

# BIOLOGY

## DEPARTMENT NEWSLETTER

2020 - 2021 | Issue



# BIOLOGY

## DEPARTMENT NEWSLETTER

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CCNY Department of Biology



# Ways to Get Involved with The Department of Biology

**WANT TO LEARN MORE ABOUT CCNY WOMEN IN SCIENCE?**


**OUR EVENTS AND PROGRAMS INCLUDE:**

- WOMEN MAKING HISTORY PANEL
- WINS MENTORING PROGRAM
- CAREER PLANNING WORKSHOPS
- MAXIMIZING RESOURCES WORKSHOP AND MUCH MORE!

**JOIN OUR MAILING LIST TO LEARN ABOUT OUR UPCOMING EVENTS:**  
[CCNYWINS@CCNY.CUNY.EDU](mailto:CCNYWINS@CCNY.CUNY.EDU)

**Wins**  
 CCNY  
 WOMEN IN SCIENCE

INSTAGRAM: @CCNYWINS | FACEBOOK: @CCNYWINS | TWITTER: @CCNYWINS



**The CCNY  
 Division of Science  
 Student Council**


The Division of Science Student Council (DoSSC) brings together leaders from biology, chemistry, earth and atmospheric science, mathematics, physics & sustainability.

We aim to enrich the City College student experience through the following key points:

- Accessibility* – Information and opportunities
- Collaboration* – Interdisciplinary events, achieve shared goals
- Connection* – Networking internally and externally
- Mentoring* – Cultivating a community for personal and professional growth

Want to get involved with the council, email us!  
[DoSSStudentCouncil@ccny.cuny.edu](mailto:DoSSStudentCouncil@ccny.cuny.edu)

**TriBeta**  
 National Biological Honor Society



Beta Beta Beta (TriBeta) National Biological Honor Society gives students majoring in biology, along with other science majors, opportunities to advance themselves in knowledge, research, and future careers by building a supportive network of peers and professionals in biology.

Since its founding in 1922, more than 200,000 persons have been accepted into lifetime membership, and more than 626 chapters have been established throughout the United States and Puerto Rico.

The installation of the CCNY Tribeta Chapter, Chi Nu Chi took place on February 25th, 2021.

Want to get involved, email [biology@ccny.cuny.edu](mailto:biology@ccny.cuny.edu)

## BRINGING SCIENCE TO LIFE!

The Biology Club's mission is to provide access to information and opportunities to students both on and off-campus. Increase professional networks and collaborations. Learn how to market yourself through professional development events.

Want to get involved as a club e-board leader, club member, or collaborate for an event, email us at [biologyclub@gtest.ccny.cuny.edu](mailto:biologyclub@gtest.ccny.cuny.edu)



# Faculty SPOTLIGHT

## Professor & Chair of Department, Dr. Jonathan Levitt



**With** the titles of both Professor and Chair of the Department of Biology, Dr. Levitt knows the value of time, and respects that of faculty, staff and students. One of the most difficult aspects of being Chair is the feeling of not having enough time when balancing physical and mental energies in all of his tasks. He makes sure to allocate extra attention where it is needed, and tries to manage his workload by not allowing “perfect to be the enemy of good.” The onset of the COVID-19 pandemic altered this workload immensely, now being even more concerned with the wellness of faculty and students and how best to educate remotely. “How do I get my students data? What happens when a student doesn’t have internet?” This is only a small portion of the questions the Chair has to ask while facing changes in his own teaching and research career. What has made it manageable has been and continues to be the help of colleagues, believing that the secret to getting everything done is to have a confident conscious team effort.

Dr. Levitt emphasizes the importance of the public school system and an educated citizenry. He grew up in New York, went to city public schools, and his mother was a public school teacher. When reflecting on his own time in college as an undergrad, he can relate to the typical CCNY student today: attending with the help of scholarships, working during the semesters and over summer

vacation, and trying to balance academics with the desire for free time. “I am an advocate to go and explore,” he enthusiastically shares. Many of his school nights consisted of study groups and meeting new people while living on and off campus. When wanting time alone, he would seek out the music library and explore different genres; Mendelssohn’s 4th symphony was one of his favorite pieces to study by.

