

BIOLOGY

DEPARTMENT NEWSLETTER

Spring 2016 | Issue #6

ABRCMS 2015th ANNIVERSARY



BIOLOGY

DEPARTMENT NEWSLETTER

Senior Editor

Christine Klusko

Senior Writer

Carolina Amoruso

Contributing Writers

Dr. Millicent Roth

Angela Lopez

Graphic Design Managers

Rychelle McKenzie

Manuel Pena

Photographer

Andre Washington

Contributing Photographer

Jazmin Preyor

In this Issue

4

5

6

8

12

14

15

CCNY
BIOLOGY
DEPARTMENT

Department Chair

Dr. Karen Hubbard

Deputy Chair, B.S./M.S. Advisor

Dr. Jay Edelman

PhD. Advisor

Dr. Adrian Rodriguez-Contreras

Masters Advisor

Dr. Jonathan Levitt

Biotechnology Advisor

Dr. Christine Li

Faculty Spotlight
Publications & Presentations

CCNY's Got Your Back

Student Spotlights

Calendars of Events

Where Are They Now

Biology Recognizes

WANT TO BE PART OF RELAY FOR LIFE OF CCNY?

Contact Christine Klusko

CKlusko@ccny.cuny.edu

212-650-6800

Marshak 526

The American Cancer Society Relay For Life movement symbolizes hope and a shared goal to end a disease that threatens the lives of so many people we love. If cancer has touched your life, participating in a Relay For Life campus event is a way to take action and help finish the fight. This is your opportunity to honor cancer survivors, remember those you have lost, and raise funds and awareness to fight back and help finish the fight against cancer.

CELEBRATE. REMEMBER. FIGHT BACK.

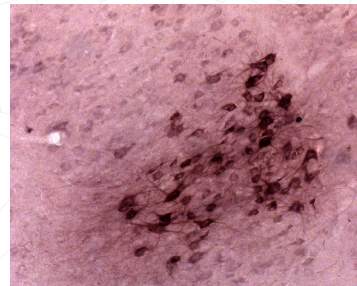
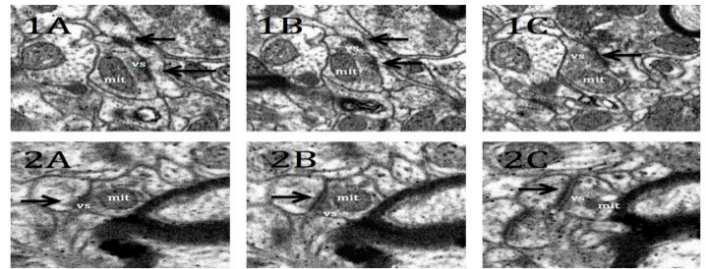


Faculty SPOTLIGHT

Dr. Jonathan Levitt



“Part of doing the right thing is you have to do right by everybody.”



“Knowledge, motivation, sincerity,” Dr. Jonathan Levitt responds without hesitation when asked to name the indispensable ingredients of a good teacher. They are ingredients that fuel his commitment to turn out top-notch, productive, critical thinking students. For this scientist studying the neural basis of visual perception, fostering such students is as important as the research they will carry out.

Dr. Levitt is involved in a number of on-campus projects in which he serves as a “catalyst of student achievement,” providing financial, academic and moral support to students. A shortlist of these includes: Director of the Biology Department’s Master’s degree program; Program Director of the NIH-funded MARC (Maximizing Access to Research Careers) program; Faculty Advisor for CCAPP (City College Academy for Professional Preparation); and keeping open his office door for hours on end, ready to consult with students on their work, their grades, their dreams. He observes, “...The reality is.... in our job as college professors, you do a lot of things, it’s not just that you teach a class.”

One might say Dr. Levitt and CCNY are a perfect match, as each is committed to offer quality and affordable education to students of this city and beyond, recognizing that many are recent immigrants and/or of modest economic means. He is a proud product of NYC public schools, and the son of a NYC public school teacher. He gladly offers his advice

on overcoming the challenges of the gritty city he dearly loves. “I’m a city kid,” he says. “I grew up in New York in the 60s and 70s”. A lesson he considers essential to success at the college and here in New York is to embrace our diversity. “You’d better be tolerant,” he cautions, “because everybody’s here”. That perfect fit of city scrapper and the City College ethos has kept him at the college for 17 years.

A profile of Dr. Levitt would not be complete without mentioning his legion and by now legendary interests. The catalogue includes: serious bicycle riding—once a racer, he slows to take in the scenery nowadays clocking a “mere” 360 miles or so in one “relaxing” weekend; reading—literary fiction is a surprise favorite; music, all kinds of music; gastronomy and, yes, wine.

Dr. Levitt returns to his aspirations, naming another, all-encompassing one: “[Students] will have to look up the word, but being a mensch is very important to me. That’s doing the right thing... But part of doing the right thing is you have to do right by everybody.”

