BIOLOGY

DEPARTMENT NEWSLETTER

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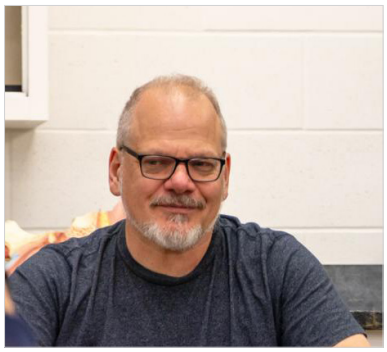

BIOLOGY
DEPARTMENT NEWSLETTER

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Ways to Get Involved with
THE DEPARTMENT OF BIOLOGY

ECOLOGY AND EVOLUTIONARY BIOLOGY

MOLECULAR CELLULAR DEVELOPMENTAL BIOLOGY

NEUROBIOLOGY

CCNY's Division of Science Student Council

The Division of Science Student Council (DoSSc) brings together leaders from biology, chemistry, earth and atmospheric science, mathematics, physics and sustainability.
We aim to enrich the City College student experience with 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!
DoSStudentCouncil@ccny.cuny.edu

Want to Learn More About Women in Science?

OUR EVENTS AND PROGRAMS INCLUDE:
WOMEN MAKING HISTORY PANEL
WINS MENTORING PROGRAM
CAREER PLANNING WORKSHOPS
MAXIMIZING RESOURCES WORKSHOP
AND SO MUCH MORE...

ccnywins@ccny.cuny.edu
@CCNYWINS

CCNY WinS
WOMEN IN SCIENCE
Building a better world by improving the individual

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.

CCNY BIOLOGY CLUB
BRINGING SCIENCE TO LIFE

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

Beta Beta Beta (Tribeta)

National Biological Honor Society gives students majoring in biology, along with other science majors, opportunites 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

B3HONOR@GTEST.CCNY.CUNY.EDU

Faculty SPOTLIGHT

Dr. Tadmiri Venkatesh

Dr. Tadmiri Venkatesh has been teaching at City College for 32 years and he has enjoyed every moment of it. Before joining the City College community in 1992, Dr. Venkatesh was born and raised in southern India, where he attended school until he earned his PhD. In 1980, he came to the United States as a Postdoctoral Fellow and completed two fellowships; his second fellowship was at the California Institute of Technology. He later served as an Assistant Professor of Molecular Biology Neuroscience at the University of Oregon for five years.

When it came time for Dr. Venkatesh to search for other work and research opportunities, he received offers from universities across different states in the U.S. and Canada. Amid traveling between New York City and Montreal to decide, he ultimately chose to work in New York at City College. For Dr. Venkatesh, the choice was made because of CCNY's diverse student demographics. He knew that he could conduct his teaching and research at any school, but at City College, he felt like he could make more of an impact in student learning and 32 years later, he is very happy with his choice.

"Whether it's my research, or it's teaching and mentoring students, there has to be desire and that desire gives you motivation, and then the ability to put in the work."

At City College, Dr. Venkatesh has taught undergraduate cell and molecular biology, and introduction to genetics, along with a variety of undergraduate and graduate elective courses. The class he enjoys teaching the most is introduction to genetics because by training, and also by heart, he is a proud geneticist and molecular biologist. When teaching this course and other core level courses, there can be anywhere from 100 to 200 students in a class. Dr. Venkatesh's favorite part of the job is when he can get even just a couple of students excited about genetics.

When reflecting on his career, Dr. Venkatesh is proud of his undying passion to pursue his goals and work towards achieving them. "Whether it's my research, or it's teaching and mentoring students, there has to be desire and that desire gives you motivation, and then the ability to put in the work," he shares. He is grateful for his ability to reflect and be critical about these goals and finding the most effective journeys to pursue them. Dr. Venkatesh advises other educators to enter the field of research and teaching if they are highly passionate, because when teaching large numbers of students that come from different backgrounds, there is no one-size-fits-all solution. "It's a challenge," Dr. Venkatesh says, "but you have to be up for the challenge and have the passion, and that should give you the motivation."

He will soon retire from his teaching and research career to pursue other interests in the next stage of his life. As he thinks about the future, Dr. Venkatesh also happily reflects on the past and his enjoyable time mentoring students and engaging with his colleagues at City College. Having mentored over 50 students across undergraduate, graduate, and doctoral levels is what has given him the most satisfaction and thrill while being a beloved member of the CCNY Biology community, "to think that I've impacted their lives in some way, that's my legacy."

Publications & INVITED PRESENTATIONS

Dr. Robert P. Anderson

Anderson, R. P. 2024. Integrating species traits and environmental history into predictive biogeography in a dynamic, patchy world. Invited lecture Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, Tennessee. 1 March 2024.