Some of his favorite memories of being a student include his first publication, attending the tickertape parade for the NY Mets in 1986, and celebrating the completion of his Ph.D. from NYU. But with good days also come challenges, such as grasping independence when confronting professional problems, times when the Chair has had to remind himself that he was the head of his projects and it was up to him to drive them forward. The biggest challenge of all was having to carry through work with the loss of his mother in grad school. Dr. Levitt states that “we are not just scientists, other stuff goes on.” He believes the best way to overcome these challenges is through introspection, and developing a coping strategy that works for you. Among his favorite memories while being a part of the CCNY faculty are the commencement celebrations each year.

Mentors made his education memorable, each teaching him something to carry throughout his career. Dr. Levitt shares memories of mentors he had from various stages in his life, recognizing that we often have many mentors. One mentor was from his experience in undergraduate research, whom he first met when the professor featured as a guest lecturer. Before speaking, this mentor cracked open two cans of Coke and lit a cigarette, and it was this authenticity that confirmed for Dr. Levitt the importance of being comfortable in one’s own skin. Another mentor that helped through his Ph.D. had been sharp and articulate, teaching him the value of hard work, attention to detail, and communication. Then it was his postdoctoral mentor who stood out from her own family by being the only scientist, and carried an attitude of appreciation for other people. Through this experience, the Chair was exposed to all kinds of personalities and learned valuable lessons from each.

Dr. Levitt suggests having a life outside of school. Finding the best balance starts with getting to know yourself - “What am I interested in? What kind of person am I? What type of people do I want to hang out with?” He asked himself these questions when figuring out his closest connections were with high school friends, and when expanding his social circle while working, partying, and studying. “People work together,” he says, “Tell the shy voice in your head to just shut up.” Words of encouragement he gives to incoming students, current students, and his colleagues when facing life during this uncertain time are to keep going, “because other people rely on you.”



# Where Are They Now **FEATURE**

## Dr. Alexandria Wise-Brown



**External Collaborations Lead - Alzheimer's Disease  
Sr. Medical Science Liaison - Western New England  
US Medical Affairs - Neuroscience  
Genentech,  
A Member of the Roche Group**

**Dr. Alexandria** Wise-Brown received her undergraduate degree as a double major, double minor in psychology, neuroscience, biology and chemistry from Ohio Wesleyan University. She pursued her doctoral education at The City University of New York (her hometown) in biology with a concentration in neurogenetics. She also completed her postdoctoral training at Columbia University, where her research focused on the critical stage of presynaptic vesicular recycling that involved the ubiquitin-proteasome system (UPS) as the major regulator of protein trafficking, stability, and degradation, which has been shown to play a major role in etiology of Alzheimer's, Parkinson and other neurodegenerative diseases.

Dr. Alexandria Wise is currently a Senior Medical Science Liaison with the Roche/Genentech US Medical Affairs Team, and Field Medical Trainer for Alzheimer's Disease for the Multiple Sclerosis/NMO Team. In her previous role as Global Medical Science Liaison, Dr. Wise worked with the Global AD Team providing medical education to clinical trial sites located within the eastern-half of the United States. As the first MSL hired in this capacity, Dr. Wise was a motivated team player, who helped build the AD MSL Team as well as provide training as new colleagues came onboard. She wrote a white paper on early diagnosis in AD, laying the foundation for an external

white paper collaboration with top KOLs in AD. Her external engagements have powered Roche/Genentech to partner with top KOLs in the capacity of exploratory research objectives, partner with an AD patient advocacy leader in the development of an externally-facing AD diagnostic biomarkers web-platform, and conduct a global advice seeking plan initiative to better understand early diagnostic nomenclature in AD.

Recognizing the critical role that genetic diversity plays in clinical trials, she also supports initiatives to increase awareness among key internal Genentech stakeholders about the ongoing challenges involved in the recruitment and retention of African Americans and Latinos. She also has served on various work-product teams to implement diversity and inclusion initiatives within the company and was a guest speaker at the 2019 UsAgainstAlzheimer Summit in Washington, D.C. speaking on the importance of personalized healthcare in under served populations.

A leader in the Westchester, Harlem and Bronx communities, Dr. Wise was the former chapter lead for the NYC Chapter of Women of Color in Pharma (WOCIP), which promotes personal and professional development opportunities for historically underserved women of color working in the pharmaceutical industry. She remains committed to educating young people of color about careers in STEM, and she simultaneously works to enhance the undergraduate research experience of minorities who attend her doctoral alma mater.

