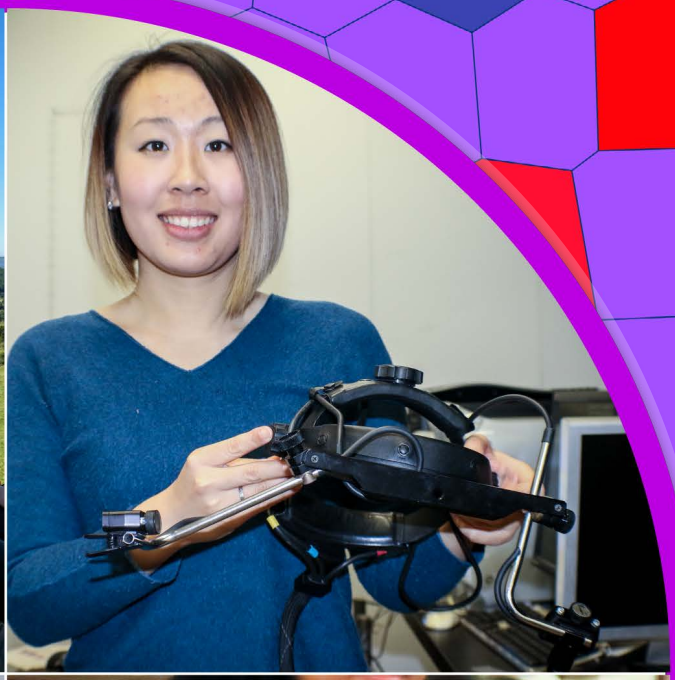
BIOLOGY

DEPARTMENT NEWSLETTER

Fall 2016 | Issue #7



BIOLOGY

DEPARTMENT NEWSLETTER

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CCNY BIOLOGY DEPARTMENT

In this Issue

RELAY FOR LIFE OF CCNY

When?

May 6th 2017

Can I Be Part of it?

Yes you can CLICK HERE

or you can contact Christine Klusko

cklusko@ccny.cuny.edu
212-650-6800
Marshak 526

Relay For Life is an organized, overnight community fundraising walk bringing everyone together for a great cause. Last year, when we brought back Relay for Life we were able to raise over $13,000 and are looking to raise more next year as we kick off Lavender Fever Week in May with Relay for Life.

CELEBRATE. REMEMBER. FIGHTBACK.

Faculty SPOTLIGHT
Dr. Ana Carolina Carnaval

> *"I really love to try to find common vocabulary across disciplines, because that's where the beautiful science emerges."*

One wonders sometimes if Dr. Ana Carolina Carnaval ever sleeps. Or, does she manage to find shut-eye in flight on working trips to Brazil, traveling back and forth to her homeland for a CUNY-Brazil research project in Evolutionary Biology?

A native of Rio de Janeiro, Dr. Carnaval studied Biology there, graduating summa cum laude from the Universidade Federal do Rio de Janeiro in 1993, where she also earned her M.S., in 1998. She earned her Ph.D. in Evolutionary Biology from the University of Chicago, in 2004.
Dr. Carnaval joined the CUNY/CCNY faculty in 2010 and has become one of the Science Division's most dynamic faculty members. Her miles in the air are a metaphor for the dedication and span of her career in Science. She is an advocate for the advancement of women in Science, too, and is working to implement a multi-disciplinary blueprint for research teams. When most professors would feel, justly, overwhelmed with such a workload, Dr. Carnaval adds to hers a firm commitment to excellence in teaching and mentoring.

Thanks to a recent bequest, Dr. Carnaval is helping to set up the Center for Biodiversity and Climate Change. The project will put in place her promise to enable researchers from multiple disciplines to "talk to each other" and find that common language that eludes them when working in isolation. By her estimation, "there's nothing with this specific angle in New York City, and it could put us on the map, being very interdisciplinary and bringing climate change into the forefront of biodiversity analysis." The NSF-NASA-sponsored bi-national project, launched in 2014, will be one of the Center's inaugural inhabitants. Dr. Carnaval's enthusiasm for the Center is palpable; she confesses, "I've found that I really love this. I really love to try to find common vocabulary across disciplines, because that's where the beautiful science emerges."

Her grant uses a genomic model to investigate how Brazil's Atlantic Forest species, thriving as long ago as 120,000 years, have responded to the numerous environmental disruptions occurring until today. The findings will enable the team to propose more plausible scenarios of how plants and animals will respond to the anthropogenic environmental changes expected to occur over the next 50 to 100 years. The field location is doubly exciting for Dr. Carnaval, as it gives her the opportunity to return to the forest and revisit the flora and fauna that awakened her interest in environmental biology when she was still a child.

Dr. Carnaval is a founding member of Women in Science at CCNY (WinS). Parity, respect and recognition, recruitment and mentoring, are end points of women's shifting role in Science, and they form the backbone of WinS. In the group's short life span of less than two years, Dr. Carnaval has seen progress, finding that WinS members on the whole are now "more aware, stronger." Dr. Carnaval is also pro-active in recruiting to her laboratory women of exceptional potential from the US and Brazil.