Publications & PRESENTATIONS

Dr. Robert Anderson

Anderson, R. P. Crossing scales in biodiversity prediction for human-health applications. Invited presentation at: Human Health in the Face of Climate Change: Science, Medicine, and Adaptation, New York Academy of Sciences, La Caixa Foundation, and Biocat. 14–15 May 2015, Barcelona, Spain.

Blair, M. E., Anderson R. P., and Schigel, D., organizers. Symposium and Panel Discussion: Frontiers of biodiversity informatics and modeling species distributions. Global Biodiversity Information Facility and American Museum of Natural History, 4 Nov 2015, New York, New York.

Dr. Amy Berkov

Torres, C., Berkov, A. 2015. Correlations between wood-boring beetles and wood nitrogen content. Annual Biomedical Research Conference for Minority Students, 11-14 Nov 2015, Seattle, Washington.

Berkov, A., Barrios, H., Pinzon-Navarro, S. 2015. Crepuscular wood-borers favor trees with moist wood. Botanical Society of America Annual Meeting, 29 Jul 2015, Edmontin, California.

Dr. Shubha Govind

Ching-Jung L., Smibert P., Zhao X., Hu J.F., Ramroop J., Kellner S.M., Benton M., Saint R., Govind S., Dedon P.C., Sternglanz R., Eric C. Lai., E.C. 2015. An extensive allelic series of *Drosophila* kae1 mutants reveals diverse and tissue-specific requirements for t6A biogenesis. RNA (12):2103-2018.

Dr. Jonathan Levitt

Khalil R., Levitt JB. 2014. Developmental remodeling of corticocortical feedback circuits in ferret visual cortex. J Comp Neurol. Oct 1;522(14):3208-28. doi: 10.1002/cne.23591.

Dr. Christine Li

Chang Y-J., Burton T., Ha L., Huang Z., Olajubelo A., Li, C. 2015. Modulation of locomotion and reproduction by FLP neuropeptides in the nematode *Caenorhabditis elegans*. PLoS ONE 10(9):e0135164. doi: 10.1371/journal.pone.0135164.

Dr. David Lohman

Dupont S.T., Zemeitat D.S., Lohman D.J., & N.E. Pierce. The setae of parasitic *Liphyra brassolis* butterfly larvae form a flexible armour for resisting attack by their ant hosts (Lycaenidae: Lepidoptera). Biological Journal of the Linnean Society, 117: 607-619.

Lohman, D.J. Evolution and biogeography of butterfly radiations in the Indo-Australian Archipelago. Invited seminar at Pennsylvania State University, State College, PA.

Dr. Hysell Oviedo

Oviedo, H. V., Magee, A. Circuit specialization across primary sensory and motor domains of cerebral cortex. Panel co-chair and presenter at the 2016 winter conference on Brain Research. Breckenridge Colorado, USA.

Dr. Tadmiri Venkatesh

Fu W., Sun J., Huang G., Liu JC., Kaufman A., Ryan RJ., Ramanathan SY., Venkatesh T., Singh B. Squamous cell carcinoma related oncogene (SCCRO) family members regulate cell growth and proliferation through their cooperative and antagonistic effects on cullin neddylation. J Biol Chem. 20 Jan 2016. pii: jbc.M115.692756.

Wise A., Tenezaca L., Fernandez RW., Schatoff E., Flores J., Ueda A., Zhong X., Wu CF., Simon AF., Venkatesh T. *Drosophila* mutants of the autism candidate gene neurobeachin (*rugose*) exhibit neuro-developmental disorders, aberrant synaptic properties, altered locomotion, and impaired adult social behavior and activity patterns. J Neurogenet. 2015 Jun-Sep;29(2-3):135-43. doi: 10.3109/01677063.2015.1064916. Epub 14 Jul 2015

Dr. Bao Vuong

Dominguez M.P., Teater M., Chambwe N., Kormaksson M., Redmond D., Ishii J., Vuong B., Chaudhuri J., Melnick A., Vasanthakumar A., Godley A.L., Papavasiliou F.N., Elemento O., Shakhovich R. 2015. DNA Methylation Dynamics of Germinal Center B Cells Are Mediated by AID. Cell Rep. Sep 29; 12(12):2086-98.

Zheng S., Vuong Q.B., Vaidyanathan B., Lin J., Huang F., Chaudhuri J. 2015. RNA-mediated targeting of AID to DNA during class switch recombination. Cell. May 7; 161(4):762-73.

CCNY'S Got Your Back!

Almost 10% of the students from underrepresented communities accepted to US medical schools are graduates of CCNY, as the Commission on Human Resources of the National Resource Council reported. It's an achievement that makes us all proud. We would never reach such heights if it weren't for the overarching support provided by a number of CCNY programs and their dedicated personnel. Following is a series of reports on the initiatives that have given our students impetus and momentum, propelling them towards the fulfillment of their dreams.

