

BIOLOGY

DEPARTMENT NEWSLETTER

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BIOLOGY

DEPARTMENT NEWSLETTER

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In this Issue

3

4

5

6

8

12

13

14

Biology Club
Faculty Spotlight
Publications & Presentations
Opportunity Fair
Student Spotlights
Where Are They Now
Fall Colloquia
Biology Recognizes

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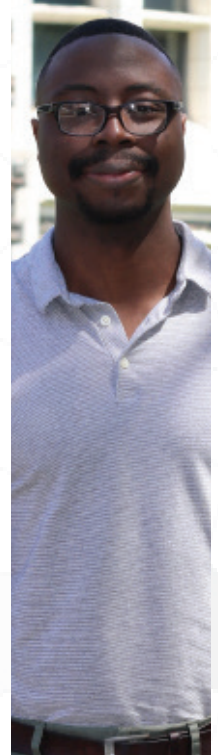
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If you want to become a member of the club, have any questions or suggestions, please contact us at biologyclub@gtest.ccnycuny.edu.

How to Join Women in Science



Ways to Join WiNS



1. Come to weekly meetings on Mondays at 2:30pm in Marshak room 527



2. Email us about your interest in joining:
ccnywins@gmail.com



3. Sign up on our website:
<http://ccnywins.wixsite.com/womeninscience>



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Faculty SPOTLIGHT

Assistant Professor, Andrey Rudenko



CCNY Biology's new faculty member, Dr. Andrey Rudenko, claims formidable lineage, including professors of mathematics, engineering, and linguistics. Loving science and nature from an early age, his becoming a biologist was a foregone conclusion. His journey from Ukraine to City College is not so easily distilled, as Dr. Rudenko had a number of obstacles to overcome.

Andrey was sickly as a child, so he decided to “dive” into sports, eventually competing internationally in volleyball and swimming. Dr. Rudenko's moxie extended to intellectual challenges, and he appeared on a number of intelligence-driven Jeopardy-like TV shows, winning many contests. Besides from the quiz achievements, Dr. Rudenko's “rap sheet” of accomplishments is replete with media coverage of his research findings. He quipped unassumingly on the day the 2016 Nobel Prize for Literature was announced, “I'm not Bob Dylan, so I don't think I deserve much public recognition.”

Earning his undergraduate degree as Valedictorian from Ukraine's most prestigious university with GPA of “something like 100%,” was but one indication that Dr. Rudenko had outgrown the circumscribed world of Soviet academia. Moreover, as the former USSR collapsed, the whole society was left bereft and virtually in chaos in the 1990s.

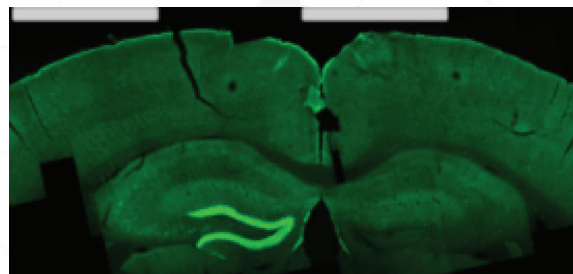
If he wanted to realize his academic and intellectual potential, Dr. Rudenko had to emigrate. It was a daunting proposition for the young scholar. “I was scared to death to go abroad,” he confesses, “... everything I was used to, liked, loved, would be gone.” However, he could not resist one of his long-standing dreams, a fellowship at Oxford, where went on to receive Ph.D. in genetics. Then, Andrey moved to Harvard and MIT for postdoctoral work in neuroscience, before coming to CCNY in the Fall 2016, as Assistant Professor.

Of his years at MIT, he has a mixed estimation. Many of his colleagues and faculty there were “amazing” (Dr. Rudenko makes special mentioning of Nobel Laureate, Dr. Susumu Tonegawa, characterizing his work as “immensely creative and awe-inspiring”). However, he was somewhat deflated by the punishing emphasis on pure research at the expense of meaningful contact with students.

The travails of academia notwithstanding, Dr. Rudenko is buoyed by his findings while at MIT. For example, he has demonstrated that the lack of Tet1 gene can lead to an impaired neuronal plasticity, causing a perseverance of traumatic memories and PTSD-like symptoms in mice. These findings suggest that by manipulating Tet1 activity we could erase such debilitating memories. Other examples of the highly publicized research include demonstration that inducing brain oscillations at 40Hz alleviates Alzheimer's disease-related neurological abnormalities and that temporal interference-based electric stimulation could serve as a noninvasive technique for activating deep brain neurons. Once his lab in CDI is fully functioning, Dr. Rudenko plans to apply his PTSD - and Alzheimer's - related findings to investigations of these and other neuropsychiatric disorders. A recently awarded prestigious three-year grant from the Whitehall Foundation should facilitate Dr. Rudenko's research on the features of traumatic memory in PTSD.