Soley-Guardia, M., D. F. Alvarado-Serrano, and R. P. Anderson. 2024. Top ten hazards to avoid when modeling species distributions: a didactic guide of assumptions, problems, and recommendations. Ecography **2024**:e06852. https://doi.org/https://doi.org/10.1111/ecog.06852

Dr. Ana C. Carnaval

Ciccheto, J. R. M., A. C. Carnaval, and S. B. L. Araujo. 2024. The influence of fragmented landscapes on speciation. Journal of Evolutionary Biology:voae043. https://doi.org/10.1093/jeb/voae043

da Silva, F. R., A. E. d. Oliveira-Silva, A. Antonelli, A. C. Carnaval, and D. B. Provete. 2024. Zoogeographical regions in the Atlantic Forest: patterns and potential drivers. Journal of Biogeography. https://doi.org/https://doi.org/10.1111/jbi.14859

French, C. M., L. D. Bertola, A. C. Carnaval, E. P. Economo, J. M. Kass, D. J. Lohman, K. A. Marske, R. Meier, I. Overcast, A. J. Rominger, P. P. A. Staniczenko, and M. J. Hickerson. 2023. Global determinants of insect mitochondrial genetic diversity. Nature Communications **14**:5276. https://doi.org/10.1038/s41467-023-40936-0

Guayasamin, J. M., C. C. Ribas, A. C. Carnaval, J. D. Carrillo, C. Hoorn, L. G. Lohmann, D. Riff, C. Ulloa Ulloa, and J. S. Albert. 2024. Evolution of Amazonian biodiversity: A review. Acta Amazonica **54**:e54bc21360.

Vasconcellos, M. M., S. Varela, M. Reginato, M. Gehara, A. C. Carnaval, and F. A. Michelangeli. 2024. Evaluating the impact of historical climate and early human groups in the *Araucaria* forest of eastern South America. Ecography:e06756. https://doi.org/https://doi.org/10.1111/ecog.06756

Dr. Jay Edelman

Azadi, R., A. O. Holcombe, and J. A. Edelman. 2024. Hypometria of saccadic eye movements to targets in rapid circular motion. Journal of vision **24**:2. https://doi.org/10.1167/jov.24.1.2

Shan, Y., and J. A. Edelman. 2023. The reduction of saccadic inhibition by distractor repetition. Journal of Neurophysiology **130**:619-627. https://doi.org/10.1152/jn.00044.2023

Dr. Mark Emerson

Ghinia-Tegla, M., B. Patierno, D. Buenaventura, C. Rangachar, and M. Emerson. 2023. Insights into cone formation from the chick retina. M.E. Invited speaker at 2023 FASEB Summer Conference on the Biology and Chemistry of Vision. Tucson, AZ. June 2023.

Dr. Shubha Govind

Mhatre, S. Bhattacharya, and S. Govind. 2024. *Drosophila* parasitoids go to space: Unexpected effects of spaceflight on hosts and their parasitoids. iScience **27**:108759. https://doi.org/https://doi.org/10.1016/j.isci.2023.108759

Dr. Michael J. Hickerson

Boehm, J. T., E. Bovee, S. E. Harris, K. Eddins, I. Akahoho, M. Foster, S. K. Pell, M. J. Hickerson, G. Amato, R. DeSalle, and J. Waldman. 2023. The United States dried seahorse trade: A comparison of traditional Chinese medicine and ecommerce-curio markets using molecular identification. PLOS ONE **18**:e0291874. https://doi.org/10.1371/journal.pone.0291874

French, C. M., L. D. Bertola, A. C. Carnaval, E. P. Economo, J. M. Kass, D. J. Lohman, K. A. Marske, R. Meier, I. Overcast, A. J. Rominger, P. P. A. Staniczenko, and M. J. Hickerson. 2023. Global determinants of insect mitochondrial genetic diversity. Nature Communications **14**:5276. https://doi.org/10.1038/s41467-023-40936-0

Giakoumis, M., G. E. Pinilla-Buitrago, L. J. Musher, J. P. Wares, S. J. E. Baird, and M. J. Hickerson. 2023. Evidence of introgression, ecological divergence and adaptation in *Asterias* sea stars. Molecular Ecology **32**:5541-5557. https://doi.org/https://doi.org/10.1111/mec.17118

Kurata, N. P., M. L. J. Stiassny, M. J. Hickerson, and S. E. Alter. 2024. Impacts of Quaternary climatic changes on the diversification of riverine cichlids in the lower Congo River. Integrative and Comparative Biology:icae021. https://doi.org/10.1093/icb/icae021

Schultz, E. D., G. Thom, G. Zuquim, M. J. Hickerson, H. Tuomisto, and C. C. Ribas. 2024. Habitat specialization predicts demographic response and vulnerability of floodplain birds in Amazonia. Molecular Ecology **33**:e17221. https://doi.org/https://doi.org/10.1111/mec.17221

Dr. Karen Hubbard

Hubbard, K. and M. Contel. 2024. Insights into mechanisms and pPromising triple negative breast cancer therapeutic potential for a water-soluble ruthenium compound. ACS Pharmacology & Translational Science. https://doi.org/10.1021/acsptsci.4c00020

Watson, K. S., R. Baskir, Division_of_Engagement_&_Outreach_All_of_Us_Research_Program, K. Hubbard, H. L. Park, and L. Zhu. 2024. Abstract 3554: Using All of Us cancer data on the Researcher Workbench to advance career development. Cancer Research **84**:3554-3554. https://doi.org/10.1158/1538-7445.AM2024-3554

Publications & INVITED PRESENTATIONS

Dr. Chris Li

Lynch, M. J., A. S. Mercado, and C. Li. 2023. Indirect modulation by FLP-1 peptides on chemotaxis and dispersal behavior in *C. elegans*. microPublication Biology. https://doi.org/10.17912/micropub.biology.000930

Dr. David J. Lohman

Badon, J. A. T., D. E. M. General, and D. J. Lohman. 2023. The larval host plant and ant associate of *Nacaduba pavana georgi* (Lepidoptera: Lycaenidae) in Negros, Philippines. Tropical Lepidoptera Research **33**:124-129.