CCNY-MSKCC PARTNERSHIP

Since 2002, CCNY has collaborated with Memorial Sloan Kettering Cancer Center (MSKCC) in the CCNY-MSKCC Partnership for Cancer Research, Training, and Community Outreach. MSKCC is one of the most highly regarded cancer care and research facilities in the nation. Department of Biology Chairperson, Dr. Karen Hubbard, has served as co-principal investigator and primary liaison between CCNY and MSKCC since the partnership's inception.

Thanks to NIH funding, CCNY students from their first year to their doctoral studies are trained to perform biomedical cancer research. Using translational methodologies, the students address disparities in cancer incidence, detection, care, and outcomes between underrepresented and vested populations, sparking at the same time MSKCC's commitment to community medicine.

The 15th Annual Biomedical Research Conference for Minority Students took place November 11-14, 2015 in Seattle. **The City College of New York broke records this**

year big with eight awards overall, six students coming from the CCNY-MSKCC Partnership. The winning students and their topics were Rachel Hernandez in social and behavioral science; Melissa S. Evelyn in engineering, physics, and math; Zhiying Zhu in oral presentation engineering, physics and math; Electra Nassis in cancer biology; Hazeezat Shittu in social and behavioral science; and Shirley Mo in social and behavioral science.

Every spring, the partnership convenes a symposium on translational cancer research. It is a highlight of the students' academic year, offering them the opportunity to present and defend posters of their research before a large gathering. This year's Partnership Symposium will be held on Friday, April 15th, 2016 from 11:00 AM – 4:00 PM at The CUNY Graduate Center (350 Fifth Ave.) The panel topic will focus on *Obesity and Cancer: Translational Approaches*. The agenda includes presentations from U54 funded investigators and U54 funded students.

CCAPP

CCAPP, the City College Academy for Professional Preparation is funded by a CSTEP grant from the NYS Education Department. It provides academic support, career and community building activities as well as research and internship opportunities for students majoring in the sciences, mathematics and those who are pre-health students. It offers a select group of entering freshmen who intend to major in science or engineering a Pre-Freshman Summer Program that readies them for the gateway courses in these majors and for the challenges of a college STEM education. Its staff are the first members of the College's Division of Science that entering freshmen and transfer students meet when they come to the college for advising and registration. Students refer

to CCAPP as their college family and credit the program with providing them with those opportunities that have helped them to accomplish their goals for their lives after college. Together with the faculty of the Division of Science the program provides students with a supportive community that is critical to the success of commuter college students.



MARC-RISE

The Minority Access to Research Careers (MARC) and Research Initiative for Scientific Enhancement (RISE) programs are sister NIH funded initiatives intended to support promising students from underrepresented populations on the path to a career in scientific research.

MARC and RISE differ in certain aspects: MARC is an honors program; students must show an exceptionally high GPA in order to be considered. MARC accepts only undergraduates, typically in their junior year, and support is limited to 23 months (until the student's expected graduation). RISE's academic requirements are

slightly lower. RISE now supports an equal number of undergraduate and doctoral students: 8.

All MARC-RISE students are awarded a stipend, allowing them to concentrate fully on their research training without the distraction and preoccupation of seeking and then having a job.

MARC

Dr. Jonathan Levitt is faculty advisor to the MARC program and shared these success stories of MARC alumni: Kevin Uribe (class of 2015) earned his combined BS/MS degree in Biology, doing his Honors and master's thesis research work with Dr. Kaliris Salas-Ramirez of the Sophie Davis School of Biomedical Education. He studied the use of taurine as a candidate treatment for substance use disorders, presented his research at several research conferences across the country, and attended the Summer Program in Neuroscience, Ethics and Survival (SPINES) at the Marine Biological Laboratory. Kevin is now working toward his PhD in Neuroscience at the University of Texas at El Paso (UTEP) in the Psychology Doctoral Program.

Another recent MARC program graduate, Alan Stern (class of 2014), was a Physics major who did Biophysics research with Dr. Ron Koder of Physics. Alan is now a PhD student in the The Graduate School of Biomedical Sciences at the Icahn School of Medicine at Mount Sinai, in the Department of Systems Biology of Disease and Therapeutics.

RISE

Dr. Mark Steinberg of the Chemistry Department is Program Director of RISE and accepts undergraduates who have already declared their major and completed two years of instruction. Dr. Steinberg stresses that undergraduate RISE students may not consider attending medical school, as the program is not funded for such and will not support a student on an MD path. MD/PhD students are eligible, though, since the understanding is that the prospective MD will continue with his/her research. Dr. Steinberg affirms the success of RISE by noting the number of students who go on to successful careers in science and stay in touch years after graduation.

RCMI



With funding from NIH, the mission of RCMI (National Research Center in Minority Institutions) is to strengthen the fabric of translational research in minority colleges. The U.S. is sparsely dotted with only 18 RCMI centers, but New York City

is favored with two, Hunter College and, for the last 30 years, CCNY.