Dr. Rudenko taught a Cell and Molecular Biology lab this past semester. Teaching is something he greatly enjoys. His approach to pedagogy is egalitarian. He explains that he has found that students in all institutions seem to fall on the same curve of apathy and/or failure to brilliance and success, and that reaching out to students struggling with the coursework yet highly motivated is most gratifying.

An investigator of Dr. Rudenko's caliber and accomplishment lends light to CCNY's luster. We have gained a faculty member eager to share his curious, stimulating and forward-focused explorations in neuroscience and is giving students a broad, nuanced, and, yes, prickly view of academia.



From *New York Times*, June 1, 2017
(Grossman et al. (2017), *Cell*)

Publications & PRESENTATIONS

Dr. Robert Anderson

Anderson, R. P. 2017. When and how should biotic interactions be considered in models of species niches and distributions? *Journal of Biogeography*. 44:8–17.

Boria, R.A., L.E. Olson, S. M. Goodman, and R.P. Anderson. 2017. A single-algorithm ensemble approach to estimating suitability and uncertainty: cross-time projections for four Malagasy tenrecs. *Diversity and Distributions*. 23:196–208.

Dr. Amy Berkov

Li L, Aguilar R, **Berkov A.** What shapes cerambycid beetle communities in a tropical forest mosaic? Assessing the effects of host tree identity, forest structure, and vertical stratification. In press, *Biotropica*.

Sevilla C, **Berkov A.** 2016. Dead Trees Give Life: A biodiversity assessment of Neotropical saproxylic communities. CCAPP Division of Science Poster Presentation, City College of New York, NY, Nov. 17, 2016.

Torres C, Berkov A. 2016. Do wood functional traits affect the community structure of wood-boring beetles? CCAPP Division of Science Poster Presentation, City College of New York, NY, Nov. 17, 2016.

Dr. Ana Carnaval

Françoso E, Zuntini, AR, Carnaval AC, Arias MC. 2016. Comparative phylogeography in the Atlantic forest and Brazilian savannas: pleistocene fluctuations and dispersal shape spatial patterns in two bumblebees. *BMC Evolutionary Biology* 16(1): 267.

Prates I*, Xue A, Brown JL, Alvarado-Serrano DF, Rodrigues MT, Hickerson MJ, Carnaval AC.** 2016. Inferring responses to climate dynamics from historical demography in Neotropical forest lizards. *Proceedings of the National Academy of Sciences USA* 113(29): 7978-7985.

Prates I*, Rivera D*+, Rodrigues MT, Carnaval AC. 2016. A mid-Pleistocene rainforest corridor enabled synchronous invasions of the Atlantic Forest

by Amazonian anole lizards'. *Molecular Ecology*. *Molecular Ecology* 25 (20): 5174-5186.

Prates, I*, Hernandez L*#, Samelo RR, Carnaval AC. 2016. Molecular Identification and Geographic Origin of an Exotic Anole Lizard Introduced to Brazil, with Remarks on Its Natural History. *South American Journal of Herpetology* 11(3): 220-227.

Prates, I., Xue, A.T. 4, Brown, J.L., Alvarado-Serrano, D.F. 2, Rodrigues, M.T., Hickerson, M.J. and Carnaval, A.C. 2016. Inferring responses to climate dynamics from historical demography in neotropical forest lizards. *Proceedings of the National Academy of Sciences*, 113(29), pp.7978-7985.

Dr. Yevgeniy Grigoryev

The Hitchhiker's Guide to Epigenetics by **Yevgeniy Grigoryev** ISBN: 978-1-77330-077-1

Dr. Michael J. Hickerson

Burbrink, F.T., Chan, Y.L., Myers, E.A., Ruane, S., Smith, B.T. and **Hickerson, M.J.** 2016. Asynchronous demographic responses to Pleistocene climate change in Eastern Nearctic vertebrates. *Ecology Letters*, 19(12), pp.1457-1467.

Burbrink, F.T., Chan, Y.L., Myers, E.A., Ruane, S., Smith, B.T. and **Hickerson, M.J.** 2016. Asynchronous demographic responses to Pleistocene climate change in Eastern Nearctic vertebrates. *Ecology Letters*, 19(12), pp.1457-1467. estimating suitability and uncertainty: cross-time projections for four Malagasy tenrecs. *Diversity and Distributions*. 23:196–208.

Joseph, T.A.¹, **M. J. Hickerson, D.F. Alvarado-Serrano**². 2016. Demographic inference under a spatially continuous coalescent model. *Heredity*

Lipshutz, S.E., **Overcast, I.A., Hickerson, M.J., Brumfield, R.T. and Derryberry, E.P.** 2016. Behavioral response to song and genetic divergence in two subspecies of white-crowned sparrows (*Zonotrichia leucophrys*). *Molecular Ecology*.

Myers, E.A., **Hickerson, M.J.** and Burbrink, F.T. 2016. Asynchronous diversification of snakes in the North American warm deserts. *Journal of Biogeography*.

Dr. David Lohman

Aduse-Poku, K., F. Molleman, W. Oduro, S. Kwabena Opong, **D.J. Lohman** & R.S. Etienne. In press. Relative contribution of neutral and deterministic processes in shaping fruit-feeding butterfly assemblages in Afrotropical forests. *Ecology and Evolution*.

