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Look Who’s INVESTING in CUNY!

THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation, and far-sighted private foundations know the value of quality public higher education. They are financing schools and programs, supporting scholarly research by world-class faculty, and endowing student scholarships at every college of The City University of New York. They are answering CUNY’s call for a Compact for Public Higher Education that unites all stakeholders — government, donors, students and the University itself to ensure that our city, state and nation will continue to have well-educated leaders. They are investing in CUNY, investing in New York, and investing in futures.’’

— Chancellor Matthew Goldstein

THE NATIONAL SCIENCE FOUNDATION’S highly competitive Graduate Research Fellowships support exceptional students whose cutting-edge research shows clear evidence of contributing to important scholarly knowledge in their fields. Outstanding CUNY winners include Yisa Rumala, (l.) York College 2006, University of Michigan 2012, MS Electrical Engineering, Ph.D. in Applied Physics; Joseph Hirsh, Queens College 2008, CUNY Graduate Center 2012, Ph.D. in Mathematics; Mitsy Chanel-Blot, (r.) Hunter College 2008, University of Texas 2012, M.A.–Ph.D. in Social Anthropology.

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salute to scholars

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Showcasing the CUNY Community

RECENTLY, THE CUNY COMMUNITY was thrilled to learn that Hunter College Distinguished Professor Emerita Nancy Siraisi was chosen as a 2008 MacArthur Foundation Fellow, one of 25 recipients of the celebrated “genius awards.” Dr. Siraisi, a medical historian who studies the impact of medical theory and practice on Renaissance society, will receive $500,000 over five years to continue her work.

For more than 30 years — until her retirement in 2003 — Siraisi taught at the University, both at Hunter College and the Graduate Center, sharing her insights and knowledge with fortunate CUNY students and colleagues. She is also an alumna of the Graduate Center, having received her Ph.D. in 1970. (For more on Dr. Siraisi’s story, see page 4.) Siraisi’s novel approach to studying the history of medicine often seems to reflect the expansive curiosity of her subjects. Her research encompasses not only texts written by and about physicians but also the culture and society in which they lived. By studying the entire historical context, she gives us a vivid picture of medieval and Renaissance intellectual life and, more specifically, physicians’ influence on the advancement of learning during that rich historical period. It is scholarship at its best — thorough, provocative, illuminating.

Siraisi’s MacArthur award follows the news that John Matteson, professor of English at John Jay College of Criminal Justice, was awarded the 2008 Pulitzer Prize in Biography for his book, Eden’s Outcasts: The Story of Louisa May Alcott and Her Father, becoming the fourth CUNY Pulitzer winner since 1999.

These are achievements of which the entire University can be proud, and I am delighted that this new “Salute to Scholars” publication offers a way to share the stories of these and other CUNY accomplishments with the University’s friends and partners. CUNY has made remarkable progress over the last several years, increasing its full-time faculty, attracting record numbers of students, creating new schools and programs, expanding and updating its campus facilities, and garnering greater support from alumni and donors. These advancements have been possible only through the combined efforts of the entire CUNY family, and the following pages showcase some of the people whose creativity and dedication are building a University of national distinction.

Every year, CUNY offers another way to showcase its scholars, students, and services. During “CUNY Month,” the University’s 23 colleges and professional schools host performances, lectures, concerts, and exhibits, as well as workshops and seminars for those considering enrolling in a course or degree program. Open houses offer an opportunity to learn more about the University’s resources. Whether you visit in person or online (www.cuny.edu), I know you will find a community dedicated to discovery and open to possibility. I invite you to join us.

— Matthew Goldstein
Chancellor

Matthew Goldstein
CHANCELLOR

CUNY Powers Ahead in Science:
Breach Bridge On 6300M Research Lab,
Recreate Top Talent

ON THE COVER: Water resources specialist Charles Vörösmarty is the first of five nationally known scientists the University is hiring to direct flagship labs at the new Advanced Science Research Center slated to open in 2012. The state-of-the-art ASRC, soon to start taking shape on the grounds of City College, will be open to University-wide researchers in the fields of photonics, nanotechnology, neuroscience, structural biology and environmental sensing. Facilities will include a rooftop observatory with atmospheric sensing equipment such as this satellite dish that’s atop City College’s North Academic Center.
THE CITY UNIVERSITY OF NEW YORK has just put new digital power in the hands of faculty and students. It joined hundreds of colleges and cultural institutions across the country to launch Apple’s iTunes U, which provides free audio and video educational content 24/7 through iPods, iPhones, Macs and PCs.

“iTunes U will free professors from doing information delivery so they can spend more time interacting with students,” said George Otte, CUNY director of instructional technology.

Students gain a creative way to fulfill class assignments and share information with teachers and classmates. “If you can tape yourself, you can do a podcast. And you can use graphics and PowerPoint,” said University Chief Information Officer Brian Cohen.

And for the University, iTunes U offers another platform for CUNY Radio, which has more than 500 podcasts available for download. CUNY Radio pioneered podcasting two years ago “to bring lifelong learning and information to a global audience, and to better serve students, faculty, alumni and friends wherever they happen to be,” said Michael Arena, University director for communications and marketing.

Cohen, the guiding force behind the initiative, said CUNY is launching a single iTunes site that draws on resources from all campuses. “Visitors will be able to access a wealth of digital content from all over CUNY in one place. We are fortunate that Apple understood the CUNY vision for iTunes and supported our approach and design,” he said.

The project taps into the increasing popularity of podcasting as a source of information and professors’ growing use of audio and video in the classroom. “iTunes is portable, content storage is free, and it can be integrated effectively into teaching,” noted Stephen Landau, who manages technology for CUNY iTunes U. “We encourage faculty to use podcasting because students are familiar with it.”

That will take some getting used to by both faculty and students, but it worked in a pilot involving 17 campuses. For example, Lehman College used it as a learning tool in Math 104-Algebra. Medgar Evers featured student performances and spotlighted the Music Technology Program. The CUNY Online Baccalaureate program presented three podcasts, including one explaining how to make more effective use of online search engines. John Jay’s work group created a “Podcast on Podcasting,” a 25-minute audio-videocast that demystifies the iTunes U concept by walking faculty, students and staff through the process.

Macaulay Honors College presented several student podcasts involving required introductory seminars on New York City. “[Macaulay] students have a dual identity,” said the Honors College’s technology and learning director, Joseph Ugoretz. “They have a home campus, but take classes at other colleges, so one of the things that will help to build a cross-campus community is iTunes U.”

Via iTunes U, Students Can Access An Expanded Wealth of Digital Content

Check out CUNY iTunes U at www.cuny.edu/itunes and CUNY Radio podcasts at www.cuny.edu/podcasts
Novel Drug Crackdown Is Saving Cities

LAW ENFORCEMENT OFFICIALS could scarcely believe anthropology professor David Kennedy when he told them he had a new idea to stop drug sales on city streets. Dealers will always sell and users will always buy, they said. And even if you stopped it in one neighborhood, it would just move to another.

“There’s this overwhelming belief that nothing can be done about the drug trade,” Kennedy said. “I had to say to them that this wasn’t a drug problem, but a drug-market problem.”

Kennedy’s idea — the High-Point Initiative, named after the North Carolina police department first willing to give it a try — shuts down drug houses and stops the neighborhood devastation that goes with it, such as prostitution and plummeting property values.

Last year, the federal Department of Justice endorsed Kennedy’s strategy and is now teaching the plan to other cities. “I think it can have a huge impact nationwide,” said Kim Norris, a senior policy adviser. “It gets to the root of the problem.”

The process begins with a meeting between community leaders and the police, making them partners in the project — which is no small task. “The ill will on both sides is enormous,” Kennedy said. Drug-impacted communities mistrust the police, believing they are either heavy-handed and racist, or ineffective. Meanwhile, “the police believe that the community doesn’t care, no one raises their kids right,” said Kennedy, professor of anthropology at John Jay College of Criminal Justice and director of the school’s Center for Crime Prevention and Control.

Once the two agree to work together, the next step is to arrest the top, violent drug dealers and call another meeting with the nonviolent dealers. Police show them videotaped surveillance implicating them in crimes and send this message: Stop dealing or you will be arrested. The community, which once looked the other way, condemns the dealers, letting them know people will phone the police as soon as they see any dealing, and the police will respond. “The drug dealers said they were morecornered than ever before,” Kennedy said.

In High Point, the affect was immediate, said High Point Police Chief Jim Fealy. “Overnight it changed,” he said. “It was miraculous.” Drug crime has dropped 37 percent, and violent crime has dropped 41 percent. “All of the crime statistics are impacted dramatically,” Fealy said.

So what happened to these dealers? The High Point police department tracked the dealers and found there are three potential outcomes.

• The most likely outcome is that they reoffend, are arrested and sent to prison for a long time.
• The second most likely outcome is that they stop committing blatant drug sales. They still live in the neighborhood and they may even continue to sell drugs, but they don’t do it in a way that destroys the neighborhood.
• The third outcome is that the dealers give up their criminal life and become productive members of society.

The chief has found that only one dealer tried to move into another neighborhood and was immediately arrested. “We don’t want to just push the problem off,” he said.

Critics of the plan say it condones the drug sales that are done behind closed doors. Kennedy responds: “This is about giving a community its safety back. It’s not about solving the entire drug problem.”

Before the High Point Initiative was implemented, the West End neighborhood, where it was tested, was “out of control,” according to the chief. Prostitutes wandered the streets, honest workers abandoned their houses when they couldn’t sell them. “We heard stories of mothers putting their kids to sleep in the tub because no bullets would go through [the bathtub],” Kennedy said. “People were afraid to go outside.”

After the strategy, Fealy heard that mothers were giving their children a green light to play outdoors and walk to and from a local Bible camp. “That’s incredible, to be able to restore a community to what it should be,” he said.

Since High Point’s trial run in 2004, the initiative has been implemented in a number of other cities, including Winston-Salem and Raleigh, N.C.; Milwaukee; Nashville; and Providence, R.I. More are in the works.

Said Kennedy: “It’s worked better than anyone expected.”

“Said Kennedy: “It’s worked better than anyone expected.”

“I have several projects in mind,” said Nancy Siraisi.

Medical Historian Awarded Five-Year MacArthur Grant

ONE OF the 25 recipients of the 2008 MacArthur Foundation fellowship is Distinguished Professor Emerita Nancy Siraisi, a historian of medicine focusing on the Renaissance. Siraisi, 76, is a leading scholar of the field in the U.S. and Europe.

“I’m delighted and I’m very surprised,” said Siraisi of the $500,000 award, which she will get in $100,000 installments each year for five years. “I’m extremely pleased for the discipline of the history of science and medicine.”

Siraisi received her B.A. and M.A. from the University of Oxford and Ph.D. from the Graduate Center in 1970. She then taught at Hunter College and the Graduate Center until 2003.

“I came to this country as an immigrant from England and I didn’t have much money,” said Siraisi. “CUNY gave me the opportunity to go to school and I owe my entire career to CUNY. I hope this will be taken as a tribute to the University.”

Siraisi was always interested in the history of science and medicine. She first focused her research on the medieval period and gradually moved to the Renaissance. But unlike most historians, who explore the influence of ancient Greek and medieval Arabic manuscripts on Renaissance medicine, she analyzes texts written by and about medical practitioners of that era. She also focuses on the impact of medical theory and practice on Renaissance culture, religion and society.

Siraisi is the author of several books, including Medieval and Early Renaissance Medicine and most recently, History, Medicine, and the Traditions of Renaissance Learning.