RCMI institutions are committed to train more racial and ethnic minority scientists to perform mainstream research

in basic science and to increase research in health issues disproportionately affecting underserved populations. RCMI at CCNY places students in research labs in molecular biology, biochemistry and biophysics.

Garnet Lewis is the Program Coordinator of the Research Center in Minority Institutions (RCMI) Program office. He has a Masters degree in Public Administration and has been with the RCMI Program since 1993 (23 Years) & has served the college for over 26 years. His administrative duties include program planning, personnel coordination and budgeting. He is the Director of the RCMI office and along with his team, manages it's day-to-day operations.

Student SPOTLIGHTS

Adanna G. Alexander



My ultimate goal is to reacquaint myself with the business world by combining entrepreneurialism with my background in biology.

“Come talk to me.”

It's unlikely to hear someone with an MPH, an imminent PhD, and a phonebook-long list of academic honors, say she chose to pursue higher education just to “give it a try.” But that's what Adanna G. Alexander did in 2006 when she left her native Trinidad for Brooklyn College, CUNY, to immerse herself in the study of biology.

Craving stimulation and support from enlightened mentors, Adanna feels privileged to have studied with Molecular Biologist, Dr. Peter Lipke, at Brooklyn College and, at CCNY, Neuro-Molecular Biologist, Dr. Christine Li, whose research focuses on Alzheimer's disease (2009 to present).

Yearning for learning didn't only take Adanna from her family and island, but from a thriving business she, at 18, launched with her father, supplying pipe-lines to oil-rich Trinidad. Adanna says her ultimate goal is to reacquaint herself with the business world by combining entrepreneurialism with her background in biology. Her thoughts nowadays veer towards establishing a coaching service that would help PI's more efficiently organize and spend their grant money. She's also enticed by the burgeoning biotechnology field.

Adanna's speech is soft and languid, suggesting measure and introspection. Sensitive to the needs of her fellow students for community, she founded or co-founded a

number of on-campus groups for science majors, such as the CCNY Science Alliance, the Worm Journal Club, and the more informal and relaxed Friday Night Games.

Adanna is memorable for her waist-length, pencil-thick dreadlocks, which have defined her for almost six years. They are a mark of pride in her African heritage and, in the world of science, a source of curiosity to many. She's amused by those to whom she's a novelty and patiently indulges that curiosity. To explore and share her heritage more fully, she recently joined Ndugu Nzinga Rites of Passage, a CCNY support group for students of African descent.

Music is another way Adanna connects with her culture. It was her first mentor—her high school biology teacher—who introduced her to percussion. Adanna has played African-rooted percussion instruments, mostly the djembe drum from West Africa, but Trinidad's signature steel pan, shekere, an assortment of bells, and more ever since.

In keeping with her sociability and her own curiosity, when asked if there's something she'd like to say about herself to our readers, Adanna replied simply, “Come talk to me!”

Varan Singh



“ I got to interact with people in a fashion that I would never have before.”

Varan Singh brought a host of life experiences to his eight years at CCNY where he's been a student, researcher in immunology, and laboratory design innovator and administrator. While not all the experiences were felicitous, each one has contributed to inform the multi-layered scientist he is today.

Significantly, Varan was born in Kuwait into a Punjabi family. To further his sister's and then Varan's education, the family moved to New York. The timing was inauspicious, as it was shortly after 9/11 and Varan, who wears a traditional Sikh turban, was mistakenly singled out as a Muslim and repeatedly aggressed by his schoolmates. Varan continues to wear his turban as a reminder of how much adversity he can weather and in respect for the traditions and sacrifices of his parents to whom he is reverently grateful.

Between high school and college, Varan was a NYC cab driver. He looks back on that year as invaluable. “I got to interact with people in a fashion that I would never have before,” he observes, adding that he became friendly with passengers from all over the world, acting as their one-stop career and relationship counselor, psychotherapist, tour guide and, occasionally, he found himself their dining companion as well.

Varan works in Dr. Pezzano's Immunology lab as a research associate, who handles a number of administrative tasks as well. He is grateful for his mentor's support, granting him

a wide berth for exploration, and “to make mistakes.” “He [Dr. Pezzano] gives me guidance, but he doesn't ‘direct’ me,” explains Varan, whose need for self-direction is clear.

Varan now faces another seeming roadblock: A DACA (Dream Act) student, he cannot earn a doctorate in the US. Nevertheless, having attained his masters (September, 2015), he is planning his future without that familiar key to the treasure chest doctorates convey. Varan knows he won't stray far from the bench — “I love science,” he says. “You don't do science unless you love it.” So he is seeking a way to higher earning power without having to leave his life's love. Among other innovative initiatives, Varan has been assembling a small portfolio of stock in biotechnology firms as a way to gauge their profitability and whether he might want to work for them.

