

## IN THIS ISSUE

### COVER STORY

- [A New Decade of Photonics Leadership](#)
- [Current Science and Future Initiatives](#)

### FACULTY SPOTLIGHT

- [Fred Naider](#)
- [Hiroshi Matsui](#)

### DEAN'S CORNER

- [Academic Plagiarism](#)

### RESEARCH OFFICE

- [24 Faculty Win Award](#)
- [PEER Awards for Waldman, Eaton and Zhang](#)

### AROUND THE CAMPUSES

- [Research Seminar at Hostos](#)
- [New Satellite Data Mining Facility](#)
- [Grant for Drug Abuse Research](#)
- [New Confocal Microscopes](#)
- [Classics Research Project](#)
- [Five Faculty Receive NEH Awards](#)

### EVENTS & ANNOUNCEMENTS

- [Neuropsychology Research Day](#)
- [Conference on Plagiarism](#)
- [Technology Transfer Conference](#)

## VISIT US ON THE WEB

to learn about our office, flagship initiatives, internal funding programs, faculty database, research highlights, human subject research and much more...  
[www.cuny.edu/research](http://www.cuny.edu/research)

## EMAIL US

to submit news items, questions and comments about the newsletter:  
[oaaresearch@mail.cuny.edu](mailto:oaaresearch@mail.cuny.edu)



© 2005 CUNY Office of Academic Affairs  
 535 East 80<sup>th</sup> Street, New York, NY 10021  
 Ph: (212) 794-5455; Fax: (212) 794-5378

## CUNY CENTER FOR ADVANCED TECHNOLOGY

### A New Decade of Photonics Leadership

The New York State Center for Advanced Technology in Photonics Applications at the City University of New York (CUNY-CAT), established in 1993, has begun its second decade of bolstering New York's economy through the development of photonics knowledge and the dissemination of that knowledge to Empire State businesses.

The center is based at The City College of New York (CCNY) led by President Gregory Williams, and was recently re-designated by the New York State Office of Science, Technology and Academic Research (NYSTAR). The CUNY-CAT is one of 15 Centers for Advanced Technology located on university and college campuses around the state.



The re-designation, which runs for 10 years, carries with it potential annual funding of \$1 million. In recognition of this, NYSTAR Deputy Executive Director **Joshua B. Toas** presented a \$10 million promotional check to CUNY-CAT Director Dr. Robert Alfano in a ceremony on June 15, 2005 at the Skylight room of the CUNY Graduate Center.

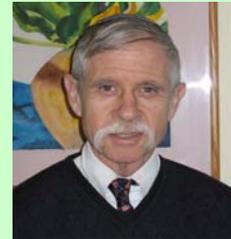
"The Center for Advanced Technology at CUNY is helping New York grow as a high-tech powerhouse," said **Dr. Russell Bessette**, Executive Director of NYSTAR.

*(Continued on page 3)*

## FACULTY SPOTLIGHT

### Fred Naider

Dr. Fred Naider began his academic career at CUNY in 1973 as an assistant professor of chemistry at Richmond College, an upper divisional college that later merged with Staten Island Community College to form the College of Staten Island. More than three decades, two hundred refereed publications, \$7.5 million in extramural grants, fifteen Ph.D. students, forty new scientists pursuing post-doctoral studies, and numerous honors and accolades later, he continues undeterred, still traversing the frontiers of basic research in peptide, biopolymer and biochemistry. In April of 2003, he was awarded a \$1.4 million grant from the National Institute of Health (NIH) that placed him into an elite group of productive investigators—the fewer than 5% of American scientists who received continuous NIH funding for more than 30 years.

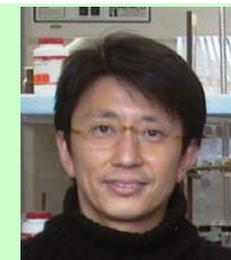


*(Continued on page 2)*

## FACULTY SPOTLIGHT

### Hiroshi Matsui

Hiroshi Matsui, Associate Professor of Chemistry at Hunter, has been invited to participate in the prestigious 2006 U.S. Frontiers of Engineering—the annual three-day meeting organized by the National Academy of Engineering. The invitation-only meeting will bring together 100 of the nation's outstanding young engineers from industry, academia, and government to discuss pioneering and leading-edge research in various engineering fields and industry sectors.



*(Continued on page 3)*

## Fred Naider *(Continued from page 1)*

Dr. Naider received his B.S. and M.S. degrees in Chemical Engineering from Cornell University in 1966 and his Ph.D. in Polymer Chemistry from the Polytechnic Institute under Professor Murray Goodman in 1971. Prior to coming to CUNY, he worked for two years with Professor Ephraim Katchalski-Katzir, first as a Kurtz Deknatel Fellow and then as a NIH Postdoctoral Fellow, at the Weizman Institute of Science. It was there that he met with his longtime collaborator Dr. Jeffrey Becker, who heads the microbiology department at the University of Tennessee. Over the course of his academic career, Dr. Naider has returned to the Weizman Institute three times: as Michael Professor of Biophysics in 1980, as a Fulbright Fellow in 1989, and most recently as the Varon Professor of Structural Biology in 2000.

At the College of Staten Island, Dr. Naider became an Associate Professor in 1975, a Professor in 1979 and a Distinguished Professor in 2000. He joined the CUNY Doctoral Faculty in Chemistry and Biochemistry in 1973. Between 1986-1995 he was the Chair of the Chemistry Department and served as the acting Dean of Science and Technology in 1992-1993. Currently, Dr. Naider is a councilor of the American Peptide Society, Chair of the Breakthroughs in BioScience Subcommittee, and a member of the Public Affairs Executive Committee of the Federation of American Societies for Experimental Biology (FASEB), a board member at the CUNY Research Foundation, and a permanent member of the Bioorganic and Natural Products Study Section of NIH.