“I’m planning to go on doing more of the same,” said Siraisi. “I have several projects in mind, which will result in several articles.”

“I have several projects in mind,” said Nancy Siraisi.
Murky Gowanus May Advance Medicine

FOR DECADES, Brooklynites living near the murky, putrid waters of the Gowanus Canal have been avoiding its shores. It was no secret that the waters were toxic, even containing cancer-causing chemical agents.

But now, two professors from the New York City College of Technology believe microorganisms living in the white filth at the bottom of the canal may one day be used to battle heart disease, Alzheimer’s and AIDS.

Working with a local environmental group, the Urban Divers Estuary Conservancy, biochemist Nasreen Haque and her older sister, Niloufar Haque, a neuroscientist, have been collecting samples of the organisms to find out how they could survive in the harsh, inhospitable waters of the Gowanus.

What they have found so far is intriguing. “From our preliminary results, we’ve found that general bacteria can be inhibited or killed by these antibiotics,” said Nasreen. “These substances may provide clues that could lead to the development of new drugs to combat human diseases.”

She and her sister are from Darjeeling, India, and teach courses in the biology department at City Tech. Both earned doctorates at Aligarh Muslim University in India and now live on Staten Island.

The urban divers group first approached Nasreen, a member of the New York City Sea Gypsies scuba diving club, in 2004 and asked her to help them identify the white biofilm seen in the canal. The biofilm is made up of protozoans, chemicals and bacteria.

The work she’s done in the Gowanus has piqued her interest in studying samples in other waters. For the last four years, she has dived with other environmental organizations from Long Island to Israel collecting and analyzing various organisms. “All bodies of water on earth are unique and should be explored for special microorganisms, particularly antibiotics,” she said.

Niloufar, meanwhile, has been spending her summers in India helping to establish a stem cell research program at the Jamia Hamdard University.

BY THE NUMBERS

In 1999, the Board of Trustees ended remedial coursework for students enrolled in baccalaureate programs while maintaining it at the community colleges. Since then, enrollment is up and more high academic achievers are coming to CUNY.

More high academic achievers choose CUNY

CUNY Enrollment

TOTAL UNDERGRADUATE GRADUATE COMMUNITY COLLEGES


51% 101% 24.6% 26.6% 12.0% 31.2%

2008 2009 2008 2009 2008 2009

8,448 12,748 62,072 81,412

85% or better
Prominent Guests Discuss Critical Issues

Ever wonder how to tackle the most critical issues of our time, such as power and faith, in new ways? The Graduate Center is taking a giant step with its ambitious Great Issues Forum, a new initiative designed by the Center for the Humanities.

Former National Security Adviser Zbigniew Brzezinski, New York Times columnist Nicholas Kristof and playwright Tom Stoppard are among prominent guests who will explore world issues through a spontaneous and direct dialogue with the public in a series of Conversations at the Forum.

Each year the Forum will focus on a separate theme. The inaugural conversations this fall will examine power — political, economic, cultural, military and educational — within the context of an increasingly globalized world.

“We hope that sparks will fly from these conversations and that they will ignite new blazes of ideas,” said David Nasaw, distinguished professor of history at the Graduate Center and director of the Center for the Humanities. Nasaw will moderate the discussion on cultural power between international literary luminaries Stoppard and poet/playwright Derek Walcott. “These people were never together in the same room, so the interchange is going to be interesting,” Nasaw said.

Subsequent themes include the food crisis, migration, the environment and faith.

The public will have an opportunity to comment on events through discussion forums and online academic seminars featuring notable guest bloggers, select University faculty and doctoral students.

“We want to open up the world for the students and show that ideas matter, that we care,” said Nasaw. “It’s what we do best at CUNY.”

LaGuardia Nurses Top the Charts

NEW YORK STATE’S average pass rate on the National Council of State Boards of Nursing Licensure Examination for Registered Nurses (NYCLEX-RN) is 75.61 percent. But in the last five years, LaGuardia Community College’s students exceeded that average with scores ranging from 93 to 100 percent.

Last year, the college’s nursing program graduates achieved a 97.47 percent pass rate.

Eloise Nangle was one of them. Although she worked for years as a bank teller in Jamaica and then a pre-school teacher in New York City, she always wanted to follow in her mother’s footsteps and become a nurse.

Nangle graduated from LaGuardia Community College last year with an Associate in Applied Science degree. Then she took NYCLEX, the pass/fail exam that tests the basic knowledge and skills necessary for an entry-level registered nurse practice, and passed the first time.

“NYCLEX is a really hard exam, but I studied hard,” said Nangle, 40, who in 2006 started as a student extern at Woodhull Medical and Mental Health Center in Brooklyn and currently is an RN in its medical/surgical department. “We had a lot of support from our professors and a wide range of up-to-date software that helped us practice for the test,” she said.

LaGuardia students continue to excel on the exam as the demand for nurses in the United States increases each year. Patricia Dillon, deputy chair of nursing at LaGuardia and a nurse for the past 30 years, attributes the program’s success to “the faculty being so involved with the students.”

In preparation for the exam, students go through a series of free NYCLEX reviews and have access to a computer lab with a variety of software to take sample tests. Students also get individual attention if they experience problems with specific areas.

“It’s an excellent program,” said Nangle, who’s pursuing her bachelor’s degree in nursing at Hunter College. “The professors have students’ interests at heart and they’d do anything for the students to succeed.”

Fire Science Can Tell Arson From Accident

CAMERON T. WILLINGHAM, a Texas convict executed in 2004 for setting his home on fire and killing his three infant daughters, might be alive if it wasn’t for “bad science.” Across the U.S there are thousands of inmates serving time for arson and many may have been wrongfully convicted. But unlike Willingham, they might get a second chance at justice.

In July, John Jay College of Criminal Justice launched an Arson Screening Project in the college’s Center for Modern Forensic Practice to scrutinize arson convictions based on discredited forensic science.

“We’re going to look at any case where the prevailing, now obsolete checklist that fire investigators were using was used to gather a conviction,” said James Doyle, director of the center. “We’re not trying to solve who-dunits, we want to look hard at cases where the fire was likely to have been an accident.”

A 2002 survey conducted by the U.S. Bureau of Justice Statistics revealed that there were then more than 5,000 inmates serving time in prison for arson in 25 states. Experts who analyzed a series of notorious arson convictions in light of new chemistry, physics and thermodynamics findings concluded that in Willingham’s case, the fire was an accident. They also believe that in America at least a generation’s arson cases have been investigated by officials poorly trained in fire science.

The Arson Screening Project was developed with a $250,000 grant from the JEHT Foundation, a national philanthropic organization based in New York City and in consultation with the Innocence Project, which already has a backlog of arson cases deserving scrutiny. The Arson Screening Project, the first of its kind in the country, will develop a groundbreaking approach to identifying and correcting “bad science” convictions using modern science in non-DNA cases.

“There are still people out there who use bad science in fire investigations,” said Doyle. “We’re trying to get the criminal justice system more aware of the specific problems with the arson checklist and other folk science. They have to be a little bit more skeptical and better consumers of science when these cases start coming to court.”
The continuing support that CUNY students receive from government, foundations, private philanthropists and even recent alumni highlights the quality of education that talented students receive at the University.

The Jack Kent Cooke Foundation is among the prestigious organizations that support CUNY students. Since 2002, five CUNY students have won six of its coveted scholarships, which provide up to $60,000 for undergraduate study and as much as $300,000 for graduate work.

Yeshey Pelzom, a political refugee from Bhutan, studied at LaGuardia Community College, then used a Cooke transfer scholarship for a bachelor’s degree with honors at Agnes Scott College in Atlanta. Now she’s heading toward a doctorate with a rare graduate scholarship, intending to become a professor of English literature. “I have succeeded in making myself a role model to my fellow immigrants, and I have become the first woman in my community to go to college,” she said.

Alumni are stepping forward to support undergraduate study. Take George Cermák (Baruch 2005) and Ryan Meltzer (Baruch 2007), who cochair fund-raising efforts among fellow Macaulay Honors College alumni. Their models are William Macaulay (City College 1966) and his wife, Linda, who donated $30 million to buy and transform a Manhattan townhouse into a home for the Honors College, which draws students from seven campuses.

Then there are public-spirited philanthropists who are not alumni, like 98-year-old Elias Karmon, known as “Mr. Bronx.” He endowed the Bronz CUNY Scholarship Fund, which supports financially needy students at Lehman College and Bronx and Hostos Community Colleges.

Foundations, Individuals Give Vital Support

Psyching Up Runners: Marathon Man

When runners toe the starting line of the New York City Marathon, Ethan Gologor has a pretty good idea what they are thinking about.

Runners are worried that they will fall on their face, sometimes literally, but most often metaphorically, by falling short of their goals, said Gologor, a psychology professor at Medgar Evers College who ran his first marathon three years ago at age 64.

“They worry whether they’ve trained enough (or too much), eaten enough, drunk enough, gone to the bathroom enough; whether their running shoes are too old, new, tight or loose; whether they should have worn a different shirt; whether it’s been too soon or too long since their last meal. In short, they worry if the result will allow them to bask in the full glory of their achievement.”

Since 2003, he and a “psyching team” of students from his sports psychology class — along with medical volunteers, nurses and social workers — have circulated before each 26-mile race, offering marathoners counseling about their pre-race anxieties. And as the runners approach the finish line, the psyching team cheers them on. “Success in competitive running is not just dependent on the legs and lungs, but on the heart and mind as well,” said Gologor, who is in his 30th year of teaching at Medgar Evers.

His two sons, runners themselves, encouraged him to enter the 2005 New York City Marathon. “I just remember thinking to myself: I hope to finish some day next week, next month, next year,” said Gologor, author of Psychodynamic Running: The Complete, Definitive, Madman’s Guide to Distance Running and the Marathon.

As it turned out, he finished in the top half of his age group, with a decent time of 4:54. But he has no plans to enter another race.

“From then on,” he said, “I have been quite content simply to ‘run’ the team.”
NEGOTIATING THE WAYS of America has never been easy for immigrants. Help was usually only available from lawyers that most could never afford or charities that didn’t have enough legal expertise.

That’s why three years ago, Allan Wernick, a professor at Baruch College and director of CUNY’s Citizenship and Immigration Project, started the University’s Immigration Law Certificate Program. “This is a real special thing,” said Wernick. “This type of program doesn’t exist at any other college in the country.”

The program offers graduate-level courses for those who are working with immigrants, or their employers and families. Areas of study include:

- Understanding the laws and regulations governing immigration and citizenship
- Learning to comply with rapidly evolving immigration policies
- Learning how to file petitions and applications
- Understanding business immigration law, naturalization and citizenship

Wernick has been interested in immigration ever since he attended law school in the early 1970s—a time when many students wanted to make a difference in society. He accepted an internship with a California nonprofit program, CASA, that helped Mexican immigrants with a variety of issues. “There wasn’t a lot of expertise in immigration law,” he said of the time.

Immigration law, Wernick knew, was a place he could make a difference.

Over the last three decades, he has worked on programs that make it easier for immigrants to access information about the laws that affect their lives. Besides the Immigration Law Certificate Program, he is most proud of the Citizenship and Immigration Project, which includes nine centers in New York City where immigrants can go for forms, educational activities and confidential consultations with paralegals and attorneys. “It’s one of the largest in the nation and it’s an inspiration for similar projects around the country,” he said.