Spending 12 to 16 hour days at the lab adds to the myriad stressors of a young immigrant's life in this city. Varan chills by playing soccer and as a professional bhangra dancer and instructor. (Bhangra is a Punjab-born up-beat and percussive dance style melding traditional and pop musical strains.) He's amused to have carved out a niche as bhangra guru at grand Indian style weddings.

Student SPOTLIGHTS

Christina Torres



Christina Torres proverbially has her finger in a number of pies at CCNY. The first, naturally, is that of her course and laboratory work, which finds her a CCNY Honors Junior and research assistant in Dr. Amy Berkov's Ecology, Evolution and Behavior laboratory.

In a very different guise, Christina is Secretary of a mental health support group she helped establish on campus, in 2014, the Student Mental Health Initiative. The group provides peer support to students grappling with school-related psychological distress. Although she doesn't plan to pursue a career in mental health, she avows a life-long commitment to advocate for the destigmatizing of mental health ailments. "It's so important," she reasons, "because of how stigmatized it is in this country."

Through the CCNY Honors Mentor Program, she has mentored six incoming biology honors freshmen, helping them through the transition to college study and life. Recently, Christina was on the dream team of the Department of Biology's mega cancer research support effort, Relay for Life.

A curious and expansive student, Christina is indulging another passion of hers, history, by minoring in Jewish Studies, captivated by such courses as "Engaging in the Afterlife" and "The Bible as Literature."

“Interest in the natural world and human processes have been integrated into my life from a very young age.”

Already thinking about her doctorate—she'll apply next year to MS/PhD programs—she'd like to remain in Ecological and Evolutionary Biology, specializing in conservation. She yearns to fulfill her dream of working in the American Museum of Natural History, recalling the many weekends as a child in Staten Island when she "begged" her mother to take her there. "Interest in the natural world and human processes have been integrated into my life from a very young age," she says, glowingly. "I loved it!" Christina went on to love all sciences classes, though biology captured her the most. It's been for her the most tangible of the sciences.

Deeply engaged in science and social issues, with a proven track record propelling her forward, Christina promises to achieve her goals.

Aishvarya Jain



“I really love helping people, I really do.”

Aishvarya Jain seems like a character just stepped out of a Bollywood movie. Her graceful roundness, intense almond-shaped eyes, love of dance and palpable sensitivity to injustice give her an aura of the ideal filmi heroine. But Aishvarya is real and down-to-earth, and now, while she takes a year off after graduation to get her bearings and study for her medical boards, she continues to spend time at the college with friends and former classmates and participate in departmental events.

Aishvarya’s reasons for studying medicine are numerous; uppermost is the imperative to help people. Illustrative of this would be the number of on and off-campus groups and events she plays a part in, including the CCNY Biology Club, where she is Vice President and Director of Outreach; Common Pantry, where she served meals to the homeless; and at Harlem Hospital, where she worked with child patients. In addition, Aishvarya was one of the people responsible for bringing the first annual Relay For Life, a campaign to find a cure for cancer, to CCNY.

Afraid of sounding “typical,” Aishvarya explains nonetheless, “I really love helping people, I really do,” and she continues, “It’s like, WOW, when I help someone, when I see a smile on their face, and they’re much more relaxed than they were before, it gives me satisfaction; I feel I’ve really done something good.” Using her ability to intuit and react to others’ state of mind will be fundamental to Aishvarya’s practice, as she has a holistic understanding of

medicine—indeed, of life itself--and the interrelatedness of body, mind and spirit.

Born in India and raised partly in Singapore before coming to the States at ten, she and her family continue to practice the little-known religion of Jainism, which has influenced her development significantly and kept her family close. Jains follow tenets of nonviolence towards all living things and a vegetarian lifestyle. “If someone’s uncomfortable and you’re comfortable, at the end of the day, you’re not going to feel eternal happiness,” she observes in illustration of her beliefs.

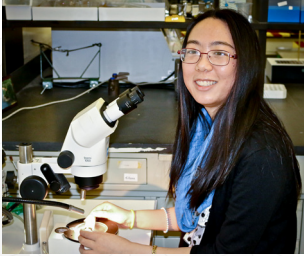
Aishvarya is considering specializing in pediatric medicine because she loves children, their spontaneity and innocence. Being a pediatrician would also force her to “test” herself to see how much of a child’s suffering she can bear.

Her dream—eminently reachable, yet also one of great self-sacrifice--is to provide the ultimate charity: to travel the world’s trouble-ridden zones on medical rescue missions with groups such as Medecins Sans Frontières.

Awards & Scholarships

The Sharon D. Cosloy Scholarship in Biology

The Cosloy-Blank family established an undergraduate research scholarship of at least \$2,000 in the memory of **Professor Sharon D. Cosloy**, former Chair of the Biology Department, respected researcher, and dedicated mentor and teacher. This year we have two winners; Swera Cheema from Dr. Christine Li's lab and Joyce Chan from Dr. Shubha Govind's lab.



