



News from the Center for Life Science Enterprise



Spring 2006

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



See our website:

<http://www.biotech.cornell.edu>

Cornell's Spring Pre-Seed Workshop

April 6th and April 13th dates are full!

Location: Langmuir Lab in the Cornell Business & Tech Park in Ithaca

The Pre-seed Workshop (PSW) is a systematic approach to help researchers evaluate the commercialization potential of an invention and provide essential information from the venture capital and business community for launching a start-up company. PSW was designed to take a raw idea from a university lab and investigate its marketplace viability using a preliminary commercialization plan developed in the workshop. Additionally, PSW includes activities to help researchers decide if the idea should move forward as a start-up company and test the start-up fortitude of the researchers themselves. *Technology champions* are always welcome. For more information see the [Office of Economic Development](http://www.officeofeconomicdevelopment.com) website.



NYSTAR Center for Life Sciences Outreach Program

Dates: Every other Wednesday 12noon-1pm

Locations: Langmuir Lab, and Cornell Agriculture & Food Technology Park, Geneva

These informative sessions focus on the various needs of start-up businesses. They will introduce and highlight Cornell resources available to companies and entrepreneurs. For instance: help with SBIR grant applications or how to tap into the expertise and knowledge of MBA students at Cornell University's Johnson Graduate School of Business. See <http://www.thetechnologyfarm.com/> and <http://www.cornellbtp.com/docs/CURE17Feb06.htm>

IDEA Center News:

DNANO chosen for incubation 2006-2007

In preparation for the grand opening of the IDEA Center in the New Life Sciences Technology Building in 2008, we have begun to virtually incubate start-up companies. The goal is to test and put into practice recommendations made by Johnson School students from their benchmark studies of other university incubators. The inaugural company in the "virtual" incubator is Novomer LLC. The IDEA Center has accepted a second start-up company to virtually incubate this year – DNANO Systems LLC. DNANO stands for DNA and NANO – “We Bring DNA and Nanotechnology Together”. DNANO Systems LLC is a limited liability corporation founded by Dr. Dan Luo, assistant professor at the Dept. of Biological and Environmental Engineering whose goal is commercializing DNA nanobarcode technology for the high growth life science market, which includes biotech/pharma R&D, molecular diagnosis, veterinary and agriculture diagnosis, and anti-bioterrorism biodefense. The services provided to these start-ups thus far - business, legal, research, funding, and networking - reflect directly on the breath of capabilities that is only available at a world-class institution like Cornell.



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

FACULTY VIGNETTES

George Grills

- Established and directed the DNA Sequencing, Genotyping, GeneChip Microarray and Oligonucleotide Synthesis Facilities at the Einstein Genome Center (1994-2001)
- Director of DNA sequencing & protein microarrays and co-director of DNA microarrays for the Harvard Partners Genome Center, Cambridge, MA. (2001-2005)



George Grills assumed the post as Director of Core Facilities and Director of Advanced Technology Assessment on February 1st, 2006. He is responsible for the operations of the university funded life sciences core facilities and for evaluating new technologies. He was previously the Director of DNA Sequencing, Director of Protein Microarrays, and Co-Director of GeneChip Microarrays at the Harvard Medical School-Partners Healthcare Center for Genetics and Genomics. He has extensive experience in setting up and running core facilities, in using the latest technologies for DNA sequencing, genotyping, microarrays, clinical diagnostics and proteomics, and in testing and implementing new technologies. His goals are to facilitate the life sciences research programs at Cornell and to contribute to Cornell's New Life Science Initiative. George was recently interviewed by Genome Technology. Look for it to appear soon at <http://www.genome-technology.com>.



- B.S., Seoul National University (1989)
- Ph.D., Stanford University (1993)
- 3M Company Non-Tenured Faculty Award (2004)
- NSF CAREER Award (2005)
- DuPont Young Professor Award (2005)

Yong Lak Joo

Fibers with diameters less than a micron can be formed using an electrospinning process where a droplet of a polymer solution is elongated by a strong electrical field. The resulting nanofibers are collected as nonwoven mats with extremely large surface to volume ratios which are being used, or finding uses, in filtration, protective clothing, biomedical applications and reinforced composites.

