Award-Winning CUNY Students Take On the World
Top Academic Honors For Hundreds of Scholars

Hostos Community College Student, Phi Theta Kappa Scholar Rabiat Ajao
Pride in the Achievements Of Our Students, Alumni

WITH THIS SPECIAL ISSUE of Salute to Scholars magazine, The City University of New York proudly celebrates graduating seniors, adventurous graduate students and recent alumni who won some of our nation’s most prestigious and competitive academic awards in 2016.

These honors include 10 National Science Foundation Graduate Research Fellowships; 13 Fulbright Fellowships for research and teaching abroad; three federally funded Goldwater Fellowships that encourage undergraduates to continue on to graduate work; five Boren Scholarships, federal grants for U.S. undergraduates interested in federal government service to study less commonly known languages; and three New York City Urban Fellowships to work in our city’s government.

These and the other academic honors mentioned in this magazine reflect the high caliber of CUNY students and the academic opportunities that this University provides.

CUNY students’ interests, drive, and achievements underscore the transformative value of a CUNY degree. This is public higher education at its best, delivering on the University’s historic mission to provide accessible, affordable, high-quality academic opportunities. Our graduates earn acceptance at leading graduate and professional institutions where they pursue law, medicine and the full range of arts, sciences, and social sciences. They are welcomed quickly into the workforce, contributing their skills and talents to the betterment of our society.

I am proud to recognize the remarkable CUNY students profiled in this special edition, as well as all members of the Class of 2016. They enrich our city, our nation and our world.

All best wishes,

James B. Milliken
Chancellor

Articles in this and previous issues are available at cuny.edu/news. Letters or suggestions for future stories may be sent to the Editor by e-mail to cunycommunications@cuny.edu. Changes of address should be made through your campus personnel office.
WHEN she was a child in Nigeria, Rabiat Ajao (Hostos Community College, ’16) had the misfortune to be hit by a car while riding a motorcycle. She was rushed to the hospital, “but I never got adequate care” and could neither walk nor go to school for three months.

Flash forward to when she became ill during her senior year at a Bronx public high school. Her father, whom she had emigrated to be with in 2008 when she was 11, took her to a hospital, and the experience was totally different. “I was treated very well. I loved that my doctor communicated with respect and took very good care of me.”

The contrast between those experiences played a role in her decision about a career. Ajao determined to become a nurse practitioner and, “if I get the opportunity, go back to Nigeria. I would like to make a difference in my country.”

She always has worked hard academically, and this year she won induction into the Phi Theta Kappa national honor society for community college students. The organization recognizes both academic achievements and community service.

Ajao says she chose Hostos because it was a small college. It proved to offer personalized support.

“At Hostos, I felt like the students treat each other as one family,” she says. She singles out her Anatomy and Physiology II instructor, adjunct lecturer Kadiri Oluwakemi, who “supported and inspired me with her passion for her career, and she encouraged me that I could do whatever I put my mind to. To this day she is still in contact to confirm that I am doing well in school.”

She found a great deal of satisfaction through participation in the Hostos Student Leadership Academy’s Student Ambassador Program. She spent more than 40 hours volunteering to plant trees in local parks, visiting senior citizens, helping students get acclimated to college life and feeding the hungry in soup kitchens.

Ajao is now taking nursing prerequisite courses at Lehman College, such as anatomy, physics, chemistry, psychology and nutrition. She has set her sights on a bachelor’s degree in nursing and then a doctorate. “I love working with children, so I want to go into pediatric care,” she says.

Her sister, Kikelomo Ajao, who finishes her baccalaureate degree coursework at Medgar Evers College in December and graduates next June, intends to become a physician.

The Leadership Academy “helped me grow professionally,” Rabiat Ajao says. “I was quiet. It helped me to be more outspoken and recognize my skills. I also met many people who had similar stories to mine.”

And it “made a huge difference in my grades.”

—Rabiat Ajao
Hostos Community College
Phi Theta Kappa
Can Math Applications Add Up to World Peace?

TAMAR LICHTER faces the delightful quandary of being pulled in opposite directions by her love of mathematics. Will she head into pure mathematics or applied mathematics? Luckily, she’s pretty good at both.

Her application essay about an area of applied mathematics helped win Lichter (Macaulay Honors College at Queens College, ’17) a 2016 Barry Goldwater Scholarship, the most prestigious undergraduate award in science, technology, engineering and mathematics. This federal merit grant, worth up to $7,500 a year, is awarded to some 300 sophomores and juniors each year.

Her essay grew out of a Summer 2015 internship at UCLA. There, she joined a team of three other undergraduates, a graduate student and two mentors from Google on a machine learning project. You’ve probably encountered “recommender systems,” such as when Netflix suggests a movie because you’ve previously watched something similar.

Lichter’s similarly complicated assignment used public data from Yelp, a company that offers crowd-sourced reviews of restaurants, hair salons, dentists and more. Her team designed a suite of recommender systems.