Wernick also writes a column about immigration issues for the New York Daily News and is planning to write a book about the country’s immigration debate. (His book U.S. Immigration and Citizenship: Your Complete Guide is in its fourth edition.)

If you make a mistake with the IRS, you might have to pay more taxes. But if you make a mistake with Immigration, you can be deported. It’s very, very serious.

— Didier Nzarse

There was always a need for more education,” Wernick said. “And after September 11th, immigration became a very complicated and difficult area.”

Students who participate in the Immigration Law Certificate Program say the most pressing need is to learn how immigrants can become U.S. citizens, Wernick said. They also want to learn more about family immigration — how to avoid having families split across different countries by the nation’s immigration policies.

Suri Duitch, University director of adult continuing education and a co-founder of the immigration certificate program, was amazed by the response. “There’s been a tremendous amount of interest,” she said. “We started with one section and it just grew and grew.

“To our knowledge, there’s nothing else like it in the
“There are so many immigrant/status issues and there’s nothing near like a comprehensive approach as this. It’s a tremendous boost to the quality of services.”

Dawn Picken, a program development associate for the School of Professional Studies, said 70 people have graduated from the program in its first three years. Hundreds more are enrolled. “Some are from community-based organizations. Some are paralegals and some are lawyers,” she said. “But all want more knowledge.”

In May, the school graduated Didier Nzarse, who knew firsthand the problems that immigrants face. “I went through the same process,” he said. “It was a very personal and emotional experience to be in the classroom hearing the professors.”

Nzarse, 43, came to the U.S. from the Ivory Coast in 1993 on a student visa. Now he has obtained permanent residency status and is taking law courses with an eye toward passing the bar exam within the next couple of years. In his spare time, he volunteers at his French-speaking Baptist church, helping other African immigrants with citizenship issues. “If you make a mistake with the IRS, you might have to pay more taxes. But if you make a mistake with Immigration, you can be deported,” he said. “It’s very, very serious.”

He finished the program feeling as though he had found his place in America. “Now I’m more open and more confident,” he said. “Now I know a lot more about immigration law, and I know how to help others.”
TAKE A LOOK at writer Meena Alexander’s list of accomplishments and you might assume she’s so serious it’s scary: Eight books of poetry, two novels, a memoir, awards from the National Endowment for the Humanities, and the Rockefeller and Fulbright Foundations.

There are two books of criticism, a Pen Open Book Award and earlier this year, a Guggenheim. She’s also a distinguished professor of English at Hunter College and The Graduate Center.

But at her small, windowless office one day last spring, Alexander was anything but intimidating. Breezy, easygoing and prone to sudden bursts of laughter, she kicked off her shoes and talked about her childhood in India, immigrating to America as a newlywed, her kids, and juggling it all with the writer’s life.

WHAT’S IT LIKE TO BE A POET? WHEN YOU’RE RUNNING ERRANDS, DO YOU SEE THE WORLD IN IAMBIC PENTAMETER, OR ARE YOU REALLY GOING OVER THE GROCERY LIST? “I always tell my students that what you actually see of the poem is just the tip of the iceberg and underneath there is this whole zone of meditation. So sometimes when I need to write something, I just go to a different place in my head. I might be walking or cooking and then burn the food. … [Poetry] is part of everything else for me.”

SO YOU REALLY AREN’T GOING OVER THE GROCERY LIST? “No. I often write in the subway or in a café. I always have little bits of paper that I carry around with me. I’ve often written lines from here at my office and e-mailed them to myself at home, and then I might wake up very early in the morning and work. And when I had young children, it was harder. It was impossible, but then it’s even more important to do it [write poetry] because it helps you survive.”

IS IT HARDER FOR STUDENTS TO WRITE POETRY NOW, GIVEN ALL THE DISTRACTIONS? “I think poetry is alive and well. I think for a lot of young people, it’s incredibly powerful. The trouble is that in our very consumer-orientated culture, poetry doesn’t really have a place because there is no money attached to it. If you write fiction, you might get enough money to live on for a year, but if you write a poetry book, you are lucky if you can take your best friend out to dinner at a moderately priced restaurant. But that makes it even more valuable because it becomes this place where you don’t buy and sell. Poetry reminds us that there are some very precious things that are not for sale.”

DID YOU PUSH POETRY ON YOUR KIDS? “Without meaning to, I guess I did. My daughter writes poetry and my son is a singer and performer. But, I probably didn’t bake as many cookies as they would have liked and I broke too many dishes, but your mother is your mother and you have to put up with that, right?”

WHAT WILL YOU DO WITH THE GUGGENHEIM? “I’m working on a new book of poems that will be a book of journeys. There is an ancient art of shadow puppets in Kerala, where I come from, that uses the epic Ramayana to tell the tales of kingship and exile. I saw these puppets as a child…there were brightly lit flares that cast moving shadows. I was haunted by this and will use it in this book.”

YOU CAME TO THIS COUNTRY IN THE LATE 1970s WITH YOUR AMERICAN HUSBAND. WHAT WAS YOUR REACTION TO THE U.S.? “There was a whole issue of racism that shocked me out of my wits. I never thought of myself as a person of color. I was normally the majority where I lived.”

YOU’VE BEEN AT CUNY FOR 21 YEARS. WHAT DO YOU LIKE ABOUT IT? “I love the cosmopolitan nature of it. CUNY feels like New York with the whole world flowing in, the multiple languages, the history, the immigrant nature of our lives.

YEARS AGO, YOU SAID YOU BELIEVED POETS PROBABLY DO THEIR MOST SIGNIFICANT WORK WHEN THEY ARE YOUNG. NOW THAT YOU ARE OLDER, DO YOU STILL FEEL THAT WAY? “Did I say that? That’s nonsense…. I think I’m just getting there. Some writers hit it early. I didn’t. It took me a long time to get it all together.”

FINALLY, WHAT DO YOU DO IN YOUR SPARE TIME? DO YOU KNIT, OR SEW OR RAISE WILD ANIMALS? “Ah, my dear, what do I do? I sit on a park bench and look at the sky. I examine clouds—my father was a meteorologist and he taught me this—I do some cooking and I watch Law and Order whenever I can.”

"I often write in the subway or in a café," Alexander said.
Congratulations to
JOHN MATTESON
Professor of English
John Jay College of Criminal Justice
The City University of New York
Winner of 2008 Pulitzer Prize for Biography
“Eden’s Outcasts: The Story of Louisa May Alcott and her Father”
The Newest Member of CUNY’s Literary Faculty Winners Circle

Prominent examples of CUNY’s Literary Faculty Winners Circle include:

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PHILANTHROPIST and venture capitalist William E. Macaulay would have loved to have attended the CUNY Honors College that now bears his name, but it didn’t exist when he was a student in the 1960s.

“It would have been fabulous,” he said. “One of the reasons I’ve contributed as much as I have is because it helps people like me, as I was then, to get the opportunity, to be able to go to school, and maybe even enjoy it more than I did.”

“He keeps saying, ‘The most valuable education I ever got was my education at City University,’” said his wife, Linda, a noted ornithologist.

In 2006, the couple gave CUNY $30 million to buy and transform a 1904 townhouse in Manhattan into a home for the Honors College. Chancellor Matthew Goldstein had launched the College five years before to attract gifted students who were choosing elite private schools over CUNY. The initiative worked; for this September’s entering class, 3,829 top-notch students sought 360 spots.

“I think it’s necessary for people to give back to the degree that they can,” Macaulay said. “This is a state institution, but the state doesn’t provide for everything. For example, the Honors College or the programs to enable a student to get an experience in their junior year…or the waiver of tuition.”

He noted that some public institutions, like the Universities of
never forget) from the end of the No. 1 subway in the Bronx.

After earning an M.B.A. at the Wharton School at the University of Pennsylvania, Macaulay worked at Wall Street investment banks. The day he started at Oppenheimer & Co. in 1972, he was asked to monitor a neglected sector, energy.

It was as if he had been handed an oil well that has never ceased gushing. Within a decade he was running Oppenheimer’s private equity investment operation, one of the first buyout funds.

On the side, he and a partner bought natural gas leases on 15,000 acres in West Virginia at $1 an acre in 1974 and sold them for $450,000 three years later. The profit went into 6,000 acres of old Utah oil fields; he brought in firms that spent about $30 million drilling wells, took a percentage of the profit and cashed out for $6 million in 1982.

Then Oppenheimer was sold and Macaulay and two partners took over a financially troubled money management company called First Reserve, put it on a solid footing and built it into what’s now billed as “the leading energy-focused private equity firm.”

First Reserve forms partnerships and buys and sells energy companies. It provides oilfield services; manufactures equipment; offers engineering services; extracts oil, natural gas, coal, uranium and other minerals; and generates electricity from renewable sources. It also sells energy-related insurance and trades carbon credits.

In March 2008, First Reserve launched its 12th fund, capped at $16 billion; by last June it had drawn $6 billion in commitments. If it is fully funded, it would exceed all of the firm’s previous funds combined.

Linda Macaulay, meanwhile, has traveled the world, and particularly Africa, recording the calls of rare birds for the Macaulay Library at Cornell University’s Lab of Ornithology. Among them are more than 600 first-ever recordings. “The sounds are fabulous and you’re with nature, which is almost like a religious experience, being in the jungle or climbing a mountain,” she said.

Sometimes her husband goes along, for interesting birds are often found near interesting energy sites. “I get to carry the extra equipment, lug around cables when they’re needed and take notes,” Macaulay said.
WHAT DO chronic water shortages mean in a volatile and nuclearized region like South Asia? Or in our country when farmers, industry and city dwellers argue over finite water supplies?

These are some of the questions that drive Charles Vörösmarty and his research team to study the state and trajectory of freshwater resources. Hydrology, the study of water in the environment, “is no longer about small units of landscape called watersheds,” he said. “It’s now focused on big, strategic issues, and often those are dictated by humans attempting to control water supplies. We’ve got to be talking about the Northeast Corridor; the U.S. national water policy in light of climate change; and the overuse of water as you’re growing biofuels while trying to feed a hungry world, or when water scarcity invokes national security issues.”

Vörösmarty is the first of what will be five nationally known directors whom CUNY is recruiting to run the laboratories at the Advanced Science Research Center, the keystone of CUNY’s Decade of Science (2005-2015). The $300 million, 200,000-square-foot center on the grounds of City College is slated to open in 2012. It will provide $50 million worth of sophisticated equipment to researchers from across the University, while becoming a crossroad for scientific creativity.

“I’m looking for ideas about water that no single person could have thought about,” said Vörösmarty, who will direct the laboratory of water and environmental sensing, a field that uses computer analysis and instruments ranging from satellites to ocean buoys to collect data for earth, atmospheric, environmental and marine sciences.

Similar brainstorming is also the goal in the ASRC labs dedicated to the University’s four other flagship areas of science: nanotechnology, neuroscience, photonics and structural biology. CUNY researchers in those fields are already laying the groundwork to stop the spread of cancer, halt or even reverse degenerative nerve diseases, produce clearer mammograms and miniaturize electronics via biological processes.

Chancellor Matthew Goldstein launched the Decade of Science to help position CUNY as a premier research institution. The plan includes more than $1 billion for science facilities on eight campuses; “cluster hires” of more than 80 faculty members so far in science, technology, engineering and math; restructuring Ph.D. programs in the sciences and engineering; boosting financial aid for doctoral students; and training more teachers of middle- and high-school science and math.