Bhattacharjee, A., J.D. Anadón, **D.J. Lohman**, T. Doleck, T. Lakhankar , B.B. Shrestha, P. Thapa, D. Devkota, S. Tiwari, A. Jha, M. Siwakoti, N.R. Devkota, P.K. Jha and N.Y. Krakauer. In press. The impact of climate change on biodiversity in Nepal: current knowledge, gaps and opportunities. *Climate*.

Wei, C.-H., **D.J. Lohman**, D. Peggie, & S.-H. Yen. 2017. An illustrated checklist of the genus *Elymnias* Hübner, 1818 (Nymphalidae, Satyrinae). *ZooKeys*, 676: 47-152.

Lohman, D.J. 2017. Evolution and conservation of butterflies in Southeast Asia. Invited seminar at Georgetown University, Washington, DC, 5 October 2017

Lohman, D.J. 2017. Plenary address: Assembling the butterfly tree of life: Using technology to manage the technical and human aspects of a global collaboration. Oral presentation at International conference on biodiversity, climate change assessment and impacts on livelihood, 10-12 January 2017, Kathmandu, Nepal

Lohman, D.J. 2017. Evolution and conservation of butterflies in Southeast Asia. Invited seminar at University of New Orleans, LA, 20 February 2017

Wei, C.-H., **D.J. Lohman**, D. Peggie, & S.-H. Yen. 2017. An illustrated checklist of the genus *Elymnias* Hübner, 1818 (Nymphalidae, Satyrinae). *ZooKeys*, 676: 47-152.

First Annual Division of Science Opportunity Fair, 2016



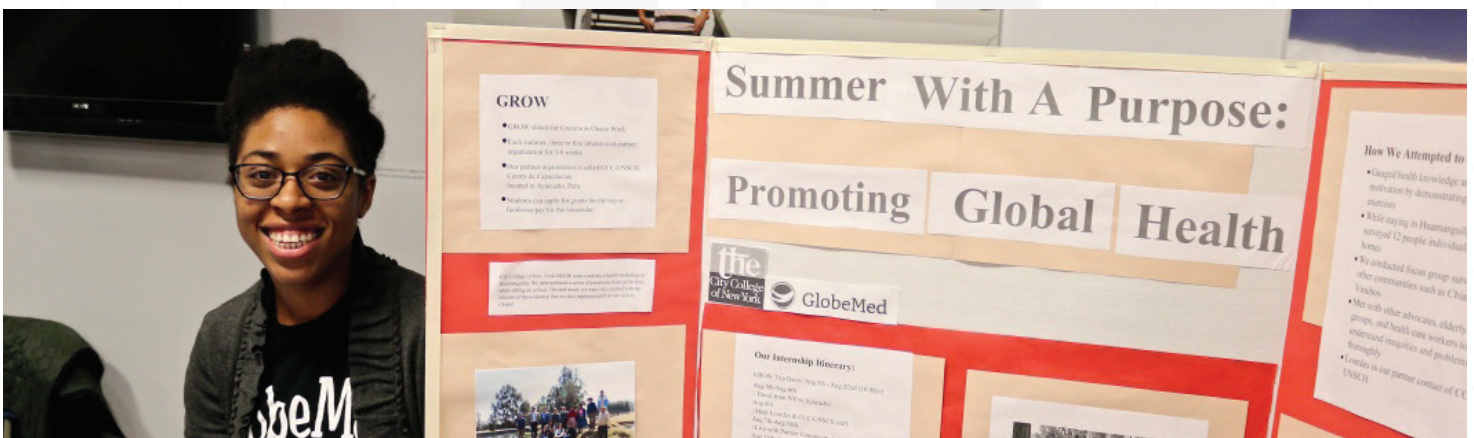
"It was wonderful seeing so many organizations coming together to help our students at CCNY. I believe it is essential to put on events like this to keep students excited and engaged while at CCNY."

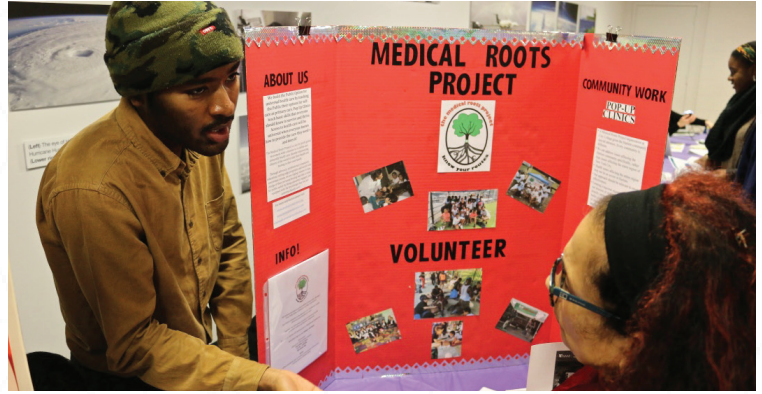
-- Jason Redman



"I consider the Opportunity Fair a success because we did have many people stop by to talk to us and sign up and then actually come to our club meeting! We were able to reach out to a new focus of students that we would have otherwise not been able to."