“We included the star ratings, but Yelp also has text reviews, which opens up the complex field of natural language processing,” Every review involved a location in one of 10 cities, different business categories and trends in star ratings. The team trained their models on a subset of the data and tested it on another subset, trying to predict which businesses a given user would like.

“It was very cool to be spending 9 to 5 every day involved in research,” she says. “I really enjoyed working with a team, as opposed to alone in a classroom setting.”

Meanwhile, Lichter also is tempted by pure mathematics. Since high school, she has explored graph theory, a highly abstract field used in the study of objects and connections; graph theory is central to Google search and is used to analyze complex structures like electrical circuits, to model social networks and even to find a given actor’s Kevin Bacon number.

On the grander stage (indeed, in a different mathematical theater), this semester Lichter is working on a mathematical model with other Queens students from different disciplines that describes how to sustain peace in various political contexts. “That particular project has been going on for years,” she says.

Lichter, who also has studied abstract algebra and computational theory, intends to pursue a doctorate in mathematics after earning her bachelor’s degree.

Making a mathematical model of peace involves several variables, from historical memory to group dynamics. “The hope is that mathematics will provide unexpected insight because it has harmony and consistency. If you can do the math, you can make strong predictions,” Tamar Lichter says.

— Tamar Lichter
Macaulay Honors College at Queens College
Goldwater Scholarship
GROWING UP in Ghana, Solomon Mensah dreamed of becoming a physician, even while earning an associate degree in mechanical engineering. When he emigrated to the United States to pursue a bachelor’s degree, he says he found “a way to marry my two passions. Biomedical engineering gave me a platform, and City College has one of the country’s most competitive programs. Most happily I got into the program.”

Mensah (City College, ’14), now a doctoral student in bioengineering at Northeastern University, has won a 2016 National Science Foundation Graduate Research Fellowship to study intercellular interactions in cancer and cardiovascular diseases. It is worth $138,000 for three years of doctoral research. He focuses on the glycocalyx, a layer of sugars that coats the interior walls of blood vessels and influences the transportation of molecules and cells that seek to cross the blood vessel wall.

“I’m trying to understand the mechanical properties of the sugar coat, for it has been stated its degradation allows cholesterol plaques to form and cancer cells to penetrate blood vessels,” he explains.

Basic science isn’t Mensah’s only interest. An entrepreneur at heart, he launched a start-up, Therapeutic Innovations, to develop low-cost medical devices for use in the Third World.

“The medical machines in the United States are wonderful, but they are too expensive, need too much maintenance and require too many consumables for use in places like Africa and India,” says Mensah. “We aim to redesign and reduce the cost of medical devices, so that children in poor countries can access the kind of high quality health care available to people in developed countries.”

Mensah went to Ghana to see what devices would most benefit children in hospitals there. His top priority is to develop a bubble continuous positive airway pressure (CPAP) machine for newborns who suffer respiratory distress. Northeastern recently awarded a grant to develop a prototype, and his team lined up beta testing through an Indian company and Ghanaian military hospitals. In the future, Mensah foresees developing orthopedic spine implants and bone-healing wearables.

To share the experience that he and his fellow biotechnology students are amassing, Mensah cofounded a student organization for budding entrepreneurs. They want to spread the word about how to move projects out of the lab and into the world. “We hope to deconvolute the process of taking a potentially disruptive idea or technology from concept to a tangible project,” he says.

“The World Health Organization reported that Africa and India have among the highest rates of premature births and deaths globally. In major hospitals in the capital city of Accra, we found that most of the life-support equipment for newborns was broken or not available.”

— Solomon Mensah

City College, Grove School of Engineering
National Science Foundation Graduate Research Fellowship
Kanbergs is enraptured by a lyrical language and the dynamics of change.
He Digs Anthropology and Arabic

Arabic is such an expressive and beautiful language, but it’s daunting because the vocabulary is so huge,” says David Kanbergs (Hunter College, ’17). “There are so many specific words, like a verb to say someone became one-eyed.”

With his upcoming B.A. in anthropology and Middle Eastern Studies, Kanbergs intends to pursue a doctorate in Arabic language and literature. Those studies will be supported by a 2016 Beinecke Scholarship, a $34,000 award given to 20 “young men and women of exceptional promise” so they can be “courageous in the selection of a graduate course of study in the arts, humanities and social sciences,” the Beinecke website states. He will apply to graduate schools in the fall while finishing his baccalaureate.

He also won a U.S. Department of Education Foreign Language and Area Studies grant to study in Morocco in Summer 2016. Born and raised in California, he lived in Oregon after finishing high school in 2002. Eight years later, he was working in a warehouse, “where the only advancement was to inside sales,” when his girlfriend landed a paid internship at the Museum of Modern Art. Since he also was playing electric bass and recording his own songs with various bands, New York was the place to be. He began working customer-service jobs and decided he didn’t have a future in music.

Meanwhile, he read avidly and discovered anthropology. “I finally found something that I wanted to learn more about.” So, 11 years after high school, he enrolled at Hunter College. He found a mentor in Professor Jonathan Shannon (CUNY Ph.D., ’01), who specializes in Arab and Mediterranean aesthetics, musical performance, and cultural politics. “His Anthropology of Ahrt and Music course piqued my interest. I wanted to touch these cultures and see for myself.” And you can’t do that thoroughly without mastering the language.