# Student SPOTLIGHTS

## Lisa Feng



**Lisa** Feng was born and raised in Brooklyn, NY. Like many of our CCNY students, she is a first-generation college graduate. Lisa graduated in 2018 from CCNY, with a bachelor's degree in Biology with a secondary focus in Psychology. She enjoys going for walks, hanging out with her friends, and eating food. Exploring the city has always been a perpetual interest of hers because it is "calming" and she loves how learning new things "tickles and teases" her brain.

Lisa's love of exploration is also apparent in her career aspirations, as she is working on getting both veterinary and pharmacy technician licenses and a Master's degree in Marine Biology. When asked about how she came down to this career decision Lisa shared, "My interest in the life sciences began in intermediate school but in 7th grade I was introduced to marine science from my own curious research moments. It was then, my 7th grade self decided that I would pursue marine science in college." Lisa clearly loves science! However there was an intervention, a dog named Marley came into her life when she was in high school. She became interested in veterinary science when he fell sick and never recovered in 2013. When she joined CCNY, she was aspiring for veterinary school. While in college she learned about medicine and opportunities for veterinary and pharmacy technicians. With that discovery, she went back to her original aspiration, Marine Biology. She is confident that she can achieve her dreams.

While at CCNY, she was an Adjunct College Laboratory Technician (CLT) for the Department of Biology. It was another way Lisa immersed herself in science and learning. "Lab technicians, TAs,

“ Grow to love to learn new things otherwise life would be terribly boring.”

and professors are all in this together to make the lab function effortlessly" she said. She also mentions that having a job as a lab technician had its perks. She was able to have an office of her own. She said, "It was like having my own bedroom with my own personal space because I share my bedroom with 3 of my siblings." Lisa specified that her time at her office was the best memory she had in CCNY besides being in the NAC library with her group of friends. When asked what she loved about being part of the CCNY Biology team and CCNY, "the diversity and everyone I met!" Lisa wants to convey a message for future students, "I hope you reach out for help regarding anything. Even if you came out without a satisfying answer, don't fret and be patient." She continued, "You'll find help from somewhere even if it feels like no one can help you."

During the quarantine Lisa (with her love of exploring) learned new things and picked up a new hobby. She started knitting and crocheting. She knitted a bag, and felt so proud that she decided to make more. "Since the pandemic, I decided to go for the pharmacy technician program first because I'll be home for a while and that program is online and is more accessible at the moment." Lisa Feng feels ready to start the next chapter in her life but will always be a part of the CCNY Biology team.



# Bethany Ho



“ Meeting the people I’ve met at CCNY, whether from my classes, my work, or my research, those people will always have a spot in my heart and are irreplaceable.”

**Bethany** Ho is a young woman with many aspirations. She is kind-hearted and considerate. As she worked for several years in the Department of Biology as an Office Assistant and then a College Laboratory Technician, her colleagues and peers were able to have the pleasure of experiencing firsthand her pleasant demeanor. Her soft-spoken nature gives off an aura that makes others feel safe and secure. Her career aspirations are along this same vein of awareness and care for others, as she aims to work in healthcare.

According to Bethany, her experiences at CCNY helped shape her into the person she is today, with many she is happy to reflect on. One of her proudest moments was when she found herself successfully overcoming the challenge of being a fulltime student, working in the Biology office, creating and managing a club as a vice president, beginning her research in Dr. Mano’s lab, all while recovering from tearing her ACL. It was no easy feat, but it showed her that she was able to rise to the occasion, a life lesson she values and feels proud of. She attests that she has learned to ask for help within the relationships she has built, and she has built and cultivated many relationships at CCNY.

Bethany is a part of the “CCNY A Capella Club” which she co-founded with a friend. She remains close with her former labmates and co-workers at the Biology office, now calling many of them her friends. Even through the pandemic, she managed to maintain many of the relationships she has through online get-togethers and workout sessions. Bethany shared, “Meeting the people I’ve met at CCNY, whether from my classes, my work, or my research, those people will always have a spot in my heart and are irreplaceable.”

