchase.
- Handle any returns of purchases made on the P-Card as credits to the P-Card.

For more detailed information regarding P-Card policies and procedures, go to: [www.obfs.uillinois.edu/manual/central\\_p/sec7-6.html](http://www.obfs.uillinois.edu/manual/central_p/sec7-6.html).



## SAFETY



### Guidelines for Safe Chemical Storage

Safe chemical handling requires routine inspections of chemical storage areas as well as maintenance and control of inventory. The inherent hazards of chemicals can be reduced by minimizing the quantity of chemicals on hand. However, when chemicals must be used, proper storage and handling can reduce or eliminate associated risks. All chemical storage areas and cabinets should be inspected at least annually, and any unwanted or expired chemicals should be removed.

Typical storage considerations may include temperature, ignition control, ventilation, segregation, and identification. Proper segregation is necessary to prevent incompatible materials from inadvertently coming into contact. A physical barrier and/or distance is effective for proper segregation.

Proper storage information can usually be obtained from the Material Safety Data Sheet (MSDS), label, or other chemical reference material. More information about MSDS can be found on the IGB website: [www.igb.illinois.edu/training/msds\\_info.html](http://www.igb.illinois.edu/training/msds_info.html).

The following table is a list of incompatible materials. It contains some of the more common incompatible materials. Always research materials you work with in order to work safely in the lab.

### Chemicals listed in column A should not be stored with or used near items in column B

Column A	Column B
Acetic acid	Chromic acid, nitric acid, hydroxyl compounds, ethylene glycol, perchloric acid, peroxides, permanganates
Acetic anhydride	Hydroxyl-containing compounds such as ethylene glycol, perchloric acid
Acetone	Concentrated nitric and sulfuric acid mixtures, hydrogen peroxide
Acetylene	Chlorine, bromine, copper, fluorine, silver, mercury
Alkali and alkaline earth metals such as powdered magnesium, sodium, potassium	Water, carbon tetrachloride or other chlorinated hydrocarbons, carbon dioxide, halogens
Ammonia (anhydrous)	Mercury, halogens, calcium hypochlorite, hydrofluoric acid
Ammonium nitrate	Acids, metal powders, flammable liquids, chlorates, nitrites, sulfur, finely divided organic or combustible materials
Aniline	Nitric acid, hydrogen peroxide
Arsenical materials	Any reducing agent
Azides	Acids, heavy metals and their salts, oxidizing agents
Calcium oxide	Water
Carbon, activated	All oxidizing agents, calcium hypochlorite
Carbon tetrachloride	Sodium
Chlorates	Ammonium salts, acids, metal powders, sulfur, finely divided organic or combustible material
Chlorine dioxide	Ammonia, methane, phosphine, hydrogen sulfide
Chromic acid and chromium trioxide	Acetic acid, alcohol, camphor, glycerol, naphthalene, flammable liquids in general
Copper	Acetylene, hydrogen peroxide
Cumene hydroperoxide	Acids (organic or inorganic)
Cyanides	Acids
Flammable liquids	Ammonium nitrate, chromic acid, hydrogen peroxide, nitric acid, sodium peroxide, halogens, other oxidizing agents

## Guidelines for Safe Chemical Storage

Chemicals listed in column A should not be stored with or used near items in column B

Column A	Column B
Hydrocarbons (e.g., butane, propane, benzene)	Fluorine, chlorine, bromine, chromic acid, peroxides
Hydrocyanic acid	Nitric acid, alkalis
Hydrofluoric acid (anhydrous)	Ammonia (aqueous or anhydrous)
Hydrogen peroxide	Copper, chromium, iron, most metals or their salts, any flammable liquid (i.e., alcohols, acetone), combustible materials, aniline, nitromethane
Hydrogen sulfide	Fuming nitric acid, oxidizing gases
Hypochlorites	Acids, activated carbon
Iodine	Acetylene, ammonia (aqueous or anhydrous), hydrogen
Mercury	Acetylene, fulminic acid, ammonia
Metal hydrides	Acids, water
Nitrates	Acids
Nitric acid (concentrated)	Acetic acid, acetone, alcohol, aniline, chromic acid, hydrocyanic acid, hydrogen sulfide, flammable liquids, flammable gases, copper, brass, any heavy metals
Nitrites	Acids
Nitroparaffins	Inorganic bases, amines
Oxalic acid	Mercury and silver and their salts
Oxygen	Oils, grease, hydrogen; flammable liquids, solids, or gases
Perchloric acid	Acetic anhydride, alcohol, bismuth, paper, wood, grease, oils
Permanganates	Concentrated sulfuric acid, glycerol, ethylene glycol, benzaldehyde
Peroxides, organic	Acids (organic or mineral), avoid friction, store cold
Phosphorus, white	Air, oxygen, alkalis, reducing agents
Potassium	Carbon tetrachloride, carbon dioxide, water
Potassium chlorate	Sulfuric and other acids, ammonium salts, metal powders, sulfur, finely divided organics, combustibles
Potassium perchlorate (see also chlorates)	Sulfuric and other acids
Potassium permanganate	Glycerol, ethylene glycol, benzaldehyde, sulfuric acid
Silver and silver salts	Acetylene, oxalic acid, tartaric acid, ammonium compounds, fulminic acid
Sodium	Carbon tetrachloride, carbon dioxide, other chlorinated hydrocarbons, water
Sodium nitrate	Ammonium nitrate and other ammonium salts
Sodium peroxide	Ethyl or methyl alcohol, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulfide, glycerin, ethylene glycol, ethyl acetate, methyl acetate, furfural
Sulfides	Acids
Sulfuric acid	Chlorates, perchlorates, permanganates