-- GlobeMed





"Knowing the diverse ethnic and social background that CCNY students represent, it brought joy to us to see how we helped them get one step closer to their dreams."

--Christopher Reid



"I love the way so many people in the division of science came together for this event. It captured collaboration. My one hope is to get more people involved in the next annual fair."

-- Christine Klusko



Student SPOTLIGHTS

Sharmeen Azad



“I think the two skills, organization and communication, have really changed me in the past two years.”

Thanks to a choice made through personal connections, Sharmeen Azad is on track to become a pharmacist. She had been working at Staples for about a year under a manager pleased with her efforts. When he moved over to a CVS pharmacy, Sharmeen went too. She immediately enjoyed the work, and her career plans began to fall into place.

As if the rigors of four years of pharmacy school were not enough, Sharmeen will likely be earning her MBA on top of the PharmD. With pharmacies being managed nowadays less as mom and pop shops, and more like the big corporations from which they are spawned, emphasis is placed, even for health care providers like licensed pharmacists, on generating sales and turning a substantial profit. An MBA will make her more readily employable, especially since the good majority of pharmacist positions are now at big box stores like CVS, Rite-Aid, and Walgreens, where there is more turnover and opportunity for advancement.

Sharmeen is outgoing and shows genuine interest in others' needs, a positive trait that she's cultivated since she started working in retail in 2013. Her first position was in sales with American Eagle, preceding her move to Staples, and then to CVS. In all positions Sharmeen's main task was customer service. As if a bright star were leading the way, with each job change she has come closer and closer to what she really wants to do.

Now she understands how important it is to show a bright smile

to the public and to be of help, too. “The thing about pharmacy that I learned,” she reflects, “is, yes it's retail, but you're also dealing with patients... and the difference with patients is they don't really have an option. They need their medication. At the end of the day,” she concludes, “you are dealing with people who are going through serious issues.” She now sees herself as a service provider who takes a true interest in her patron's need. “I've been taught by my pharmacy to be more empathic,” she concludes.

Being the Biology Club's Treasurer (2015-2016) and Vice-President (2016-2017) has also added to her life experience. She cut her fiscal eyeteeth as Treasurer, learning about finances and bureaucracy. The two offices have helped to grow her gumption and gregariousness, including how to speak to and collaborate with different members of the university community from department chairpersons to incoming students. “I think the two skills, organization and communication, have really changed me in the past two years.

Beth Gerstner



“It has definitely been an eye-opener for me...The utility of having a mentor and being a mentor.”

From the demonized and feared leaf-nosed bat (phyllostomid) that provided her first real exposure to research, to the warm and fuzzy olinguito, the subject of her masters' thesis (2016), to the virtual menagerie of hamsters, birds, a rabbit, guinea pig and rescue turtle she's kept at home over the years, Beth Gerstner is an animal-lover; has always been; will always be.

Having earned her undergraduate degree from Stony Brook University, Beth came to CCNY for her masters in 2012. She had been working as a research assistant with Dr. Robert Anderson, focusing on environmental impacts on the New World olinguito and small-eared shrew. She has just started a doctoral program in Fisheries & Wildlife at Michigan State University that will intersect with her concern over climate change, explaining, “I'm really interested in figuring out what areas are going to be in trouble in the future and what animals are going to become endangered or even extinct.”

It was her contact with the olinguito in a “niche modeling setting,” where her hands met only the preserved specimens and she couldn't feel the warmth of their fur and be excited by their heartbeat that made Beth pledge to a career dedicated to the “real thing.” “I felt really far removed from what I was studying,” she confesses, and determines that future studies, including her doctoral work, will take her into the field more.

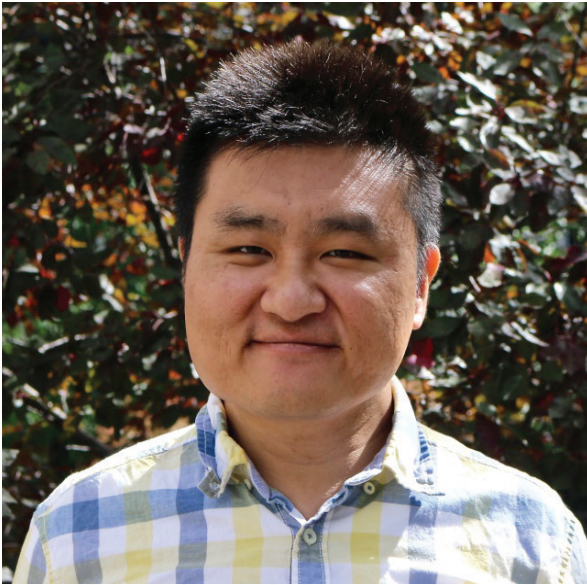
An avid proponent of mentoring, Beth was mentored at CCNY by Dr. Amy Berkov, Professor of Evolutionary Ecology and also mentored students herself. Beth mentored through and

co-directed the mentoring program of WinS -- Women in Science -- a support and advocacy on-campus group. “It definitely has been an eye-opener to me,” Beth observed, “the utility of having a mentor and being a mentor.” Of her years with Dr. Berkov, she added, “It's probably been one of the greatest experiences.”