Demonstrating impressive scholarship, teaching and service to the department, Dr. Carnaval will be tenured and promoted to Associate Professor this Fall. Her new position will give her a wider berth in program and curriculum development. "Let's come up with a better program for this and that," she projects of her new obligations. "I love to do these kinds of things.... so I'm very excited." Dr. Carnaval is making a notable contribution to the sustainability of the planet and to enrich the methodology of Science, and CCNY is pleased and honored to have her with us.

Publications & PRESENTATIONS

Dr. Robert Anderson

Soley-Guardia, M., Gutiérrez, E. E., Thomas, D.M., Ochoa-G, J., Aguilera, M., and Anderson, R.P. 2016. Are we overestimating the niche? Removing marginal localities helps ecological niche models detect environmental barriers. Ecology and Evolution 6: 1267–1279. [note, Soley and Gutierrez were PhD students here, and Thomas was an undergrad at CCNY.]

Dr. Shubha Govind

Gokhman, V.E., Bolsheva, N.L., Govind, S., and Muravenko O.V. 2016. A comparative cytogenetic study of Drosophila parasitoids (Hymenoptera, Figitidae) using fluorochromes and FISH with 45s DNA probe. Genetica 144(3):335-339.

Heavner, M.E., Ramroop, J., Ramrattan, G., Delios, G., Crissman, J., Scarpati, M., Kwiat, J., Miller, L., Qiu, W.-G., Wang, R., Singh, S., and Govind, S. 2016. Multi-'omics' and structural biology approaches identify a novel vesicle-based secretion system in Drosophila parasites (The NY Structural Biology Discussion Group Summer 2016 Meeting). Poster Presentation, Mount Sinai Medical School. August 2016.
Presented by Mary Ellen Heavner

Dr. Mike Hickerson

Prates, I., Xue, A.T., Brown, J.L., Alvarado-Serrano, D.F., 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):7978-7985.

Brown, J. L., Weber, J. J., Alvarado-Serrano, D. F., Hickerson, M. J., Franks, S. J., and Carnaval, A. C. 2016. Predicting the genetic consequences of future climate change: The power of coupling spatial demography, the coalescent, and historical landscape changes. American Journal of Botany 103(1):153-163.

Dr. Sally G. Hoskins

Presentation at CUNY Best Practices Conference, Queens borough Community College, Dissecting Best American Science Essays with CREATE: teaching scientific thinking and writing. November 2016.

Kenyon, K.L., Onorato, M., Gottesman, A., Hoque, J., and Hoskins, S.G. 2016. Testing CREATE at Community Colleges: An Examination of Faculty Perspectives and Diverse Student Gains. CBE Life Sci Educ March 2016; doi:10.1187/cbe.15-07-0146.

Dr. David Lohman

Espeland, M., Hall, J. P.W., DeVries, P.J., Lees, D. C., Cornwall, M., Hsu, Y.-F., Wu, L.-W., Campbell, D.L., Talavera, G., Vila, R., Salzman, S., Ruehr, S., Lohman, D.J. and Pierce, N.E. 2015. Phylogeny and biogeography of the Riodinidae (Lepidoptera: Papilionoidea). Molecular Phylogenetics and Evolution 93: 296–306. DOI: 0.1016/j.ympev.2015.08.006

Lohman, D.J. Butterfly diversification in the Philippine archipelago. Invited presentation in the Seminar-Workshop: What a journey it has been: Evolution of diversity, mimicry, and ecology of butterflies and moths. National Museum of the Philippines, Manila, July 2016

Dr. Hysell Oviedo

Keystone Symposia ECITA Travel Award to attend the "State of the Brain" meeting in Alpbach Austria, May 22-26 2016.

Dr. Shireen Saleque

Sengupta, A., Upadhyay, G., Sen, S., and Saleque, S. 2016. Reciprocal regulation of alternative lineages by Rgs18 and its transcriptional repressor Gfi1b
J Cell Sci. 129: 145-154; doi: 10.1242/jcs.177519

Career Panel

Members of the CCNY Biology Club agree that one of last semester's highlights was the Science Division-wide Career Panel held on March 31st and organized by Biology Club officers and regulars, Ben Souferi, Georgio Malouf, Aishvarya Jain, Sharmeen Azad, and Christopher Reid. Each invited panelist had valuable advice for the attendees, based on their very different experiences and career goals. The panelists were:

Dr. Issa Salame is a Professor of Chemistry at CCNY. After fancying both medicine and an advanced degree in pedagogy, he followed his instinct and now teaches Chemistry while researching how chem students learn.

Emma Schatoff is a CCNY graduate, contentedly completing her MD/PhD at Weill Cornell/Rockefeller/ Memorial Sloane Kettering after first embarking on a PhD only.

Jason Lewis is a CCNY graduate who spent a number of years as a P.A., and is now using his background to pursue his MD.

Vanessa Badoya graduated from CCNY in Biology this past May and is embarking on her optometry degree in September at SUNY Optometry.