Adapted from Prudent Practices in the Laboratory: Handling and Disposal of Chemicals, National Research Council, 1995, with additions.

## Around the IGB

### BAKE-OFF WINNERS



**Congratulations to this spring's bake-off winners:**

**Overall Best Sweet:** Gluten-free Fruit Crisp, Kate Woodall (MMG)

**Best Cookie:** Raspberry Ameretti Gluten-Free, Dairy-free Cookies, Claudia Lutz (GBB)

**Best Pie:** Chocolate Seduction Pie, Annie Weisner (GBB)

**Best Cake:** Honey Cake, Svetlana Borisova (MMG)

**Best Sweet Other:** Baklava, Caroline Milne (MBBC)

MMG and GBB each had two wins among the six different categories. The tie breaker is the number of items submitted from each theme. Congratulations, GBB, for having nine sweet and savory items and being this year's overall theme winner!

Serving plates and utensils may be picked up in the IGB Gatehouse 2nd floor reception area during normal business hours.

Thank you to the social committee members, volunteers, and everyone who submitted items. You helped make this year's bake-off a treat!

### IGB ILLINOIS MARATHONERS



The EBI was well represented at the Illinois Marathon on May 1. Relay marathon group, from left: Bosola Oladeinde, Ashley Spence, Patrick Long (running in place of Steve Long) and Becky Arundale.

## AWARDS, CONT'D.

### ILLINOIS TECHNOLOGY FOUNDATION'S "50 FOR THE FUTURE"

Undergraduate IGB students Palak Doshi and Graham Heimberg were selected for the Illinois Technology Foundation's "50 for the Future" award. The award honors students who show the most promise in the technology field. Doshi and Heimberg were members of the IGB's 2009 iGEM teams.