Dr. Naider's research in the area of **peptide transport in yeast** began with a \$35,000 NSF grant in 1973. He was recognized by a Research Career Development Award by NIGMS from 1975-1980 and his three decades of research collaboration in peptide-cell interactions with Dr. Becker, which has been continuously funded by NIH since 1975, has led to the cloning, sequencing and characterization of peptide transport genes in *Saccharomyces cerevisiae* (simple Baker's yeast). This work led to the discovery of a family of such proteins that they named the PTR family (Peptide Transport Family). These transporters are ubiquitous in living cells and have significance in the absorption of many antibiotics in the human intestine.

Dr. Naider's other research interests involve the **synthesis, conformational activity and biological relevance of peptides**. His research group has been active in developing techniques for the efficient synthesis of farnesylated peptides, which are then subjected to biophysical, and biochemical investigation. The group has also actively pursued the biologically active conformation of the  $\alpha$ -factor using circular dichroism, nuclear magnetic resonance and vibrational circular dichroism studies. An important goal of Dr. Naider's research efforts has been to understand the structure of the  $\alpha$ -factor receptor, which is a G protein-coupled receptor, by purifying it to homogeneity and synthesizing its fragments for biophysical analysis. Learning more about this family of receptors could lead to advances in understanding metabolism, HIV infection, taste, light sensitivity, pain management, and blood pressure.

Dr. Naider is also a co-program leader for Protein-Peptide and Protein-Protein Interactions at the CUNY Institute for Macromolecular Assemblies where he is collaborating with **Dr. Lesley Davenport** of Brooklyn College. This program aims to elucidate the fundamental principles of protein interactions with small peptides, other proteins, or themselves, using spectroscopic methods that include circular dichroism, fluorescence, isothermal titration calorimetry, and nuclear magnetic resonance. The assemblies formed through such interactions are crucial to cell signaling and are involved in dementias typical of Alzheimer's and Parkinson's diseases.

Along with his tireless pursuit of research involving peptide transport, Dr. Naider has been working relentlessly to usher forth the next generation of scientists. He has taught organic chemistry and biochemistry to scores of undergraduate students, and in 2003, received the Dolphin Award from the College of Staten Island for Outstanding Teaching by a Member of the Faculty. His former students are medical residents, researchers in pharmaceutical companies and entrepreneurs. One former student, Robert A. Baffi, Ph.D., is a vice president of BioMarin Pharmaceutical, Inc. Another, Michael A. Huchital, Ph.D., founded Quality Antisera, a company that produces biological agents used in research. Another former student was named research scientist of the year at Dupont Laboratories. His most recent scientific progeny, Ms. Jacqueline Englander, a CUNY Honors College graduate, will embark on studies toward her MD/PhD at the University of Syracuse in the Fall of 2005.

Given his remarkable record of accomplishments in research and teaching, it is thus not surprising to find Dr. Naider fondly reflecting upon both aspects of his career at CUNY. He continues to cherish the opportunity to interact with a "wonderful cadre of young people who are struggling to both meet family commitments and better themselves through education." At the same time he finds that his "innate fascination in biological processes" is continuously being "nurtured through participation in doctoral level research, interactions with outstanding colleagues at the other CUNY branches and the participation of a constant stream of talented research associates." Taking note of the marked improvements of the research facilities at CUNY since the 1970s, Dr. Naider feels confident that the leadership will continue to support the faculty in their quest "to provide young New Yorkers with a first class education in the physical sciences."

TO ACCESS OAA RESEARCH NEWSLETTER ARCHIVES, PLEASE VISIT: [WWW.CUNY.EDU/RESEARCHNEWS](http://WWW.CUNY.EDU/RESEARCHNEWS)

## Hiroshi Matsui

*(Continued from page 1)*

It aims to provide a networking opportunity for top-notch engineers, early in their careers, where they can learn about cutting-edge developments in fields other than their own. For Dr. Matsui, this would be his second such nomination and selection—a fitting recognition of the pioneering contributions in the emerging field of bionanotechnology by one of CUNY's most promising scientific talents.

Dr. Matsui came to Hunter's Chemistry Department in 2001 as an assistant professor by virtue of CUNY's Flagship initiative in Photonics; he became an associate professor in 2004. After completing his B.S. in Chemistry at Japan's Sophia University in 1987, he spent four years at DuPont when he found his career interests shifting from sales towards engineering. Unable to find a suitable point of re-entry into Japan's highly regimented ladder in postgraduate education, Dr. Matsui applied and was accepted into Stanford's Material Science and Engineering Program. After finishing his M.S. in 1992, Dr. Matsui discovered his interests continuing to shift, this time from engineering development to basic research. He proceeded to earn his doctorate in Chemistry from Prudue University in 1996. Dr. Matsui then completed a two-year Postdoctoral Fellowship at Columbia before joining the Chemistry Department of the University of Central Florida (UCF) as an assistant professor.

At UCF, while attempting to grow nano-materials through synthesis, Professor Matsui made a key discovery about the self-organizing property of a family of bolaamphiphile, which, for him, opened the door to a new line of research aimed at understanding the rules of molecular self-organization from biological systems that could be applied to design nanometer-scale devices. For someone without any formal training in biology, this meant a lot of experimentation and accelerated self-learning. With the intensity and volume of his research picking up, Dr. Matsui began looking for better research support and improved facilities. When the opportunity of an academic appointment at Hunter College became available, he gladly accepted the chance to return to New York for the third time.