He traveled to Jordan one winter session through Hunter’s study abroad program and returned the following summer with a Hunter Anthropology Department Research and Training Program grant. His observations of Amman’s rapidly modernizing Al-Abdali neighborhood led to a presentation this spring at Hunter’s Undergraduate Research Conference, “Perceptions of Change: Narratives of Loss in Amman, Jordan.”

Kanbergs says Christopher Stone of Hunter’s Arabic Studies program inspired him to shift from anthropology to the Arabic language. Now, he and other advanced students study independently under Stone, reading contemporary novels and short stories. Kanbergs would like to teach, undertake his own research and perhaps translate Arabic literature.

In Amman’s Al-Abdali neighborhood, he brought an anthropologist’s eye to burgeoning gentrification, drawing sharp parallels to New York’s experience. He was particularly intrigued by the ways that Jordanians experience and discuss the city’s ongoing physical and economic changes.

—David Kanbergs
Hunter College
Beinecke Scholarship
Depressed? She Has an App for That

Can depression be diminished by using a brain-training app? That was the question asked – and, in a pilot trial, positively answered – by an app that Rebecca Baron (Macaulay Honors College at Brooklyn College, ’18) designed during an internship at Mount Sinai Hospital.

BrainTrain was developed by physician Dennis Charney, dean of Mount Sinai’s Icahn School of Medicine, and Icahn assistant professor of psychology Brian Iacoviello. “The brain-training regimen effectively rewires the brains of depressed patients by targeting certain areas involved in emotion processing and interpreting negative stimuli,” Baron says. Pilot studies showed this decreases depressive symptoms, indicating that patients are getting better. Baron’s role was to design a user-friendly iOS app, and she still carries the prototype on her phone.

Baron is one of just 15 New York City students – including 12 from CUNY – to win a 2016 Jeannette K. Watson Fellowship. This three-year program provides ongoing mentoring, opportunities that foster personal growth and summer internships with nonprofit and government organizations, culminating in self-initiated experiences abroad in the second and third summers. The fellowship comes with a $5,000 stipend for the first summer and $6,000 for the second and third summers.

“It is an honor to have been selected for the Watson. I am entering into a wonderful cohort, and everyone has welcomed me like family.” Baron finds the field of neuropsychology compelling. “Majoring in psychology gives me greater understanding of the factors that make us who we are and what drives us, but what really excites me is seeing what happens in the brain. Once you know the brain regions involved in certain processes, you can target them to heal diseases or enhance performance.” That explains her minor in neuroscience.

She intends to become a physician, perhaps a pediatric neurologist. She also hopes to contribute to global health through humanitarian efforts. She would love to intern with UNICEF, the United Nations Children’s organization that aids child welfare worldwide.

Before she graduates, she hopes to join a Global Brigades mission to a developing country. Global Brigades is an international, student-led nonprofit organization that sends university volunteers to work with local teams to improve health, the economy, the environment and other essentials.

“Since I was a child, I’ve had a map from Doctors Without Borders taped onto my bedroom wall. I used to tell my parents about the places I would go and the people I would help,” Baron says.

— Rebecca Baron

Macaulay Honors College at Brooklyn College

Jeannette K. Watson Fellowship
Master Teachers Inspire a Career Choice

F CHRISTINA WIRSING (Guttman Community College, ’16) had not always liked children, she might have had a hard time as she was growing up. After all, her mother owns a day care center and her normal summer employment involves being a counselor at a camp, where she teaches arts and crafts to children. Luckily, youngsters always delighted her.

But if you ask what led her to choose elementary education as her career, this 2016 member of the Phi Theta Kappa national honor society — a select group of community college students elected for their outstanding academic achievement and community service — points to her own teachers.

Teachers like her one in second grade, Mia Borgia-DeRosa, “provided me with a warm, comfortable classroom where learning was fun and exciting — and that’s what I think learning should be. I am still friends with her today.”

Another is Guttman English instructor Chet Jordan, “who has taught me so much to help me grow and be where I am today. He inspired me to become a teacher, so that one day I can be the one who inspires and makes a difference.”

Among other things, he arranged for her to meet people from Hunter’s childhood education QUEST (Quality Urban Elementary School Teacher) Program, which prepares undergraduates to become New York State-certified teachers in grades 1 to 6. The program aims at preparing students for the diversity of students and learning needs that are found in the city’s classrooms.

Hunter has awarded her a Transfer Achievement Scholarship, a merit award that provides up to $2,000 per academic year for up to two years.

Wirsing says she choose to attend CUNY’s newest college, Stella and Charles Guttman Community College, because she was intrigued by its novel model, which uses research-based practices, small classes and a built-in support network to help students succeed. “I love it,” she says. “It’s an intimate school with lots of support.”

She adds that her parents “provided me with all the help and resources to get me where I am today; they encouraged me to work hard and chase after my dream of becoming a teacher. I am very lucky to have been surrounded by so many positive individuals.”