Bethany graduated CCNY with a degree in Biology and a minor in Theater. She opted to become a Biology major because she enjoyed the idea of learning science, and wants to pursue a healthcare-related career. She is the first in her family to pursue a Master’s degree. Soon she will attend Long Island University, where she will study for her Master’s in clinical laboratory science, a discipline that she originally did not know existed. The program was introduced to her by one of her close friends. The decision was clear to take this path because she felt a great sense of the importance of scientific diagnostics. Bethany points out that especially during the pandemic, she values the importance of testing. She considers it the backbone of healthcare teamwork. Patients should receive their test results as soon and as accurately as possible, because the truth of their diagnosis and prognosis is from testing and that is most important. Through the inspiration of working in Dr. Mano’s Lab, along with her mother and grandmother, who were always supportive of her decisions, she managed to solidify her interests and carved her path.

Bethany is a virtuous person with a deep appreciation for her loved ones. At a young age she recognizes the value of building a network, which is something that will help carry her through this new stage of learning into her career. Bethany’s wish to be a healthcare professional on the frontlines to make the world a better place will come true through her hard-work, support of her loved ones, and the positive determination she carries with her.

# Jason Santos



“Do your best to make friends along the way and help each other to make classes easier and more tolerable.”

**Born** and raised in Yonkers, New York, Jason Santos had the opportunity to attend three different colleges. He took many classes to explore and find his passion. He found himself at CCNY, still under a dark cloud of uncertainty until the second semester of his sophomore year. By chance, or shall we say instinct, he made the pivotal decision to switch his major from computer engineering to biology. As Jason describes his academic journey with an air of confidence and a smile, one can imagine the calamitous waves within Jason settling while he found peace and happiness.

Jason Santos is a recent graduate from CCNY with a Bachelor of Science degree in Biology. Of his three siblings, he is the first to attend college. Graduating from CCNY was not an easy feat, especially during the quarantine. He believes learning is a unique opportunity, and that hard work pays off, but he simultaneously recognizes the hardship the pandemic has taken on him, making work feel harder. He offers thanks to his helpful group of friends, and credits one friend in particular that he met in General Biology. Jason says, “Please do your best to make friends along the way and help each other to make classes easier and more tolerable.” He found motivation through friendships and relationships formed at CCNY.

Aside from seeing his friends, Jason missed going to school for many reasons. Being physically there to learn, connecting with quality people in the community, and getting inspiration from professors are some of the few things he missed. He thoroughly missed doing research under Dr. Pezzano, investigating the thymus and T-cell development. Jason missed working in the Biology department’s main office because he became even more

connected to the biology community and loves interacting with faculty and staff in a closer way, including CCAPP advisors, Pre-Med advisors, and STEM professors. Jason thoroughly enjoys connecting with people, so it was the social distancing and time apart that made the pandemic so hard.

In addition to his work at CCNY, Jason recently interned at a doctor’s clinic twice a week before the pandemic. His favorite thing to do at the clinic was interpreting the lab results because he learned what they meant for the patients. He aspires to become a physician assistant (PA). He said a PA has mobility that most medical professions don’t have, working on different tasks across the medical spectrum. Jason values the idea of balancing and learning new things and strives to be a jack of all trades, participating in many different parts of the medical world. This would also allow him to connect with a variety of people in a variety of settings, which Jason excels at.



# Alma Vazquez



“ I love to help and assist others, and I knew becoming a registered nurse was going to allow me to do this as a professional.”

**As** a first-generation American of Mexican descent, Alma is the first person in her family to attend college. Alma Vazquez is a recent graduate of CCNY, having earned her Bachelor of Science degree in Biology in May 2019. A previous position as a medical assistant at the NeuroPain Care clinic in Fresh Meadows, Queens inspired her to pursue a career as a physician assistant (PA). Her admiration for the health care industry and desire to help those in need drew her to an academic career in biology. Most of the classes that comprise a biology degree serve as prerequisites for PA courses required by grad schools.

Although rewarding, Alma’s journey to becoming a PA came with its fair share of hardship. By not connecting with a mentor, Alma was compelled to prepare herself for PA school on her own. During her senior year at CCNY, she realized she had not completed all of the regular PA program prerequisites, which ultimately complicated her transition into grad school. Alma decided to enter an accelerated nursing program. She realized that being a nurse would also satisfy her health care calling. Alma has been admitted to the New York University (NYU) Rory Meyers College of Nursing. “Ever since I was little, I cared for my grandparents by always being attentive to what they needed,” Alma said. “I would also take them to their doctors’ appointments. I love to help others, and I knew that becoming a registered nurse would allow me to do so as a profession.”