Rebecca Moore, a CCNY graduate, is a PhD student in Molecular Biology at Princeton University.

Alexander Xue is a PhD student at CUNY, studying Evolutionary Biology and Behavior.

Some of the key advice the attendees heard was:

It's important to have good public speaking skills.

Know how to network: put yourself out there, and make connections!

Students need to show recruiters they are no longer children and can complete tasks and act as responsibly as any adult.

If you're interested in research, make sure you like the subculture of the laboratory, because you're going to spend a lot of time in it.

If you're torn between research and an MD, remember it's easier to go from an MD to a PhD than the reverse.

Find the person who will take the most time, space and care in writing your letters of recommendation.

Remember as an undergrad to ask questions. You will be remembered and garner more impressive recommendations.

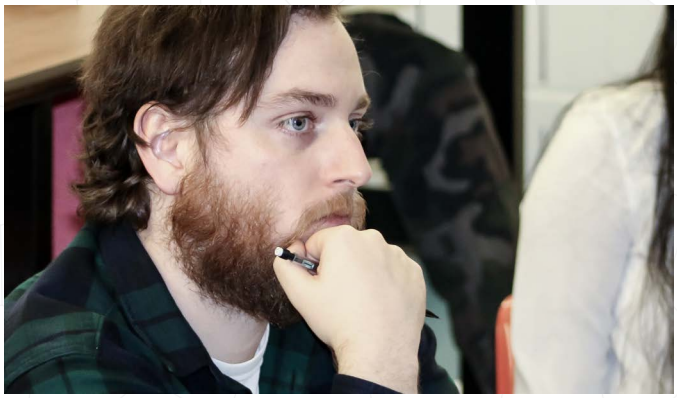
Taking graduate classes while still an undergraduate makes for a more compelling resumé.

Make sure the person who is recommending you actually sends the letter out and on time.

Hone your writing skills.

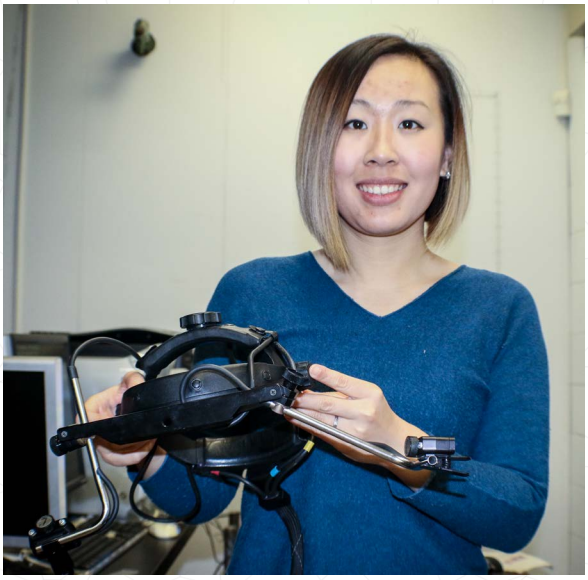
Be willing to step out of your comfort zone.

You can get accepted to a much better school than you think you can… So apply!



Student SPOTLIGHTS

Yijing Shan



“I wanted to broaden the vision of my life, to see how people think.”

Yijing Shan’s ultimate fulfillment will come when she has made a true and lasting contribution to Science through research. At the same time this China-born and raised PhD student enjoys teaching as an adjunct lecturer here at CCNY. She has been working for almost five years in Dr. Jay Edelman’s Neurobiology lab, with her doctorate imminent. Her goal is to set up her own lab in Behavioral Biology and study eye movement.

Yijing came to the States in 2011 with her husband, a software engineer. She earned the equivalent of her bachelors’ degree in China, graduating with impressive academic honors from her university. For example, she earned scholarships for being an outstanding student, in 2008, 2009, and 2010. Yijing’s background is in Genetics and Molecular Biology, but most of her work in Dr. Edelman’s lab has been in Behavioral Biology. She is grateful that her work has opened new pathways to explore. “I wanted to broaden the vision of my life,” she explains of her placement, and “to see how people think.”

Because of her seniority, Yijing has major responsibility for the workings of the laboratory, and she finds this has taught her a lot. “You have to be very self-motivated to work with Jay,” she observes. Therefore, you “become more dependent on your own ideas, and Jay gives you more freedom to work on your own project, and that’s a good thing.”

These five years have allowed her to think long and hard on the difference between research here and in China. Yijing finds research in China somewhat less dynamic, not for lack of brainpower nor technology, but, she notes, “People have a passion here when they work in the research field.” She affirms the general notion that the Chinese educational system is highly competitive and demanding, more so than here. She adds that the day-to-day economic challenges of living in China can reduce a scientist’s relationship to research as a mere expedient to feed the family. Yijing’s Chinese friends who have come to study and work in STEM seem to concur. As she puts it, “We all feel that in China we focus more on facts instead of creative thinking.”

Marrying passion with structure and discipline is the model Yijing strives for. With her upcoming diploma in hand, she’ll be able to put the two together and achieve her ultimate goal to remain in the United States as a successful research scientist.