Carvalho, A. P. S., H. L. Owens, R. A. St Laurent, C. Earl, K. M. Dexter, R. L. Messcher, K. R. Willmott, K. Aduse-Poku, S. C. Collins, N. T. Homziak, S. Hoshizaki, Y. F. Hsu, A. G. Kizhakke, K. Kunte, D. J. Martins, N. O. Mega, S. Morinaka, D. Peggie, H. P. Romanowski, S. Safian, R. Vila, H. Wang, M. F. Braby, M. Espeland, J. W. Breinholt, N. E. Pierce, A. Y. Kawahara, and D. J. Lohman. 2024. Comprehensive phylogeny of Pieridae butterflies reveals strong correlation between diversification and temperature. iScience **27**:109336. https://doi.org/10.1016/j.isci.2024.109336

French, C. M., L. D. Bertola, A. C. Carnaval, E. P. Economo, J. M. Kass, D. J. Lohman, K. A. Marske, R. Meier, I. Overcast, A. J. Rominger, P. P. A. Staniczenko, and M. J. Hickerson. 2023. Global determinants of insect mitochondrial genetic diversity. Nature Communications **14**:5276. https://doi.org/10.1038/s41467-023-40936-0

James, D. G., and D. J. Lohman. 2024. The Lives of Butterflies: A Natural History of Our Planet's Butterfly Life. Princeton University Press, Princeton, NJ.

Liang, J., Y. Zhu, A. V. Solovyev, M. He, D. J. Lohman, N. Wahlberg, W. Li, J. Li, M. Wang, D. Liang, and H. Wang. 2024a. A phylogenetic framework of Palaearctic and Indomalayan Limacodidae (Lepidoptera, Zygaenoidea) based on sequence capture data. Systematic Entomology. https://doi.org/10.1111/syen.12626

Liang, W., R. Nunes, J. V. Leong, A. P. S. Carvalho, C. J. Müller, M. F. Braby, O. Pequin, S. Hoshizaki, S. Morinaka, D. Peggie, J. A. T. Badon, A. B. Mohagan, E. Beaver, Y.-F. Hsu, Y. Inayoshi, A. Monastyrskii, P. Vlasanek, E. F. A. Toussaint, H. A. Benítez, A. Y. Kawahara, N. E. Pierce, and D. J. Lohman. 2024b. To and fro in the archipelago: Repeated inter-island dispersal and New Guinea's orogeny affect diversification of *Delias*, the world's largest butterfly genus. Molecular Phylogenetics and Evolution **194**:108022. https://doi.org/10.1016/j.ympev.2024.108022

Lohman, D.J. 2023. A global phylogeny of butterflies illuminates their evolutionary history, ancestral hosts, and biogeographic origins. Opening plenary address*, Biology of Butterflies Conference*, Prague, Czech Republic, 10 July 2023

Lohman, D. J. 2023. Biogeography and evolution of Indo-Australian butterflies. Opening plenary address of the inaugural meeting of *Moths and Butterflies Australasia,* Canberra, Australia, 4 November 2023

Lohman, D. J. 2023. Biogeography of butterflies in the Indo-Australian archipelago. Invited presentation at *Biogeography of Tropical Asia Symposium-Workshop*, National University of Singapore, 13 December 2023

Lohman, D. J., R. A. Nunes, and S.-H. Yen. 2024. Lepidoptera: Moths and Butterflies. Pages 548-566 *in* S. M. Scheiner, editor. Encyclopedia of Biodiversity (Third Edition). Academic Press, Oxford.

Zhang, W., and D. J. Lohman. 2024. Uncovering the functional basis of mantids that resemble plants. Science China Life Sciences **67**:215-216. https://doi.org/10.1007/s11427-023-2450-5

Dr. Stefan U. Pukatzki

Bisaro, F., H. A. Shuman, M. F. Feldman, M. J. Gebhardt, and S. Pukatzki. 2023. *Acinetobacter baumannii* ATCC 17978 encodes a microcin system with antimicrobial properties for contact-independent competition. Microbiology **169**. https://doi.org/https://doi.org/10.1099/mic.0.001346

Dr. Osceola Whitney

Anderson, K. L., L. Colón, V. Doolittle, R. Rosario Martinez, J. Uraga, and O. Whitney. 2023. Context-dependent activation of a social behavior brain network during learned vocal production. Brain Structure and Function **228**:1785-1797. https://doi.org/10.1007/s00429-023-02693-0

Accolade

Professor Robert P. Anderson was elected as a Fellow of the American Association for the Advancement of Science.

Student SPOTLIGHT

Tyler Gomes

Tyler Gomes is a senior at City College majoring in biology on the premedical track. Tyler's interest in medicine stems from his child admiration for his aunt, who is an emergency doctor, and seeing her genuinely care for patients in need. When choosing a school to pursue this dream, City College was the best option because of our quality and affordable STEM programs, supportive professors, and our array of graduate and postgraduate opportunities.