Upon reflection, Alma revealed she sorely missed her time as a student, particularly the diversity of her classes. She also wishes she had joined the school’s biology office team earlier than she did so she could have taken better advantage of the resources and networking offered to her there as a senior. Alma

also worked in the Division of Science Dean’s office as an office assistant providing administrative support. She shares that being part of such welcoming, friendly, and knowledgeable groups was her best experience at CCNY.

Alma enjoyed studying biology at CCNY. She described the first course she took for her major, Biology 101, as one of the biggest obstacles she had to overcome as an undergrad. However, with the help of her friends and Teaching Assistant Jamie Kass, she was able to earn a good grade. This helped confirm she was on the right path for her career. This experience taught her that determination and a strong work ethic are key components in achieving one’s goals. There was satisfaction in successfully tackling something that seemed hard.

Her classes continued to intrigue her by every aspect, especially her genetics course taken with Professor Christine Li. She stated, “I found it interesting how DNA is invisible to the naked eye, but it can say more than you think.” She adds, “The genes in our DNA are passed down from our parents, and those genes can determine how you look, how your body works, and can even be used to detect any hereditary diseases.”

Alma is incredibly proud of everything she has accomplished and the opportunities she has been granted, especially compared to her family, who received a poor education in their native country of Mexico. Alma embodies a grateful spirit that shines when you interact with her. Through her different roles at CCNY and in her career choices ahead, we will surely see her continue to connect with the communities she immerses herself in. She is ready for the next chapter of her life studying to become a registered nurse.

# Kimberly Velazquez



“An investment in knowledge is the key to opening as many doors as your heart desires.”

**Kimberly** Velazquez always knew that her calling was to help people. Throughout middle and high school she loved the health sciences, so as she started at CCNY, it was only a matter of figuring out which health science path to follow. Her Introduction to Psychology course helped her fall in love with the subject. The decision to work in Psychology was solidified by a Neuroscience Psychology elective course. Kimberly then knew that she wanted to pursue becoming a Clinical Psychologist.

Kimberly is proud to share that she is the first in her Puerto Rican/Trinidadian family to attend college and graduate with her degree, earning her Bachelor's of Science in Psychology. During her time at CCNY, one of her proudest moments, along with graduating, was studying abroad in London at the University of Roehampton in the summer of 2019. Kimberly's immersion in another culture allowed her to experience and learn new things. It was an investment in time and money, but she decided that an investment in knowledge is worth the price. During Kimberly's last year at CCNY, she had the opportunity to work as an office assistant in the Biology Department's main office. She was reliable, hard-working, and adaptable. She made the most of her work experience by asking peers and faculty about their opinions on neuroscience and psychology.

The pandemic affected Kimberly's final undergraduate semester. Like the world around her, she had to go from attending classes in person to attending classes behind a screen. One of the many challenges was the change in communication with her professors, peers, and friends. Kimberly adapted to life at home, and it allowed her to discover that her sister has similar tastes in entertainment; this brought them even closer as they developed a stronger bond. Kimberly also decided it was the perfect time to study for the GREs, preparing for her next step in life. She learned that she enjoyed passing the time by drawing flowers, especially when it came to roses. Keenly aware of taking care of her own mental wellbeing will help her be even more aware of helping to take care of others.



# Publications & PRESENTATIONS

## Dr. Robert Anderson

Kass, J. M., Meenan, S. I., Tinoco, N., Burneo, S. F., and **Anderson, R. P.** 2021. Improving area of occupancy estimates for parapatric species using distribution models and support vector machines. **Ecological Applications**, 31: e02228.

**Anderson, R. P.**, M. B. Araújo, A. Guisan, J. M. Lobo, E. Martínez-Meyer, A. T. Peterson, and J. M. Soberón. 2020. Optimizing biodiversity informatics to improve information flow, data quality, and utility for science and society. **Frontiers of Biogeography**, 12: e47839.

Integrating species traits and environmental history into predictions of biodiversity change. Department of Ecology and Evolutionary Biology, Yale University, New Haven, Connecticut. 10 February 2021 (virtual).

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## Dr. Amy Berkov

Barros KO, Souza RM, Palladino F, Cadete RM, Santos ARO, Goes-Neto, **Berkov, A.**, Zilli JE, Vital MJS, Lachance M-A, Rosa CA. In rev. *Cyberlindnera dasilvae* sp. nov., a new yeast species isolated from rotting wood and cerambycid beetles. Submitted to: **International Journal of Systematic and Evolutionary Microbiology**.