Joyce Chan was raised in the suburbs of Queens. During her time at City College, she has met two women who have greatly influenced her; Dr. Ana Carnaval and Dr. Shubha Govind. She is grateful to Dr. Ana Carnaval who, took Joyce into her lab as a freshman and encouraged her

through a NSF-REU summer research program at CCNY. She is especially thankful to Dr. Shubha Govind, her current PI, for showing her the trials and tribulations, as well as the perpetually fascinating nature of biological research. When asked what this scholarship means to her, Joyce advised, "The Cosloy scholarship is beneficial in supporting me as I develop professionally as a scientist and work to explore my interests, weaknesses, and strengths. The scholarship brings me one step closer to entering my ideal profession, one that would allow me to learn ceaselessly, true to the lifestyle of a scientist."



Swera Cheema came to the United States five years ago from Pakistan. After visiting the CCNY campus, she knew attending City College would help achieve her goal of working in the medical field. She is part of Dr. Christine

Li's lab, which has been for her, "an opportunity to learn science on practical grounds and enabled me to experience the concept of teamwork." When asked what this scholarship means to her, Swera advises, "Along with helping me financially, this scholarship has also provided me with a sense of enthusiasm and has boosted my self-esteem. Seeing my hard work getting appreciated has made me believe in myself and made me focus towards my goals."

Spring 2016 Colloquia

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

Feb. 22

Dr. Michelle H. Hersh
Sarah Lawrence College

Fighting with Fungi in Forests and Fragments: How Fungal Pathogens can Maintain Plant Diversity.

Feb. 29

Dr. Will Pearse
McGill University

Linking Phylogeny and Ecology: Beyond Summary Statistics.

Mar. 7

Dr. Najib Majaj
New York University

Simple Learned Weighted Sums of Inferior Temporal Neuronal Firing Rates Accurately Predict Human Object Recognition Performance.

Mar. 14

Dr. Trudith Smoke
Hunter College, CUNY

The Rhetoric of Science.

Mar. 21

Dr. Bridget Nugent
University of Pennsylvania

Epigenetic Regulation of Brain Feminization and Masculinization.

Mar. 28

Dr. Lisa K. Denzin
Rutgers

MHCII Antigen Processing & Presentation Modulates Immune System Function and Dysfunction.

Apr. 4

Dr. John Suarez
Suarez Technology Group

Radio-Frequency Electronics for Wireless Biomedical Sensor Systems.

Apr. 11

Dr. David Vicario
Rutgers

Selectivity, Memory and Lateralization for Vocal Communication Signals in Songbirds.

Apr. 18

Dr. Jonathan Winawer
New York University

Spatial and Temporal Windows in the Human Visual Pathways.

May 2

Dr. Richard B. Primack
Boston University

The Effects of Climate Change on the Plants and Animals of **Thoreau's Concord**.

May 9

Dr. Diego Loayza
Hunter College, CUNY

Regulation of the DNA Damage Response by LIM Proteins in Human Cells.

May 16

Dr. Israel Del Toro
University of Copenhagen Center of Macroecology
Evolution and Climate

The heat is on! Climate Change Impacts on the Biogeography and Ecology of Ecosystem Engineers.

Recognitions

Ivan Prates from the Carnival Lab has been awarded a NSF Doctoral Dissertation Improvement Grant (US\$ 12,590). His research will use genetic information to investigate how animal species that live only in the tropical rainforests of South America have been affected by climate change during the past 250 thousand years. For that, he will perform fieldwork in Brazil and generate genomic data of a number of forest lizard species.

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

Welcome Back Party

Feb. 4 @ 12:30pm in MR 502

Celebrate the return of the spring semester. Get to know faculty, staff and students.

Club Information Session

Feb. 18 @ 12:30pm in MR 801

Learn about various the various programs, including the MARC and RISE Programs, offered here at CCNY and also learn about how to get into CCAPP.

Personal Statemen Workshop

Mar. 10 @ 12:30pm in MR 801

Improve your personal statement. This workshop will help you become a more competitive candidate when applying to graduate school, looking for employment, etc.

Faculty Talks

Mar. 17 @ 12:30pm in MR 801

Listen to Biology Professors talk about their research and learn about opportunities to work with them!

Career Panel

Mar. 31 @ 12:30pm in MR 1

Guest speakers offer inside tips on how to succeed in various industries, at various levels, pulling from personal experiences.

90 Second Pitch Workshop

Apr. 14 @ 12:30pm in MR 502

Prepare your elevator speech and answer, "tell me about yourself." This workshop helps you become a more competitive candidate when applying for jobs, grad school and research opportunities.

Talent Show

May 12 @ 12:30pm in MR 1

Show off your science related skills! Compete for prizes, relax and enjoy some time off before finals week. Have free food with the Biology club, science students and Division of Science Faculty and Staff.

Women in Science Calendar

For more information, please contact WinS at ccnywins@gmail.com
ccnywins.wix.com/womeninscience



CCNY's **Woman in Science** invites you to

Social Networking Event

Friday, March 11th at 5:30 pm. 142 Loft, located at 142nd Street and Broadway

Women, men, staff, students, and faculty all welcomed!

