



# News from the Center for Life Science Enterprise



Fall 2007

Intent of the semi-annual newsletter:  
To provide our stakeholders with some  
news, nuggets, and faculty research  
highlights in hopes of sparking new  
connections.



The next CAT advisory Board Meeting is **Nov. 16, 2007** in conjunction with the annual Healthcare and Biotechnology Symposium in Sage Hall.

## Staff changes

Steve Kresovich, Vice Provost for Life Sciences, will serve as interim director until a replacement has been identified for Kelvin Lee, who has accepted a professorship at the University of Delaware in their world-class Chemical Engineering Department. We also welcome two new staff to the Center. David Dieterich, Director of Business Development, comes to us from a prodigious career with Eastman Kodak, retiring as COO and Vice President, Operating System. He has extensive experience in advancing technology to meet market needs and commercializing new products. John Trachtenberg, Industrial Outreach Grant Applications Manager has replaced Donna Chaudhuri. John was previously Marketing Manager at Design By Analysis in CT where he helped the engineering consulting firm develop its own intellectual property and secure federal funding. John will primarily focus on helping small NYS business attract SBIR and STTR grants.



John Trachtenberg



David Dieterich

## CAT and Innovation grants awarded

Applications from 25 departments provided a competitive applicant pool for this year's awards. Sixteen CAT proposals and seven Innovation grants spanning fields ranging from Food Science to Plant Pathology were awarded to faculty for collaborative projects with commercializable potential. See [2007-2008 research project directory](#) for details.

## Pre Seed Workshop held

Through partial funding by the Regional Technology Development Center (AM&T), three technology teams from Cornell and three recruited through other CATs in the region (two teams from Buffalo and one from Syracuse) evaluated their ideas. An Alumni Reunion for previous Pre Seed Workshop participants included representatives from fourteen of the nineteen technology teams that have participated in the Pre Seed Workshop. Hosted at a local entrepreneur's high-tech facility with funding provided by AM&T, the Reunion offered an opportunity for previous workshop attendees to share experiences and report progress on their varied technology commercialization efforts.

**Attention all small NY State life science companies:** to be considered for a discounted student intern, go to <http://epe.cornell.edu/> and mention the CAT.

See the Center for Life Science Enterprise homepage at  
<http://www.biotech.cornell.edu>

# FACULTY VIGNETTES



- B.A., Wabash College (1989)
- Ph.D., Stanford University(1994)
- NSF CAREER Award
- MIT Technology Review Magazine TR 100 Award
- Beckman Foundation Young Investigator Award
- NSF Special Creativity Award(2005)
- Co-Founder, Novomer

Dr.  
Geoffrey  
Coates

Professor Coates was elected fellow of The American Association for the Advancement of Science in 2006. His interdisciplinary research is at the interface of organic, inorganic, organometallic, and polymer chemistry. His main interests include the design, synthesis, characterization, and applications of polymers, with an emphasis on catalytic transformations and the control of stereochemistry. With a former student and another Cornell graduate, he co-founded [Novomer](#) in 2004 based on ground-breaking technology that allows carbon dioxide and other renewable materials to be cost-effectively transformed into polymers and plastics for use on a world-wide scale. Novomer's polymers, made with up to 43% CO<sub>2</sub>, can be used for a variety of applications including injection-molded parts, building materials, coatings and adhesives. Novomer's innovative CO<sub>2</sub> based technology has been highlighted in Forbes Magazine, the New York Times, Chemical and Engineering News and other publications.

Dr. Gary  
Harman

- B.S. Colorado State University (1966)
- PhD Oregon State University (1970)
- Co-founder, Biomarinex
- Inventor, Advanced Biological Marketing
- Co-principal inventor, Phytobials
- Co-founder, BioWorks, Inc.



Professor Harman holds two professorial posts (in Horticulture Sciences and Plant Pathology) at the New York State Agricultural Experiment Station of Cornell University in Geneva, New York. He was made a Fellow of the American Phytopathological Society in 1997 for his research on the use of *Trichoderma* species of fungi as biological control agents, an innovation that has led to *Trichoderma* products being used as plant protection agents worldwide. One of the main goals of his career at Cornell is to translate most of the technology developed in his laboratory over the past 30 years to commercial reality. To this end he has co-founded three start-up companies, BioWorks, Inc., BioMarinex, and Phytobials LLC and Ltd., and he is the inventor of key technologies currently being commercialized by an additional small business, Advanced Biological Marketing. Professor Harman holds 14 patents, is the author of 2 books, and has published over 113 articles in refereed journals. For more, see his [webpages](#).