Ronald Peaster

"I felt that the doctor gave me a new hope."

The very tall, lean guy you'll see around Dr. Guyden's lab on the 6th floor of Marshak may look like he wandered away from his spot on an NBA team. The truth, in fact, is not so off-target: Ronald Peaster traversed many an asphalt court on his path to CCNY that was as winding as a full-court dribble.

Having spent years as a youth worker and basketball coach in Brooklyn, where he was raised, Ronald was bulldozed by a taxi in Manhattan one afternoon in 1998 while riding his bike. His injuries to neck and spine were grave, and his recovery lengthy, but the experience was a game-changer. While in the hospital he observed science being translated to patient care, and he began to study medical texts in order to proactively participate in his rehabilitation. In 2001, when he had surgery to spike a very slow recovery, Ronald's surgeon at NYU Langone Medical Center, Dr. Joseph Dryer—known to many as "Dr. Goldfingers"—became impressed by Ronald's curiosity and potential; he encouraged him to seek a career in health care. "I felt that the doctor gave me new hope," says Ronald, who enrolled in Medgar Evers College, planning to earn a nursing degree. Again Ronald in his quiet way stood out, noticed this time by a professor who encouraged him towards a higher degree and biomedical research.

Providence smiled on Ronald yet again, carrying him to the Masters in Biology program at CCNY. He was tapped to do research in Dr. Jerry Guyden's lab studying immunology, the autoimmune disease lupus in particular. His research has come close to verifying that lupus, which has for many years been diagnosed only at a late stage, can be detected much earlier on. With Dr. Guyden on indefinite leave, Ronald, as senior researcher, has gotten invaluable experience guiding his own projects and running a laboratory, too.

Having just received his Masters (May, 2016), Ronald is headed for Tuskegee University in September, where he'll begin work on his PhD. Once his doctorate is in hand, he will continue to research autoimmune disease, which disproportionately affects people of color. He'll also return to the streets working with youth, inspiring success and love of discovery.

Although he recently moved away from Brooklyn, Ronald's exemplary commitment to inner city children and youth remains. Illustrative was his involvement with the friends of his son and daughter, some of whom may have been underachievers. Before they were permitted to play with his children and their many toys and games, the friends had to first read a news article of Ronald's choosing, and be prepared to intelligently discuss it. With Ronald's infectious curiosity, a promising future as a cutting edge researcher, and his ongoing engagement with his community, his outlook for fulfillment is a slam-dunk.

Student SPOTLIGHTS

Zara Jamil

> *"She's the whole reason I've really been wanting to go into medicine."*

Much to her family's relief, Nawshin, "Zara," Jamil (Macaulay Honors graduate, Feb., 2016) pledged to become a practicing physician after abandoning her plan to be a Zamboni driver. "You know the machine that cleans the ice rink...That was my dream!" she says, looking back ironically on her childhood.

Zara is medical school bound now, working before she applies, in a post graduation gap of three semesters performing research in immunology in Dr. Mark Pezzano's lab. For additional pre-med experience, Zara spends two days a week at North Shore Hospital on Long Island shadowing an internal medicine team. Zara is very much interested in women's medicine. The attraction to OB-GYN was brought about by her special relationship with her mother, a mathematician who encouraged her daughter to sit in on visits to her gynecologist, leaving Zara fascinated by what she could absorb about the specialness of women's bodies. "She's the whole reason I've really been wanting to go into medicine…" says Zara of her mother, who took 14 years off from her career in order to raise her daughter.

Zara has gained added experience favorable to a practice in OB-GYN. Before shadowing the internal medicine team, she'd signed on to the Center for Human Reproduction at North Shore where she prepared reports on fertility and reproductive policies, learning first-hand about the various procedures used to increase fertility. In addition, Zara volunteered for nearly two years as a Senior Health Educator, running workshops for teens on sexuality and other timely health issues. At first, "it sounded terrifying," she reveals and chuckles, "I love terrifying stuff!" In the end, though, "It was such a great experience." Zara's been finding her internal medicine placement so engaging—specifically her team's dedication, their mutual respect and cooperation, patient progress meetings, and their record of superior patient care—that the choice between the two specializations, OB-GYN and Internal Medicine, has become as hard to make as that of a kid in a candy shop. The shopping that she has embarked on is for a medical school to attend. She's planning on remaining on the Coast—East, possibly West—with Hofstra-Northwell, Georgetown, and U Penn amongst those under special consideration.

Zara is a founding and executive board member of Malala's Room, a campus organization formed mostly by women in the Biology Department as a safe place where young women of all backgrounds meet to find support and an open ear and mind to discuss any issues they may be grappling with.

With her strong work and internship experiences, the genuine yet learned sense of wonderment she displays when speaking of hands-on medicine, and Zara's already impressive résumé, she is well placed for acceptance to a medical school of her choice. One can be confident that, no matter where she receives her diploma, or the specialization she finally pursues, Zara, like her mother, will become a role model for women.