*(Continued on page 5)*

## A New Decade of Photonics Leadership

*(Continued from page 1)*

"By providing New York businesses with access to world-class research capabilities, it is enabling them to harness photonics technology to meet technological challenges in such fields as healthcare, communications and defense."



technology over the next decade and advance New York's technological leadership."

"NYSTAR's support for our activities has been critical in enabling us to move from primary research into research projects that address real, human needs," said **Dr. Alfano**, a Distinguished Professor of Science and Engineering at CUNY.

"The knowledge we are gaining in applying photonics to business issues will enable us to expand the frontiers of the cutting-edge

Since it was established, the CUNY CAT has made significant contributions to economic development, technological advancement and education and training in photonics. Since 2000, it has generated \$44 million in economic impact through new revenues and cost savings for businesses operating in New York State and has helped create or retain more than one hundred industrial jobs, primarily in high-paying technological or engineering fields. CUNY-CAT created over \$34 million in additional economic impact through the leveraging of over \$20 million in federal grants.



buildings, she said the CUNY-CAT offers a "stellar example of how CUNY can be a valuable partner to business by advancing the state of scientific knowledge."

"With Chancellor Matthew Goldstein and the Board of Trustees inaugurating a 'decade of scientific research' at CUNY, the CUNY CAT is poised for exciting growth over its second ten years," said **Selma Botman**, CUNY Executive Vice Chancellor for Academic Affairs." Noting that the university plans to make major investments in buildings or modernizing science

Some of the technological achievements CUNY-CAT can take credit for include: minimally or non-invasive optical techniques for cancer detection; optical detection of cracks and corrosion of paint on aircraft wings; bacteria and virus detection for Homeland Defense, and the Compact Photonic Explorer, a sophisticated "photonics pill" in development that can perform remote diagnostics from inside the body and send information back to doctors.

The CUNY CAT, which has 37 professors on six CUNY campuses as principal investigators, has also helped support New York state industry through education and training of over 150 undergraduate and 85 graduate students, 60 post-doctoral research associates and 75 technicians, with minorities accounting for over 40 percent of the students and technicians. This has helped provide a skilled photonics workforce that can encourage entrepreneurs to create innovative companies that will drive economic development in New York State.

Companies that have partnered with the CUNY-CAT range from the Fortune 500 to young start-ups. They include: Alcoa, Applied Nanoworks, Con Edison, Corning, IBM, Lockheed Martin, Mediscience Technology, Northrup Grumman, Pfizer, Photonics Industries and Quantronix. The CAT has partnered on research efforts with the New York State Center of Excellence in Infotonics, located in Rochester, New York.

(Courtesy of Charles DeCicco, CUNY-CAT)

## Current Science and Future Initiatives

On June 16, the CUNY Institute for Macromolecular Assemblies (MMA) organized a forum at the Graduate Center to showcase some of its current scientific work and discuss its future initiatives. The daylong internal event, which provided an opportunity for scientific and social networking, was divided into two sessions. The morning session, which was open to students and postdoctoral fellows, featured four short talks by MMA researchers. They were preceded by greetings and welcome remarks from **Dr. Brian Schwartz**, VP for Research and Sponsored Programs, CUNY Graduate Center, **Dr. Gillian Small**, University Dean for Research, and **Dr. Ruth Stark**, Director, MMA.



The first two presentations of the morning session focused on Natural Macromolecular Assemblies. **Dr. Themis Lazaridis** of City College and **Dr. Ruel Desamero** of York College gave presentations titled "Modeling Protein-Membrane Interactions" and "Probing Protein-Small Molecule Interactions Using Vibrational Spectroscopy" respectively. At MMA, Dr. Lazaridis and Dr. Desamero are conducting research in the area of "Assemblies of Proteins with Membranes and Small Molecules." They are studying the molecular recognition phenomena for proteins that are associated with lipids in biological membranes. An improved understanding of the interactions of proteins with physiologically important small molecules is expected to further efforts toward rational drug design, catalysis, and chemotherapy.

The two presentations by **Dr. Bhanu Chauhan** of College of Staten Island and **Dr. C. Michael Drain** of Hunter College, both focused on Engineered Macromolecular Assemblies. Their talks were titled "Functional Nanoscale Materials Through Macromolecular Grafting" and "Colloidal Porphyrin Nanoparticles and Drug Delivery" respectively. At MMA, Dr. Chauhan and Dr. Drain are co-leaders of the program in "Self-Organized Nanoscale Supramolecular Assemblies for Biomedical Applications," which focuses on the synthesis, self-assembly, and characterization of nanoscale materials and devices for applications in biosensor arrays, photodynamic therapy, drug delivery, and semiconductor technology.



The afternoon session was primarily intended to provide an opportunity for Principal Investigators to interact with each other. It, too, was divided into two parts, a presentation followed by a breakout session. In the presentation titled, "MMA Initiatives: Past, Present, and Future," Dr. Stark described the mission and history of the MMA, tracing its steps from a Graduate Center Programmatic Committee in 2000, through the MMA section of CUNY's Molecular Biosciences cluster hiring initiative in 2001, to its designation in 2002 as a Center of Excellence under the State's Generating Employment through New York State Science (Gen\*NY\*sis) program. She provided a statistical snapshot of the personnel and resources of the MMA and described some of its research, educational and outreach related activities. Dr. Stark concluded by highlighting several of the factors that need to be considered as MMA charts its course for the future, thereby setting the stage for the three breakout sessions that followed.