Vice Chancellor for Research Gillian Small, who has overseen the ASRC project almost from the start, said CUNY was thrilled to have recruited Vörösmarty from the University of New Hampshire’s Institute for the Study of Earth, Oceans, and Space, where he founded and directed its Water Systems Analysis Group. “Dr. Vörösmarty comes with an international reputation for excellence in interdisciplinary environmental studies,” she said. “He will bring CUNY’s water and environmental sensing initiative to the forefront. We are delighted to have him at CUNY and the ASRC.”

Vörösmarty joined the civil engineering faculty at the
City College of New York’s Grove School of Engineering in September. He brought a hydrology team that includes about a half-dozen postdoctoral researchers and administrative staff from New Hampshire. Plans are to hire three faculty members who will teach and conduct research with him.

His team develops computer models and geospatial data sets to analyze the interaction of the water cycle with climate, biogeochemistry and human activities (including water engineering projects) on scales ranging from local to global. “We have to study the policy of water, the economics of water and how humans are managing or mismanaging this resource,” he said.

Although the United States has yet to adopt a national approach to managing carbon and climate change, Vörösmarty believes in “regional ecomanagement, and the only way to do that coherently is to take a multistate perspective and make water a part of the dialogue.”

His viewpoint is broader still. He has consulted for the 24-agency UN World Water Assessment Programme and represented the International Council of Scientific Unions at the U.N. Commission on Sustainable Development. “I’ve opened a dialogue with the U.N. on how to better manage water in the 21st century. Our CUNY initiative is perfectly poised, because of our location, to be a central force in that dialogue.”

He looks forward to working with the many CUNY professors who study environmental issues, including “the powerhouse in remote sensing and geospatial data-set integration” that is NOAA-CREST (Cooperative Remote Sensing Science and Technology Center), a multidisciplinary consortium led by CCNY and sponsored by the National Oceanic and Atmospheric Administration. It includes four CUNY institutions (CCNY, Lehman College, Bronx Community College and New York City College of Technology); Bowie State University; Columbia University; Hampton University; the University of Maryland, Baltimore County; and the University of Puerto Rico.
I’m amazed at the strength here at CUNY, but that strength sits on many different campuses,” Vörösmarty said. “Our intent is to use ASRC as a magnet to draw these otherwise disparate students and professors together in an interdisciplinary research framework, in particular in reaching out to our next generation of students.”

He sees the ASRC lab as “an incubation vessel for ideas, for the gee-whiz stuff that we can turn on its ear and apply to the environment.”

Here is a look at some of the other scientists working in each of the University’s five flagship areas of science.

ENVIRONMENTAL SENSING

The collection of data about the atmosphere, earth and living creatures, often via remote devices.

FOR THE PUBLIC, the most familiar environmental sensing is visible, from pictures of melting glaciers to TV graphics of howling hurricanes. But it’s the invisible—that’s in the air—that interests Fred Moshary, a professor at City College’s Grove School of Engineering.

“On the health side, the main thing we’re looking for is pollution,” he said. “On the environment side, aerosols [liquid or solid particles] figure into global warming because they represent a cooling, not a warming, effect. When you’re studying global warming, you have to look at the overall energy balance.”

Curtailing global warming or meeting prospective environmental regulations are “difficult, high-stakes issues; dealing with them will be disruptive and expensive,” he said.

New York City, for instance, falls short of national ambient air quality standards, and it could prove prohibitively costly to meet them solely by capping local emissions. “You have to understand the makeup of pollution, what portion is produced locally and what portion is transported here.” Gasses from an Ohio smokestack could change chemically by the time they arrive here; acid rain is an example. Sensors can point to polluters upwind that also need to control pollution.

Moshary and his colleagues belong to a consortium, the Mid-Infrared Technologies for Health and Environment, funded by the National Science Foundation and industry. MIRTHe is developing devices that can detect minute amounts of chemicals,
yet are so cheap and easy to use that they will transform how doctors treat patients, states track illegal dumping and Homeland Security monitors against biological attack. CCNY focuses on remote gas and aerosol sensors for deployment in cities, while Johns Hopkins, Princeton, Rice and Texas A&M Universities explore related environmental and medical applications, and the University of Maryland, Baltimore County, studies advanced laser materials.

Meanwhile, Moshary helps plan the rooftop sensing lab at the ASRC. “For astronomers, the atmosphere is a nuisance that they have to look through before they see the stars, but we’re looking at the atmosphere, itself,” he said. The CCNY team is designing and building instruments including a volume-imaging lidar, which emits laser beams that bounce back when they strike airborne molecules and particulates. Using invisible light, either ultraviolet or near-infrared, it won’t distract pilots, enabling scientists to point it at many angles to get a three-dimensional picture of air.

Moshary also is part of NOAA-CREST, the CCNY-based Cooperative Remote Sensing Science and Technology Center. “Some of our instrumentation is developed and packaged in-house, from atmospheric sensors used in the region to coastal-water-sensing packages that are lowered into the water or placed on buoys. All of that is constructed here by students before our scientists take off into the field,” he said.

Construction begins this fall on the centerpiece of CUNY’s Decade of Science, a glass-sheathed, $300 million laboratory overlooking Harlem on the south campus of the City College of New York. When the Advanced Science Research Center opens in 2012, it will be the think tank for the University’s five flagship science programs. It also will offer $50 million worth of esoteric equipment to researchers from across CUNY, ranging from a rooftop atmospheric observatory to instruments to map brain activity. It would have been prohibitively expensive to buy and maintain such devices on more than one campus.

“We designed this research center to promote and encourage University-wide scientific collaboration,” said Chancellor Matthew Goldstein. “Given the caliber of our professors and doctoral students, we expect that the ASRC will be a crucible for breakthroughs.”

The building devotes one floor to each flagship area: environmental sensing, nanotechnology, neuroscience, photonics and structural biology. A faculty task force recommended that the University leverage those areas of existing faculty strength to achieve national prominence.

“The goal was to identify areas where an investment now would still be of national and international importance 10 or 15 years from now,” said Vice Chancellor for Research Gillian Small. ASRC will house approximately 50 professional staffers, including about 20 faculty affiliated with a CUNY campus; their grants will flow through the ASRC, helping to fund its operations. An executive director will run the building and be its chief fundraiser. A nationally known scientist will direct each lab. Ph.D.-level staff scientists will assist visiting CUNY faculty members in using the instruments. And staff technicians will maintain the devices.

Architects Kohn Pedersen Fox Associates of New York City designed the sleek, five-story, 200,000-square-foot building. Its glass walls will rise above a gray brick footing that echoes the Manhattan schist façades of CCNY’s neo-Gothic north campus. Flad and Associates of Wisconsin, a science facility specialist, is the architect of record and designed the labs.

Those firms also designed an adjacent four-story, 200,000-square-foot science research and instructional building for City College. It will supplement CCNY’s Robert E. Marshak Hall, a 1960s structure that is being renovated.

Anticipating future needs, the University also commissioned preliminary work on ASRC Phase II, which may be built during the next decade. “If one of the five areas in the ASRC really takes off and needs support, we could dedicate space in the Phase II building, or by then new areas of research may emerge where we can make significant contributions,” Small said.

Excavation of the bedrock beneath all three buildings will occur simultaneously, but the Phase II site will then be filled in to await construction. That will minimize future interference with sensitive instruments at the ASRC and the City College building, as well as at the nearby New York Structural Biology Center. That center is a renowned consortium of premier research institutions, including CUNY.
NANOTECHNOLOGY

Technology that controls matter at atomic or molecular scales of 1 to 100 nm (nanometers, or billionths of a meter).

Human beings develop from almost nothing. A single cell, some programming instructions and, generally speaking, you get a smoothly functioning and complex machine. Would it be possible, Hiroshi Matsui wondered, to mimic that process by using biological building blocks to construct nanoscale electronics?

“We work with peptides and antibodies,” explained the associate professor of bionanotechnology in Hunter College’s Chemistry and Biochemistry Department. Peptides, which are chains of two or more amino acids, assemble themselves and can be fashioned into nanoscale wires that function like regular electric wires. Antibodies naturally attach to specific receptors on the peptides.

“We can program it to build complex devices in nanoscale, so this wire goes to position A, this wire to position B, and this particle to position C,” Matsui said. “If we use the right antibodies, the wires won’t be misplaced.”

This approach could overcome a weakness in nanotechnology today, the difficulty in aligning parts of the tiny machines. “You can’t pick up a nanoscale device and put the wires in the right places, but if you direct this wire to go to this place and attach itself, then it will do it. It sounds difficult, but that’s how humans are made,” he said.

Matsui’s team is exploring how to use this technology to create sensors that, depending on which antibody is attached, would spot a specific virus or bacterium. “You could have a simple tabletop diagnostic device that could quickly say if you are infected [via an electric signal]. This could be of tremendous value in remote places where you don’t have sophisticated instruments,” he said.

Beyond detection, “We’re trying to make this a diagnostic system,” he said. “We are finding that the electric signal depends on the strength of the viruses, so the signal level could tell us the strain. That’s what we’re hoping for.”

Matsui trained as a physical chemist and stumbled into this research when a graduate student made a mistake in synthesizing a known molecule. Back then, Matsui was “interested in how nature assembles a molecule into a certain shape.” His student quickly realized that the peptide he had made was something new, and Matsui discovered that it functioned like an electric wire and could absorb biomolecules. That sent him down a different path of research, one that required him to learn a good deal of biology and biochemistry.

“Before this, almost nobody was thinking about using biological molecules for electronics, so we were almost the sole investigators thinking that crazy way, thinking that the hard-core semiconductor industry could marry with biology. Now many people have that idea,” Matsui said.

It’s hard to conceive how small a nanometer is. Web definitions call it 1/80,000th the diameter of a human hair or, at 3 nm, imagine it as a three-inch by three-inch Post-It Note seen from halfway across the planet.

Things 1 to 100 ns are inconceivably tiny. Yet scientists like Daniel Akins have made nanomaterials with amazing abilities.

A distinguished service professor of chemistry at City College, Akins has patented an inexpensive way of turning a carbon source like methane into nanotubes, which are cylinders of carbon atoms that “have fantastic properties. They’re stronger than steel, conduct electricity better than the best metal conductors and have chemical properties that allow one to attach things to them.” Things like gold nanoparticles that can register minute electric currents, turning nanotubes into infinitesimal sensors.

With the right blood-sampling system, such sensors could alert people with diabetes to the presence of hydrogen peroxide, which indicates insulin deficiency.

Nanostructures build themselves when scientists create the right conditions. In nature, carbon atoms bond differently, creating familiar materials like graphite, coal and diamond; in the lab, scientists can induce carbon atoms to form tubes, lattices and spheres, each possessing unique properties.

Scientists, including Akins, have used nanotubes to improve fuel cells. A fuel cell generates electricity when a catalyst (like gold or platinum) promotes the burning of a fuel (like hydrogen) in the presence of an oxidant, thereby releasing electrons. Fuel cells were conceived in 1838 and were first used commercially in the Gemini space program in 1965. But their use as a non-polluting alternative to the internal combustion engine has stalled because they are inefficient and catalytic metals are expensive.

Nanochemistry that requires far less of the costly metals may be the solution. “We use carbon nanotubes as catalyst-assist agents, or cocatalysts. We coat particles of platinum or palladium onto the nanotubes. This improves efficiency and lowers the potential required for the chemistry to occur,” he said.

Akins foresees extending his research into biofuel cells, which would use natural body processes to generate power. Imagine keeping warm in arctic conditions with a heater powered by normal blood chemistry. “When you pedal a bicycle, you’re extracting energy; but with a biofuel cell, instead of having your whole system involved in generating energy, you’re using a much smaller part.”