What makes learning fun in primary grades? Exploring books, drawing, collecting stickers, having a free-wheeling teacher who uses a funny pointer and rings a bell. “When I see these items I remember when I was in elementary school,” Christina Wirsing says.

— Christina Wirsing
Guttman Community College
Phi Theta Kappa
Alina Shen grew up speaking Mandarin at home, but her fluency slipped as she went through New York City's public schools. "They didn't have the resources to support instruction in Chinese," she says. Her parents were Americanizing, too; they had been older teenagers when their parents, who had come earlier, sent for them. Although Shen spent years in weekend Mandarin classes, English became her dominant language.

"I will always feel most connected to the tight-knit Chinese-American communities in Chinatown, Flushing and smaller neighborhoods where I grew up," says Shen (CUNY Baccalaureate and Macaulay Honors College at City College, '17). "I volunteer with Chinese-Americans who identify as working-class and are non-English-speaking. I want to continue working around issues that affect my extended family, as well. If you're going to reach cultural understanding and discuss civic engagement with people who aren't fluent in English, you need to speak their language."

In Summer 2016, she will take a major step toward relearning Mandarin, thanks to a U.S. State Department Critical Language Scholarship to study in Taiwan for 10 weeks. This fully funded overseas language and cultural immersion program for undergraduate and graduate students seeks to broaden the base of Americans who can speak languages that are rare in the United States, from Azerbaijani to Urdu. Recipients are expected to continue studying the language and to use it in future careers.

"When you're going to reach cultural understanding and discuss civic engagement, you need to speak their language," says Shen (CUNY Baccalaureate and Macaulay Honors College at City College, '17). "I volunteer with Chinese-Americans who identify as working-class and are non-English-speaking. I want to continue working around issues that affect my extended family, as well. If you're going to reach cultural understanding and discuss civic engagement with people who aren't fluent in English, you need to speak their language."

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Shen has studied abroad before in pursuit of her unique CUNY Baccalaureate major, Critical Social Change: Public Policy and Ethnic Studies. Through Macaulay Honors College, she received a William R. Kenan Fellowship to Cape Town last summer. She studied the truth and reconciliation process that has mediated South Africa's transition out of apartheid. "We heard from University of Cape Town students about their struggle against racialized oppression. While we were dorming in a beautiful place near the president's home, we visited the townships, where people still lack sanitation and clean water more than two decades after apartheid ended."

Another Kenan grant sent her to Argentina for winter session courses in neoliberalism and Spanish. "It was really interesting to compare neoliberalism and social change in Argentina with what I'd seen in South Africa. The citizens and workers in each country not only call upon their state for human rights and adequate standards of living, but also come together, often at great risk to their personal safety, to demand it."

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Alina Shen
CUNY Baccalaureate and Macaulay Honors College at City College
Critical Language Scholarship
DNA, here color-coded for ease in reading, holds the secrets that bacteria use to digest plastics.
The world is drowning in plastic. Almost every shred ever created still exists. Some is processed into other products, like polar fleece fabric. Some is recycled by melting, which consumes energy and releases toxic fumes.

Most is buried, but a plastic cup takes 50 to 80 years to decompose, a plastic milk jug 1 million years. Meanwhile, Americans guzzle from 2.5 million plastic bottles every hour (Institute for Sustainable Communication Statistics). Microbes offer a solution, and scientists worldwide are racing to find those whose happiest moments involve feasting on plastics. But there are so many kinds of plastics and at least 100 organisms discovered so far that can digest particular ones.

Angelina Volkova (Kingsborough Community College ’13, Hunter College, ’16) received a 2016 National Science Foundation Graduate Research Fellowship worth $138,000 over three years to determine which microorganisms are best at biodegrading which plastics—and what specific genes work that magic.

Her field is bioinformatics, the computerized classification and analysis of biochemical and biological data. She starts a doctoral program at New York University’s Sackler Institute of Graduate Biomedical Sciences in the fall.

“I found a paper from China, where researchers found a worm. Inside of it were bacteria that could biodegrade regular plastics, like water bottles,” Volkova says. “But other researchers are reporting on other bacteria. The research is disjointed. We need to connect it.”

Volkova grew up in Siberia, studying linguistics and Germanic languages during two years at Kemerovo State University, even though her heart was in the natural sciences. “My parents didn’t want me to go into that field, because in Russia it meant living in a chemical city and working in a chemical plant in hazardous conditions.”

A college exchange program brought her to the United States and, some years later, to Kingsborough’s biology program. At Hunter, she worked with associate professor Akira Kawamura in chemistry (including investigating antibiotic-resistant bacteria in New York’s environment) and was fascinated by associate professor Weigang Qiu’s computational biology class.

She spent the summer of 2015 as a research intern at MIT’s Center for Brains, Minds & Machines analyzing data from the brain scans of autistic individuals; writing the plan to do that prepared her for the more ambitious NSF grant proposal. “I developed the NSF project pretty much on my own,” she says. “I read several papers and figured out that I could propose how to solve this environmental issue by combining different areas of research.”