Tyler enjoys being the Vice President of the Biology Club because of the new connections he makes with faculty and fellow students. When organizing club events with faculty, Tyler feels a sense of satisfaction being able to help freshmen and sophomores connect with professors who provide advice and opportunities for STEM studies. Being around other biology students also makes Tyler's role feel fulfilling, especially since he works with other wholesome and dedicated club members. As the Vice President, Tyler collaborates with the club's President, Secretary, and Treasurer to coordinate club events and promote outreach to students to learn about the biology community. He also helps students connect to other students who share the same interests, and to career building opportunities, such as resume building workshops. Tyler has also served as the Executive Vice President of the Undergraduate Student Government, and was a Math 20500 connector for the CCNY Stem community.

"Your own health matters too."

When reflecting on the accomplishments in his studies and role within the Biology Club, Tyler finds pride in his time management skills. When juggling work, class assignments, group projects, and the Biology Club, he aims to complete assignments ahead of time. What has also helped Tyler throughout college is his independence and initiative to take action, which comes in handy during self-led study sessions. He finds the most important tool is taking time to reflect on past experiences and use them collectively to progress forward. As he reflects upon his career, Tyler shared that the good and the bad experiences are all learning experiences, and have helped lead him to where he is today. It is encouraging for fellow students to think of their experiences this way as well.

Tyler recommends that biology students get involved in lab work to gain experience that helps them stand out as a premed applicant. Along with managing time and completing classwork to keep one's GPA as high as it can be, above all else, Tyler recommends making sure to take care of yourself. Since school can be overwhelming, it's even more critical to hold onto the idea that "your own health matters too," and is a part of finding a balance between work and rest. For students interested in participating in clubs at CCNY, Tyler encourages transparency when communicating with students and making time to be available to help with club activities. Club events at City College are as fun and rewarding as they are because of the great students, faculty, and staff that take part in them. Club relations offer a chance to branch out and learn about new things.

Student SPOTLIGHT

Nadia Ripa

Nadia Ripa is a senior undergraduate student at City College double majoring in biology and psychology. Outside of school, she works as a pharmacy technician and oncology Intern at Montefiore Albert Einstein Comprehensive Cancer Care, where she enjoys engaging and helping care for patients. Nadia also works as a College and Career Coach for CUNY and the Department of Education. As a College and Career Coach, Nadia provides guidance and support to young students as they plan their future college education. When she thinks of her own future, Nadia's goal is to pursue further education in the medical field. When she is not at school or work, she enjoys spending time with her family.

The vibrant cultural diversity among students and faculty/staff coupled with the sense of liberty among students attracted Nadia to the City College community. The College's wide variety of student and other organizations led Nadia to take roles in biology and science organizations, such as CCNY Women in Science (WinS). Nadia is the Vice President of the Beta Beta Beta Biological Honors Society (TriBeta), and the President of the National Premedical Association (NPREMA). Serving

"Remember, when things don't go as planned, see them as chances to learn and grow."

on these boards has allowed Nadia to support students' academic journeys by mentoring and connecting them to research and pre-health program opportunities, while motivating them at each step of their growth and development. Her favorite part of working in these roles is the hands-on experience she gains in leading groups and coordinating events with other students. Participating in leadership and event planning has helped Nadia foster decision making, conflict resolution, delegation, and communication skills. She applies these skills to her academic, professional, and personal life.

Nadia credits her friends as a source of unwavering support and encouragement throughout her time as an undergraduate student. Their guidance helped Nadia evolve both in and out of school, while also helping to provide a greater meaning, value, motivation, and inspiration to her academic pursuits. For fellow students who want to get engaged on campus and make connections with others, Nadia recommends getting involved early and looking for friends that are driven to make their scholastic ambitions, dreams, and career goals come true. "It is through peer connection that one often finds the motivation to keep progressing."

Nadia also encourages student members of clubs to share their ideas to make them more exciting or inclusive. "The more you get involved, the more confidence you'll have to speak up and share ideas to start a new project that may have a positive impact on the campus community." Nevertheless, Nadia shares that things may not always turn out how we expect them to. Through busy days of balancing studies and work, Nadia tells students to "remember, when things don't go as planned, see them as chances to learn and grow."

Student SPOTLIGHT

Helen Oommen

Helen Oommen is a senior at City College majoring in biology with a minor in psychology, but she is also known as a Student Leader in the Biology Department by virtue of her work in the Division of Science Student Council. Helen juggles work as a teaching assistant and an EKG (electrocardiogram) technician/medical assistant. Working in these varied environments allows her to pursue interests in teaching, healthcare, and helping others while working toward her commitment to making a positive impact in the world by becoming a physician assistant after graduation. When Helen is not immersed in her studies, she enjoys listening to music and reading.

She moved to New York City five years ago from Dubai. When it came time to apply for college, Helen was initially captivated by CCNY's historic architecture on the north campus. It was CCNY's commitment to making high-quality education accessible through a range of courses and majors that aligned with her academic and professional interests that struck her the most. She believes this commitment has enhanced her learning experience through the school's diverse student and faculty body, which continue to provide her with new perspectives. In her role as a Student Leader for the Biology Department in the Division of Science Student Council, Helen feels passionate about her position to bridge connections between students and faculty in the Department of Biology. While engaging with students and faculty, she seizes opportunities to advocate for student concerns and resources that enhance their learning experiences, aid in organizing events and programs, and contribute to overall growth of the CCNY Biology community. Helen loves taking part in this team effort to foster a supportive and engaging environment for students who are passionate about biology.