Georgio Malouf

"My main passion is the heart."

BS/MS student Georgio Malouf is on the road to medical school with no detours. Along the way, he's picked up trunks-full of experience and knowledge that promise to advance a sterling career. Georgio has been interested in medicine since he was eight years old and tragedy befell his family. His grandmother, despite being elderly and a smoker, had never been tested for ominous health issues, and she died of a massive coronary. Her passing affected him profoundly. "I tried to understand how it happened. Why?" he recalls thinking after learning she'd had a number of completely blocked arteries. "And I started looking into it…going to science fairs, dissecting fetal pig hearts…" It wasn't long before he knew that cardiology was his calling, and he vowed to prevent what had happened to his favorite grandparent from happening to others.

Georgio attended a biomedical sciences middle school, the John J. Pershing Intermediate School in Brooklyn, where he grew up, and went on to the pre-medical career special program at Brooklyn Technical High School. While at Brooklyn Tech, he was able to observe heart surgery performed in the OR of Belleview Hospital. He was horrified, thrilled and ever so much more motivated one day seeing a surgeon hold up to examination a patient's throbbing heart, completely detached from its host chest cavity.

CCNY has been home for Georgio for five years, during which he's kept a high profile, involved in a number of Department of Biology activities. With a stethoscope around his neck, his is a familiar face in the halls of the Marshak Building, first as a CCNY Volunteer Emergency Services worker, and now as an EMS volunteer. He has taken a leadership role in most of the activities in which he's been involved, including President of VES and Co-President of the campus Biology Club, Vice President of the Caduceus Society and, in high school, Captain of the fencing team. He's completing his BS/MS, and will graduate in Spring, 2017. Currently Georgio is a research assistant in Dr. Michael Hickerson's laboratory, expanding his purview by embarking on genomic research. He'll take a gap year before applying to med school.

While taking courses and immersing himself in the medical literature, Georgio has also cannily surrounded himself with hands-on people, folks he could learn from first-hand and depend on for sound advice. One of these mentors is his father's cardiologist ("It runs in the family"), Dr. Wissam Hoyek, of New York Methodist Hospital and Staten Island University Hospital North, who successfully inserted three stents into his father's heart. Dr. Hoyek keeps Georgio up to date about the rapidly changing field, including marginalizing pharmacological and emergency cardiology in favor of preventive and invasive modalities.

Influenced by Dr. Hoyek's career, Georgio is considering the "plumbing option," or engaging with the advanced practices of inserting stents and filters, catheterization, etc., and of prevention. In fact, he will most likely combine his MD with a cutting edge corollary practice in Osteopathy. With his school and bench work, his student activities, his EMS rounds so consuming, Georgio finds a way to de-stress with a palliative and a powerhouse: dance. After a visit to Lebanon at sixteen, Georgio returned to New York and formed a folkloric dance troupe, Dream Dabke, which, eight years on, is flourishing.

Although his life is full and he is fulfilled by the numerous passions that inform and drive his choices in life, Georgio wants to make himself clear: "My main passion is the heart."

Awards & Scholarships

The Ward Medal: Geoffrey Russell and Mohammad Khan
to the student with the best overall record in his/her Biology courses.

The Professor William Stratford Prize: Matias Tong and Mohammad Khan
to the student demonstrating the greatest proficiency in both course work in Zoology and Zoological Research.

The Professor Martin Sacks/Sylvia Rubin Award: Beth Gerstner
to the graduating senior or Masters student demonstrating the greatest proficiency in research in Environmental Science.

The August Anthony Gavasci Award: Joyce Chan
to the graduating senior or Masters student demonstrating the greatest proficiency in research in Environmental Science.

Olivia McKenna Award: Swera Cheema
to a graduating senior who demonstrates proficiency in Neurobiology.

The Edmund Baermann Scholarship in Natural Sciences: Shariq Mohammad
to the graduating senior or Masters student demonstrating the greatest proficiency in research in Environmental Science.

Recognitions
Jamie Kass from the Anderson lab was awarded a NSF/JSPS grant (East Asia Pacific Summer Institutes Fellowship) to conduct research in Japan during summer 2016.

Fall 2016 Colloquia
All meet in The Marshak Science Building, room 801 at 1pm

Sept. 12
Dr. Shireen Saleque
CCNY, CUNY

Sept. 19
Dr. David Lohman
CCNY, CUNY

Sept. 26
Dr. Nick Tritsch
NYU

Oct. 6 (Thursday)
Dr. Adrian Rodriguez Contreras
CCNY, CUNY

Oct. 17
Dr. Greg Suh
NYU

Oct. 24
Dr. Beatrix Ueberheide
NYU

Oct. 31
Dr. Mariano N. Di Guilmi
Instituto de Investigaciones en Ingeniería Genética y Biología Molecular, Dr. Héctor N. Torres, INGEBI-CONICET, Buenos Aires, ArgentinaEndFragment