“Interdisciplinary research is the key to solving real-world problems. People in chemistry may not talk to people in physics or neuroscience. Bioinformatics allows you to collaborate with people from different backgrounds and bring value and success to research.”

—Angelina Volkova

Kingsborough Community College, Hunter College

National Science Foundation Graduate Research Fellowship
HERE’S A GREAT and fascinating world to see, and Linda Mathew intends to see it one classroom at a time. Having taught in Vietnam in 2014 and won a 2016 Fulbright English Teaching Assistantship to Thailand, she says, “My personal goal is to keep teaching abroad. I’d like to teach around the world before I come back.”

She prepared for this career of educational wanderlust at Queens College, earning a B.A. in psychology and elementary education in 2014 and an M.S. Ed. in TESOL (Teaching English to Speakers of Other Languages) in 2016. “When I was younger, I volunteered at a day care center or classrooms,” she recalls. “When I got to college, I knew I wanted to specialize in some form of elementary education. In 2014 I applied for an internship that Queens College has to Vietnam. Through the Southeast Asian Ministers of Education Organization (a nongovernmental organization of the 11 southeast Asian countries), five other students and I spent a month at a summer camp in Ho Chi Minh City. I taught a couple of classes a day of about 30 students each. I taught story-telling to three levels of students, beginning to advanced.”

By then Mathew had already applied for the Queens master’s program in TESOL. “This experience solidified my decision. I’ll be in Thailand for a year, and I’m hoping that if I like teaching there, I’ll keep teaching abroad. I have a list of countries.”

Among them is India, her parents’ birthplace. She has traveled numerous times to visit family in Kerala, a state on the South Indian coast that historically has been known for the spice trade. “I’ve never been outside of Kerala. My goal as a traveler would be to go to other parts of India and teach.”

For almost three years, Mathew has worked in the Queens College academic advising office. She started as an undergraduate aide and then transitioned into adviser through the CUNY CAP (Counseling Assistantship Program). Through this program, CUNY graduate students work about 20 hours a week, counseling undergraduates about admissions, financial aid, career development, academic advisement and more.

If and when she returns to New York, she will have all the certification necessary to teach in the public schools here, thanks to her Queens College education. As an undergraduate, she gained certification for grades 1 through 6, and while earning her master’s she took the TESOL exam for grades K to 12.

“An American citizen by birth and a global citizen by choice, I hope to take my passion for teaching and extend it beyond American borders. I’m excited to see where my career and travels will take me next.”

— Linda Mathew
Queens College, B.A and M.S. Ed.
Fulbright English Teaching Assistantship to Thailand
It’s shocking how much the brain can learn when it’s properly focused.

Working on Stress Relief

If you could control stress, would you learn more effectively?

That’s the nub of the project that Stephen Braren (LaGuardia Community College, ’13, Hunter College, ’16) will pursue in doctoral research funded by a 2016 National Science Foundation Graduate Research Fellowship, which provides $138,000 over three years.

“My interests lie in better understanding learning processes and their implications for education. My NSF proposal looks at how the ability to control a stressor affects learning processes in youth living in poverty,” he says.

Braren intends to enroll in the developmental psychology doctoral program at New York University’s Steinhardt School of Culture, Education, and Human Development to work in professor Clancy Blair’s Neuroscience and Education Laboratory.

He already conducts research at NYU with Liz Phelps, the Julius Silver Professor of Psychology and Neural Science, under a two-year BP-ENDURE fellowship funded by the National Institutes of Health. Administered by Hunter College, that fellowship is a collaboration with NYU, Brown University, the University of Michigan and Vanderbilt University; it involves academic-year research at Hunter and NYU, as well as summer research at a partner institution.

Studying with Hunter professor Peter Serrano last year, Braren probed the biological impacts of stress on learning and memory in mice at the molecular and cellular levels. His doctoral research will engage human subjects.

“Participants will play a computer-based task, a game where they move an object around a patterned grid. If they fail to navigate it successfully, they receive a mild electric shock. Hypothetically, if they learn to control the stressor and avoid the shock, then they may perform better on a subsequent learning test.”

He says, “This could lead to interventions or programs that specifically focus on classroom stress that would improve learning outcomes.”

Braren took a roundabout path to higher education. He grew up in Nashville, Tenn., and enrolled at a Chicago college in 1999. He dropped out after two years of uncommitted study to sing and play guitar in rock, punk, and country bands.

“There were many different projects, some more successful than others, a lot of recording, touring across the country and in Europe, and working dead-end jobs trying to get by. Struggling as an artist left me unfulfilled ultimately,” he says.

“I always knew I wanted to pursue education again.” He eventually found his way to LaGuardia Community College, “the most diverse school I had been to. It was fantastic,” and soon he was on his way.

Stephen Braren and his former professor, LaGuardia psychologist Eduardo Vianna, still collaborate on an extracurricular program offering “an open space where LaGuardia students who struggle in classes or life circumstances can communicate and together develop meaningful life projects.”