### SOURCES AND LINKS FOR ARTICLES IN THIS ISSUE:

- CUNY CAT: [www.cunyphotonics.com](http://www.cunyphotonics.com)
- CUNY MMA: [www.chem.csi.cuny.edu/mma/index.php](http://www.chem.csi.cuny.edu/mma/index.php)
- Fred Naider: [www.csi.cuny.edu/divsci/naider.htm](http://www.csi.cuny.edu/divsci/naider.htm); [www.csinews.net/IntheNews/061503naider.htm](http://www.csinews.net/IntheNews/061503naider.htm); [www.faseb.org/faseb/board/naider.htm](http://www.faseb.org/faseb/board/naider.htm).
- Hiroshi Matsui: [patsy.hunter.cuny.edu/matsui.html](http://patsy.hunter.cuny.edu/matsui.html); Bob Homes, "How to build a nanomachine", *NewScientist*, July 10, 2004.

## Hiroshi Matsui

(Continued from page 3)

At Hunter College, Dr. Matsui is currently pursuing three major lines of research. His research in the area of **Bio-Computer** is aimed at meeting the long-term but perpetual need of the electronics industry to develop faster integrated circuits with reduced production costs and lower power consumption beyond what could be accomplished through the nanoscale application of lithographic technology in two-dimension. Inspired by biological systems, in which organic/inorganic nanoscale building blocks are routinely and precisely turned into complex structures for biological function with almost perfect reproducibility and high yield, this line of research seeks to functionalize circuit elements and connecting wires with complementary biomolecular recognition units in solution. **Bio-Sensors**, Dr. Matsui's second major line of research, involves single cell level detection of pathogens. Aimed at the medium term in terms of potential application, the inspiration for this line of research came from the behavior of the human immune system where a corresponding antibody latches on to an entering antigen, such as a fragment of protein from a virus. Dr. Matsui hopes to build nanosensors to detect disease-causing micro-organism by using nanotubes that carry antibodies to particular pathogens and sense the change in conductivity when they bind to their antigens. Dr. Matsui's third major area of research is concerned with **New Material Synthesis**, and could be categorized as being the closest to potential application. The motivation here comes from the desire to avoid the high cost, huge production facilities and large manpower required in the synthesis of important electric materials at a very high temperature. The remedy being attempted here is also inspired by biological systems, drawing from the fact that biomineralization in nature crystallizes all types of nanoparticles at room temperature. Dr. Matsui and colleagues are now exploring the potential of natural or synthetic peptide to template nanoparticles in milder experimental conditions such as near room temperature, thereby providing an alternative to the costly high-temperature annealing.

Given the fundamental and cross-cutting nature of his three lines of research, it is not surprising that Dr. Matsui's has already published 44 papers, including 5 invited review articles. His research in bio-nanotechnology is being supported by grants and awards from a variety of sources such as the National Science Foundation (NSF), the National Institute of Health (NIH), the Food and Drug Administration (FDA), and the Department of Energy (DOE). The sum of his external grants exceeds \$1 million. Notable among them is the NSF CAREER Award, which he won in 2002 for his research titled, Economical and Simple Fabrication of Quantum Dot-Electronics Using Biofunctionalized Protein Nanotubes as Building Blocks. The award is the highest honor bestowed by the United States Government on scientists and engineers beginning their independent careers for showing exceptional potential for leadership at the frontiers of knowledge. Earlier this year Professor Matsui, together with Hunter College colleagues Professors Drain, Francesconi and Greenbaum, received a CUNY Research Equipment Grant.

Dr. Matsui is a member of CUNY's doctoral faculty in Chemistry. He is currently advising 10 Ph.D. students, 2 undergraduate students and 3 high school students, in addition to supervising 2 Postdoctoral Fellows. He was an organizer of the Bionanotechnology Section of the 2005 national Meeting of the American Chemical Society and is a committee member of New York Academy of Sciences' Nanotechnology Group.

## DEAN'S CORNER

### Academic Plagiarism



When we hear the word "plagiarism," many of us in academia turn our thoughts to students and the possibilities that they may have copied their term papers from previously published sources. In current times it is fairly easy to check for such misconduct, as there are many types of commercial anti-plagiarism software packages available. More tricky, at least to my mind, is academic

plagiarism and perhaps the most difficult to define—self-plagiarism. In a recent article, the journal *Nature* published the results of a survey in which they polled some 3,000 plus scientists regarding their research practices<sup>1</sup>. A full one-third of the participants admitted to having participated in at least one among a list of top ten "unethical" behaviors that included items such as falsifying or "cooking" research data and using another's ideas without obtaining permission or giving due credit. Many admitted to publishing the same data or results in two or more publications. This latter issue is a blatant example of self-plagiarism. However, there are many other issues that may fall under this general heading that are not at all straightforward. The reuse of minor parts of an introduction or summary of a paper is a common practice and usually done without dishonest intent, whereas reusing large chunks of text and—more importantly—data, is clearly unethical and unacceptable.



Academic publishers are now considering using software that is similar to the kind that is designed to catch cheating students in order to detect academic plagiarism<sup>2</sup>. Determining exactly what constitutes plagiarism in this case is tricky, as was highlighted in a recent letter to *Nature* wherein the writer states that plagiarism must be defined by data shown and not by words. (She uses the example of a 13-word sentence that she includes in the introductions of many of her papers, and which would be highlighted as potential plagiarism by commercial software.)<sup>3</sup>

This topic is one I have been thinking about a great deal lately as, together with administrators and faculty at New York University, St. Johns University and Columbia University, we plan a one-day conference on this topic to be held on October 1st of this year.<sup>4</sup> We have an exciting list of speakers representing the Office of Research Integrity, the National Science Foundation, journals such as *Nature* and the American Physical Society as well as faculty from various academic institutes. I would like to encourage all faculty at the University to register and attend what promises to be a very interesting and informative conference.