Since 1988, Akins’ Center for the Analysis of Structures and Interfaces has recruited many minority-group members and helped them move into doctoral work. He also was a leader in creating a subdiscipline in nanotechnology in CUNY’s chemistry doctoral program. In 2000 he received the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring from the White House Office of Science and Technology Policy.
NEUROSCIENCE

The study of the development, anatomy, functioning and pathology of the brain and nervous system.

IF YOU CUT A NERVE in the spinal cord, it won’t spontaneously regrow. Paralysis results. Scientists had long thought that scar tissue was to blame, and it certainly does play a role.

Marie Filbin discovered something else: Nerves try to regenerate, but are stopped by a protein in the myelin sheath that protects them. Then she found that a molecule in every cell can counteract that protein, opening the door to therapies that one day may enable people with spinal cord injuries to walk and physicians to treat nerve-killing conditions like Lou Gehrig’s, Parkinson’s and Alzheimer’s diseases.

Filbin, a distinguished professor of biology at Hunter College, said myelin contains myelin-associated glycoprotein, or MAG. It is believed to prevent nerves from sprouting randomly and making the wrong connections. But when a nerve is severed, MAG and related proteins also inhibit desirable regrowth.

She discovered that when she increased the concentration of a common signaling molecule called cyclic adenosine monophosphate, or cyclic AMP, nerve axons (which carry outgoing messages from neurons) overcome the inhibitory effects of MAG and grow.

Her basic research explores how cyclic AMP “changes a neuron to enable it to grow in this inhibitory environment. We have identified what genes are turned on in response to cyclic AMP and know that the proteins that result from these genes are sufficient to overcome inhibition. We are systematically working through these different downstream effectors to see if they will allow neurons to grow, will they promote central nervous system regeneration in vivo, and how they work.”

Preliminary animal research shows that “if you elevate cyclic AMP you will get the nerve to regenerate and will get some functioning back. My long-term dream is that we can artificially change the dynamics of the cytoskeleton, which is to nerves what bones are to the body, to get nerves to regenerate,” she said.

Clinical trials, though, are still far off.

Despite the potential of her work and five patents either approved or pending, Filbin is frustrated that major pharmaceutical companies have dropped their research into nerve regeneration. Perhaps they don’t see a big enough market in treating people with spinal cord injuries like the late actor Christopher Reeve, who helped secure state funding that supports her research. Or perhaps they just don’t see the future evident in an aging population.

“My argument is that in motor neuron diseases, Parkinson’s, Alzheimer’s or multiple sclerosis, you have ongoing nerve death. You have to arrest the progression of those diseases and, if you want full functional recovery, you’re going to have to replace those lost neurons in an inhibitory environment. Everything we find out about regeneration after injury could be applicable to neuron replacement in degenerative diseases,” Filbin said.

ANXIETY, RAGE, DEPRESSION and brain cancer form an understandable quartet, but for Probal Banerjee they encompass two distinct research projects.

The first examines how the neurotransmitter serotonin governs emotions. “We have shown for the first time that the serotonin 1A receptor in the brain plays a varied role in the early postnatal stages,” said Banerjee, a professor of chemistry, biochemistry and neuroscience at the College of Staten Island.

“In the hippocampus, which controls memory, it helps cell division just before neuronal connections are made. Then it changes its mode of action to help build neuronal connections. We are working out the signal transduction cascade, which is the sequence of events inside the neuron that regulates its electrical activity, cell division and maturation,” he said. The proteins created or activated “can be our therapeutic targets in treating depression and anxiety.”

The amount of serotonin in the cerebral spinal fluid affects emotions. At normal levels, serotonin is a calming agent, but
Queens College assistant professor Vinod Menon is developing integrated circuits that could lead to ultrafast optical computers.
having too little can trigger aggression and emotional problems including depression and suicidal tendencies.

Banerjee’s team determined that a common drug for schizophrenia, clozapine, works through the serotonin 1A receptor, leading him to speculate that “many emotional disorders which surface in puberty are related to serotonin disorder.” He also studies brain tumors, taking divergent approaches. Normally, the body’s defenses recognize and destroy cells with unfamiliar surfaces. But cancer cells can hide by changing their surfaces. “By doing genetic targeting, we would alter the surface of the cancer cells in such a prominent manner that the scavenger cells would eat them up,” Banerjee said.

His other approach to brain cancer employs curcumin, the main ingredient in the Asian spice turmeric. “On the Indian subcontinent, there is practically no colon cancer, although some people there have bad lifestyles; a lot of people smoke,” he said. Could the reason be this pungent yellow spice, used in India to anoint the foreheads of wedding couples and in cosmetics to slough off dead cells and make the skin glow?

“Curcumin is becoming a legendary molecule, and there is a huge amount of research into it. It blocks breast cancer, lung cancer, colon cancer, but there wasn’t any research in brain cancer because, when eaten, it metabolizes before it can reach the brain.” So Banerjee developed an easily metabolized, soluble formulation of curcumin. When injected into the brain or blood of mice, it blocks the formation of tumors and is completely harmless to normal brain cells. In fact, it protects against oxidative injuries.”

Banerjee even coined a name for his curcumin therapy: “spicile,” from spice and guided missile.

PHOTONICS

The study of the properties and applications of light, or energy whose basic unit is the photon.

Making photonic devices flexible and miniaturized opens many possibilities for research and practical applications, said Queens College assistant professor Vinod Menon, one of CUNY’s “cluster hires” in photonics.

Take flexible display screens, which one day could rival the rigid flat screens that are now the high-definition rage. These solid-state displays are extremely thin, like the ultraviolet-absorbing films that are sometimes placed over windows, but they can emit light just like a television.

“They could be wrapped around buildings,” or run up a wall or around columns. “You even could put them on clothes for identification purposes,” Menon said. “And the technique of making these emitters is so simple that I even have high school students in my lab who make them.”

He uses a fast-spinning machine to coat multiple layers of polymers onto a flexible base, creating an optical microcavity, which traps and amplifies light at specific frequencies, harnessing it for emission like a TV or transmission over fiber-optic lines. Microcavity lasers are used widely, such as to produce the narrow beams that read and write CDs and DVDs.

His microcavity light emitters are more efficient, controllable and cheaper than previous attempts at creating flexible photonic devices, he said. “The other big advantage is that you can cover the visible and near-infrared spectrum, depending on the materials you choose.”

He predicted that microcavity devices that can emit single photons (which are to light what electrons are to electricity) will lead to practical quantum information processing and quantum encryption, in which data sit on individual photons. His group is developing materials to manipulate signals at the single photon level.

And they are working on photonic integrated circuits (similar to electronic chips) for ultrafast signal processing; that could lead to optical computers whose speed would surpass current silicon-based circuitry. This and the flexible emitter work are funded by the Army Research Office.

Turning to fundamental research, Menon explores three-dimensional photonic crystals, which can efficiently trap photons. He collaborates with City College chemical engineering assistant professor Ilona Kretzschmar, whose group constructs these crystals using directed self-assembly; Menon evaluates their ability to trap light. The CUNY collaborative program funds this research.

Could light provide more detailed mammograms than X-rays, making surgical biopsies obsolete for diagnosing breast cancer?

Swapn Gayen hopes so. A professor in the Department of Physics and the Institute for Ultrafast Spectroscopy and Lasers at the City College of New York, he is the principal investigator of a four-year, $1.36-million grant to evaluate whether near-infrared light (just beyond the visible spectrum) can not only detect and diagnose breast cancer, but also assess how rapidly tumors are growing.

His team includes CCNY professors Robert Alfano and Feng-Bao Lin, and Memorial Sloan-Kettering Cancer Center’s Dr. Jason Koutcher. The U.S. Army Medical Research and Materiel Command Breast Cancer Research Program funds their work.

Current screening methods like X-ray mammography and ultrasound excel at detecting abnormalities, but they cannot diagnose whether they are malignant or benign. For that, physicians need to perform biopsies, anxiety-producing surgical procedures that in 80 percent of U.S. cases do not find cancer.

But using light for mammography is easier said than done. “The main problem is that light does not go through human tissue as it goes through a glass of water,” Gayen explained. “It’s absorbed and scattered many times, so it’s hard to get a direct image.” However, since normal tissue has different optical and molecular properties than cancerous tissue, and since “we can model how light transits through breast tis-

...we would alter the surface of the cancer cells in such a prominent manner that the scavenger cells would eat them up.

— Probal Banerjee, professor of chemistry, biochemistry and neuroscience at the College of Staten Island
sues and can measure the different angular orientations and transit times of the light that comes out the other end, we should be able to get an interior map of the breast.”

To learn how to do that, Gayen’s team constructs model breasts using samples of tumors and healthy breast tissue. They compare their images with light to the results of X-rays and MRIs.

Beyond detecting tumors, this research offers hope of diagnosing breast tumors without surgery. The researchers will try to measure the rate of tumor growth by monitoring the progress of cancer in animals using both conventional methods and near-infrared spectroscopy. If the studies prove successful, they will seek additional funding for in vivo research.

Gayen’s work into how light behaves in a highly scattering medium has other potential uses. Under a grant from the Office of Naval Research, his team investigated technology that penetrates coastal water better than ordinary light. The Navy might use such technology to detect mines, while marine biologists could employ it to study ecosystems and environmental sensing scientists could use it to see through clouds.

**STRUCTURAL BIOLOGY**

The study of the architecture and functioning of macromolecules, which work properly in cells only in specific three-dimensional shapes.

**WHAT IF YOU COULD HALT CANCER in its tracks by stopping a key enzyme from working when it’s not supposed to?** Lesley Davenport, a chemistry professor at Brooklyn College, thinks the solution may lie in the protective four-stranded knots that may be found at the ends of chromosomes.

These knots—quadruplexes, they’re called—have the potential to form in telomeric DNA located at the end of chromosomes. And quadruplexes, in the laboratory at least, inhibit the action of telomerase. In most cells, the enzyme shortens telomeres with each replication cycle as part of the normal process of cell aging and death. (The exception is in reproductive cells, which telomerase protects by lengthening telomeres.) But when this process goes awry, telomerase can trigger uncontrolled replication and cell immortality—cancer, in other words.

Davenport hopes that her basic research can lead to drugs that would lock the telomeres of cancer patients, shutting down the progress of the disease. “We ask simple questions: What drives quadruplex folding and what are the dynamics of its formation?”

Among researchers who study telomeres and telomerase, she stands out for her expertise in fluorescent spectroscopy. She maps model DNA quadruplex sequences with the help of specially synthesized, fluorescent probes made of guanine-like residues. (The nucleotide guanine is a building block of DNA and a main component of telomeres.) Because this guanine is fluorescent, it’s easy to find with optical spectroscopy even at low concentrations.

“Ultimately, we want to understand the basic processes of a human cell in healthy and disease states.”

— Ruth Stark, distinguished professor of structural biology at City College

“We’ve been asking: Are all guanine positions in the DNA quadruplex identical? We’ve found that they’re not,” Davenport said.

She and her research team designed sequences with fluorescent guanines at various points in the quadruplex and observed how minor changes affect their ability to form knots. In certain positions, the altered guanine makes the quadruplex fall part, indicating locations that are vital for quadruplex stabilization.

That’s significant because before researchers can develop drugs to lock quadruplexes, they have to know where to attach the lock.

That brings Davenport to another question: the dynamics and thermodynamics of how it folds. “If we understand how the quadruplex folds up on itself, then maybe drugs can be designed to make it lock the closed quadruplex conformation and thereby prevent telomerase from binding.”