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## Dr. Ana Carnaval

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Santos MTT, Magalhães RF, Lyra ML, Santos FR, Zaher H, Giasson LOM, Garcia PCA, **Carnaval AC**, Haddad CFB (2020). Multilocus phylogeny of Paratelmatobiinae (Anura: Leptodactylidae) reveals strong spatial structure and previously unknown diversity in the Atlantic Forest hotspot. **Molecular Phylogenetics and Evolution**, 106819

Thomé MT, Lyra ML, Lemes P, Teixeira LS, **Carnaval AC**, Haddad CFB, Canedo C. (2020) Outstanding diversity and microendemism in a clade of rare Atlantic Forest montane frogs. **Molecular Phylogenetics and Evolution**, 106813.

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Angeler DG, Allen CR, **Carnaval A.** (2019). Convergence science in the Anthropocene: Navigating the known and unknown. **People and Nature** 2:96–102. DOI: 10.1002/pan3.10069.

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# Publications & PRESENTATIONS

## Dr. Michael Hickerson

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# Publications & PRESENTATIONS

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Tsang, S. M., S. Wiantoro, M. J. Veluz, N. Sugita, Y.-L. Nguyen, N. B. Simmons, and **Lohman, D. J.** 2020. Dispersal across the Indo-Australian Archipelago spurs diversification of Pteropus flying foxes, the world's largest bats (Mammalia: Chiroptera). **Journal of Biogeography**, 47, 527–537. doi:10.1111/jbi.13750 [Featured on the journal cover] **Invited presentations by David J. Lohman** between 1 September 2019 – 14 July 2020

**Lohman, D.J.** Biogeography of mimetic diversity in an adaptive radiation of butterflies. Invited oral presentation at the Commemorative Symposium for the 35th International Prize for Biology, Biological Sciences Related to Insect Sociality and Symbioses. National Museum of Nature and Science, 30 November 2019, Tokyo, Japan. <https://www.kahaku.go.jp/event/2019/11sympozoo/>.

## Dr. Hysell Oviedo

Neophytou, D., & **Oviedo, H.V.** 2020. Using Neural Circuit Interrogation in Rodents to Unravel Human Speech Decoding. **Frontiers in Neural Circuits**, doi:10.3389/fncir.2020.00002

## Dr. Bao Vuong

Emily Sible, Simin Zheng, Jee Eun Choi, **Bao Q. Vuong.** Analysis of Somatic Hypermutation in the JH4 intron of Germinal Center B cells from Mouse Peyer's Patches. **Journal of Visual Experimentation.**

Jee Eun Choi, Allysia J. Matthews, Genesis Michel, **Bao Q. Vuong.** AID phosphorylation regulates mismatch repair-dependent class switch recombination and affinity maturation. **Journal of Immunology.** 2020 Jan 1; 204(1):13-22.

# Acknowledgements

## CCNY-MSK Lunch and Learn Series

A long-time collaboration returned to the virtual halls of the High School for Math, Science and Engineering at CCNY this spring 2021 semester. This series brings experts in the field of cancer research for lectures and live discussions with juniors and seniors in the HS. The spring program was a virtual seminar series with MSK faculty. We hope to expand this program in the fall with more speakers, and include the Randolph High School as well.

## Dr. Jamie Kass

Jamie Kass, a recent doctoral graduate of the Ecology, Evolution, and Behavior program at the CUNY Graduate Center advised by Robert Anderson at CCNY, recently published a study on the imperiled monarch butterfly. Jamie's research completed this past year was selected as "Editor's Choice" for the March 2020 issue of the journal *Ecography* and coauthored with collaborators in Mexico. This study was one of his PhD dissertation chapters. The researchers used species distribution models to make new estimates of the monarch's range as it migrates through Mexico. They tested different hypotheses about which variables resulted in the best performing models, finding that the best models were made with variables representing both climate and the ranges of plant species that monarchs depend on during the migration. This study demonstrated that although climate is important in shaping the distributions of migrating species, direct consideration of other interacting species can be crucial to obtain good range estimates that can best inform conservation priorities.