Where Are They Now?

The CCNY Biology Department Newsletter continues its “Where Are They Now?” feature this issue by proudly reporting on Edwin Vázquez-Cintrón, Class of 2008.

Edwin Vázquez-Cintrón



With academic excellence and kudos for his benchwork in molecular biology, CCNY graduate, Edwin Vázquez-Cintrón, was able to leapfrog his career in research and fulfill a long-held ambition by becoming a biotech entrepreneur, co-founding, in 2013, the firm, CytoDel, where he is today Director of Research. The career move brought him back to Harlem, as CytoDel is one of a number of cutting edge start-ups located in the newly renovated Sweets building, now known as Harlem Biospace, on 127th Street.

A native of Puerto Rico, Edwin was pursuing undergraduate work at the University of Puerto Rico, Rio Piedras campus when his mentor, the Distinguished Professor, Dr. Graciela Candelas, invited him to a scientific conference in Santa Fe, with a stopover at CCNY. At CCNY, Dr. Vázquez-Cintrón was captured by the laboratories investigating T-cells ontogeny. To further his new-found interest, he was offered, and accepted, a research associate position in Dr. Mark Pezzano's lab.

Dr. Vázquez-Cintrón soon found himself at a crossroads, wanting to stay at CCNY, but without the resources to do so. He came up with a solution: if he achieved a 4.0 GPA, would the college then cover his tuition? "Well, I got my 4 point GPA," he says with a smile, "and they figured out a way to fund my tuition" with scholarships and a MARC grant.

Dr. Vázquez-Cintrón remained in Dr. Pezzano's lab, published his work in a peer-reviewed journal, received

his BS in Biology, graduating magna cum laude, and was awarded the 2006 Salk Scholarship Award. "Working with Dr. Pezzano at CCNY provided a solid foundation for the science I practice today". He continued his studies at NYU School of Medicine where he earned his MS in Pathobiology and a PhD in Immunology. His work resulted in a patent (in prosecution) on methods to achieve a more effective CD8+ T cell response to tumors.

As a postdoctoral research fellow at the NYU Langone Medical Centre (2011 – 2015), Edwin worked in developing a therapy for botulism toxemia and novel methods and uses of recombinant botulinum neurotoxins. In 2012, Edwin completed the Venture Fellow Program at the NYU Stern School of Business and immediately after co-founded CytoDel, with two NYU faculty members. He has also been a science advisor to TedMed.

Bedrocked in translational science, Dr. Vázquez-Cintrón believes discoveries need to be translated into applications that answer unmet medical needs of patients and help us to a better, more healthful life. "It is extremely gratifying to know that your efforts can one day save a life," he observes, anxious for the day when he'll see a drug CytoDel has engineered benefiting people. "I want this to be my contribution to society; I love what I am doing." Dr. Vázquez-Cintrón concludes.

Biology

RECOGNIZES

Rychelle McKenzie



Rychelle McKenzie was ebullient when interviewed for this story extolling her contribution to the Department of Biology as our Graphic Design Manager, web master and part-time office greeter and trouble-shooter. The cheer was in part due to her general disposition—always upbeat and positive—and because she was to leave, in two days' time, for a month

in Argentina to improve her Spanish language skills and to “hit the beaches.”

Rychelle began her journey in higher ed at Kingsborough Community College, CUNY where she studied graphic design and illustration. Upon graduation she headed straight to CCNY on the recommendation of her brother, a music major here, and because she always had “a passion for CUNY in general.” For her, that choice was optimum: “Everybody that I met, the teachers, the staff, I just thought it was a great community.” Thanks to Rychelle’s adaptability, she allowed her artist’s

perspective to mesh with the academic mindset of the science students. “When I work somewhere,” she says, “I really want to know as much as I can about that environment. That way, when I’m here, I can help a student.” In exchange, she became intrigued by biology, marine biology especially; she even harbors a yen to study the sea world on site in tropical Central America. Social causes and the “horrors” plaguing the world also engage her, and her prolific and evocative Facebook postings reflect her commitments. She has found a way to blend realism with positivity, commenting philosophically, “If I get too negative, then my negativity will vibe off someone else, and that just creates more negativity,” adding, “If you’re more positive, things can get better, too.”

Having just graduated (January, 2016), Rychelle is moving on. She’ll be working as Program Manager with an organization, Cooperate NYC, which addresses underemployment among CUNY graduates. Cooperate NYC will allow her to use her design skills, and to mentor a sizeable number of students; mentoring is something she’s especially passionate about. Rychelle’s last major design effort at the Department of Biology is the current newsletter. We are all deeply grateful for and proud of her efforts and will miss her enormously.