Davenport hopes to develop, test and screen for potential drugs that could keep telomeres tied in their elegant knots in collaboration with Mary Hawkins of the National Cancer Institute, who prepared some of the early fluorescent DNA sequences that she used.

**WORKING FROM THE PREMISE that molecular architecture can shed light on function,** Ruth Stark parses tiny structures that operate within cells, like the pigment melanin that can develop in certain fungi.

Melanin protects fungi, just as it colors and protects human skin. It also can make them virulent, a worry for AIDS patients with fungal infections, said Stark, a distinguished professor of structural biology in the City College Chemistry Department.

Her current projects include studying how fungi create melanin from amino acid derivatives and how melanin attaches itself to fungal cell walls. “In contrast to other ubiquitous pigments like chlorophyll and hemoglobin, little is known about the molecular basis for melanin’s many biological functions,” Stark said. “Melanins resist traditional structural analysis because they don’t dissolve in water or crystallize.”

Her tool of choice is nuclear magnetic resonance (NMR), which examines nuclei nondestructively, as solids or in solution, by aligning them with a magnetic field, then perturbing the alignment with radio waves. The high-resolution results show the response for each atom of a pigment or protein tar-
get, revealing molecular structures and flexibility, two keys to physiological function.

Stark, a physical chemist, also explores what happens to dietary fat within animal cells. “As fats are digested, one of the things that they’re broken down into is fatty acids, which typically are shuttled to the cell membrane and the nucleus by protein chaperones. Some of these proteins are found in adipose [fatty] tissue, where they may facilitate signaling related to insulin tolerance,” she said.

“We look at these proteins and the small molecules they grab or release, and how the three-dimensional shapes of the proteins are changed either to accommodate a foreign fatty acid that gets in or to push it out. Or one protein may collide with another to effect the fatty acid transfer. Ultimately, we want to understand the basic processes of a human cell in healthy and disease states.”

Stark works with NMR equipment at CCNY and at the internationally known New York Structural Biology Center, where she is a principal investigator. She also directs CUNY’s Institute for Macromolecular Assemblies. “We now have a virtual institute for structural biology and engineered assemblies with more than 30 faculty teams on seven campuses” she said. The goal is “to become a cutting-edge crossroads for scientists making biomedically important discoveries.”

Brooklyn College chemistry professor Lesley Davenport seeks ways to prevent an abnormal body process that can trigger cancer.
JOHN MATTESON WON A PULITZER PRIZE this year for writing about *Little Women* author Louisa May Alcott and her father, but the most important work of fiction in his life was Kevin Costner's movie "Field of Dreams."

Matteson, a professor of English at John Jay College of Criminal Justice, had graduated from Princeton and Harvard Law. He was litigating when he caught Costner’s film about casting off regrets and turning dreams into reality. He had become a lawyer “for all the wrong reasons ... money and the illusion of power. I realized that I ought to be doing something better with words than just hitting people with them,” he said.

He was particularly struck by the film's signature line, "If you build it, he will come," in which a voice tells a struggling farmer that if he clears his cornfield for a baseball diamond, superstar Shoeless Joe Jackson—banned from baseball for throwing the 1919 World Series—will come and play.

“This may sound a little corny, but right then and there, I decided that I was running out of time to build my own ball field, which for me was going to be reading good books and talking and writing about them. And at that very moment, I decided I was going to take the GRE and go back to graduate school in English,” Matteson said. He joined John Jay’s faculty in 1997, teaching literature and legal writing, and earned a Columbia Ph.D.

His interest in Alcott and her father, Bronson, grew out of his research into 19th century utopian communities, including Fruitlands, a commune based on transcendental principles that Bronson cofounded in 1840. The title of his prizewinning dual biography, *Eden’s Outcasts*, refers to its failure.

“They say that all biography is autobiography, and I think that’s true,” Matteson said. The Alcotts reminded him of his own family.
Eden’s Outcasts Excerpt: A Puzzled Father

The birth of his daughter factored into John Matteson writing Eden’s Outcasts. He said: “I hoped that, by writing a book about a father and daughter, I could learn more about my own parenting, and that my own experiences as a dad might improve my insights into the Alcotts. Bronson Alcott wrote more about fatherhood than just about anyone else in 19th century America, but, like all parents, he saw things in his children that he could not understand.” In this excerpt, Louisa is 10 and starting to rebel.

After her initial outburst of joyous enthusiasm when her father came home, Louisa seems to have returned to reality with a bump. After her carefree summer with her mother and sisters, the presence of two strange Englishmen under the family roof required a tremendous readjustment. Moreover, she could hardly have been pleased to find that the more dominant of the two men was utterly without humor and wholly intolerant of frolicsome natures like hers. High spirited children tend to regard sudden impositions of authority as challenges and they tend to fight back. A contest of wills thus began to unfold at Hosmer Cottage, one whose intensity can be inferred from the somewhat pleading letter that Bronson wrote Louisa on her birthday, the same day that Abba lamented the climate of “restriction and form” that now pervaded her home.

Since coming back to Concord, Bronson wrote, he had been continually near Louisa... meeting her daily at the fireside and table, observing her in all her walks, studies, and amusements. Yet she had seemed to repel his attentions, valuing her distance more than his attempts to please and assist her... “I would have you feel my presence and be the happier, and better that I am here [he wrote]. I want, most of all things, to be a kindly influence on you, helping you to guide and govern your heart, keeping it in a state of sweet and loving peacefulness.”

It baffled him, then, to discover that she was determined to resist him, that she would rather form her own spirit than accept the spiritual shape that he imagined for her... “Will you not let me do you all the good that I would? And do you not know that I can do you little or none, unless you are disposed to let me; unless you give me your affections, incline your ears, and earnestly desire to become daily better and wiser, more kind, gentle, loving, diligent, heedful, serene.”

Then, as if knowing that his argument would fail, Bronson altered his tone. Without expressly accusing Louisa, he scribbled out a long litany of character flaws, including anger, impatience, evil appetites, greedy wants, ill-speaking, and rude behavior. These, he threatened, would drive the good spirit out of the poor, misguided soul, leaving it “to live in its own obstinate, perverse, proud discomfort; which is the very Pain of Sin, and is in the Bible called the worm that never dies.” ... Bronson’s gentle admonition had transformed into a Calvinist sermon. ...

One can only imagine how her father’s letter made Louisa think or feel. Not surprisingly, though, it effected no miraculous transformation. She was not, of course, willingly any of the bad things that her father suggested. Rather, she was of an age when children, reminded of their faults, tend to cry, apologize, and vow to be better. But then they forget, and their parents wonder why... As a middle-aged father and a growing daughter...they shared most of their traits with the rest of the world—both earnestly willing the best, both wanting to communicate all that they had to tell each other, but each failing to receive the messages that the other was sending them.

“Like Louisa, I’m the child of a perfectionistic, emotionally complicated father and, like Bronson, I’m intensely interested in childhood development and parenthood.” Both men left careers in their 30s. “I felt as if I knew them and could tell their story with the kind of sensitivity and balance that perhaps previous biographers had fallen short of achieving.”

There were surprises. “One of my initial mistakes was that I assumed Bronson and Louisa were much closer in temperament than they actually were.” Louisa’s fictionalized family in “Little Women” is “tightly-knit emotionally, and I expected the same from their true story. But actually Bronson and Louisa stood at emotional poles. Bronson was placid, he was domestic and theoretical and completely removed from the cares of the world. You could not imagine this man writing fiction. Whereas Louisa was dramatic, she was practical, she was dedicated throughout her life to very aggressive, assertive action, and she was light years away from her father’s philosophic stance. So all of these conflicts made for, I think, a more interesting book.”

Matteson said that joining the college faculty “allowed me to combine my background in law and my interest in literature into my teaching, and to connect with an open-minded, eager group of students. Signing on with John Jay was like buying Intel at a dollar a share. The stock in John Jay, I think, is just going to keep going through the roof.”
The Spy Who Loved Hamlet

By Neill S. Rosenfeld

During his days at CUNY’s Graduate Center, Michael Sulick never thought of becoming America’s spy master. That’s hardly a typical goal for someone whose 1977 dissertation compared translations of Hamlet into French and Russian.

But chance, fluency in Russian and a sharp-eyed wife propelled him toward becoming chief of the Central Intelligence Agency’s Clandestine Service.

Literature figured in his success. “My job was to recruit spies. You have to build relationships and gain the trust of foreigners before you ask them the big question — will you be a spy for me? Literature is common ground,” he said. “Foreigners, certainly Russians who were my main target, are proud of their literature and are proud when a foreigner knows something about it. When you discuss literature with somebody, they reveal much about themselves. A Soviet official who spoke lovingly about [dissidents] Boris Pasternak or Alexander Solzhenitsyn would be of interest right away.” Another asset was his facility with languages, which also included French, Spanish, German and Polish. “People will say more because they are comfortable in their native language,” he said.

Before joining the CIA, Sulick briefly taught an introductory English course at Queensborough Community College. But academic jobs were scarce as he completed his doctorate (he took three years off during undergraduate studies at Fordham University to serve in the Marines, including in Vietnam, returning for bachelor’s and master’s degrees in Russian studies in 1971 and 1972). Then his wife spotted the CIA’s first newspaper ad for analysts. “They said they didn’t have any of those jobs left, but they did have operations officers,” Sulick recalled. “I said, ‘Is that what I think it is?’ and they said yes. I went to training, and I was off.”

For 25 years, he ran spies in the Soviet Union, Poland, Japan and Latin America and served in administrative posts. Then, in September 2007, he took charge of all covert operations and disruption of terrorist operations.

Human intelligence is especially critical today. “I never met a single official of the Soviet government or the KGB [spy agency] who was willing to put a bomb on his back for the cause of communism. But with terrorism, there are numbers,” he said. Besides, “now the terrorist can be living right next door to you, or work in a bank or be a student.” That’s why Sulick is building ties between the CIA, FBI and local law enforcement agencies.

Details of Sulick’s career are understandably few, but he did disclose one incident in the CIA’s magazine, Studies in Intelligence. It was August 1991. In Moscow, democratic forces had thwarted an attempted coup by Communist hardliners against reformist President Mikhail Gorbachev. Lithuania had declared independence from the Soviet Union. And at the behest of President George H.W. Bush, the CIA had dispatched Sulick to meet with Lithuania’s nascent intelligence service.

“I was well known to the KGB, which would have been less than thrilled about my traveling to the USSR’s rebellious republic,” so he left without a Russian visa, he wrote. Turned back when he tried to drive into Lithuania from Poland, he flew to Vilnius. When “the yawning border guard” there noted no Soviet visa on his passport, Sulick said he’d been told he didn’t need one. The guard thought a moment, then “shrugged his shoulders and pounded his stamp in my passport...I walked through the small gate into Lithuania and became the first US official to enter a Soviet republic after the coup.”

The Lithuanians proved enthusiastic about cooperating. In “a surrealistic moment,” Vice President Karol Motieka left him alone in his document-strewn office so that he could phone the CIA in Warsaw. Before, he wrote, “I would have thought I had struck an intelligence motherlode.” Now, “if I had any interest in the documents, I could probably have just asked Motieka about them.”

Sulick’s career almost detailed in 2004, when he was the second-highest espionage official. He and his boss, Stephen R. Kappes, resigned in protest when an aide to CIA Director Porter Goss tried to transfer another senior officer. Other resignations followed, demoralizing the agency. But Goss’ successor, Gen. Michael Hayden, quickly rehired Kappes as his No. 2 and promoted Sulick to spy master.