Leaving aside her excellent grades (3.86 GPA), experience, and webmastering (she splits responsibility for mastering WinS' website), what's truly impressive has been Beth's personal growth. In refreshing candor, Beth talked about having to break through that great and oppressive cloud of believing she was “not smart enough,” still plaguing many women in the sciences. “I think over the course of those three years I've become so much more confident of my own abilities,” she said, reflecting on what had become a beloved past to her. “When I started graduate school I was, like, ‘Do you even want to do research...?’ But, through mentorship from my advisor and seeing the body of work done around the school...doing research is really important. I'm less timid and I'm more out there! And I'm willing to talk in front of hundreds of people.”

Beth's numerous experiences include volunteering in the Sackler teaching lab at the American Museum of Natural History (AMNH), leading guided tours around the AMNH; working with an OCD/ADHD-challenged youth; and many more, proving that she's also people-centered. As Beth moves on in her commitment to the Earth's and its inhabitants' viability, it is clear that she will, as she has done to date, accrue wisdom and experience to be generously shared with those who follow in her path.

Kuo-Hsiang Huang



“ I think it’s where critical thinking comes from.”

Jumping off the page of Dr. Kuo-Hsiang Huang’s C.V. is: “Second Lieutenant in Air Force of the Republic of China” (Taiwan). The unassuming Dr. Huang, who recently earned his PhD in molecular biology (Fall 2016), is quick to quash the image of himself as a bombardier. With an ironic smile he clarifies the misapprehension: “I didn’t fly any jets. Impossible! My job was to take care of the soldiers,” which he described as being like a big brother and psychologist to 200 young and rambunctious airmen, keeping them out of trouble on weekends when they were allowed to leave the base and party. It’s an early experience demonstrating that, as strong as his calling is to work, Dr. Huang is equally keen on people.

In New York City and CUNY for six years (he spent his first year in the States at the University of Rochester), Dr. Huang has been like a kid in an ethnic candy shop. With 98% of his island nation’s population ethnic Chinese, it’s been a constant learning experience to meet and work with people of the varied and dynamic ethnicities that make up New York, and CCNY especially, and he’s been enjoying it enormously. Dr. Huang feels that this exposure has enriched his personal life, and helped him be a better scientist too, as with exposure and keen observation, he’s gained an understanding of how people of different cultures approach problem solving. He believes that he now approaches challenges in his research in a broader way, deducing, “I think it’s where critical thinking comes from.”

Recognizing that communication is a two-way street, Dr. Huang is hyper conscious of his spoken English. Having learned it through reading and writing only, he feels there are deficits in his pronunciation. Teaching Molecular and Cellular Biology Lab as an adjunct professor, he strives to make each class completely comprehensible to his students. On occasion he rehearses his lectures at home the night before class, and he will write on the board any words or terms his students might misconstrue. Seeing his students’ surprise at his vast vocabulary in English gives him special pleasure. Dr. Huang also enjoys the additional challenge of hearing, identifying and processing the students’ many accents, making mastering English that much more difficult, but in the end, more exciting.

Dr. Huang is studying the E. coli bacterium in Dr. Anuradha Janakiraman’s lab. It is one of the most virulent, widespread and antibiotic resistant strains of troublesome organisms. He has made a breakthrough in protein research and is hoping to contribute to the introduction of new drugs to fight life-threatening infections. In addition, the findings will prove good currency to trade in for the postdoctoral position he is seeking in the metropolitan area, perhaps at Columbia University. Because of his profound engagement with his students, Dr. Huang is only considering a position where he can teach as well as carry out research.

Christopher Reid



“As long as you are dedicated and you stay strong, you can be whatever, and you can achieve forever.”

Being personable and a go-getter, Christopher Reid’s networking has paid off. Through a veterinary student friend, for example, one he’d met while managing a McDonald’s franchise, he landed the plum position of New York State Inspector at Yonkers Raceway, tasked with certifying that the horses are “clean,” or drug-free, and rewarded with a decent salary, “as long as you don’t mind coming home with the horse smell.” Christopher’s reach is long and engaged. He was the President of the Biology Club, tutored and mentored on campus, is a researcher in Dr. Christine Li’s neurobiology laboratory, and is involved in community activities. In addition, he spends each summer in a special program enriching his education and, he feels, himself as a person. In the summer of 2016, for example, he attended a ten-week program at Harvard University—“one of the best experiences of my life”—during which he carried out research on cellular development and “cellular fate.”