When reflecting on the community around her, Helen believes that it is her circle of supportive family and friends that aid her success. Through both high and low moments, her family celebrates and aids her with unwavering love and encouragement. While caring for her, Helen's friends also inspire and challenge her with new opportunities. In between family and friends, she is also grateful for her own resilience, which has allowed her to bounce back from setbacks, learn from failure, and persevere to continue moving forward. Helen pays tribute to the resilience of her mother for inspiring her own inner strength. After witnessing her mom make the decision to relocate from Dubai and be committed to providing better opportunities for her family, Helen has used her mom's story as fuel to drive her own journey.

For fellow students seeking to be student leaders or navigate the college environment, Helen encourages them to use the support network around them. Whether it be family, friends, fellow students, or faculty and staff, it is encouraged to ask for help. Asking for advice from a mentor, collaborating with peers and utilizing campus resources are all things that provide support and help college become a more enriching experience.

When reflecting on her time at City College, Helen admires the meaningful connections and ideas that she has taken part of, and the development of her personal and academic boundaries and goals. CCNY is more than an educational institution to Helen. She wants other students to remember that "you're not alone on this journey, and there are people ready to support you every step of the way."

Student SPOTLIGHT

Connor French

Connor French is a sixth year Ecology, Evolutionary Biology, and Behavior CUNY PhD candidate at City College. His research focuses on using population genetics to understand how species respond to historical climate change. Part of his research allows him to work in tropical regions including Peru and the Brazilian Atlantic Forest, where he gets up close and personal with his favorite animals: frogs, lizards, and snakes. Connor's work seeks answers to how these species have survived through large climate fluctuations that took place tens, thousands, and even hundreds of thousands of years ago as the suitability of their habitats have changed.

Looking at evolution on this scale has allowed Connor to collaborate with other researchers who have already sampled lizards and frog species throughout their tropical ranges. This leaves him with the task of going into the field to fill in gaps where samples are missing, and then sequence genomes to look at genetic diversity to see how their populations have expanded, contracted, or both through time. Connor enjoys field work, but another large part of his research is developing software to create detailed models of the evolutionary changes that he finds with his analyses. By integrating ecology and evolution, Connor hopes that this modeling approach can be applicable to other species and climates.

When choosing where to conduct his PhD, Connor was excited to join City College after meeting Dr. Michael Hickerson and Dr. Ana Carnaval. Both support Connor during his explorations. Dr. Hickerson, Chair of the PhD Ecology, Evolutionary Biology, and Behavior Graduate Center sub-program and Professor in the CCNY Biology Department works with population genetic modeling. Dr. Carnaval, Professor in the Biology Department, conducts her own research in the Brazilian Atlantic Forest and studies frogs and lizards, providing direction and support for Connor's field work. Connor knows that he is fortunate to travel and has wanted to live in New York since he was an undergrad studying music in Texas. It was there when he felt a pull to follow his childhood love of frogs and transfer to study biology at the University of Texas. He later received his master's degree in zoology from Southern Illinois University, where he studied his favorite frog species: the poison dart frog.

Being in the field, especially with other researchers, is a favorite aspect of Connor's research. Although his field trips are only a couple weeks long, he is amazed to travel to South America, Europe, and all over the United States. This includes travel for conferences or research meetings. His daily data crunching and programming is another enjoyable facet of his research. His research has led to a love for software development, and now he looks forward to figuring out how to analyze complex datasets and then visualizing them to make them understandable by others

When reflecting on his academic journey, Connor is grateful for the people who have supported him along the way. He appreciates his wife and family for personal support outside of the field and lab, and his colleagues for professional support to pursue and finish interesting projects. "Hard work only gets you so far," Connor states; help from the people around him that have landed him where he is today. Connor is also thankful for his persistence, which has pushed him along his academic studies and the difficulties that have come with it. "It's not so much as being smart, but being persistent," that gets you through graduate studies, he shares. Connor wisely shares that things can still go wrong, so he has become okay with failure and sees it has a moment to assess the current situation and focus on the next step forward. He advises anyone who wants to pursue a PhD to first think of what their goal is once their degree is complete, and to ask themselves: Will this help advance my goals? Do I want to work in academia? Connor also wants to remind prospective graduate students thats PhD can be costly and to choose a paid program over an unpaid program. He wants people to remember that throughout your doctoral studies, your "priorities change over that period of time, and you just kind of have to embrace it." In the future, Connor hopes to use his research skills in biology and software development to contribute to the field of data science, allowing him to continue undertaking the data analysis that he loves.

BIOLOGY Recognizes Lev Gilinskiy

Lev Gilinskiy is an undergraduate student majoring in physics at City College and working as an office staff member in the Department of Biology. He joined CCNY as a transfer student in the Fall of 2022 after earning his associate degree with honors in physics at Kingsborough Community College. Although he is unsure if this positioning makes him a junior, senior, or advanced senior in the course of his studies, he knows that he wants to complete his education through the graduate level at City College. Within CUNY, City College was his top choice when choosing where to further his studies in physics. He enjoys the array of resources, opportunities, and chances to network that are offered on campus, and one way that he has networked is by joining the CCNY Biology Department office staff.