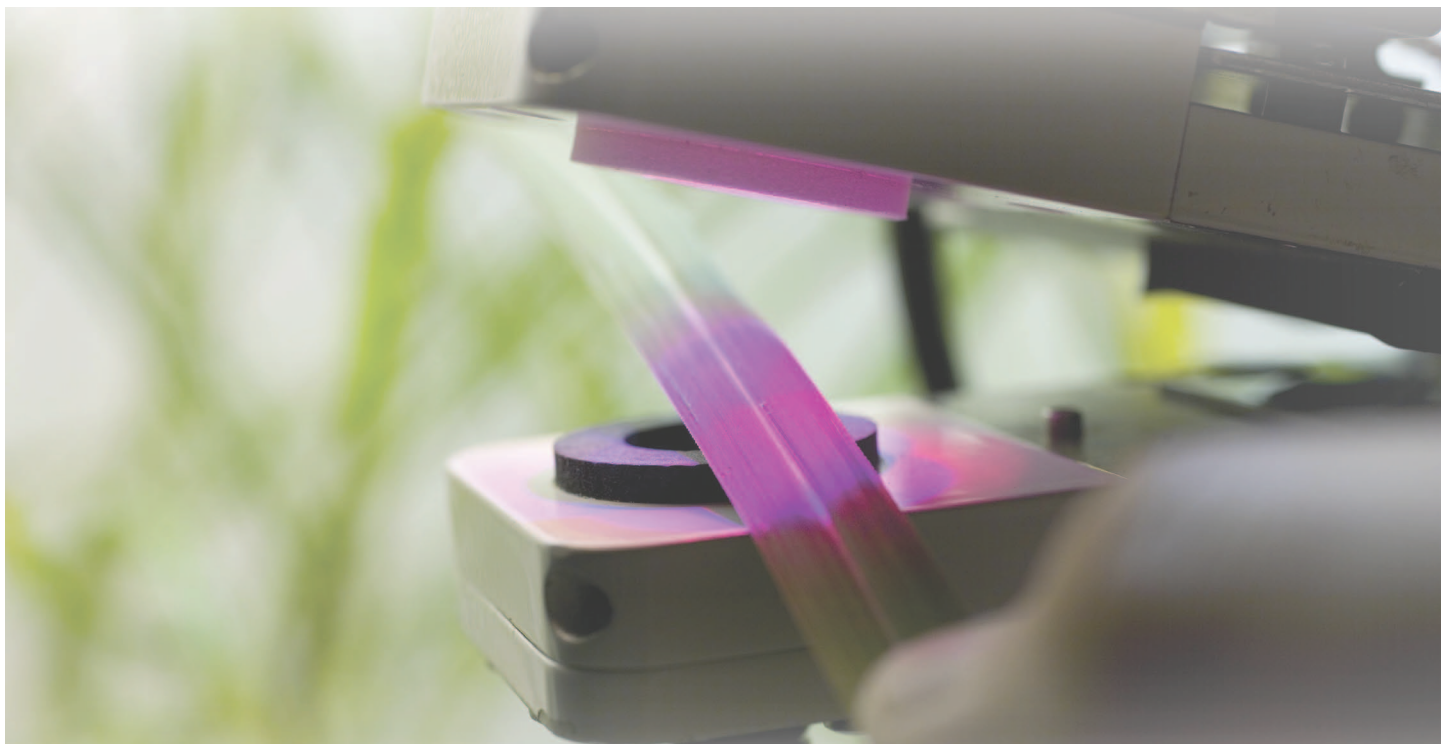
### KISHIMOTO FOUNDATION FELLOWSHIP

Dylan Dodd (EBI) was awarded a Kishimoto Foundation Fellowship to perform research at the WPI Immunology Frontier Research Center (IFReC) in Osaka, Japan this summer. He will be studying the mechanisms by which commensal microbes in the human gut modulate a specific subset of immune cells in the gut associated lymphoid tissue. This research will be done in Professor Kiyoshi Takeda's lab at IFReC.

### KING BROADRICK-ALLEN AWARD

Bruce Fouke (Biocomplexity, EBI) was awarded the 2010 King Broadrick-Allen Award for Excellence in Honors Teaching in May 2010.





The Energy Biosciences Institute, a unique public-private research partnership dedicated to exploring the applications of modern biology to the energy sector, is inviting pre-proposals for possible project funding in five different areas of investigation. The deadline for pre-proposal submission is June 20, 2010.

The EBI—a collaboration between the University of California's Berkeley campus, the federal Lawrence Berkeley National Laboratory, and the University of Illinois at Urbana-Champaign, funded by energy corporation BP—is in its third year of studying the prospects for, and impacts of, alternative transportation fuels and microbial hydrocarbon recovery. The portfolio currently stands at 68 awarded studies.

New awards will be granted in the following categories:

### Socioeconomic and Environmental Impacts of Biofuels

The EBI seeks to develop deeper understanding in five different subject areas: land use; agricultural intensification; modeling for the bioeconomy; sustainability performance measures; and phytoremediation of contaminated soils.

### Feedstocks

Areas of focus include a theory for genetic pest and pathogen tolerance in mixed grass populations; non-genetic methods for control of pests and pathogens; the economic viability of non-food feedstock, including woody biomass; and the implications of biofuel feedstocks in regions like Brazil, Africa, the United States, and Eastern Europe.

### Deconstruction/Depolymerization

Both theoretical and computation approaches are sought for exploring the utility of structural diversity of cellulases.

### Fuel Synthesis

The EBI is interested in novel routes to non-algal diesel substitutes made from lignocellulosic components.

### Fossil Fuel Applications

Proposals are being solicited in four subject areas – understanding of, and

effective controls for, bio-souring of oil and gas; removal of sulfur and nitrogen compounds from petroleum; methods for accelerating the degradation rate of petroleum to result in quicker clean-ups; and understanding of the microbially influenced corrosion process at oil and gas facilities.

A detailed description of each focus area, and instructions for submitting three-page pre-proposals, can be accessed on the EBI web site ([www.energybiosciencesinstitute.org](http://www.energybiosciencesinstitute.org)) under the category “Funding Opportunities—Research.”

### For more information:

Contact Susan Jenkins  
[SJenkins@berkeley.edu](mailto:SJenkins@berkeley.edu)

## Found in Nature or Made by Man? What will *Ass'n of Molecular Pathology v. U.S. Patent & Trademark Office* do to Gene Patents?<sup>1</sup>

On March 29, 2010, a district court in New York held that claims directed toward genes in a patent used for testing patients for susceptibility to developing breast cancer were invalid on the grounds that they encompassed unpatentable subject matter.<sup>2</sup>

The Judge reached his conclusion by evaluating the language of the claims in the patent, which are the part of the patent that carve out rights and boundaries associated with the subject matter.<sup>3</sup> Thus, claims determine what uses are allowed and prohibited by those who do not hold the patent. Twenty-three patents were at issue in the case, of which seven were found to be invalid.<sup>4</sup> Two types of claims were at issue: composition of matter and method claims.