Christopher came to biology through introspection. Since childhood he’s been asking himself, “Why am I here?” or, “What made me do this,?” questions he felt answerable in part by palpable and measurable activity in the brain. One can ignore these prickling questions or “turn [them] into curiosity and pursue it,” he says. And pursuing those prickling questions is what he’s been doing ever since.

Social behavior is at the core of his curiosity and his investigations, eliciting questions like, “What in your brain makes you a better parent?” or, “why are some people more susceptible to addiction than others.” Christopher enfolds himself in inquiry. Examples are, “the concept of love and caring,” and the brain activity that manifests such thought and emotion. “I

want to understand what are the molecules, what are the cells that determine our choices as love objects,” he explains. “It’s something in your DNA—you’re missing this, or you have too much of this—and it’s also what you experience and what you grow up around.”

Grateful to his mentors, special among them, Dr. Li and Dr. Jonathan Levitt, both of whom “saw something in me,” he has pledged to help “open up opportunities for others” as the way was opened up, and out, for him. He presented events targeted to advance students in their academics and career choices. In the community, he is a participant with the Harlem Bio Bus—an old MTA bus laden with scientific research tools that travels from school to school—elementary through high school—demonstrating the excitement and promise of learning about the world inside, around and beyond us. Thinking already of a legacy, Christopher pledges that his mark will be made by growing the Harlem Bio Bus to its fullest potential and by setting up a community mentoring program.

A ruminative person, it was relatively recently that Christopher came to the surety that his career lay in neurobiology, which he now continues to study while earning his doctorate in neurobiology from Harvard. After musing briefly on the years before finding his field, Chris has some thoughts to share with his fellow students: “I was... a late bloomer sort of.... Sometimes it takes a while, and things will come to you.” After your niche has found you, he concludes, “As long as you are dedicated and you stay strong, you can be whatever, and you can achieve forever.”

Where Are They Now FEATURE

Barbara Rizzo



“ You must be prepared to fail.”

City College takes pride in turning out science award winners, future principal investigators who conduct impactful studies, researchers who land top positions at highly respected institutions, even Nobel Prize winners. We, in the biology department, are also proud to spawn graduates who marshal the learning, encouragement and inspiration they receive at CCNY, bringing that bounty to the classrooms of NYC’s public schools to reach, teach and inspire the next generation of accomplished and engaged professionals in science.

Barbara Rizzo is one of these special students. An Undergraduate Honors student, graduating Summa Cum Laude in 2014, Barbara was med school and/or research bound. But the closer she came to graduate school, the more she feared feeling cloistered within the world of academia and the hospital, and she began to think of social engagement, of entering public health, perhaps. Further exploration led her, almost instinctively, to teaching, and she set out to “try” it. She was accepted to the Relay Graduate School of Education, where she received her MS (2016), and to the New York Teaching Fellows program which, under the Department of Education, provides training and support to new classroom teachers as well as tuition subsidies.

NYTF’s modus operandi is initiation by fire. They place candidates directly into the classroom alone, often to teach subject matter unfamiliar to them. Barbara found herself thrown into a 9th grade English class. It was “the

most rigorous thing I’ve probably ever been through in my life,” she recalls, but, “You just have to do it. I did it.” She has a permanent position now at the High School of Telecommunication Arts and Technology in Brooklyn teaching 9th and 10th grade Living Environment.

Barbara freely admits that her relatively brief four-year classroom teaching experience has been a long and difficult learning process that includes self-discovery. It is only now that she can say she’s comfortable enough to recognize her success in relating to her students, in teaching a content-full lesson that inspires them, and in seeing, at least in some, sparks of interest that stand to kindle a life-long love of discovery and learning. She can talk now about receiving more gratification from her work than frustration. Key to this vantage point has been her success in gaining authority over her students, not complete and arbitrary authority but authoritativeness. Barbara is now someone these young people can listen to out of genuine interest and not fear or obligation.

Barbara speaks with intense candor of the challenges of the classroom. Whether it is a failed lesson plan, a disruptive student, or her students’ reaction to events happening outside the classroom, a successful teacher must “be able to think on the fly.” Another vital life lesson Barbara shares, “You must be prepared to fail,” she warns, but at the same time “be the best you can.” It is a tall order, and she admits that there were many times feeling overwhelmed, when she thought she would quit. But she persisted and now, “I’m starting to get the groove of this thing called teaching.” She confesses, volubly and spontaneously, “Every morning that I wake up, it’s always for the kids... I know my kids need me, and the kids of New York City need great teachers.”

Awards & Recognitions

Dr. Hysell Oviedo
NSF Career Award

Dr. Andrey Rudenko
Whitehall Foundation Award

Ariana Gopal from Dr. Mark Emerson's lab & Adem Idrizi from Dr. Itzhak Mano's lab

The Sharon D. Cosloy Undergraduate Scholarship Winners



Mr. Edward Blank, Dr. Rebecca Blank, Adem Idrizi, Ariana Gopal, Dean Tony Liss, Dr. Susan Soloman, and Dr. Anuradha Janakiraman

Biology RECOGNIZES

Felicia Coombs, Barista and Manager of Marshak Cafe



You may not know her name, but you will recognize her soft smile and the hairnet she wears as a mark of her job and consideration of her patrons. If time permits, she might even treat you to news of her children, Nyeema and Hassan, aged 9 and 11, and her pit bull, Juice.