Lev's favorite part of the job is the team that he works with. From the Department Chair, Dr. David Lohman, and his supervisor, Christine Stefano, to the biology professors and fellow workers in the office, Lev has appreciated their kindness and support. From the moment Lev began working with the Biology Office, he saw that everyone supports one another, the department as a whole, and the biology and science student body. When reflecting on his successes, Lev pays tribute to his blend of personal ability and life experiences, with the support of his fellow coworkers, staff, and supervisors. "It's challenging, if not impossible to know and do everything yourself," Lev states, but having "the ability to reach out for help" when needed has been indispensable.

"There are no stupid first questions, and there is no shame in asking for help."

He applies this mindset to others as well. He advises, "there are no stupid first questions, and there is no shame in asking for help," because we all need it sometimes. If your goal is to accomplish tasks at work or school, but you are missing information or clarification to get the job done, there is no need to be afraid of asking for assistance. Lev also encourages others to "never stop refining and improving yourself and your skills," because by putting in the effort to do better than you did last time, you will be happy and proud of the results. One aspect of working in the Biology Office Lev enjoys is putting up a new "Joke of the Day" on the welcome whiteboard. The office is open to joke suggestions, with preference given to cringingly humorous puns or "dad jokes" that are related to biology.

When not in class as a full-time student and working part time jobs both on and off campus, Lev enjoys married life with his spouse of a decade. It is evident that he is appreciative of the unwavering support he has both personally and professionally. In the seemingly little downtime he has, Lev's head may be found stuck in the books that he reads for fun, or is encouraging people to study history and economics.

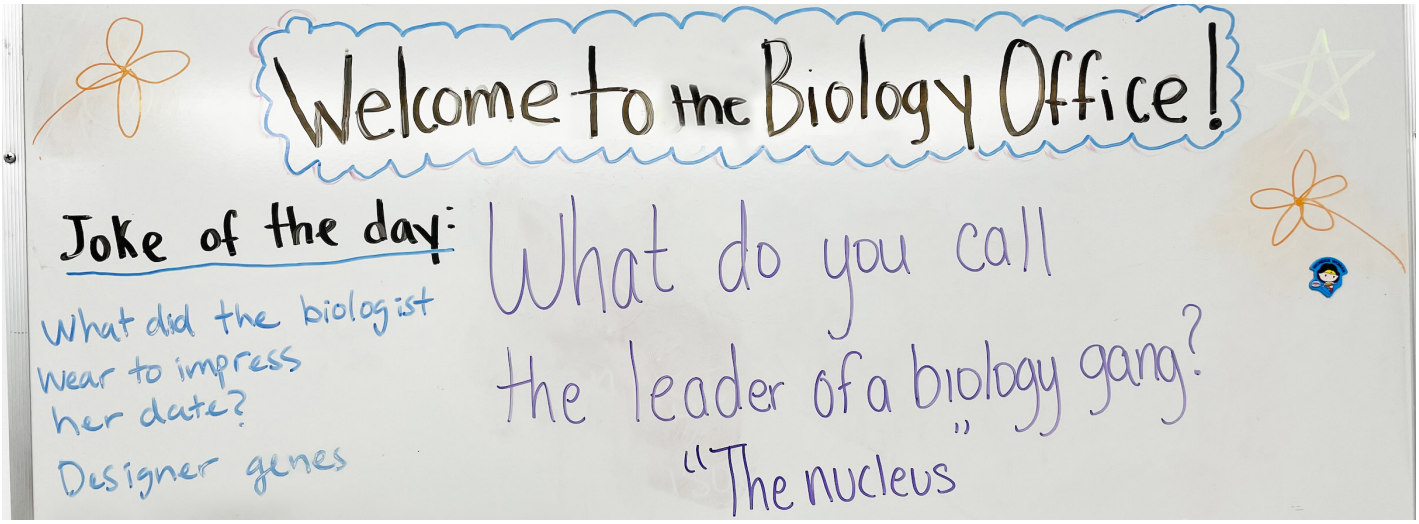


Photo of the "Joke of the Day" on the welcome whiteboard.

BIOLOGY Recognizes

The City College of New York

CCNY BIOLOGY DEPARTMENT

The Biology Department gives out several awards and scholarships to undergraduate and graduate students every year thanks to the generosity of donors. The folowing recipients earned awards for the 2023-2024 Academic Year:

The Dr. Lina Schoen Giddings Scholarship	Suraiya Anisa
Eva & Ira J Pell Scholarship	Aminata Badaro Will Butler Fiana Gasapo
Dr. Greenstien Scholarship	Hannah Khanshali
Rose and Maxwell Bresnick Memorial Scholarship	Michelle Okoli Renata Gomes
Dr. Linda (Rosen) Schoen Giddings Scholarship	Michael Li Cindy Kyan
The Professor William Stratford Prize	Cindy Kyan Amy Sultana
Outstanding Biology Presentation Award	Hannah Khanshali
Excellence in Biology Research Award	Naoroz Mahmood Kaitlyn Duran Ishah Yusaf Subha Laskar
Outstanding Service Award	Tyler Gomes

Where Are They Now FEATURE

Dr. Zainab Shahid, DO & Dr. Ricci Kalayanamitra, MD

Ricci Kalayanamitra and Zainab Shahid graduated from City College in 2015 and 2016, respectively, as biology majors within the Division of Science, and today they work as doctors in Texas hospitals. While at City College, Ricci and Zainab both lived with their respective families in Queens and would travel home separately with their own friend groups after spending nights studying in the Cohen Library. When they started at CCNY, they did not know each other. In Zainab's first semester during finals week, the two met when her group of friends merged with Ricci's while traveling home. From there, they saw each other more as they took the same classes and eventually became friends, and today they are happily married.