— Stephen Braren

LaGuardia Community College, Hunter College
National Science Foundation Graduate Research Fellowship
DARNELL REED (Bronx Community College, ’16), now at City College, intends to become an attorney. He was inducted into Phi Theta Kappa, the national community college honor society, and is among 50 students nationwide to win a 2016 Coca-Cola Community College Academic Team Silver Scholarship worth $1,250.

Just a few years ago he was broke, homeless and worried about how to support his son. His parents had lost the family home after a mortgage company stuck them with an unaffordable loan. Then his employer went out of business. “I hit rock bottom, but I would not quit on myself, my son, or life,” Reed says.

Government agencies helped with unemployment insurance, rent support and a connection with Document Technologies Inc., a legal process outsourcing company that placed him in the copy room at the well known law firm Stroock & Stroock & Lavan.

He soon was working directly with support staff, paralegals and attorneys, duplicating materials for litigation. “I received my first taste and desire for the law,” along with encouragement to aim higher. And then he watched President Obama praise community colleges for preparing people for good jobs in a State of the Union address.

And so Reed, born in New York City, raised in the South Bronx, survivor of dead-end jobs, enrolled in the paralegal program at Bronx Community College. He found he was a good student and comfortable with legal work. He also won a Guttman Transfer Scholarship.

City College accepted him into its Skadden, Arps Honors Program in Legal Studies. This partnership with the prominent law firm prepares rising juniors from low-income and underrepresented groups for legal careers with merit scholarships, mentoring opportunities, LSAT preparation and tutoring. This summer he will intern at Skadden, Arps, as well.

Last summer he went to South Africa on a Phi Theta Kappa International Scholarship. Students from around the world “were a think tank on global issues like rhino poaching and the ivory trade. In the back of my mind, I was afraid to mention my school, Bronx, but I found I was very well prepared.”

Reed volunteers at two Bronx nonprofit organizations, Desi’s Soup Kitchen and the Community Basketball Athletic Leadership League (CBALL), feeding the hungry and involving youngsters in athletics while exposing them to career possibilities.

“I’m rubbing shoulders with prominent attorneys from New York City and around the world – even Robert Abrams [the former New York State attorney general and Bronx borough president] is encouraging me, saying I can do more.”

— Darnell Reed

Bronx Community College, City College
Phi Theta Kappa
Coca Cola Silver Scholarship
 LGBT Americans today benefit from more than 45 years of a vigorous civil and human rights movement. While rear-guard attacks continue over anti-discrimination laws in areas like housing, employment and even bathroom access, the LGBT community has achieved what just a few years ago was unimaginable, most prominently with marriage equality.

But in Japan, things have played out differently. Religion, such a major factor in anti-gay attitudes in the United States, is far less of a force. More significant, says Brian Davis (City College, M.A., ’10; Ph.D. candidate in social psychology, CUNY Graduate Center), is the emphasis on social harmony. “In Japan, I’d ask gay men if they were out and they’d say, ‘No, because I’d upset my family.’ In Japan, there’s more at stake than one’s ability to claim a sexual identity.”

Davis, who previously spent five years in Japan, is writing his dissertation comparing attitudes toward LGBT people in the general population in the United States and Japan, as well as the effect of those attitudes in their lives.

To complement his doctoral research, he won a 2016 Fulbright grant that will underwrite 12 months of work in Japan. His Fulbright project will focus on his second research goal: learning how attitudes in Japan affect LGBT individuals’ mental health and access to community and health resources. Key questions concern differences in the experience of discrimination along lines of sexual and gender identity as well as socioeconomic level.

Davis explains that most evaluations of societal attitudes toward homosexuality were developed for use in one country and usually involve forced-answer multiple-choice questions; that limits their use in capturing the varied cultural dynamics at work in other countries. So he designed an approach in which he presents a short story featuring a main character's attraction for another character. He asks participants to draw overlapping circles to represent the main character. Together with supplemental interviews, these “character maps” allow him to analyze attitudes quantitatively and qualitatively.

His hypothesis is that the complex associations underlying beliefs of what men and women are supposed to be like will differ substantially between the United States and Japan, with gender and sexuality uniquely interweaving in determining attitudes.

He will be based at Osaka Prefecture University and work with one of Japan’s foremost researchers in LGBT and, especially, transgender issues, Yuko Higashi. “Trans issues exploded in the ’90s over there and gained social inclusion much earlier than in the U.S.,” he says.

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**Studying Sexual Identity Issues in Japan**

Davis has gathered cards used to research societal attitudes toward gender identity.

**“One of the wonderful things about the Fulbright program is that, unlike most educational exchange grants, they not only encourage you to work on your project but also to enjoy opportunities for real immersion in the cultural environment.”**

— Brian Davis

**City College, CUNY Graduate Center**

**Fulbright Research Grant to Japan**
The Music Sounds Like Social Justice

SINCE EL SISTEMA, Venezuela’s acclaimed national system of free classical music education, began in 1975, it has come to represent an avenue for social change, national unity, a path out of poverty and what creator José Antonio Abreu calls the expression of “sublime feelings.” Youth orchestras and ensembles bloomed, particularly in impoverished barrios. Great artists emerged, particularly in impoverished barrios. Great artists emerged, like Gustavo Dudamel, now conductor of the Los Angeles Philharmonic. In 2015 alone, 700,000 youngsters made music at more than 400 centers around Venezuela.