Felicia Coombs, barista and manager of the Marshak Café, came to City College in 2010, slotted into the NAC Metropolitan Cafeteria as a taco cook after completing a special program with the NYC Parks Department. Felicia was soon switched from NAC to the coffee bar in Marshak where she's been for nearly six years.

By now, Felicia says being a barista "is like a hobby to me," she enjoys it so much, and even if it's just a cappuccino, she tries to make each one better than the one before; she is proud that by now she has almost mastered the art of forming hearts and smiley faces on cappuccino foam, dedicated to practicing until they meet her standards for "perfect." Felicia enjoys interacting with people and understands them well. She knows when to let them "have a bad day," which doesn't usually go beyond a long face and forgetting their "please" and "thank you," without being personally offended.

Felicia reports to have had one consistently badly behaved visitor, however, and that was a professor who would tacitly pull rank by moving on ahead of students on line. But one day she edged out another

professor, one of Felicia's favorites. In her cool, calm and collected way, Felicia reminded the offending professor of line-up courtesies; the professor immediately took her right place in line, ending the mini-conflict. From that very day, the formerly offending professor has been respectful, even good humored. Felicia's ability to go about her day unruffled and with equanimity seems to have given her an unspoken power to diffuse tensions in those around her.

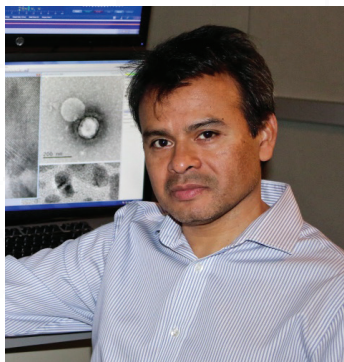
Interacting with students has strengthened her resolve to earn a college degree. It's just that, as a single mother with a physically demanding job and a long commute to the North Bronx, there aren't enough hours in the day to accomplish everything. She'd become intrigued by science, began reading studies by students and faculty here, but, realistically, can only dream of a degree in the sciences. On the other hand, as a practical and pleasing compromise, Felicia is considering studying the business and management of hospitality. With her college degree, Felicia would set a good example for her children and be able to give them more comforts. "I'd have holes in my sneakers," she explains, "but for them, I make sure they have everything. They see how hard their mommy works and how important it is to stay in school and go to college."

Based on her popularity here, one would expect Felicia to continue in a people-centered field. She essentially writes her own letter of recommendation by observing, "I get to make the students happy, and I enjoy what I am doing, and I get to see people smile and I interact with different people every day, different nationalities. So, that's the best part of the job.... I love it."

Biology

RECOGNIZES

Dr. Jorge Morales, Electron Microscopy Facility Manager



As a young man of 17, Jorge Morales fled war-torn Nicaragua to start a new life in the US. Inspired by relocating to a society of relative peace early in life, Jorge aspired to a career he would love, one that would enable him to support a family and lead a “normal” life in the future.

Already “fed up with politics,” science provided him that distance. “What best,” he observes, “but to choose biology where we can do a lot of good.” He homed in on one of the most troublesome challenges to science and to humanity: viruses, driven by the grand notion based on growing up in New York in the 1980s, that he could cure HIV/Aids. “HIV is what piqued my curiosity,” Jorge recalls.

Jorge reminds us that some viruses are so small that only Transmission Electron Microscopes can detect them, and that’s what drove him to concentrate on the technological or mechanical aspects of research. In addition to the TEM, he is the keeper of the SEM, confocal also called the laser scanning microscope for the Division of Science, shuttling

between the Marshak and CDI buildings for their use and maintenance. Following a year as a research assistant working with Dr Shubha Govind, Jorge was hired as a laboratory technician, in 1999. Dr Govind is a geneticist, but she happened to have a project on viruses using live drosophila, and Jorge jumped at the chance to investigate.

Now, as Electron Microscopy Facility Manager, Jorge works alongside PIs in their research, often times collaboratively, and he has been credited in a number of published papers. Without his guidance, much research and many findings would most likely never have been achieved. With an extensive hands-on history using and fine-tuning these very sensitive instruments, Jorge earned the qualification to teach microbiology at CCNY, BMCC and La Guardia College, which he did between 2009 and 2013. “I love [teaching] microbiology!” he enthuses, “because we talk about viruses. We talk about germs, we talk about bacteria...all those kind of nice things that we can see, and they look beautiful...under the microscope.” His appreciation of imaging seems to extend beyond its function as a tool of inquiry to the intrinsic beauty imaging reveals of the ever-expanding universe of shape and movement and color as it dances under the inquiring eye.

Jorge’s commitment to establish a career to sustain and inspire a family has hit home. Jazmin Morales, Jorge’s daughter, is a junior at CCNY.