<sup>1</sup> *Nature* 2005 Vol. 435 Pp 737-738

<sup>2</sup> *Nature* 2005 Vol. 435 Pp 258-259

<sup>3</sup> *Nature* 2005 Vol. 436 Pp 24

<sup>4</sup> Click [here](#) or see page 10 for details and link to registration information

## 24 Faculty Win Award

Twenty-Four Faculty Members belonging to ten different CUNY colleges were among the winners of this year's Community College Collaborative Incentive Research Grant. The purpose of this Program is to support the research efforts of faculty, especially junior faculty, at the Community Colleges, and to encourage collaborations with faculty within and across the CUNY campuses. The program is administered by the University Dean for Research and an internal committee of faculty. Proposals must involve collaboration between two or more CUNY faculty and one of the collaborators must be from a community college. Collaborations may be between faculty at the same campus or from any of the other CUNY campuses. If, however, the collaboration is with a faculty member from a senior college, no funding can be allocated directly to that faculty member. Budgets of up to \$40,000 could be requested.

A total of 21 research proposals involving 52 faculty members from 12 CUNY colleges were submitted this year, the second round of the program. Two experts from within CUNY, selected by the internal faculty committee, evaluated each proposal for their technical quality and feasibility and potential to grow and flourish beyond the funding period. The title of the eleven winning proposals and the names of the respective faculty members are listed below.

Proposal Title	Faculty
Mott Haven: The Changing Face of NYC?	James Freeman, Bronx Community College. Gilbert Marzan, Bronx Community College
A comparative survey of Dominican medicinal plants in New York City and the Dominican Republic with an analysis of their antioxidant activity	Flor M. Henderson, Hostos Community College Edward J. Kennelly, Lehman College Michael J. Balick, Graduate Center.
Synthesis of Novel Cyclic C-glycosides	Panayiotis Meleties, Bronx Community College Sydney Alozie, Bronx Community College
An Improved Remote Sensing Technique to Assess the Aerosol Uncertainty in Climate Change Studies	James Frost, LaGuardia Community College Reginald Blake, New York City College of Technology
Parenting by mothers with dysthymic disorder and current social functioning in their adolescent offspring	Jude Eugene, Bronx Community College Humberto Lizardi, Lehman
Computational Investigation Of Dynamic Control Of Separated Boundary Layer Flows	Yiannis Andreopoulos, City College Mahmoud Ardebili, Borough of Manhattan Community College
Inorganic-Organic Hybrid Composites as Nano Reactors	Moni Chauhan, Queensborough Community College Bhanu Chauhan, College of Staten Island
How ENSO Affects the Economies of Countries in the Tropical Pacific	Paul J. Marchese, Queensborough Community College Caf Dowlah, Queensborough Community College
Assessing Conceptual Physics Knowledge of Middle & High School Students	Charles Newman, Queensborough Community College Anita Ferdenzi, Queensborough Community College
Contributions to Child Health: An Interdisciplinary Study	Cheryl Bluestone, Queensborough Community College Anne Marie Menendez, Queensborough Community College
Use of Interactive Data Visualization Modeling in Determining the Optimal Conditions for the Production of Green Fluorescent Protein (GFP) in <i>E. coli</i>	Christopher Stein, Borough of Manhattan Community College Nanette van Loon, Borough of Manhattan Community College Mete Kok, Borough of Manhattan Community College

## Waldman, Eaton and Zhang Receive PEER Awards

Professors **John Waldman** and **Timothy T. Eaton** of Queens College and Professor **Pengfei Zhang** of City College, each received a PEER award this year. The PEER competition supports research that is focused on ecological and/or environmental issues pertinent to New York City and that relates to, or addresses, the sustainability of the natural environment. The nine proposals submitted this year were evaluated by a Committee Chaired by the University Dean for Research and included both internal and external reviewers.

Dr. Waldman's research proposal was titled "The Double-Crested Cormorants of New York Harbor:



Demographics, Ecology, and Interactions with Harbor Herons."

The proposed research will summarize historical information on double-crested cormorants (*Phalacrocorax auritus*) in the region, fully survey their abundance and breeding locations, categorically analyze their prey items, examine their feeding behavior, and explore their interactions with harbor herons.

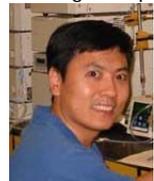
The highly urbanized Flushing estuary is severely contaminated due to treated sewage discharges,



historical industrial discharges and combined stormwater overflows. In his proposal titled "Hydrologic Transformation in the Flushing Estuary Ecosystem," Dr. Eaton will analyze historical change in the

Flushing estuary, collect preliminary hydrologic data and establish a basis for evaluating and monitoring improvement in the quality of the ecosystem due to ongoing hydrologic changes.

Through his proposal titled "Minimizing manure-borne



hormones in New York City's water supply system," Dr. Zhang will investigate the occurrence and extent of manure-borne hormones in New York City's water supply system, which consists of three watersheds

and supplies water to over nine million residents. The proposed research will determine the fate and transport of hormones in the watershed and compare the effectiveness of different waste management systems on the reduction of manure-borne hormones.



# Around the Campuses



HOSTOS COMMUNITY COLLEGE

## NEH Research Summer Seminar Grant Awarded to Hostos Faculty



Hostos Community College professors **Orlando José Hernández** and **Lucinda R. Zoe** were awarded a grant from the National Endowment for the Humanities to conduct a month-long summer seminar entitled *Visions of Freedom for the Americas: Eugenio María de Hostos and José Martí in 19th Century New York*. The seminar, offered as part of the NEH Summer Seminar and Institutes series, took place in June and July and was designed to provide participants with a rich and unique opportunity to study and research the role of New York City as a crucible in shaping Caribbean political thought and history, as seen through the lives and writings of Puerto Rico's renowned philosopher and educator Eugenio María de Hostos (1839-1903) and Cuba's martyred patriot José Martí (1853-1895). Both men lived and worked as writers, journalists, and political

activists in New York City, locus of a burgeoning community of Caribbean immigrants and political exiles. The views of Martí and Hostos, captured in their extensive writings and literary works, were used as texts for the seminar in addition to other Latino writings that draw from this historical period.