# UPCOMING EVENTS

## Engineering Research Showcase

**Date: Sept. 11, 3-7pm**

Location: Duffield Hall, Cornell University

Featuring nearly 100 research posters, oral presentations, and a festive reception and competition winners announced by the Associate Dean for Research and Graduate Studies. Go [here](#) for details, schedule of events, and corporate participation.

## MedTech07: Quality Product Development in a Regulated Environment

**Dates: Sept. 17&18**

Location: The Lodge, Skaneateles Falls

Issues and opportunities facing companies, and how to successfully transition discovery into practice: discussions to develop consensus on initiatives needed in review of regulatory submissions and the future of device and diagnostic development. See [www.medtech.org](http://www.medtech.org).

## 2007 Green Materials Symposium

**Date: Sept. 24, 8-4:45pm**

Location: 701 Clark Hall, Cornell University

See [CCMR Green Materials Symposium](#) for agenda.

## 7<sup>th</sup> Annual Nanobiotechnology Symposium

**Date: Oct. 1, 8:30-6pm**

Location: G10 Biotechnology Bldg, Cornell University

See the latest advances in research at the interface of nanotechnology and the life sciences - an opportunity to meet with faculty, researchers and students, as well as industrial partners and colleagues from the entire nanobiotechnology community. Go [here](#) for details.

## FUSE 2007 "Accelerating Innovation"

**Dates: Oct. 9+10**

Location: OnCenter Complex, Syracuse

See <http://www.fuse2007.com/agenda.htm> for agenda details and how to register.

## Pre-Seed Workshop

**Dates: Oct. 19+Nov. 2**

Location: Geneva

For ideas that think they might want to become start-up companies. To evaluate your eligibility, or to get involved, see <http://www.oed.cornell.edu/preseedworkshop/Application-v2.pdf>

## Healthcare & Biotechnology Symposium

**Date: Nov. 16, 2007 8-2pm**

Location: Sage Hall, Cornell University

"Trends in Healthcare: Making a Market in Innovation"

[http://forum.johnson.cornell.edu/students/orgs/hbc/2007/symposium/2007\\_symposium.jpg](http://forum.johnson.cornell.edu/students/orgs/hbc/2007/symposium/2007_symposium.jpg)

## Biotechnology Management&Entrepreneurship Seminar Series-Fall 2007

Location: G01 Biotechnology Building

**Tuesday September 18, 5pm:** Nathan Tinker, Executive Director of NYBA "BioForce New York: Creating the Incentives to Make NYS a Biotech Hub" See [www.biotech.edu](http://www.biotech.edu) for announcements.

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# NEWS and EVENTS

## MARK YOUR CALENDAR:

- ✓ **Biotechnology Management & Entrepreneurship seminar series 2007-2008**
  - 10/31/2007 Jeff Behrens, Biogen Idec Innovation Incubator
  - 11/28/2007 John Capek, Abbott Vascular
  - 1/23/2008 Norton Peet, International R&D Consultant
  - 2/27/2008 Joseph Brozino, Trinity College
  - 3/19/2008 Michael Lysaght, Brown University
  - 4/16/2008 TBD
- ✓ 3/28-29/2008: 25th annual **CEAA Engineering Conference**  
"Sustainable Energy Systems"
- ✓ 4/10-11/2008 **Entrepreneurship@Cornell Celebration**
- ✓ 5/19-20/2008 **POP Symposium**