Hunter College professor
Elizabeth Beaujour, who had been Sulick’s graduate advisor, said, “You could have knocked me over with a feather” when she learned about his career in espionage. She speculated that the language and analytic skills honed in his dissertation “must have served him in good stead” at the CIA. She recalled his 371-page dissertation, which compared “Hamlet” translations into French and Russian by André Gide and Boris Pasternak. “It was a very good dissertation,” she said. “He came at it primarily from the point of view of the original language and the translator’s language.”

“‘Hamlet’ touches on so many aspects of human life, which is why it is one of the greatest works of literature,” Sulick said. “It deals with espionage, betrayal and trust, so there are lessons there for an intelligence professional. We’re trying to get people to betray a cause inimical to the U.S., but we also have to engender trust . . . [and] make sure we don’t betray their trust. We don’t use spies, get their information and throw them away. It’s just the opposite.”

Sulick laughed when asked about Rosencrantz and Guildenstern, the two hapless spies whom Hamlet sends to the unexpected death that the king, his uncle, had intended for him. “They didn’t go through our training, or their fates would have been different. Hamlet is the master spy in the tale, the operations officer. He found them out.”

It was a peach tart with almond ice cream that got William Yosses into the White House. That’s the dessert that won him a job as the mansion’s executive pastry chef. Now he works five or six days a week, 12 hours a day, making such delicacies for President George W. Bush and First Lady Laura Bush.

“This is my dream job,” said the New York City College of Technology (City Tech) graduate. “Working for the President and First Lady is a wonderful experience, of course because of the historical surroundings, but also because they are such considerate and genuine people.”

The food staff at the White House—where the pastry kitchen is smaller than most home kitchens—includes one executive chef, one executive pastry chef and five sous-chefs who make breakfast, lunch, and dinner for the First Family and their guests. Yosses and his sous-chef also plan, manage and prepare all desserts and pastries served at state dinners, official dinners and the family’s private entertaining.

His days start early—usually by 7 a.m. when he approves several different breads as they go into the oven. During the day he prepares desserts for the family and works on menus for upcoming official events. The President and his family prefer simple fare.

“I usually make straightforward fruit-oriented desserts such as apple pie, blueberry pie, cobblers and shortcakes, but sometimes chocolate will come into play,” Yosses said. “The Bushes love chocolate.”

Originally from Toledo, Ohio, Yosses majored in French at the University of Toledo. Upon earning a master’s degree in French literature at Rutgers University, Yosses came to New York to work for the sales department at Air France.

But a love of French food and culture created a desire to become a chef so he enrolled at City Tech. After graduation, Yosses spent several years working with celebrated chefs Daniel Boulud and Thomas Keller. He also worked with pastry chef Jean-Pierre Le Masson.

With a new president arriving in January, Yosses knows he may not be able to stay much longer at 1600 Pennsylvania Avenue.

“It is such an honor and privilege to cook for the First Family and their guests,” he says. “I certainly would like to stay. I am very happy here and would like to continue as long as they want me.”

Baker in Chief

By Beethoven Bong

Yellow Pages
LIKE MANY NEW YORKERS, historian Arthur M. Schlesinger Jr. never seemed to have enough room for all of his books.

“My father’s books filled the three rooms of his office in an apartment on East 51st Street,” said his son Andrew. “They were piled on the floor, on tables and bookcases and even overflowing the kitchen. You had to walk through a path between the piles.”

So when Schlesinger, a former CUNY history professor, died in 2007, it was left to his family to determine what to do with more than 13,000 volumes.

They kept some for themselves and gave the most valuable to a Massachusetts antiquarian book dealer to sell. The rest — 5,809 hardcovers and 3,691 paperbacks — were donated to the University’s Graduate Center library.

Thus, late on a winter day last year, acquisitions and collection-development librarian Jane B. Fitzpatrick met a rental truck from Boston to accept 9,500 volumes packed into 400 cardboard boxes.

“It’s a very basic collection of books,” Fitzpatrick said, “World War II, history, presidential politics, the Cold War, and everything and anything about Bobby and Jack Kennedy.”

Through the spring and most of winter, Fitzpatrick and her crew culled the books. Each was recorded by a student and then inspected by a history or political science librarian. Those too damaged to keep were thrown out and those that were duplicates of books already owned by the library were considered as possible replacements. “It was a huge amount for one man to own and use,” said Fitzpatrick. “There were notes and papers in many volumes.”

Schlesinger joined the CUNY faculty in 1966 as the Albert Schweitzer Professor of the Humanities. He taught history in the Ph.D. program and when he retired in 1994, remained Schweitzer Chair.

Books lined the hallway outside Fitzpatrick’s office and spilled into a vacant room nearby. Among the stash were several volumes on Churchill, biographies of presidents, a book on Cuba in 1933, and a comic strip book of “A Thousand Days” translated into Japanese. Schlesinger, who won both the National Book Award and the Pulitzer Prize twice, was an adviser to John F. Kennedy and chronicled his administration in “A Thousand Days.” Tucked into the Japanese edition was a long-forgotten, type-written paper translating into English what Japanese authors had written in the frames.

From another box, Fitzpatrick pulled a complete set of cassette tapes of President Franklin Roosevelt’s Fireside Chats. And one of the most surprising finds was a collection of children’s books, some dating back to the mid 1800s. Schlesinger’s name, in neat, careful script, is written in ink in some and others are signed by his father. Stashed away in her desk for safekeeping were three issues of LIFE magazine that Schlesinger had saved from December, 1941 — the month Pearl Harbor was bombed.

The Graduate Center library kept 300 books, other University campuses selected a little over 400. LaGuardia and City College took the most — about 140 each. The community colleges were especially interested in the collection. “Community Colleges have more of a need for books,” Fitzpatrick said. “And these were mostly basic important titles in history and political science.”

Many volumes also were sold at the library book sale. More than 50 cartons were dispersed for donation or sale elsewhere, and another 50 boxes are still awaiting action.

It would have pleased Schlesinger that so many of his books ended up in so many CUNY libraries. “He did not collect books for their value but for their usefulness,” said Andrew Schlesinger. “And he would be very happy to know that his books are being made available for other researchers.”
WHEN ENGLISH PROFESSOR Frederick Kaufman was a college freshman, he wrote an essay about *The Odyssey*. He called it an analysis of the hero and the stomach — the food decisions that Ulysses made on his epic journey.

“My professor wrote, ‘Brilliant — but demented’,” said Kaufman, who loved the critique. “I think that got me going,” he said.

Ever since that paper, Kaufman, 47, has been fascinated by the role the stomach plays in people’s lives. He has continued to analyze and write about it, seldom taking a bite of a meal without thinking of its cultural and historical ingredients.

“People are surprised when they see there’s a history of the stomach,” he said. “They haven’t perceived its centrality. It’s not that it’s overestimated or underestimated, it’s not estimated.”

His newest book, *A Short History of the American Stomach* — Kaufman’s third — is about America’s fickle, maybe insane, relationship with food. Feast or famine is the approach in this country, but it isn’t a modern invention. Americans have been patterning this behavior since the Mayflower.

The book is full of factoids about American food culture. Ben Franklin was the country’s first foodie. Paul Bunyan, Dale Boone (descended from Daniel) and Mark Twain were champion eaters, he says in the book. Twain, for example, began each day with a dozen eggs. But the Puritans are responsible for the purge. Vomiting was considered not only medicinal, but spiritually beneficial as well.

Among his other findings:

**COMPETITIVE EATING.** Kaufman describes Eric Booker’s 2006 record for downing the most matzoh balls (21 in five minutes), but he links such overeating efforts to past American exploits in mass consumption. Food orgies possibly evolved from the early settlers’ ability to eat almost anything to survive — deer fetus, pancakes fried in bear grease, broiled horse intestines.

“A lot of people think the book is funny, but it’s very serious when you think about our gut reactions,” he said. “Some scientists believe the stomach has an older, prehistoric brain that gives us our gut reactions — an immediate distaste for something.”

**FOOD MARKETS.** Markets have changed over time. “People think there are a lot of choices today, but there were even more choices in the 19th century,” Kaufman said. “In the 1800s, you could go to the food market in New York City and buy panther steak.”

Kaufman grew up in Los Angeles, where his father was a screenwriter, his mother an anthropologist. He graduated from Yale in 1982, immediately moving to New York City to work as a freelance writer.

In 1999, he earned a doctorate in English from The Graduate Center and joined the staff at the College of Staten Island. Today he is a tenured associate professor, who also teaches at the CUNY Journalism School.

Realizing that he had a unique perspective about the role food plays in life, Kaufman began writing about it, completing dozens of articles about food, including dog food.

Interest in his current book began when an editor at *Harper’s* suggested that he write something about the Food Network. That became a widely read and notorious piece — “Debbie Does Salad: The Food Network at the Frontiers of Pornography” — which is adapted in his book (released earlier this year by Harcourt).

In spite of his incredible research on the subject, Kaufman said he is not a foodie and has a wide range of tastes.

“My fascination is with how the body controls us in ways that we’re not aware of,” he said. “I’m interested in how our autonomic nerve system governs our decisions. A great deal of this connects to the stomach.”

**Food for Thought:** Frederick Kaufman’s Odyssey
Physicist Michio Kaku: Exploring ‘Impossible’ Dreams

Michio Kaku had two role models while growing up. Albert Einstein, who died in 1955 when Kaku was eight and Dr. Zarkov, a scientist in Flash Gordon, a 1954-55 science-fiction TV-series based on a comic strip. Kaku was fascinated with Dr. Zarkov’s ability to develop star ships, ray guns and invisibility shields. He wondered whether it would ever be possible to travel through time or become invisible.

“I said, that’s for me,” recalled Kaku, a world-renowned theoretical physicist and professor at City College and the Graduate Center, who now believes that some science-fiction technologies, like those seen on Flash Gordon, Star Wars or the Terminator series are well within the realm of possibility.

In his most recent book, Physics of the Impossible: A Scientific Exploration Into The World of Phasers, Force Fields, Teleportation, and Time Travel, Kaku defines “where physics ends and science fiction begins.” He explores “what technologies are considered ‘impossible’ today that might well become commonplace decades to centuries down the road.”

Co-founder of the string field theory, which Kaku says is Einstein’s unfinished “theory of everything,” Kaku divided technological impossibilities into three classes. Class I consists of teleportation, invisibility, telepathy and other technologies that are not possible today but may be foreseeable in the future.

Class II is comprised of time machines, hyperspace travel and other technologies that are impossible in the foreseeable future, but do not violate the law of physics. Class III consists of precognition, perpetual motion machines and other devices that violate the laws of physics, as we know them today.

Kaku also explains which technologies will make our lives easier. He describes how enhancing the sensitivity of MRI devices may allow us to read minds or how magnetic fields may eventually enable scientists to levitate an elevator into outer space.

“Wouldn’t it be great if we could get into a time machine and visit our teenage mother before we’re born?” asked Kaku.

Provençal Cooking: Savoring the Simple Life in France

CUNY Graduate Center distinguished professor of French, English and comparative literature Mary Ann Caws
Pegasus Books, 2008

More than 30 years ago Mary Ann Caws moved to Provence, France, to translate the poetry of Provençal poet René Char. That sojourn turned into a journey of self-discovery and a book on the joys of living simply and enjoying the Provençal “good life”—good company, good food and great wine.