Fifteen scholars from across the country were selected from a pool of national applicants to participate in the seminar. A diverse group of distinguished faculty, from such institutions as University of California and Brandeis University to the University of Chicago and the University of Puerto Rico, converged on the Hostos campus for a month of lectures, discussions, walking tours and trips to some of New York's finest research collections, including the Schomburg Center for Research in Black Culture and the Center for Puerto Rican Studies. This is the first time the NEH has awarded a seminar grant with a research focus to a community college. Tom Adams, the NEH Project Manager assigned to the grant, visited during the second week to observe and interview

the participants. He said that the NEH was especially interested in how a research seminar at a community college was perceived by the scholars, and he reported that the participants had an overwhelmingly positive response to both the program of study and the college. The seminar participants gained a new understanding of the role of a community college, especially that of Hostos Community College with its proud history as an educational maverick whose namesake represents the most visceral elements of political, educational and social struggle.

The seminar focused on New York City's little known and important role in Latino and Caribbean political activism in the late 19th century. The objectives of the seminar were to present a comprehensive introduction to the lives and works of Eugenio María de Hostos and José Martí; to provide unique opportunities for research on the role of New York City in Caribbean political movements from 1865-1898; and to offer to the participating faculty new materials for multi-disciplinary curriculum infusion on Puerto Rican, Dominican, and Cuban cultural and literary heritage. Professors Zoe and Hernández wanted to make available to scholars and educators the valuable resources that Hostos Community College has obtained and developed on Eugenio María de Hostos, which are found in the Hostos library collection and on the Library's website.



The impressive group of guest lecturers presented at the seminar, that included **Juan Flores**, one of the leading scholars on the Latino experience in the U.S. and a professor at Hunter College-CUNY and at CUNY Graduate Center; **Silvio Torres Saillant**, an authority on Dominican Studies and on that country's diaspora in the United States, who is also Associate Editor of the journal *Latino Studies* and teaches at Syracuse University; **Daisy Cocco de Filippis**, distinguished critic known for her contributions to gender studies in Latino and Latin American literature, and currently, Provost and Vice President for Academic Affairs at Hostos Community College; **Carlos Torre**, a professor of Education at Southern Connecticut State University and Fellow at Yale University, who has studied Hostos's pedagogy; and **Marcos Reyes Dávila**,

Professor at the University of Puerto Rico-Humacao, Editor of the important journal *Exégesis* and a widely recognized Hostos scholar. The seminar concluded with a colloquium that was opened to the college community, and which allowed for a discussion of major themes, such as race and gender in Antillean Modernist thought, Haiti and the Dominican Republic in the imagination of Puerto Rican and Cuban nationalists, and political and social culture in 19th century New York.

(Courtesy of Dr. Zoe, Hostos)

## RESEARCH INSTRUMENTATION AWARDS

### City and Hunter Get NIH Grants for New Confocal Microscopes

Two separate teams of CUNY biology faculty from CUNY's City and Hunter Colleges, led respectively by **Dr. Tadmiri Venkatesh** and **Dr. Jesus Angulo**, were successful in winning external awards that will allow them to purchase new confocal microscopes for their campuses.

The confocal microscope at City College, made possible through a NIH Research Resource Grant, will facilitate the research activities of eight NIH-funded investigators, some of whom already use confocal microscopy in their research. At the present time, there is no confocal microscope available in any of the departments of the Division of Science at City College. The current users of the confocal microscopy are using for-fee facilities at other research institutions in New York and Boston. A total of nine principal investigators and over forty research personnel—including postdoctoral fellows, graduate students, undergraduates, and research assistants—will use the requested microscope on a daily basis. The research projects that will benefit from the new instrument cover a variety of confocal applications that include: cellular basis of song learning in birds, neurotransmitter function in nematodes, neuronal development in *Drosophila* and higher vertebrates, studies on Foraminifera, thymic nurse cell function, and *Drosophila* hematopoiesis and immune response.



At Hunter College, the new confocal microscope, also made possible by virtue of a NIH award, will replace the existing instrument in its Bio-Imaging Facility. The existing microscope has been made obsolete due to the lack of spare parts resulting from the departure of its manufacturer from the confocal business a few years ago. The capabilities of the new instrument would be suited for the needs of five major users, four of which work with central nervous system tissues. Investigators in the biological, behavioral and biophysical sciences will also make use of this instrument. The confocal microscope system will be utilized in projects ranging from damage and repair of the nervous system to materials applications in nanotechnology.



### Subscribe to Email Notification

To receive notifications by email with current issue headlines whenever a new issue of the CUNY Academic Affairs Research Newsletter is released, please email your full name, position, affiliation, contact information and current email address to: [oaaresearch@mail.cuny.edu](mailto:oaaresearch@mail.cuny.edu)

## GRADUATE CENTER

### Classics Research Project

The Graduate Center is collaborating with classical studies scholars at Georgetown, Harvard, and the University of Virginia on *Project Vivarium*, named after a monastery in early medieval Italy where the collection and indexing of manuscript books represented the most advanced work of its day. Project Vivarium is a similar but far more advanced effort aimed at improving electronic resources available to classics researchers. The Andrew W. Mellon Foundation has awarded the collaborative effort a \$260,000 planning grant to help determine ways to integrate existing classical studies print and electronic resources to better serve scholars and students. The Graduate Center's portion of the grant is \$60,980.

