# BIOLOGGY DEPARTMENT NEWSLETTER

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# In this Issue

3 Biol	ogy Club & CCNY Women in Science
4	Faculty Spotlight
5	Where Are They Now
6	Student Spotlights
10	Study Abroad Course in Thailand
12	Publications & Accolades
13	<b>Biology Recognizes</b>

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**CCNY Biology** 

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# Biology Club & CCNY Women In Science



To become a member of the Biology Club or learn more about our events, please email BiologyClub@gtest.ccny.cuny.edu.



You can join CCNY's Women in Science Organization by emailing ccnywins@gmail.com or by signing up on ccnywins.wixsite.com/womeninscience.





# Faculty SPOTLIGHT Dr. Jane Gallagher



# **G C**uriosity is important!"

As you entered Dr. Jane Gallagher's office, you got a glimpse of just how productive and busy she was from the books stacked high in towers, and the papers cluttered on her desk. In Dr. Gallagher's 41 years at CCNY, she has had many jobs; the main one has always been teaching. She taught Biological Oceanography, along with the Human Biology non-science major course, and our Biological Foundations II, but Oceanography has always been her passion. She served as Chair of the Department of Biology for six years, another six years as the college's Chair of Academic Standards, and also served as the Campus Ombudsperson.

Back in 1978, Dr. Gallagher applied to teach at CCNY after receiving her Masters degree from Stanford University and her PhD from Rhode Island University. She described how students from Stanford University come from a very privileged background, and how the school pre-programs its students for success. When she was hired at CCNY, she was truly shocked by how little the students had been given in their lives. When speaking of the students she says, "They have grit! They have so much courage. The best thing about CCNY is its students and its mission." Dr. Gallagher proudly claims that she never left CCNY because she found purpose in helping the students, who work harder for their dreams.

Dr. Gallagher thinks students shouldn't be worried if they are still undecided on their major. "It's not a bad thing to not know where you are going in life right away," she recounts how she changed her major five times before getting it right. "Try new things. Explore all of your options. Change your major as many times as you need to, because the world needs curious creative people. Curiosity is important and creative people see connections where other people may not."

Her proudest moment as a professor was when she was running a lab and all of her students were accepted into graduate school within two years or less. "They all got into advanced schools and became successful so soon. It made me so proud as their professor." With a shine in her eyes as she speaks of her students one can imagine the mutual admiration and respect shared in the nurturing environment led by Dr. Gallagher.

Conversely, Dr. Gallagher's greatest hardship at CCNY was when her husband, who is also an Oceanographer, had to go to sea for several months at a time and she had to manage a full teaching load along with being the only parent home for her only daughter, Melinda. She recalls being one of the few women in the science division at CCNY and how that caused a lack of understanding when one needed maternity leave. When Dr. Gallagher started working at CCNY, the college didn't even offer maternity leave to expecting mothers.

As of January 2019, Dr. Jane Gallagher has retired from CCNY. She plans on traveling the world with her husband, starting with a cruise through the Indian Ocean. In her spare time, she also intends to volunteer at the NY Botanical Garden, as she loves gardening. She offers a few words of wisdom to our students, "Talk to your professors more. Go to office hours if you're ever feeling really lost." Dr. Gallagher has stayed true to CCNY for decades as a wonderful professor, trusted colleague, beloved Ombudsman, and overall brilliant mind whose contributions will continue for years after she retires. As Dr. Gallagher makes her exit, she shares this one last thought, "I hope my younger colleagues find it as rewarding to work here as I did."

# Where Are They Now FEATURE

# Jisselly Sanchez (McGregor)



**Dominican** native Jisselly Sanchez (McGregor) came to New York at the tough teen age of fourteen. Knowing education was her pathway to success, she worked hard to graduate high school and achieve her bachelors from CCNY in 2013. Jisselly is continuing on her path at The Central Michigan University of Medicine, where she hopes to use her past experiences and passion for helping others to become a successful Psychiatrist.

The City College was a perfect fit for Jisselly because there were so many students "just like me," as she phrases it. Being in an environment where she felt comfortable was important to her. An even bigger dream came true when she was accepted to CMU and was able to start a new journey. Although it was difficult getting used to the cultural differences between New York and Michigan, Jisselly ultimately felt "it was meant to be."