FOR THE THRILL OF IT: Leopold, Loeb, and the Murder that Shocked Chicago

John Jay College associate professor of history Simon Baatz
HarperCollins, August 2008

Why would two brilliant young sons of wealthy Chicago Jewish families kidnap and brutally murder a 14-year-old boy? Baatz examines the crime from the point of view of the killers, Nathan Leopold, 19, and Richard Loeb, 18, which included an intense, often sexual relationship. This compelling book offers further evidence of why a crime committed in 1924 still holds great fascination for 21st century readers.
Here is a collection of books written by CUNY authors this year.

The Jewish Condition: Challenges and Responses—1938-2008
Edited by sociology professor William Helmreich (CCNY) and history professor Mark Rosenblum (Queens College); and David Schimel
Transaction Publishers
How grave is the danger to Jewish communities at a time when the Iranian leadership can proclaim a world without Israel to be feasible? That is the question posed here. Essays by Alan Dershowitz, Norman Podhoretz, Michael Walzer, Leonard Fein and David Price-Jones address the revival of anti-Semitism and the risks to Jews worldwide.

Cop in the Hood: My Year Policing Baltimore’s Eastern District
John Jay College assistant professor of law, police science, and criminal justice administration Peter Moskos
Princeton University Press
Moskos maintains that the war on drugs is engineered to fail. It describes police academy graduates who are unprepared for the realities of the street, and a criminal justice system that incarcerates poor black men and measures success by arrest quotas. Moskos, a former Baltimore City police officer, sees drug legalization as the only realistic way to end drug violence and let cops once again protect and serve.

Why I Believe in Narnia: 33 Reviews & Essays on the Life & Work of C.S. Lewis
York College professor James Como, Department of Performing and Fine Arts
Zossima Press
This book offers a panoramic view of C. S. Lewis’ genius and its application in fields as diverse as social criticism and children’s literature. It includes reviews of critical books, documentaries and movies; evaluations of Lewis’ books; and biographical analysis. Como examines the most important contributions by Lewis in literature and also as a social philosopher and reformer.

The Spike Lee Reader
Brooklyn College associate professor of film Paula J. Massood
Temple University Press
Massood has produced a compelling anthology of critical writings on director Spike Lee’s films by leading scholars in Cinema Studies and African-American Studies. These 16 new and reprinted essays consider the nexus of race, gender, and sexuality in Lee’s work and encourage readers to further explore the cultural, social, and political implications of his individual films and entire body of work.

City of Disorder: How the Quality of Life Campaign Transformed New York Politics
Brooklyn College assistant professor of sociology Alex S. Vitale
New York University Press
Vitale focuses on Mayor Rudolph Giuliani’s zero tolerance campaign in the 1990s against what was perceived as an increase in disorder that threatened social and economic stability. The book includes several case studies of New York neighborhoods, a look at the dynamics of the NYPD, and Vitale’s take on why Republicans have won the last four mayoral elections.

From Student to Scholar: A Candid Guide to Becoming a Professor
CUNY Graduate Center professor of philosophy Steven M. Cahn
Columbia University Press
This guide on how to plan, complete and defend a dissertation; how to handle a job interview; how to improve teaching performance; how to prepare and publish research; how to develop a professional network; and how to garner support for tenure is an invaluable source for those who plan to build a professorial career.

Crossing Hitler: The Man Who Put the Nazis on the Witness Stand
Hunter College and Graduate Center assistant professor of history Benjamin Hett
Oxford University Press
Winner of the prestigious Fraenkel Prize in Contemporary History from the Weiner Library in London, this biography recounts the career of prominent anti-Nazi lawyer Hans Litten. During the prosecution of four stormtroopers in 1931, Litten forced Adolf Hitler to the witness stand, embarrassing the Nazi Party. Litten was eventually sent to a Nazi concentration camp, where, after years of abuse, he committed suicide.

Waking Giant: America in the Age of Jackson
Baruch College and CUNY Graduate Center distinguished professor of English David S. Reynolds
HarperCollins
Reynolds captures the turbulence of a democracy caught in the throes of controversy over slavery, the rise of capitalism and the birth of urbanization from 1815 to 1848. The book casts new light on Andrew Jackson, who redefined the presidency, as well as John Quincy Adams and James K. Polk, who expanded America’s territory and strengthened its international standing.
ANDREA BALBAS AND HER FAMILY were getting ready for a trip to Six Flags Great Adventure when a 5.5 magnitude earthquake struck near their farm in Hollister, Calif. Balbas was just 6 years old, but already used to the earth shaking frequently.

Growing up on the rolling hills of the San Andreas Fault — the “earthquake capital of the world” — she experienced hundreds of quakes, including the deadly 6.9 magnitude 1989 Loma Prieta earthquake 10 years later.

Learning early to respect the earth’s natural forces, she developed a passion for science, especially geology. “The power of the earth is very captivating,” said Balbas, now 35 and a Queens College senior majoring in geology. “What seemed very scary to people was normal to me.”

This fall, Balbas was to join Stephen Pekar, an assistant geology professor from Queens College, and his team of scientists, students and a middle school science teacher on a National Science Foundation-funded expedition to Antarctica. For two months they will live in unheated tents on eight-foot-thick sea ice with temperatures dipping below 20 degrees Fahrenheit.

It’s all part of Pekar’s continuing work with the International Antarctic Drilling Program. The research aims to reveal more about the climate history of the South Pole and may yield important findings on the nature of global warming.

“This experience is greater than learning in an academic setting,” said Balbas, who will help gather geophysical data and assist with the equipment. “I’m doing something that I hope will help other people who are negatively impacted by climate change.”

After graduating from high school in 1991, Balbas enrolled in a geology program at Sacramento City College, but unable to afford her education, she dropped out after three semesters. “It came to the point where I had to ask myself do I eat or do I go to school,” she said.

Seeking adventure, Balbas moved to New York in 1996. She drove across the country in a U-Haul truck to Bay Ridge, Brooklyn, then found work in advertising sales at Fortune and Business Week magazines.

“I like to challenge myself and push boundaries that are common to me,” said Balbas. “Then I really understand who I am and what I’m made of.”

By 2004 she saved up enough money to quit her job and enroll at Queens College. Now in her final year, Balbas thinks that delaying her education had its benefits. “I think it’s much easier, knowing myself and what I’m good at and the skills that I need to work on,” she said.

Her resume reflects a gamut of experiences. Research on sediment core samples from the floor of Long Island Sound led to a fellowship from the group Minorities Striving and Pursuing Higher Degrees. As part of the fellowship, Balbas, whose ancestors are from Mexico and Spain, attended the Science Steering and Evaluation Panel of the Independent Ocean Drilling Program in Busan, South Korea, as a student observer last May.

During the summer Balbas also participated in a 10-week NASA Academy at the Goddard Space Flight Center in Greenbelt, Md., where she assisted with a group project and conducted her own laboratory research on the “physical processes in our solar system and universe that have influenced Earth’s biosphere in the past and may do so again in the future.”

Balbas’ goal is to get a Ph.D. in geophysics at Oxford or Rutgers.

“If I wasn’t a scientist I would’ve been a farmer,” said Balbas. “Being surrounded by a farming community while growing up helps me ask questions and be successful as a scientist.”
ACROSS
1. CUNY founder
13. Scenic Designer Loquasto
14. Egyptian symbol of gold
15. Conical kiln
16. Tennis player
18. Epicene
20. Concur
21. Number of CUNY Nobel Laureates
22. CUNY products
24. Oldest CUNY inst.
25. ___ se Puerde!
26. Answers
31. No seats
33. They are prepared (abbr.)
34. Give it that old ___ try.
37. Lehman poet Billy
41. Aus. marsupial
43. Queens Col. bio-blitz of Jamaica ___
44. Yankee Stadium neighbor
46. Silver chem.
48. A. M. drink
50. CUNY's largest donation donor
54. CCNY star Kaku
57. ___ and end-all
58. Hey!
59. Chinese family name
60. ___, coul’d, shoulda
63. Street sufficient
65. XCNY years from now
66. Rockland County village
69. Original CUNY name

DOWN
1. Prof's helper
2. Yoko
3. Heft e.g.
4. Lacking shine
5. Becomes a student at the University
6. Rival
7. Fict. trade name
8. CUNY school with a bridge
9. Graduation attire
10. City transit
11. Data organization
12. Guides
13. Col. ent. exams
17. Proposed amend. for fair practice
20. Restricted to grown-ups, e.g.
23. Parliament in U.K.
27. Capably
28. Largest col. campus in NYC
29. Bronze
30. Conforming to inoffensive lang. or practice
31. Vacancy
32. S-shaped molding
35. Spanish treasure
36. ___ Alamos
38. ___ -gyn
39. State of being out of touch
40. Very
42. Licorice-flavored liquor
44. Shakespearian avenger
45. Missouri attitude
47. Celtic
Grassroots Inspiration

Kojo Wallace, left, a 2008 Bronx Community College valedictorian, worked with BCC associate professor Charles Maliti, right, on a project that won a national student science competition. Wallace researched strains of rice that absorb heavy metals — which could greatly benefit countries like his native Ghana, where mining pollutes drinking water. He plans to be a physician and is pursuing a bachelor’s degree in biochemistry at Cornell University.
Island-Hopping

Hopping a ferry to class isn’t that common anywhere in the country, but it might seem even more unlikely in New York City.

Yet a scenic ferry ride to St. George Terminal on Staten Island and a nonstop shuttle bus will get you to the College of Staten Island from Manhattan in just about an hour.

The college is best known for its nursing, education, chemistry and molecular biology programs.

At CSI all paths lead to the Campus Center — the hub of student life and home to lots of clubs and publications.

It’s here that students grab food, buy textbooks, snooze at the Sleeping Dolphin Lounge, play video games or catch a movie at a mini movie theater.

There are 50 student organizations based at the center including WSIA, the student run radio station that features many local and unsigned bands. Third Rail, CSI’s political arts magazine, and The Banner, the student newspaper, are also here.

If you’re in a hurry, a more direct connection to the college is an express bus from 57th Street and 3rd Avenue to Victory Boulevard, or an express bus from Bay Ridge to CSI. Staten Island residents can take the S66, 67, 61, 62 or 92 to Victory Boulevard. Once on campus, you can take the bus that continually travels the grounds.

A quick shuttle bus ride from the ferry is the campus library, top left, and astrophysical observatory, above, open to the public many evenings for sky-viewing.

With 204 acres, CSI is the largest college in New York City and has 13,000 students. Seventy-five percent of them live on Staten Island. Twenty percent commute from Brooklyn; the rest are from the other boroughs and abroad.

HOT SPOTS

- Campus Center (study lounges, game room, movie theater, computer lab, student organization offices, The Park Café restaurant, Bookstore, Health and Wellness Center, WSIA Radio, Student Government, Cafeteria)
- Library (Cyber Café where sandwiches are named after computer parts; computer labs and quiet study areas.)
- Center for the Arts (student lounge and a coffee stand on the first floor, CSI Art Gallery, Performing Arts spaces)
- Sports and Recreation Center (24 meter, 8 lane swimming pool, 5 indoor racquetball courts, fitness center, volleyball and basketball courts; outdoor tennis, basketball and handball courts, 3 softball fields, football field)
- Astrophysical Observatory
  
Check the CSI website for evening sky-viewing schedule.
Soar with CUNY!

“The American Dream Machine.”
– THE ECONOMIST

“An elite program helps CUNY take another step to restoring its luster.”
– THE NEW YORK TIMES

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