Nov. 7
Dr. Miruna Ghinia
CCNY, CUNY

Nov. 14
Dr. Krishna Veeramah
Stony Brook University, SUNY

Nov. 21
Dr. Gaspare La Rocca
Sloan Kettering

Nov. 28
Dr. David Spector
CCNY Alum, Cold Spring Harbor

Dec. 5
Dr. Virginia Garcia-Marin
NYU Center for Neural Science

Dec. 12
Dr. Rosa Zambrano-Mino
University of Texas Health Science Center

Biology Club Calendar

If you want to become a member of the club, have any questions or suggestions, please contact us at Biologyclub@gtest.ccny.cuny.edu or visit us at, ccnybiologyclub.wix.com/ccny-biology-club

Department of Biology Informational
September 29th @ 12:30pm
in Marshak 1

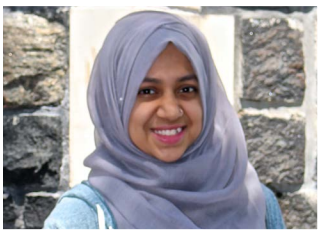
Time management panel
October 27th
in MR-801

Opportunity Fair
November 15th
in Marshak Café

End of Semester de-stress social
December 8th
in Marshak 502

A Bright New Start

Masuma Sultana



Her laugh suggests a bit of apprehension, perhaps of the unknown. But it is an infectious and warming laugh, ultimately expressing the confidence with which Masuma Sultana, an incoming freshman (Class of 2020), speaks of her career plans and other ambitions in life. As a Macaulay Scholar, having graduated from Brooklyn Technical High School this past June with a 4.0 GPA, expectations for Masuma from all around are high. She is unfazed, not even by the realization that college will present more and different challenges to meet than those of high school, albeit an elite one. Precociously and unwaveringly, Masuma put her mind to a career in the biological sciences when she was in kindergarten. As she grew, she was drawn more and more towards children—only 18 years old, she has already taught for Khan's Tutorial and in a Bangla children's school—and she is determined to become a pediatrician. Recently Masuma has been nurturing an interest in advances in general surgery and medicine's growing mastery of "putting broken parts back in order." Consequently, she's seeking a way to combine her interest in surgery and commitment to children into a specialization just right for her. Masuma is the first student to be profiled in the Newsletter's just-launched feature, Bright New Start, aimed to feature promising incoming students while helping to calm the jitters of their peers and provide support in running the gauntlet of perils that causes many first-year college students to drop out. Her experience volunteering with a number of community organizations and at Brooklyn Tech is exemplary and shows that, even at an early age, Masuma can balance commitment to society with the drive to succeed. CCNY will provide Masuma a secure stepping-stone to medical school, but, true to her character, she will enrich her undergraduate experience with engagement. She will be joining the Executive Committee of Malala's Room, a student support group for women nourished by the diversity of the college, and she is planning to take Spanish as her minor. " [I] just want to be out there," she says, "more branched out, learning about the world..."

Where Are They Now?

The CCNY Biology Department Newsletter continues its "Where Are They Now?" feature this issue by proudly reporting on Ivan Santiago, Class of 2013

Ivan Santiago

Ivan Santiago is awesome. He is that rare public college graduate from an underrepresented population accepted into a PhD program at an elite university, but there is much about Ivan that eclipses his academic firepower of a 4.00 MS GPA, for example. What truly sets Ivan apart is his integrity and his mission to help others fulfill their own academic and professional aspirations.

Ivan speaks candidly of being a scrappy working class Puerto Rican kid from the Bronx who dropped out of CCNY Engineering because he couldn't figure out why he was there, only to return and find his way, this time in Biology, thanks to a host of faculty and staff who saw his potential and were determined to help him actualize it. Of Dr. Tadmiri Venkatesh, his professor for Introduction to Genetics (BIO 206), he recalls how giving of his time "Venky" was, always available after class to thrash out Ivan's questions with him. "He was the first one to say to me, You know, you should be applying to places like Harvard…'" says Ivan. Following his MS from CUNY in 2013, Ivan was accepted to the PhD Program in Neuroscience (PIN) at Harvard Medical School, where he found himself the only one of 25 students who identified as from an underrepresented minority. Although he says it's a "fantastic program with fantastic people," it was immediately clear that it was sorely lacking in diversity. "I knew it was going to be this way, but I didn't know how it was going to affect me," Ivan confesses.

Working through the emotional toll the pressure and alienation his new life gave rise to was no easy task for Ivan. He was also weighted down by longing for his close-knit extended family, attempting to mend the breach with frequent visits home. He longed, too, for his beloved city, finding that the Boston area, among other deficits, had "no good Chinese restaurants." "I knew it wasn't going to be like New York," says Ivan, more positive now about his adopted home, "but I needed tall buildings, I needed traffic, noise…" Harvard proved a rocky testing ground for his confidence. While at CCNY he'd prided himself on being able to make friends easily from its multifold demographic. But he felt a chill upon entering Harvard, just one underrepresented minority amongst an overwhelmingly white and privileged community that threatened to rattle his self-esteem and the sense of belonging that coddled him at CCNY. Summoning up the determination, Ivan began to open up to his new community; his efforts have been rewarded, and he feels much better integrated now.