Brendan Shyrer



Growing up in the small village of Brewster, NY, Brendan knew he wanted to do great things and take the things he learned back to his “little town” to help local businesses. Brendan moved to New York City three years ago when he “just fell into” CCNY. After working retail and sales for seven years, Brendan has become very passionate about

selling to people. This job experience, along with the help of Ms. Lynn Applebaum, allowed Brendan to realize his passion for advertising. As an advertising student, Brendan focuses on the art, the writing and the psychology behind the major. He is the President of the American Advertising Federation Chapter at CCNY where he, alongside his executive board members, work to make the AAF durable and a club that collaborates with other clubs on campus. Brendan thanks all his hard work and achievements as President to his excellent executive team. Already placing their mark with The Biology Club and Relay for Life at CCNY we can see that the AAF is heading in the right direction.

Although his heart now belongs to advertising, high school science was a thing for Brendan. He was part of AP Biology and Chemistry and admits that he is still very passionate about the sciences. He says “science at CCNY is creative work” and to him science is getting people to love and buy products, which is in itself the science of advertising. Brendan is now an intern in Young & Rubicam where he is in charge of account planning and the science side of advertising. In his advertising internship he can study the consumer, determine what their needs are and find a product that would be most alluring to them. In other words, he is the “consumer’s best friend”.

Five years from now Brendan sees himself still working with Young & Rubicam as he works his way up to working with larger international agencies such as Colgate, Coca Cola & Palmolive. He hopes to one day open his own agency and is a believer of the Tiny House Movement, which “could one day change the world”. Brendan believes in macro thinking and that there is always a purpose to everything. He knows he is on the right path because as we all know it “advertising [when done right] has the power to change communities and influence people”.

The Biology Department and Biology Club recognize Brendan Shyrer for the great enthusiasm, help and positive attitude he shared with us in Relay for Life.

Biology

RECOGNIZES

Michael Boydston-White, Science Project Associate



Michael Boydston-White, Science Project Associate at the Division of Science for almost ten years, is responsible for the inner workings of two vastly different, imposing edifices. He must minister to the growing pains—and colic—of the nascent, state of the art City College South Campus Center for Discovery and Innovation,

while up North he applies poultices, hot water bottles and breathing tubes to the idiosyncratic, creaky old Marshak Science Building.

“Juggling the balls in the air” is how he characterizes his challenge. One could add to that, “being in two different places at the same time.”

Commonly known simply as “Mike,” Boydston-White’s tasks funnel onto his desktop each morning from the FORUM CURES web page that was designed by the Science Division development team. A pipeline for petitions to redress on-site issues of general cleaning

and maintenance, “pests,” and the inevitable breakages and malfunctions of the many systems underpinning campus infrastructure, FORUM CURES allows him to review and route requests to the appropriate personnel after determining the urgency of each petition. With an unpredictable load of about 2 to 15 requests per day, Mike identifies requests that signal a serious hazard, such as a sparking light fixture or gas leak. He also tries to follow-up on general maintenance complaints that, for whatever reason, are taking too long to resolve.

Upon leaving his job as an analytical chemist in Tallahassee, Florida to do something more “hands on,” he came North, first to Hunter College, CUNY, in 1994, and then to CCNY in 2006. His metaphorical baggage was laden with myriad computer skills and the grit of experience in electrical work, masonry, roofing, even forestry. Asked of further career ambitions, Mike was quick to point out, “This [CCNY] is where the action is!” and that a move was nowhere in the offing for him.

Mike notes that he is married to a research scientist, and that the experience has allowed him to more clearly define his mission in his career. He concludes: “My ultimate goal is to smooth the way for the outcomes of teaching and research activities.”

Annieta Brown



Annieta Brown is the Coordinator of the Program in Premedical Studies. Since 1981, PPS has been quintessential in upholding CCNY’s mission to enable students with limited resources or from immigrant or underrepresented populations to pursue their dream of a higher education. The program

ups the ante by giving students the support necessary for acceptance to a health profession school, namely: medical, dental, veterinary, podiatry, and optometry schools.

Born and raised in Kingston Jamaica, W.I., Annieta worked for a number of years at the US Embassy. At the urging of the diplomatic corps she came to the States to attend college and has lived here ever since. With her masters from City College, CUNY, and a number of years at York

College, CUNY, working with students, she joined her then supervisor, Belinda Smith, to CCNY, in 2007 and continued in the same path.

Annieta assists hopeful students in maximizing their course work for acceptance to professional schools. She can facilitate modest financial support, steer students to any one of three pre-MCAT prep courses, and she assists in the arduous application process. She also helps students become more introspective about their career decisions, the realities of applying to a professional school in medicine, dentistry, optometry, podiatry and veterinary medicine.

In certain instances she may ask prospective students if med school is appropriate for them, understanding that parents often want their children to follow paths they are not fit for. To illustrate, she speaks of one young lady who applied to 93 schools—and was rejected by them all. Annieta is happy with her job and its sociability, because, she concludes, “I’m very congenial; I just like talking to people.”