The language of the composition claims at issue in the case generally described an "isolated DNA coding for a...polypeptide, said polypeptide having the amino acid sequence set forth [in the written description section of the patent]."<sup>5</sup> The method claims at issue involved "[a] method for detecting germline alteration in a [breast cancer] gene" and further described the method as including a comparison in the patient's gene to those alterations identified by the patent holder to be mutations significantly related to higher incidence of breast cancer.<sup>6</sup>

The basis for finding the composition of matter claims invalid relied on reasoning that "the claimed isolated DNA [was] not markedly different from native DNA as it exists in nature," thus deeming the isolated DNA unpatentable subject matter under 35 U.S.C. § 101. Using a body of case law which has held up for precluding claims that set forth methods for merely analyzing or comparing things of nature without actually including some type of physical transformation, the method claims were also defeated.<sup>7</sup>

What does this decision mean for the future of gene patents? Scholars and patent attorneys are urging the scientific community to remain calm.<sup>8</sup> For one, *Ass'n of Molecular Pathology* has been appealed and will be heard by the Court of Appeals for the Federal Circuit, so the ruling will not have a firm foothold in multiple jurisdictions until then.

Next, it is important to consider that these patents were obtained before the completion of the human genome project, at the time, rendering discovery and mapping of genes much more laborious compared with modern techniques. To invalidate all of these patents would have a devastating effect on biotechnology companies and the faith of investors. Thus for policy reasons, the Federal Circuit will consider the impact of their decision.

Finally, a recent empirical study has found that the majority of the claims in patents involving genes or their sequences are directed toward functionality of the genes,<sup>9</sup> likely making them safe from the type of reasoning used to invalidate claims in *Ass'n of Molecular Pathology*.

Bottom line? Stay tuned. This could get interesting.

<sup>1</sup> Written by Nicole A. Janovick, PhD. Nicole is currently a second-year law student at the College of Law and is a Commercialization Analyst Intern for the Office of Technology Management, specializing in life sciences technologies. Nicole holds office hours at IGB in Room 2606 (Gatehouse) on Mondays from 9 a.m. to 1 p.m. and on Tuesdays and Wednesdays from 9 a.m. to 12 p.m. During this time she is available to answer questions about intellectual property and technology transfer. Questions can also be sent to her directly via email: janovick@ad.illinois.edu.

<sup>2</sup> *Ass'n of Molecular Pathology v. U.S. Patent & Trademark Office*, No. 09 Civ. 4515 (S.D.N.Y. Mar. 29, 2010).

<sup>3</sup> For a brief review of what constitutes patentable subject matter under 35 U.S.C. § 101, please see last month's newsletter, available at [www.igb.illinois.edu/news/internal\\_news/internal\\_news\\_mar10.pdf](http://www.igb.illinois.edu/news/internal_news/internal_news_mar10.pdf).

<sup>4</sup> These patents are all held by Myriad Genetics, Inc.

<sup>5</sup> *Id.* at 80.

<sup>6</sup> *Id.* at 83.

<sup>7</sup> See *id.* at 146.

<sup>8</sup> For links to different opinions about the case, see Donald Zuhn, AMP v. USPTO: What Everyone Else Is Saying, Patent Docs, Apr. 6, 2010, 11:59 P.M., [www.patentdocs.org/2010/04/amp-v-uspto-what-everyone-else-is-saying.html](http://www.patentdocs.org/2010/04/amp-v-uspto-what-everyone-else-is-saying.html).

<sup>9</sup> See Isabell Huys et. al., Legal Uncertainty in the Area of Genetic Diagnostic Testing, 27 NATURE BIOTECH. 903, 908 (2009).

## EXPERTS TALK RENEWABLE ENERGY POLICIES, SOLUTIONS AT BIOFUELS LAW CONFERENCE

Legal and scientific experts discussed how government regulations and policies could positively and negatively affect renewable energy issues at the second annual Biofuels Law Conference on April 9.

This year's gathering, "The Renewable Energy Legislation Puzzle: Putting the Pieces Together," brought together 60 attendees at the I Hotel and Conference

Center. The symposium included presentations by faculty members and scientists from the University of Illinois at Urbana-Champaign and the University of California, Berkeley, as well as others from institutions in Iowa, New York, Florida, South Dakota, and Minnesota. Speakers discussed low carbon fuel standards, indirect land use, global climate

change, greenhouse gas emissions, and international energy policy.

The conference was sponsored by the EBI, as well as the University of Illinois College of Law's Program in Intellectual Property and Technology Law, the Institute for Genomic Biology, and The European Union Center.