But what about llanera, the traditional music of Venezuela’s western plains? Elvis Sandoval, an ethnomusicology doctoral student at the CUNY Graduate Center, will use her 2016 Fulbright research grant to see how this indigenous music – born in the confluence of Spanish, Indian, and African cultures – fits in.

“I’m fascinated with the idea of using music for social justice,” she says. “I will spend time in the classrooms in Guárico State, observing how llanera music has developed in the El Sistema curriculum. I want to see how this oral tradition is brought alongside the orchestral tradition, how students learn and the importance of local influences. I’ll also do archival work on the historical background of this program.”

Sandoval says she came to CUNY in 2014 because she was “impressed by the ethnomusicology faculty at the Graduate Center,” including professors Jane Sugarman, Peter Manuel and Stephen Blum.

She holds a five-year magnet fellowship for doctoral students from underrepresented groups; as part of her responsibilities, she mentors students in the CUNY Pipeline Program, which encourages underrepresented under-graduates to seek Ph.Ds.

“I see the process of diversifying academia, both in terms of the professoriate and curricula, as paralleling a lot of what I’m interested in with El Sistema. Being involved in these CUNY programs has influenced how I think about my research,” she says.

Sandoval has extensive background in ethnomusicology and music education. She holds a B.A. in liberal arts/humanities from Soka University of America, a California institution grounded in Buddhist principles and committed to creating global citizens. At Oxford University, she earned a master’s in ethnomusicology with a dissertation called “Globalization, Multicultural Music Education and El Sistema” that included research at British Sistema sites in Norwich and Liverpool. After graduation, she was a Sistema Fellow at the New England Conservatory of Music, where she helped evaluate that program’s achievements and served as a consultant for El Sistema-inspired programs in San Francisco.

“Music education is an important venue for developing cultural identity. In Southern California and Texas, El Sistema programs use genres of Mexican music as families request it. There are all sorts of opportunities to consider this question.”

— Elaine Sandoval

CUNY Graduate Center
Fulbright Research Grant to Venezuela
ALL POLITICS may be local, as former House Speaker Tip O’Neill famously said, but sometimes the route toward becoming effective in Staten Island means a detour through Germany. At least that’s the way Sebastian Franco (Baruch College, ’16) sees it.

A devoted Staten Islander, Franco will work in Germany’s government through a rare Congress-Bundestag Youth Exchange for Young Professionals (CBYX), a yearlong program funded by the U.S. Congress and its German counterpart and administered by the U.S. State Department. Just 75 young Americans and 75 young Germans in all career fields get to learn the other country’s language and experience what makes it tick.

“I call Germany a ‘for example’ country,” Franco says. “Whenever you look at happiness levels, health care, sex education, salaries or green energy, the ‘for examples’ are Germany and the Nordic countries.” He sees much to learn there that could benefit his city and his country. Not speaking German, he’ll begin with language immersion this summer. He learned Spanish from his parents, who immigrated from Colombia and El Salvador in the 1980s and 1990s. “I consider them the most fascinating people I’ve ever met,” he says.


He also was offered a 2016 New York City Urban Fellowship, but declined it in favor of the German program. The Urban Fellowship does on the city level what CBYX does on the international level.

When Franco returns from Germany, he expects to enroll in Carnegie Mellon University for a master’s in public policy. And then he intends to focus on local work in Staten Island, “to help my community, my hometown. There’s a lot that can be done to make people’s lives easier and more enjoyable.”

He says major issues include transportation, “just getting to work,” and “living every day affordably.” Staten Island also suffers from heroin and prescription drug abuse; which he favors treating as a mental health issue. “There has to be proper treatment. And there have to be more educational and other programs after school to give students the same opportunities that helped me get to where I am today.”

“Having the opportunity to work within the German government and see how they provide services to their community offers a perspective I couldn’t get anywhere else. It’s a once-in-a-lifetime chance.”

— Sebastian Franco

Baruch College
Congress-Bundestag Youth Exchange for Young Professionals
In his 3D computer model of a brain, red shows maximum stimulation, deep blue the least.
He’s Working on That Migraine for You

MIGRAINE headaches throb painfully, sometimes triggering nausea, vomiting and extreme sensitivity to sound and light. They can be incapacitating.

Effective treatment may lie in electrical stimulation of the vagus nerve, according to Antonios (Andoni) Mourdoukoutas (Macaulay Honors College at City College, ’16). The National Science Foundation awarded him a Graduate Research Fellowship to pursue that hypothesis in doctoral research at UC Berkeley-UC San Francisco. The award, the first for an undergraduate student at City College, Grove School of Engineering, is the most prominent for graduate students in the sciences, paying $138,000 over three years.