Nadia Noman, Program Manager / CCNY-MSKCC Partnership



Nadia Noman judges that her interview with Dr. Karen Hubbard in 2007 for a position as administrative assistant with the Memorial Sloane Kettering/ CCNY Partnership lasted just one disastrous minute. Nadia has been with Dr. Hubbard since then. Previously Nadia worked at CCNY as a freelance graphic and web

designer and was recommended to Dr. Hubbard by CCAPP Assistant Director, Norma Archer.

As Training Director now for the Partnership, Nadia works directly with promising students from underrepresented minority communities, helping them to decide between careers in medicine and research.

She also facilitates placement of students to be mentored by and/or shadow medical staff there, walking them through the often-arduous application process. In addition, Nadia helps to prepare the students for presentations at important conferences, such as ABRCMS, where they hope to impress recruiters of graduate students in cancer research.

Of Nadia’s work at the Partnership and as her assistant, Dr. Hubbard says, “She runs the program with little direction from me, which frees me up to do more creative and strategic planning.” In exchange, Dr. Hubbard believes this responsibility “empowers her to take on leadership and managerial roles that she did not have previously, which will be an asset for her whenever she moves on.”

Nadia returns Dr. Hubbard’s praise after reflecting on the confidence her administrator found in her that she didn’t know she could summon up. “She is one of those people,” responds Nadia, “that, when I leave from here, she’s still going to be part of my life, because, what I am right

(continued on next page)

Biology

RECOGNIZES

now, it's all [due] to her." Nadia pauses, and continues, "I'm getting speechless right now."

Nadia is committed to teach young children, and she is completing her masters in education at Hunter College. Once her degree is in hand, she will seek a position in a public elementary school in New Jersey, where she lives. She'll have a classroom, but also be involved in administration, making an impact by putting into practice her

humanistic philosophy of educating children, incorporating lessons in tolerance and inclusion into her curriculum. Nadia is grateful to her courses in child psychology, to her own conscious mothering and to her growth over these last ten years at CCNY for readying her for a career in child-centered education.

Dr. Elizabeth Rudolph, Assistant Dean of Science



If by some remote chance, Dr. Elizabeth Rudolph were to apply for a new job, perusing her CV would undoubtedly raise a red flag, as the reviewer would wonder: How can one person do all of that?

As Assistant Dean of the Science Division at CCNY, Liz does a lot of

heavy lifting, responsible for planning and executing academic and fiscal changes division-wide (The Science Division includes the Departments of Biology, Chemistry, Earth and Atmospheric Sciences, Mathematics and Physics), as well as for all documentation and reports mandatory for re-accreditation by the State every ten years (with a review report scheduled every five years). She is point person in greeting and settling in new faculty, and hand-holder as well as flack-catcher for all Masters students within the division—"Everything from soup to nuts" is her summation. Liz also has a supervisory role in course scheduling and curriculum modification within the division. These numerous responsibilities represent but a fraction of her job description.

Liz received her doctorate in Earth and Environmental Science from CUNY, in 2004; her thesis was on Hudson River Mollusks. She taught EES Geo-biology research from 2004 to 2006 at CCNY. Convinced by then that she was best at administration, Liz decided to make the switch. Looking back on the change, she says, "Running the lab was fun. But I enjoy making things happen behind the scenes more than the actual day-to-day research." Today she feels she has the best of both worlds, still enjoying and challenged by her administrative duties, yet in close contact with the many and multi-discipline labs, "peeking in" from time to time on the research.

Liz is concerned that the division should be more diversified, student body and faculty alike. There currently is no designated recruiter of students from underrepresented minorities, making the job that much more difficult, and there is just one initiative in play, targeting a Bronx charter school thanks to a CCNY alum now teaching there. Liz would especially like to see efforts expanded in the Bronx, where she feels the need to get kids into college is most acute.

Another challenge presents as a result of the way the CUNY PhD program is structured, with rotations assigned from candidate pools at the Graduate Center. This leaves PhD aspirants who have come to City College pretty much in the cold, and Liz would like them to know better what to expect of campus and academic life here, and to facilitate for them a warm, almost familial environment during this crucial and stressful period of student life. She and Dr. Laurent Mars, Associate Dean of Science, are working to personalize the students' experience and to bring the best-suited candidates to the school.

A third challenge is helping the masters program keep up with the rapid technology-driven advances made in science in order to ready MS earners for successful job-hunting. "We have to design a degree so that they [the MS students] become more marketable," she reflects. "A straight bio masters is not as marketable as something like biotechnology, or some other specialty that there's a new demand for."

Liz is proud of her position and of her work. She talks of tears welling in her eyes while attending commencements, commenting on how many deserving students we have. She observes, "It's just wonderful; I hope that we can keep the momentum going in a positive direction..."

Submit Your Photos

Send in photos you've taken documenting your experiences at CCNY and maybe you'll see them in the next issue of the newsletter! Email all photos to be considered to biology@ccny.cuny.edu.