A new US patent (Application No. 11/125,242 (2005) "Fibers from Polymer Nanoclay Nanocomposites by Electrospinning") emanated from Center funded research in Dr. Joo's laboratory. Poly(Lactic) acid (PLA) and Nylon 6 have been formed into nanocomposite nanofibers via electrospinning from both solution and melt. Cornell's new nanofibers show a 300% improvement in mechanical properties in the case of PLA and a 200% improvement with Nylon 6. Cornell's nanofibers show strongly aligned nanoclays which have been achieved using Cornell's unique process.

See more at [Dr. Joo's website](#).

For more research going on at Cornell, see <http://www.cornell.edu/research/>
For more on commercializing Cornell technologies, see <http://www.cctec.cornell.edu/>

NEWS and EVENTS

Entrepreneurship @ Cornell Celebration 2006 **Dates: March 30-31, 2006**

Location: Statler Auditorium and Ballroom and Sage Hall

Join Cornell's Entrepreneurship community in this inaugural event bringing together alumni, students, faculty, and staff. BR Ventures Business Idea Competition (BIC) winners will be announced. For the full agenda, and to register, click on <http://epe.cornell.edu/>

CEAA Engineering Conference **Dates: April 20-22, 2006**

Location: Statler Hotel Ballroom Lobby

Accelerating Innovation: Bringing Emerging Technologies to the Marketplace

- ❖ Go to <http://www.engineering.cornell.edu/alumni-parents-friends/upload/CEAA-Conf06-Accelerating-Innovation.pdf> for details.

POP Symposium **Dates: May 22-23, 2006**

Location: Phillips 101 / Duffield Atrium

Exploring Partnerships Between Cornell Scientists and Industry

- ❖ See <http://popsymposium.cornell.edu> for more information.

SAVE THE DATE:

Seventh Annual Nanobiotechnology Symposium **Date: Oct. 23, 2006**

Location: will be announced soon

The annual CAT Advisory Board Meeting will coincide with this event. Mark your calendars!

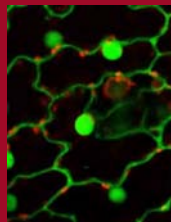
Go to <http://www.nbtc.cornell.edu/> for forthcoming details.

Center funded research publications:

- ❖ **Theodore Clark** review: "Recombinant subunit vaccines: potentials and constraints." [Dev Biol \(Basel\)](#). 2005; 121:153-63.
- ❖ **Matthew DeLisa**: "Genetic selection for protein solubility enabled by the folding quality control feature of the twin-arginine translocation pathway." [Protein Sci.](#) 2006 Feb 1
- ❖ **Dan Luo**: "Multiplexed detection of pathogen DNA with DNA-based fluorescence nanobarcodes." [Nat Biotechnol.](#) 2005 Jul;23(7):885-9.
- ❖ **David Putnam**: "Structure-function relationships of gene delivery vectors in a limited polycation library." [J Control Release](#) 2005 Mar 2;103(1):273-83.
- ❖ See the latest issue of the **Connecting with Cornell** bulletin highlighting 5 top scientists and more, published through the Vice Provost for Research's office, available soon online at: <http://www.cornell.edu/research/>

Progress on the New Life Sciences Building

- ❖ See for yourself!
Visit the webcam site below:
http://www.pdc.cornell.edu/pdc/eng/stpm/pdc_webcam_lstbeast.cfm



Contact us:

Kelvin Lee, Director	biotech@cornell.edu
Margaret Arion	mra10@cornell.edu
Roger Williams	rjw33@cornell.edu
Donna Chaudhuri	dtk3@cornell.edu
Susi Varvayanis	sv27@cornell.edu

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