The Graduate Center's efforts are directed by Professor **Dee Clayman**, Executive Officer of the Ph.D. Program in Classical Studies. Since the mid 1980s, Professor Clayman has headed the Database of Classical Bibliography (DCB), an ongoing effort to transfer the massive *Année Philologique* (Aph) first to CD-Rom and now to a digitized online version. The *Année Philologique* is the international bibliography of record for the field of classical studies since 1927, and its computerization has revolutionized the process of researching worldwide writings about ancient texts. Since its launch in 1989, the DCB has digitized and edited forty-two volumes of the Aph with 574,491 bibliographical records. This year alone, the project has received funding from the NEH—\$200,000 outright plus another \$100,000 in matching funds—\$49,000 from the Getty Foundation, \$10,000 from Kress, and another \$4,000 from a private donor.

(Courtesy of Nan Shaw, Graduate Center)

## RESEARCH AWARDS IN THE HUMANITIES

### Five CUNY Faculty Receive 2005 NEH Awards

**Dr. Harriet Alonso** of City College, received a National Endowment for the Humanities (NEH) Research Fellowship for her work on Robert E. Sherwood, the playwright, screenwriter, and propaganda and speech adviser to Franklin Delano Roosevelt. **Dr. Ying Zhu** of the College of Staten Island also received a NEH fellowship for her work on costume drama and the transformation of Chinese primetime television. NEH fellowships support individuals pursuing advanced research that contributes to scholarly knowledge or to the general public's understanding of the humanities. Recipients usually produce scholarly articles, monographs on specialized subjects, books on broad topics, archaeological site reports, translations, editions, or other scholarly tools.

CUNY faculty accounted for all three NEH Faculty Research Awards given to New York state educators this year. These awards support projects similar to those awarded fellowships and result in contributions in the form of publications, presentations, and classroom teaching. **Dr. Licia Fiol-Matta** and **Dr. Tomohisa Hattori**, both of Lehman College, won awards for their projects titled, "Remembering Cuba: Memory and Loss in Lydia Cabrera's Writings" and "From Material to Moral Order: Ethical Justifications of Foreign Grants and Loans" respectively. The third award went to **Dr. Gerardo Renique** of City College. His project is titled, "Popular Culture, State Formation, and Anti-Chinese Racism in the Making of Post-Revolutionary Mexico".

## New Satellite Data Mining And Processing Facility to make CCNY A Remote Sensing 'Center Of Excellence'

A data archiving, mining and processing station that will collect and analyze data from both geo-stationary and polar orbiting satellites will be built at The City College of New York (CCNY). When the station goes live, CCNY will become one of only a select few U.S. academic institutions receiving and processing data directly from all major federal government weather and environmental monitoring satellites. It will support CCNY researchers in projects ranging from land use analyses to precipitation forecasts to studying linkages between climate changes and air quality.

The station will consist of a satellite receiver with a 2.36-meter diameter antenna plus computer hardware and software for collecting, storing, processing and analyzing data. When operational, it will collect a steady stream of information from the following sources:

- The National Oceanographic & Atmospheric Administration's (NOAA) geo-stationary satellites in fixed orbit above the Equator used by the National Weather Service.
- NOAA's National Polar-Orbiting Environmental Satellite System (NPOESS), a group of satellites in a polar orbit that monitor global environmental conditions and collect and disseminate data related to weather, atmosphere, oceans, land and near-space environment.
- NASA's MODIS (Moderate Resolution Imaging Spectroradiometer), instrumentation carried aboard the Terra and Aqua satellites used for gathering information on global dynamics and processes occurring on the land, in the oceans and in the lower atmosphere.



"We want to be the Northeast center of excellence in remote sensing and this new facility is essential to achieving that aim," said **Dr. Reza Khanbilvardi**, CCNY Professor of Civil Engineering and Director of the NOAA-CREST Center (Cooperative Remote Sensing Science and Technology) at the college. Currently two other institutions, University of Wisconsin and Louisiana State University, receive and analyze data from all these sources, he noted.

Installation of the satellite receiver and antenna is scheduled to begin this summer and the station is expected to be fully operational by year-end. The project's cost, estimated by Dr. Khanbilvardi at between \$550,000 and \$750,000, is funded through several sources, including NOAA and the City University of New York (CUNY).

According to Dr. Khanbilvardi, CCNY was chosen by NOAA as a site for the center because, in addition to technical expertise, the agency sought to have this capability in the nation's largest metropolitan area and at an institution with a diverse, multicultural student body.

## Five-Year \$2.2 Million Federal Grant for Drug Abuse Research and Training of Minority Researchers

A highly memorable anti-drug commercial used fried eggs to depict "your brain on drugs." Researchers at The City College of New York plan to use a new, five-year, \$2.2 million grant to study the brain's biochemistry to learn how prenatal exposure to cocaine and other illegal stimulants causes its damage. The funding comes from the NIH/National Institute of Drug Abuse's (NIDA) Minority Institution Drug Abuse Research Development Program (MIDARP), which provides monies to develop the capacity of minority institutions and their faculty, staff and students to conduct rigorous drug abuse research. In addition to supporting research projects, the funds will be used to create interdisciplinary courses and seminars on topics related to drug abuse and to establish an infrastructure for supporting ongoing drug abuse research at The City College. **Dr. Eitan Friedman**, Medical Professor and Chair of the Physiology and Pharmacology Department of the Sophie Davis School of Biomedical Education at CCNY, will oversee the program.