After attending Brooklyn Technical High School, Zainab looked for an affordable college with a strong pre-med program that could prepare her for the rigors of medical school. In high school, she took part in an 'Introduction to medicine' program that connected students with the Sophie Davis School of Biomedical Education. Zainab enjoyed the program and knew that City College was the best choice for furthering her education. She always admired doctors as a child and got interested in biology and medicine in middle school.

"And you never know... someone in that great group of friends may one day become your life partner!"

On the other hand, Ricci never thought that he would be a doctor. After a rocky start in high school, he attended SUNY Alfred State College for his first semester, but soon moved back to New York City to be with his family. Then one day, Ricci googled affordable colleges within the five boroughs and came across City College. He transferred into the Grove School of Engineering with a major in electrical engineering, but still did not feel like it was the right choice for him. Once again, he googled majors that could provide resources and lead to a good career path and learned about the Physician Assistant Program at CUNY. From here, Ricci started volunteering at hospitals and spent time at Jamaica Hospital where he met Dr. Holsen, who he fondly remembers as a mentor that always pushed him to aim high. As first-generation immigrants, Zainab was born in Pakistan and Ricci's family is from Thailand, they both appreciated the resources and support that City College offered as a public school with a diverse array of faculty, staff, and student body that they could connect with.

While at City College, both Zainab and Ricci's fondest memory is of meeting each other. Ricci recalls being thankful for the structure and support that Zainab provided him while finding his way through college. He also recalls fond memories of working with Dr. David Lohman, who taught Ricci while working in the lab, helped him apply for medical school, and occasionally conversed with him in Thai. Zainab also reflects on valuing Ricci as a friend and cheerleader while obtaining citizenship, and valued his tough love when talking about problems with classwork. She also enjoys the clean and quiet study spaces that CCNY offered which for many students, serves as the only place where they are able to complete their schoolwork.

After her undergraduate studies, Zainab attended medical school, interned at Harlem Hospital, had residency training, worked with Jefferson Health in New Jersey, and internal medicine training, and currently works as a Hospitalist where she manages patient care during their hospital stay. When choosing to work in a clinic or a hospital, Zainab was interested in a hospital environment because she enjoys helping patients reach good health after acute illness.

Ricci attended Pennsylvania State University for medical school, worked at Northwell Health Staten Island University Hospital, trained in emergency medicine, and currently works as an Emergency Medical Doctor at a rural hospital outside of Austin, Texas. Most nights, he is the only doctor at the hospital and has done everything from answering patient questions to delivering babies. What he enjoys the most is helping families by answering questions to know that they are in the right hands.

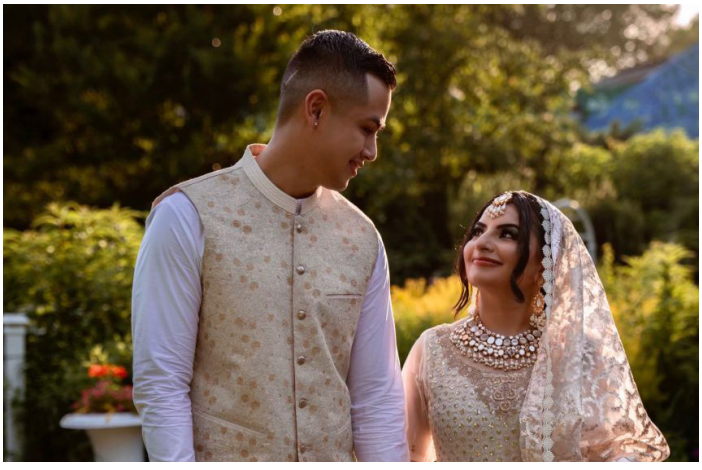
Since Zainab and Ricci work in the same field, it helps their relationship that they can share certain experiences, medical jargon, and make jokes that they know the other person will understand. Just like in college and medical school, Zainab and Ricci are now studying together to prepare for their board examinations and find it helpful to bounce information off one another. Zainab and Ricci were also supportive of one another while working through the COVID-19 pandemic. It was during the pandemic when they both saw how precious life is and decided it was time to get married in their first year of residency.

When reflecting on his education and career path, Ricci is grateful for his sense of perseverance and hard work that pushed him to never give up, along with having a positive mindset and mentors around him that provided extra motivation. Whether it is work or practicing jujitsu, Ricci says that "you are going to get beat up every time, but you need to keep showing up."

What has helped Zainab through her journey was having a never-give-up mentality. This helped her get through a tough time of building up her GPA and taking 20+ credits each semester of her last year at CCNY to prepare for medical school. She is grateful to Professor Ana Carnaval and Director of Program in Pre-Medical Studies Ms. Belinda Smith for helping advise her during her last year of studies. Zainab remembers finishing her last class on a Friday in 2016 and starting medical school the following Monday.