During his first year, Ivan got together Benyam Kinde, an African American MD/PhD student he'd met at ABRCMS when being recruited by Harvard. They approached Dr. Rosalind Segal, Director of the Program in Neuroscience, who was sensitive to the lack of diversity at this highest level of learning, and the three formed the group for doctoral candidates, Underrepresented Students in Neuroscience (USN). Ivan now attends conferences, such as ABRCMS, encouraging minority students to apply to Harvard, sharing his story of struggle, and assuring them that if they come to Harvard, he and USN will have their back.

With no hesitation about his future, Ivan concludes, "I want to be a professor. I want to teach. Those things are very important to me." He sees himself back in the metropolitan area at a university that may be small, but must be diverse. Ivan would not feel properly profiled if we didn't mention some of those at CCNY who supported and inspired him along the way. In an uncharacteristic addition, we are excerpting here Ivan's words of gratitude towards some of those at CCNY who were especially inspirational:

Dr. [Milicent] Roth (CCAAP) - *… I still, and probably always will, consider my first conversation with her as the most important interaction in my professional life.*

Dr. [Jonathan] Levitt (Biology) - *My hero. This is the man who taught me what a neuron is…. He still offers me great advice and is always available. Plus, he hates the Yankees, like me :)*

Dr. [Mark] Steinberg (Chemistry) - *He gave me a position in the RISE program, which made everything possible…. and fund[ed] my attending of a number of conferences, which… was instrumental in making me a competitive applicant to graduate programs.*

Dr. [Sally] Hoskins (Biology) – *CCNY helped build my confidence in myself, and Dr. Hoskins was a big reason. She really made me feel like I had what it took to be a great scientist.*

Nkem Stanley - *of course Ms. Stanley…. She was always amazing at making me feel special, and eradicating self-doubt.*

Biology RECOGNIZES

Eirini Amanatidis

It's rewarding to watch someone blossom into adulthood before your very eyes. A number of the Department of Biology staff can say that they have seen Eirini Amanatidis grow from a loquacious, rough around the edges and inquisitive freshman, into a mature, mindful, yet still inquisitive senior, ready to meet the world on her own positive terms. Eirini began working in the Department of Biology her freshman year, 2013, as a work-study student after having graduated from Francis Lewis High School in Queens with a 98.23 GPA on top of honors, awards and an impressive record of service. She finished her third semester at CCNY with a cumulative 3.913 GPA.

Eirini is neither a Biology nor a STEM major; her field of concentration is Elementary Education, but she fits seamlessly into the "more to the point," "rigid study approach" of her colleagues in the sciences. She handles "meet and greet" and administrative chores for the Biology Office, and has clocked numerous hours helping out for events, such as the recent anticancer Relay For Life and Take Your Child to Work Day.

Her studies help her cast a critical eye on the accepted pedagogy of the day. Especially thorny, she avers, is the prevailing reliance on common core principals that don't encourage teachers to truly address their students' individual learning styles and their uniqueness as little, but real, people. "Teachers these days," Eirini offers, "I don't think they really understand kids sometimes. They don't pay attention to what they could be doing differently to engage the students," especially those who learn "in a different way from others." Eirini has had to overcome learning disabilities, which has given her first-hand experience of how the system can fail a child.

Eirini became a vegan in January, after being a vegetarian since last April; it has broadened her perspective on the world, inspiring her to care more deeply about global suffering, both human and (other) animal, and global waste. Veganism is a special challenge for her, coming from a traditional Greek-American family with her grandmother living next door, where the misunderstanding is great and the temptation to capitulate (especially during holidays) even greater. But she is meeting the challenge by being patient with her family and friends; and she keeps a lively dialog going on her Facebook page.

Graduating from CCNY in the Fall of 2017, she'll be taking a gap year before grad school. She is eager to earn her masters so that she can set up an elementary school classroom that promises to be a warm and fuzzy laboratory of innovative, child centered learning. She has her heart set on the Bank Street College, perhaps the most highly esteemed and progressive graduate school in Education in the country.

When asked why she is so positive about being able to bring innovation and true learning to children, Eirini immediately replies, "I really, really like kids."

Karl Li

"We can learn together," says Karl Li about his team of IT specialists. With degrees in both Physics and Electrical Engineering, and experience as a university professor in his native China, Karl was an optimal candidate, in 1991, to maintain the infrastructure of the nascent computer network at CCNY. It was an ideal time for Karl to take over, as universities were just beginning to come online, and CCNY was at the forefront of the revolution.

When the system grew too large and unwieldy, Karl was tapped to head the system at Marshak, where he's been for 13 years. The team of seven must tackle myriad problems daily, hamstrung by a creaky old system and a skeletal budget. Karl and his College Assistants are just an email or phone call away from assistance, and it is his pledge to maximize efficiency and bring the system up-to-date for as long and best as he can.