"The MIDARP program will be a major force in fostering drug abuse research at CCNY," said Dr. Friedman. "The support from MIDARP will provide the infrastructure support needed to mount a research and training effort in this area and help us mount a systematic effort to attract and interest minority students to a research career in drug abuse." Previous research conducted by Dr. Friedman and his colleagues has found a linkage between in utero (pre-natal) exposure to stimulants and adult learning and attention deficits in animal subjects. The research to be funded under the new grant is intended to understand the underlying biochemical changes. "If we understand the mechanisms, we can devise interventions that could circumvent occurrences of these behaviors and the morphological problems associated with them and possibly treat these occurrences," he explained.

Dr. Friedman and the two principal investigators, **Dr. Hoau-Yan Wang**, Associate Medical Professor, and **Dr. Xuechu Zhen**, will explore several theories to explain how exposure to stimulants affects the physiology of the brain. Although the program was established and will be led by faculty from the Sophie Davis School, an affiliated unit of the City University of New York that offers a joint B.S./M.D. degree, participation will be open to all students from all CCNY schools. Dr. Friedman noted that the courses would be the first taught by Sophie Davis faculty to other students at CCNY. (Courtesy of Ellis Simon, City College)



## Events & Announcements



SEPTEMBER 16, 2005

### 3rd Annual Neuropsychology Research Day



The 3rd Annual Neuropsychology Research Day will be held at Queens College on Friday, September 16, 2005 from 9:00AM-5:30 PM in Rosenthal 230. The event is a forum for the faculty and graduate students in the Neuropsychology Ph.D. program, based at Queens College, to present their latest research findings in a series of short talks and a poster session.

Last year over 150 students and faculty from at least 7 CUNY campuses attended. The highlight of the day will be the keynote talk, which will be delivered by **Dr. Bruce McEwen**, The Albert E. Mirsky Professor and Head of the Harold and Margaret Laboratory of Neuroendocrinology at The Rockefeller University. His talk is titled "Stress and the Mind-Body Connection: Lessons from Neuroendocrinology." Dr. McEwen was elected to the National Academy of Sciences in 1997 and according to his election citation is: "A major figure in behavioral neuroendocrinology. McEwen has produced a massive body of important work on the roles of steroid hormones in reproductive behavior, brain development, gene expression in the brain, brain plasticity in adulthood, and on effects of stress on the age-related brain degeneration that causes cognitive deficits."

For further information please contact **Dr. Joshua Brumberg**, Assistant Professor of Psychology at Queens College and Program Head of the Neuropsychology Ph.D. Program at [joshua\\_brumberg@qc.edu](mailto:joshua_brumberg@qc.edu).

OCTOBER 27-28, 2005

### Technology Transfer Conference

A daylong technology transfer conference titled, "The Lab to Market Series: The Business Side of Patents" will be held on Friday, October 28, 2005, from 9AM-5PM in Elebash Recital Hall of the Graduate Center of the City University of New York. The conference will be preceded by a reception on Thursday, October 27, 2005 from 6PM-9PM in the Segal Theatre, also at the Graduate Center.

The principal organizer of the conference is **Dr. Ted Hagelin**, Board of Advisors Professor of Law, Syracuse University. Professor Hagelin teaches intellectual property and technology commercialization law, and his research focuses on intellectual property strategy and patent valuation. He has developed a new method to value patents, called Competitive Advantage Valuation or CAV, and currently has a patent application pending on the CAV method. Professor Hagelin is the founder and director of the Syracuse University New Technology Law Center (SUNTEC) and of the Technology Commercialization Research Center (TCRC). Keynote speaker at the conference luncheon on Friday will be **Lesla Mitchell**, VP for Advancing Technology for the Kauffman Foundation.

The Lab to Market Series was established in cooperation with the New York State Science & Technology Law Center, Syracuse University and the University of Buffalo. The purpose of the Lab to Market Series is to create an awareness and understanding of the legal issues surrounding technology commercialization and entrepreneurship. These conferences address such issues as the protection and commercialization of intellectual property, technology transfer practices, patent, copyright and trademark law, and licensing agreement. This conference is presented in cooperation with the Intellectual Property Office at The Graduate Center.

For more information about the technology transfer conference, please contact **Dr. Brian Schwartz**, VP for Research and Sponsored Programs, CUNY Graduate Center at [BSchwartz@qc.cuny.edu](mailto:BSchwartz@qc.cuny.edu) or visit the conference website: [labtmarket.syr.edu](http://labtmarket.syr.edu).

OCTOBER 1, 2005

### Conference on Plagiarism Across the Science Disciplines

New York University Medical School, St. John's University, Columbia University College of Physicians and Surgeons, and City University of New York are sponsoring a conference on *Plagiarism Across the Science Disciplines: An Exploration of the Parameters of Plagiarism in Scholarly and Scientific Publications*, to be held on Saturday, October 1, at the New York University Medical Center. The conference will provide an opportunity to: (1) develop a consensus as to what constitutes plagiarism—defining it and understanding the cultural forces that influence it, and (2) explore standards and best practices in responding to plagiarism from the perspectives of government agencies charged with enforcing research misconduct standards; editors of scientific journals confronted with plagiarism; research institutions, as employers, educators, and protectors of academic freedom; and scientists who are attempting to avoid or who are accused of acts of plagiarism.

More information about the conference could be obtained by clicking [here](#) or visiting the events calendar of the Office of Research Integrity, U.S. Department of Health and Human Services, available at: [http://ori.dhhs.gov/conferences/upcoming\\_conf.shtml](http://ori.dhhs.gov/conferences/upcoming_conf.shtml).