Though always interested in the medical field, Jisselly's passion for psychiatry was solidified after witnessing her father's debilitating battle with addiction and mental illness. Jisselly was determined from the beginning of her academic career to learn as much as she could about medicine to help as many people as possible. In her first year at CMU, Jisselly traveled to Haiti where she assisted in providing direct patient care to local residents. Her first volunteer experience, which included educating patients on STD prevention and malnutrition, was only one of many.

According to Jisselly, volunteering is more than just a way of gaining experience, it's about connecting with people. "To be the best physician I can be, I have to be able to put myself in other people's shoes," she says. In addition to her volunteer trip to Haiti, Jisselly has served her local community for several years: from providing medical consultation to Flint residents, to It's important to have mentors as women, especially in male dominated fields."



working in a mobile clinic providing medical assistance to migrant workers in Bay City. Her classmates recently nominated her into the Gold Humanism Society, a society for those who demonstrate dedication to service in their communities.

Having been exposed to so many people from so many different walks of life has given Jisselly the knowledge to understand others and communicate effectively with those in need. Jisselly's journey in medical school has been no walk in the park. Often having to do rotations for twelve hours a day, she finds comfort in communicating with patients. She describes effectively communicating as one of the most important lessons any medical student can learn, and it's often something students don't realize in their first years. She says, "as a medical student, you actually affect people. You can change someone's life. There are patients that want to talk to you." Being bilingual herself has been a great advantage to Jisselly.

While Jisselly is on a mission to help others through her work as a physician, she also has a bigger purpose. "I have a mission to inspire people just like me, women in medicine and minorities. We need more women. We need more minorities. We need more people that are bilingual." Jisselly's love for helping people is evident. "I'm looking forward to having my own patients and being able to do more than I can now as a medical student." From humble beginnings at City College, where she sends her gratitude to the faculty who helped get her to where she is now, we're excited to see Jisselly's success story develop even further.

# Student SPOTLIGHTS

# Sruti Patoori



**Sruti** Patoori came to City College in 2013 and was immediately received by a supportive and diverse community. She graduated from Rutgers University, where she majored in genetics and minored in evolutionary anthropology. As a current PhD candidate working in Dr. Emerson's lab, Sruti is able to continue pursuing her passion for biology through research.

Her "obsession" (as she calls it) with biology and DNA started young, and she credits her collection of National Geographic magazines as fuel for that obsession. One particular NatGeo issue, "The Journey of Man" was her first introduction to evolutionary genetics. She was particularly fascinated by the idea of being able to trace where we came from, and found inspiration in the story of the Y chromosome Adam and the Mitochondrial Eve. "It's fascinating that all of our history is already in our DNA," says Sruti.

Currently, Sruti studies retinal development in vertebrates in Dr. Emerson's lab. She focuses on photoreceptor cells in the outer retina, and how they come to develop from progenitor cells. Part of her research is characterizing the early development of the retina in squirrels, a species she finds particularly interesting to work with because of their diurnality. A big part of her duty as a researcher is keeping up with research that's been published already, which motivates her to understand her role as a contributor. "We figure out what we know. And then we figure out where our contribution lies. What part of the story are we filling in?" she says.

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Throughout her time at City College, Sruti has also dedicated time to empowering her fellow female peers. She's been a part of CCNY Women in Science (WinS) for four years, participating on the board and most recently being the Events Coordinator for the organization. She prepared and hosted workshops to help her peers succeed in the professional world. Sruti is also part of the team advocating for lactation room accommodations on campus. Aside from her role as WinS Events Coordinator, Sruti has also served as a TA for two undergraduate courses; Biological Foundations 1 and Genetics.

Coming from Rutgers, where the Genetics department faculty was mostly white men, she was grateful and positively shocked by the number of women professors and peers in CCNY's Biology Ph.D. program. "I don't think I had a single Indian professor but when I came here, my first two professors were Indian women, and that was important to me. I liked seeing that." She recalls a time where she once had to intentionally mispronounce her name to make it easier on her peers around her. She found comfort on her first day when Dr. Shubha Govind pronounced her name correctly without missing a beat.

City College's diversity is one of the main reasons she credits her environment as motivation. She feels constantly inspired by what her peers are accomplishing in the CDI building, where she spends most of her time. One major perk of the CDI building, she comments, is its open floor plan, which fosters a sense of community for the PhD students. "You're constantly surrounded by something that's brand new," she says. "It's fun being able to know what other people are doing."