For prospective students, Zainab encourages to "just go for it and don't give up," because the worst thing that can happen is someone says no and that only means that you can try again. When facing tough times while in school, she also wants students to remember that you are only human and reach out for help or faith when you need it, as one great conversation with someone can make all the difference. Ricci encourages students to find a good group of friends that are hardworking and always questioning what new opportunities they can pursue to serve as motivation. And you never know… someone in that great group of friends may one day become your life partner!

Zainab and Ricci are open to connecting students with work and learning opportunities and promote participation at Northwell Health Staten Island for students interested in emergency medicine; Columbia University Irving Medical Center Emergency Room for training experience; Jefferson Health Hospitals in New Jersey for training experience, and the CCNY Chapter of Health Leads with Harlem Hospital for training and other programs.



Inspiring SCIENTIST

Nia Brown-Fonrose

Nia Brown-Fonrose is a biology master's student and also serves as the current President of the Women in Science Organization, in her last semester at City College. Upon graduation, she will attend St. George University in Grenada this summer to pursue her Doctor of Veterinary Medicine (DVM) degree. When Nia is not busy with school or her job as a Veterinary Assistant, she enjoys spending time with her friends, family, and cat Karma. Nia loves working with animals and sees her position as a form of free relaxation therapy while she works to make pets and their human caretakers feel better. She joyfully shared that not much compares to appointments with puppies, which Nia finds to be the most fun. While at work as a veterinary assistant, Nia enjoys providing emotional support to her patients, both furry and human. It feels natural dedicating time in and out of the exam room to reciprocate the trust that owners put in her when leaving pets in the care of her and her coworkers.

"Stepping outside of my comfort zone and embracing that change, it has allowed me to find different passions"

At the end of her undergraduate studies at SUNY Binghamton University with a major in biology, Nia was drawn back to New York City to be closer with her family in the Bronx. After researching different biology programs, she felt drawn to City College because of great faculty members; such as, Dr. Ana Carnaval, who has been a great professor and advisor to Nia. Nia has also enjoyed taking classes with and learning about the work of Dr. Osceola Whitney, whose lab research focuses on how social interactions modulate sensory-motor mechanisms and promote the acquisition and maintenance of complex behavior, and Dr. Susan Perkins, our Dean of Science, who conducts evolutionary, systematic, and genomic research on parasites that cause malaria in humans. Nia was also interested in the array of student organizations and clubs on campus; such as, CCNY Women in Science (WinS), which she has enjoyed being a part of and is now the organization's President. In addition to the time with faculty and involvement with school organizations, Nia enjoys the City College signature purple, which is her favorite go-to color for her work scrubs.

As a graduate student, Nia loves the freedom that comes with having more autonomy in her course schedule. “But with great freedom comes great responsibility,” she says. One example of the weight of responsibility Nia felt was when she was working on her thesis on different endoparasites and bacteria in brown rats in the Bronx. When studies and work become overwhelming, Nia receives emotional support from friends and family.

Learning how to go with the flow of change in her academic journey proved to be a life lesson that helped Nia manage life’s ups and downs. By joining City College and taking courses with Dr. Susan Perkins, Nia discovered her interest in parasitology, which influenced her thesis and the direction of her graduate studies. By “stepping outside of my comfort zone and embracing that change, it has allowed me to find different passions,” Nia reflects. Looking towards the future, in five years Nia sees herself as a graduate of St. George University, entering a residency program to define her veterinary specialization, making time to travel, and prioritizing her emotions and relationships with friends and family. Nia encourages other students to trust the process and embrace the changes that come along the way. “Our original plans are not always the plans we end up following.” With hardwork and putting her mind to it, Nia knows she is where she is meant to be and is pursuing her dreams.

Inspirational Words from the Biology Community Members

"In our age of click baits: For every complex problem there is an answer that is clear, simple, and wrong."
-Dr. Stav Kemeny

"Embrace failure as a step forward on the path to success, where each stumble strengthens resilience, shaping you into a more determined person."
-Maryam Tuba (President of the Biology Club & Bio. Dept. College Assistant)

"If all difficulties were known, at the outset of a long journey, most of us would never start out at all." -Dan Rather contributed by Sarah Shameen (Secretary of the Biology Club)

"You're not alone on this journey, and there are people ready to support you every step of the way."
-Helen Oommen

"You are going to get beat up every time, but you need to keep showing up."
-Dr. Ricci Kalayanamitra

"The bird who dares to fall is the bird who learns to fly."
-Dr. Osceola Whitney

"Never stop refining and improving yourself and your skills."
-Lev Gilinskiy

"...you have to be up for the challenge and have the passion, and that should give you the motivation."
-Dr. Tadmiri Venkatesh

"No matter what life has in store for you, you have to always get back up on your feet, and seize the desired future that's right in front of you. The road may not be easy, but I know you all can make the impossible possible."
-Tyler Gomes (Vice President of the Biology Club)

"Our original plans are not always the plans we end up following."
-Nia Brown-Fonrose

"May I always remember that I do not know everything, but the journey to learning more is one of the most exciting paths to take. I hope to always be an enthusiastic learner!"
-Christine Stefano

"It's not so much as being smart, but being persistent."
-Connor French

"Hard work only gets you so far ."
-Connor French

"But with great freedom comes great responsibility."
-Nia Brown-Fonrose