*Overwintering monarch butterflies at the Monarch Butterfly Biosphere Reserve in Michoacán, Mexico in February, 2017. Jamie had the opportunity to travel to the National Autonomous University of Mexico (UNAM) in Mexico City to work with collaborators on this project and they brought him to this reserve to observe the monarchs before they migrated back north.*



# Marshak Building Display Cases

As part of Professor Ana Carnaval's Evolution fall 2019 course, our undergraduate and M.Sc students worked together to revitalize the animal displays on the 8th floor of the Marshak Science Building.

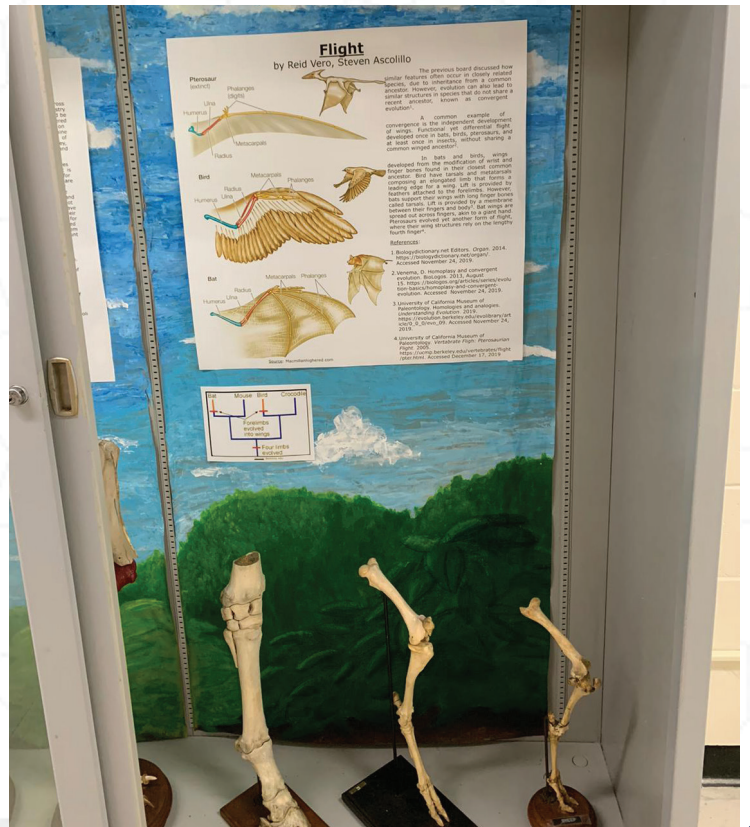
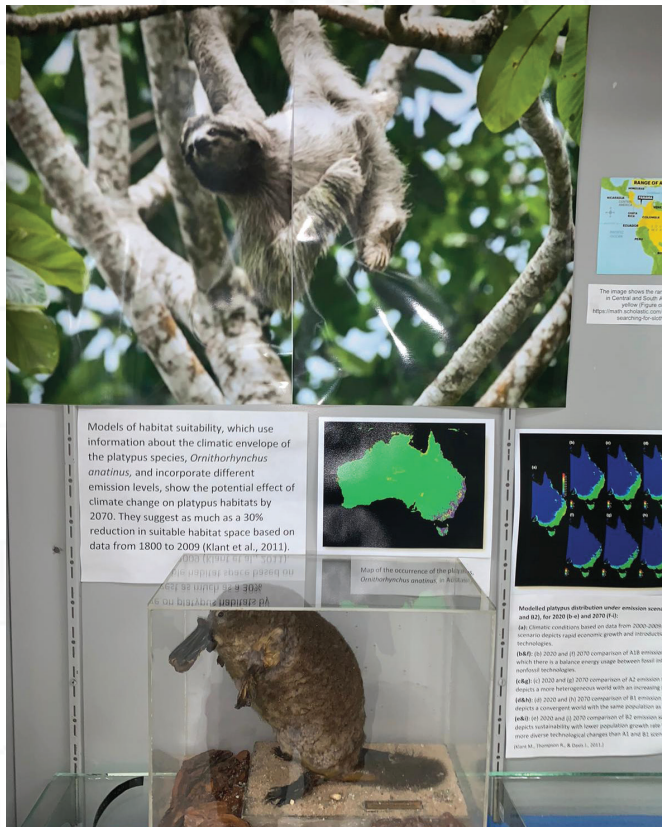
Working in teams, the students brainstormed ideas for updated displays, worked closely with Chief College Laboratory Technician Hector Fermin to clean the shelves and the specimens, wrote and printed new display material, and came up with a brand-new look for the 8th floor.