## HONORS:

- ❖ Cornell faculty received two [NYSTAR faculty development awards](#) to assist in their retention and research in high technology fields with strong commercial potential. [Matthew DeLisa](#) will engineer human-like glycosylation pathways in bacteria, and [Dan Luo](#) will use the funds to produce recombinant proteins in an in vitro system called P-gel.
- ❖ **Dan Luo** was selected to receive Cornell's "Provost's Award for Distinguished Scholarship". The Award was granted for Luo's research using DNA as an engineering material.
- ❖ **Matt DeLisa** has been awarded the Excellence in Teaching Award through the College of Engineering for developing interdisciplinary interest and including cutting-edge biotechnology research as part of the senior Process Design course.
- ❖ [Michael Shuler](#) and [Geoffrey Coates](#) were elected Fellows of the American Association for Advancement of Science by their peers.
- ❖ **DNANO Systems**, a start-up company to commercialize Dan Luo's research, won 2nd place at the 7th annual Cornell BR Ventures Business Idea Competition.
- ❖ [David Putnam](#) was selected by the Controlled Research Society to receive their Young Investigator Award, presented at the CRS annual meeting.
- ❖ At the [Public Engagement and Science Communication symposium](#) May 14, 2007, **Geoffrey Coates** won the \$10,000 first prize grant extension for his poster that explained a new route for the synthesis of biodegradable polyesters from renewable resources. A tactile poster by [Gary Harman](#) demonstrated oil spill products based on agricultural by-products and won the \$1,000 travel award for second place. Finalists were [C. Drew Harvell](#) with her eye-catching poster on novel antifungal compounds from corals, and **David Putnam's** succinct poster describing his fascinating work on an innovative controlled drug delivery technology which led to the founding of a new start-up biotechnology company, Aria Biosciences.

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# NEWS and EVENTS

## SELECTED CENTER FUNDED RESEARCH RESULTS:

- ❖ [Mingming Wu](#) and **Michael Shuler** published “A hydrogel-based microfluidic device for the studies of directed cell migration” in a special issue on “Microfabrication and Tissue Engineering” in [Lab Chip](#). 7(6):763.
- ❖ **Dan Luo** published his work on “Dendrimer-like DNA-based fluorescence nanobarcodes” in [Nature Protocols](#) 1(2):995.
- ❖ [Emmanuel Giannelis](#) published “A nanohybrid membrane with lipid bilayer-like properties utilized as a conductimetric saccharin sensor” in press at [Biosensors and Bioelectronics](#).
- ❖ **Geoffrey Coates** published in [Journal of Polymer Science Part A: Polymer Chemistry](#) 44(17):5182 “Alternating Copolymerization of Propylene Oxide and Carbon Dioxide with Highly Efficient and Selective (Salen)Co(III) Catalysts: Effect of Ligand and Cocatalyst Variation”.
- ❖ [Yung-Fu Chang](#) e-published “A domain of the Leptospira LigB contributes to high affinity binding of fibronectin” in [Biochem Biophys Res Comm](#) Aug 13, 2007. In addition, a review appeared in [Curr Opin Infect Dis](#). 20(3):284 on “Leptospirosis: pathogenesis, immunity, and diagnosis”.
- ❖ [Ruth Richardson](#) is quoted in a Cornell Chronicle article on how computer modeling could help chlorine-hungry bacteria break down toxic waste. See the full article at <http://www.news.cornell.edu/stories/June07/dehalococcoides.ws.html>

## Angel Fund Network Formed

Leveraged State and Federal funding helped start the “New York Angel Network”. It was formed to offer the angel investor groups in New York an opportunity to identify and work with one another to provide a platform for potential collaborations in investment and education. Their Steering Committee consists of representatives from ten New York Angel Investment Groups as the initial members. A New York company, AngelSoft LLC, has agreed to provide their software at no cost to the member groups in order to provide a common platform for group collaboration. A report on the progress of this project was presented to the Economic Development Agency University Center at Cornell in June.

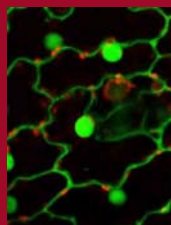
## Summer Interns Learn Entrepreneurship at Small NYS Companies

Center for Life Science Enterprise funding helped 11 startup companies host energetic interns. See <http://www.news.cornell.edu/stories/Aug07/eAtC.interns.kh.html>.

### Nearing Completion: Weill Hall

- ❖ Named for [\\$50M gift](#)
- ❖ Visit the webcam site:

[http://www.pdc.cornell.edu/pdc/eng/stpm/pdc\\_webcam\\_1stbeast.cfm](http://www.pdc.cornell.edu/pdc/eng/stpm/pdc_webcam_1stbeast.cfm)



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