In 2015 Mourdoukoutas won a Barry Goldwater Scholarship, the most prestigious federal undergraduate award in the STEM fields, partly because of related research with Marom Bikson, professor of biomedical engineering at City’s Grove School of Engineering. His laboratory develops medical devices based on studies of electricity’s effects on the human body.

Electrical stimulation is a hot field. Some researchers focus on the brain, sending direct current through the scalp to painlessly treat conditions like depression, anxiety and chronic pain. Others stimulate the spinal cord, seeking to improve motor function from stroke and other conditions.

Mourdoukoutas focuses on the vagus nerve, which actually is a pair of nerves that run from the brainstem through the neck and down each side of the chest and abdomen. It carries messages to the heart, lungs and digestive tract, as well as to brain areas that control mood, sleep and other functions.

“Working with MRIs [magnetic resonance images], we generate a 3D model of someone’s head and simulate where currents will flow based on electrode placement,” he says. “I’m looking to treat chronic migraine. The NSF proposal is to test a specific electrode montage that targets the vagus nerve. If this research validates our models, we can move into clinical trials.”

Mourdoukoutas purposely slowed his education, taking five years to earn his B.E. degree, in order to allow more time for research. He believes that decision gave him the time to author publications and build the basis for his awards. He started in Bikson’s lab when he was a sophomore, beginning with paperwork needed to win Food and Drug Administration approval for a device; he had to show his commitment before the professor moved him into research.

He praises years of “endless support” from CCNY’s Honors Center staff and particular support from Bikson, City’s national scholarship coordinator, Jennifer Lutton, and CUNY’s director of student academic awards, James Airozo. “Without all of them, I would not be here,” Mourdoukoutas says.

In his 3D computer model of a brain, red shows maximum stimulation, deep blue the least.
SHANIK VASQUEZ’S interest in things Japanese began at 12 with “Naruto,” a Japanese anime (animated) television series about an adolescent ninja; next came manga comic books and Japanese pop music. Krystal Garcia’s own pen and ink drawing, well, drew her in, as anime and manga became influences.

Both women, friends and rising seniors at Lehman College, won Benjamin A. Gilman International Scholarships to study at Sugiyama Jogakuen University in Nagoya, Japan, in Fall 2015. Congress funds these competitive one- and two-semester study-abroad scholarships, which the State Department awards three times a year. The program’s goals include expanding the number of speakers of foreign languages and giving the types of students who traditionally do not get to study abroad a chance to encounter the broader world.

For Summer 2016, CUNY students won 21 Gilmans, the most of any institution on the East Coast; CUNY also led the region in Spring 2016 (with 14) and Fall 2015 (with 13). In the five years between 2011 and 2015, CUNY students captured a total of 138 Gilmans. The scholarships generally are worth up to $5,000, but students studying critically needed languages and their variants – Arabic, Chinese, Indonesian, Japanese, Turkic, Persian, Indic, Korean, Russian, and Swahili – are eligible for up to $3,000 more.

Garcia, an art major born in the Dominican Republic, joked that her first trip abroad was coming to the Bronx when she was 10. Though she studied Japanese at Lehman for two years, she admits that her conversational skills were “pretty low” when she arrived in Japan. “I improved a lot, especially considering the short amount of time I was there.”

Vasquez, a Bronx native, says: “People ask if I experienced culture shock. Actually, not that much, because I knew what to expect and they’re very friendly people. As a foreigner, you do get some stares, but it comes with being an obvious outsider.”

Majoring in media communications and minoring in Japanese, Vasquez says her future career “depends on where I work and the company. Maybe something international.”

Garcia would like to work in computer-generated animation – perhaps even veering toward anime. “Seeing the art in Nagoya was wonderful. We went to a lot of historical places, museums and castles,” she says.

She sees a Japanese influence on her recent artwork. “My drawing style has changed since I’ve been there. I’m using new colors and vibrant style.”

The eight-class regimen — six in Japanese — was intense: conversation, grammar, listening, reading, writing, society and culture, plus talking with Japanese students. “It was a very intensive, immersive program,” Vasquez says. “If you’re going to learn Japanese, this is the place to go.”

— Shanik Vasquez
Lehman College
Gilman Scholarship

— Krystal Garcia
Lehman College
Gilman Scholarship
City College of New York-1847
Hunter College-1870
Brooklyn College-1930
Queens College-1937
New York City College of Technology-1946
College of Staten Island-1956
Bronx Community College-1957
Queensborough Community College-1958
CUNY Graduate Center-1961
Borough of Manhattan Community College-1963
Kingsborough Community College-1963
John Jay College of Criminal Justice-1964
York College-1966
Baruch College-1968
LaGuardia Community College-1968
Lehman College-1968
Hostos Community College-1970
Medgar Evers College-1970
CUNY School of Law-1983
Macaulay Honors College at CUNY-2001
CUNY Graduate School of Journalism-2006
CUNY School of Professional Studies-2006
CUNY Graduate School of Public Health and Health Policy-2008
Guttman Community College-2011
CUNY School of Medicine-Fall 2016