It looks amazing! When we are back to campus, visit the elevator hall on the 8th floor in Marshak and you will encounter displays with information about the evolution of vertebrate animals, analogies and homologies across living organisms, biological impacts of climate change, and insect-plant interactions.

While we wait to get back to campus, check out these photos to see the amazing updated displays!













# Inspiring Scientists

## Denice Moran



## Denice

Moran is a Biology major, Chemistry minor, MARC scholar, Event Coordinator for CCNY Women in Science, CCAPP Mentor, CCAPP Tutor and a CCAPP Advisory Board member and the Biology Department Leader for the Division of Science Student Council. Denice is also Co-Founder to TheLatinxVote, a newly founded community organization that seeks to educate the Latinx community of the power of their voice through an increased awareness on voting through community engagement and resource mobilization. Denice shared, "We want our community to make their voice count! Queremos que nuestra comunidad haga que su voz cuente!"

On August 30th, Denice marched to Empower Womxn and to Honor the Womxn we have lost throughout history. 100 years ago the 19th amendment was passed, giving womxn the right to vote, but not all womxn were allowed to exercise that vote. We are honoring the womxn who fought for the 19th amendment and also the womxn of color who had to continue that fight. The fight for Womxn's rights is far from over. Today we continue that fight because Womxn's rights are Human rights.

The story behind the March, in the words of Denice:

One night over dinner my sister and I were discussing events we wanted to host in our community through our new organization, TheLatinxVote, that we co-founded to emphasize the importance of our community to use their voices in the polls. I mentioned all the wonderful events CCNY WinS hosted and how being a part of these events left me feeling empowered and uplifted. Coincidentally, Womxn's Equality Day was two weeks away. This sparked an idea in me to have a Womxn's March to celebrate womxn and to also honor the womxn lost to violence, womxn such as Vanessa Guillen and Breonna Taylor that we lost earlier this year. To make this a real empowerment event we decided to reach out to other women-led organizations founded here in our hometown, Yonkers to help us organize and collaborate.

It was a beautiful march. It proved that "Womxn united, will never be divided". We also had amazing speakers such as Legislator Ruth Walter & New York State majority leader Andrea Stewart Cousins, along with other leaders of our community. I was so honored to have been able to work with powerful women from my community and city - and it only reminded me of the power I felt with working with CCNY WinS.

I want to thank the womxn from CCNY WinS and my sister for being so influential in my life and always reminding me that my voice counted. I wouldn't be where I am today without them.

# Inspiring Scientists

## Christina Torres



**Christina** Torres completed a BS/MS in Biology, and participated in the NSF-REU and RISE programs at CCNY. In Dr. Amy Berkov's lab she studied the community composition of Cerambycidae (a family of wood boring beetles) in the Neotropics. Through the Zahn Innovation Center she also started the company See Thru, formerly Skinno, to help people understand the ingredients in the personal care products they use every day. In her time at CCNY she was a CCAPP mentor and tutor, and helped bring Relay for Life back to campus.

Christina started the Science Education PhD program at Teachers College, Columbia University in Fall 2020. Her research interests focus on utilizing local biodiversity to integrate Ecology concepts and sustainable thinking into urban classrooms. She is an Arthur Zankel Urban Fellow for the 2020-2021 school year and is working on the Climate Change Education for NYC project. Christina is also an adjunct professor at the Fashion Institute of Technology where she teaches an Ecology and Environmental Problems course to fashion students that have a sustainability concentration to their major.

During quarantine she started volunteering with Harlem Launch Alliance (a CCNY engineering club and nonprofit) to create a hybrid rocket science curriculum and YouTube channel. Christina has also gotten to spend more time at her grandpa's house in Upstate NY and start a science communication focused TikTok account.

Christina's biggest piece of advice to CCNY students is to get involved on campus. College is not just about going to class, it is also about the unique opportunities that are available to you during your undergraduate career. These clubs, fellowships, and programs allow you to find students that share your same interests and allow you to explore new career possibilities you never previously considered.



# Biology Photo Collage

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](mailto:biology@ccny.cuny.edu).

Be sure to check out the **CCNY Department of Biology Pass the Diploma 2020** graduation video: <https://www.youtube.com/watch?v=6YA2yCmjnZM>.