Karl's self-crafted job description includes a commitment to prepare staff for careers in IT in the real world where they'll need to think on their feet, be self-motivated, be able to work well with others as a team, and present themselves in a professional manner. He gives freely of his time, encouraging his workers to come to him for extra and individualized coaching on their off hours.

George Navas, who has been part of the team for eight years, gives credence to Karl's commitment. "He always encourages us to try and better ourselves with whatever we need work on," he says, adding that Karl is "a big person on punctuality…so it makes a lot of us strive to come in early, to come in on time, and get to do what we have to do."

Karl's proudest moment came a number of years ago when one team member was recruited for a select position with Jet Blue Airlines. This good fortune led to a mass exodus from Marshak when five additional team members happily followed in succession, joining their trailblazing comrade at the airline. Karl's commitment to his work runs deep. "From my heart," he avows, "my standard is to make my clients satisfied."

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Andrénetta Collins

Andrénetta Collins works behind the scenes in Marshak, but her low profile is deceptive: she is someone who has much responsibility for CCNY's identity as Harvard on the Hudson. As Assistant Director and Academic Advisor of College Now, Andrénetta is tasked with recruiting and supporting high school students with potential and motivation, ready to meet the challenges of a degree program at a top-flight university such as CCNY/CUNY.

College Now, a CUNY-wide program, offers basic accredited college courses to New York City high school students with a GPA of 80 or higher. Courses are taken in a number of areas, including Biology and other STEM subjects, and the humanities. Some College Now classes can be transferred to a student's future degree program tuition-free.

College Now students may also attend any of a number of on-campus activities touching all academic and cultural interests, including an intriguing six-week summer intensive in modern and traditional architecture. There are over 400 New York City high schools affiliated with College Now; CCNY's program is fed by over forty local schools, including the prestigious, specialized Stuyvesant High School. Andrénetta estimates that over 90% of College Now students are accepted to a four-year college.

A graduate in Biology from Dillard University in New Orleans, Andrénetta earned her Master's in Early Childhood Education from CCNY. She took what she learned into the classroom as a teacher, and moved on to administration. The switch allowed her two main interests of pedagogy and the sciences to dovetail and eventually take her to College Now. Before College Now, but also at CCNY, she was Program Coordinator of the GEAR UP initiative, where her duties included planning student activities and parent outreach events.

Most challenging in her work, she finds, is surmounting the generation gap between adults and high schoolers, made evident by unreturned phone calls, texts, emails, etc. to students. Still she is committed to include in her responsibilities preparing them to be conscientious and communicative in the adult world that awaits them. Andrénetta has made a special commitment to promote women in the sciences. She has spearheaded for two consecutive years the S.T.E.A.M. Leadership Conference (Science, Technology, Engineering, Arts, and Mathematics), held on-campus in recognition of women's contribution to academia and to encourage young women students to follow in the footsteps of the prominent guest speakers she has engaged for the event.

Andrénetta's mother and aunt were both teachers, but it took one summer as a camp counselor of fifth graders to reveal her calling to her. "Deep down inside," she confesses, "I guess education has always been planted, rooted, in my soul."

Bradley Cadet

Bradley Cadet, College Assistant in the Bio Office for three years and Work- Study student for one, is an old hand at keeping things calm and running smoothly. After Christine Klusko, the Bio Office manager, and Yolanda Pitt, College Office Assistant, Bradley's face is likely the most familiar in the midst of the beehive that is the Bio Office. He's adept at troubleshooting IT and media problems, a talent of which he is proud. But it is helping people through problems that he feels is his mandate.

"I guess," he confesses, "that I just feel weird when someone is standing in front of me and is troubled, and I'm just sitting there and looking at them." "I would feel awkward if I didn't try to help them," he adds, concluding, "I'm assertive about helping people."

Christine observes Bradley growing into this role, and they both agree that he is honing his people skills, now finding his interactions fruitful and rewarding. Christine observes, "At first he seemed a bit timid in the interactions, but in the years we've worked together, he's now one of the people I can depend on to handle interpersonal relations."

Bradley is studying Environmental Engineering, taking his time before graduation, in 2018, to shore up his grades. He also needed extra time to refine the blueprint of his life's work. Always interested in building and inventing things, Bradley played for hours with Lego and magnetic building blocks as a child, and he loved—and still does—creating interesting sculptural shapes with Play-Doh. Also since childhood, he's been concerned for animal welfare, beginning with the house pets with which he's always l ived. He even combined his interests by inventing a "water-drinker-feeder" for Ginger, his and his sister's Shih Tzu.

Designing and implementing habitats for at risk animals is what Bradley will pursue in grad school, which he'll attend after taking a gap year to work and make his grad school burden lighter. He envisions himself here at CCNY Engineering, and after his Master's, working in the New York area to ensure that wildlife are safe from poachers, pollution and road kill. He'd like to be part of a team building utopian yet utilitarian environments with human-made hills and trees and burrows, the artifacts of saving a species from extinction.

Bradley has created his own ideal habitat in Room 526. "I like the people here," he says, "and I've never thought of going anywhere else." And what has he given in return? "Hopefully, I have added to the happy environment."