As someone who spends most of her day in the lab, Sruti reflects that disappointment is par for the course. However, that makes the satisfaction of an experiment gone right so much better for her. This is what she prompts other students to search for as well: satisfaction and happiness in whatever they choose to do. Sruti hopes to graduate in 2020 and continue her research in a postdoctoral research position.

# **Tagreed Alabed**



A child's brain is like a sponge, constantly absorbing information."

**Tageed** Alabed is a pre-med student who has always had a passion for medicine and was drawn to the sciences. Her decision to go on a premedical track was inspired by her own experiences within the healthcare field. Being a daughter of immigrants, she grew up in a community where she did not see many physicians who resembled her. Tagreed's main goal of becoming a physician is to help make the healthcare industry more inclusive, and to advocate for patients who aren't being heard. From many failed diagnoses from her own physicians, through successfully shadowing a local doctor for the past four years, Tagreed is determined to take what she's learned to medical school and beyond.

Tagreed graduated as a Biology major, with Chemistry and Psychology minors with distinct Latin Honors, Magna Cum Laude in Spring 2019. In addition to her academic success, Tagreed currently serves as the President for the Caduceus Society, as well as an Executive for the Biology Department Executive Student Committee. Given her course load, volunteer work and leadership positions on campus, Tagreed has had a busy schedule for what seems her entire undergraduate career. Amongst her various positions, she has also served as an honors research student in Dr. Broderick's neuroscience lab for the past 19 months. Through her position in the lab, Tagreed has been able to assist Dr. Broderick in multiple projects as well as help create sensors for the lab. The aim of her project was to display temporal synchrony in the brain. This was done through live neuromolecular imaging using the BRODERICK PROBE, <sup>®</sup>which is a nanosensor that provides real-time readings of neurotransmitters in the brain. The readings in the natural and diseased states may be directly compared to locate various forms of neurodegeneration. In November 2018, Tagreed traveled to San Diego, California, to present her research findings to the Society for Neuroscience. Fearless and in a pink suit, Tagreed faced over 27,000 students, scientists and physicians to present her work.

Despite having difficulties throughout her journey, Tagreed credits her greatest accomplishments thus far on being able to believe in herself enough to persevere. She thanks her parents and some close friends for their continuous support. She also credits Dr. Broderick and the Department of Biology for being mentors and supportive figures in her journey. Tagreed hopes one day to become a practicing pediatrician, and believes there is a great deal of importance beyond physical health. "A child's brain is like a sponge, constantly absorbing information. If you can reach them at such an impressionable age, and teach them a few things at every check-up, it can change their lives." Building trust with her patients, a tool she learned the value of from her shadowing experience, is equally as important to her. "To be able to go to your doctor and just talk to them is amazing. Mental health is so important," she says. "I want to have an open dialogue with my patients."

# Adrianne Corseri



Perseverance pays off, don't ever be afraid to ask for help if you're confused or lost."

**College** wasn't in the plan for Adrianne Corseri. Her high school experience was more difficult than she had expected it to be so she felt little interest in continuing her education after. She felt societal pressure to continue her education afterward and "do something with her life." Adrianne was always interested in developmental research within Neuroscience so she persisted and eventually enrolled in Hunter College, where she found the environment to be a little too dreary, so after one semester she transferred to City College.

In Adrianne Corseri's opinion, CCNY is a non-traditional type of college. "It's a commuter school, full of people of all backgrounds." She found it inspiring and motivating to see many students who are older, come back to CCNY to learn again. It struck her that if those students can come back years later, when they might have a spouse and even children, then she must be able to complete her degree with more ease than she thought. Adrianne struggled with balancing her full-time job with school and research, and believes that she could have done better with her grades, but is still proud of herself for getting through a tough time.

"I have always had a difficult life, and I didn't expect it to get easier anytime soon, but City College changed something about all that. I became happier after a while. Perhaps it was that I was finally learning about something I was deeply interested in, Neuroscience," she ponders. Adrianne majored in Biology at CCNY, and served as the Vice President of CCNY's Women in Science, as well as a member of the Division of Science Student Council. Adrianne participated in several panels at CCNY to share her experiences and wisdom with other students. Some panels that she participated in touched on topics relating to diversity, maintaining a work-school balance, getting involved in research, going to campus events, and even how to obtain summer internships, giving an inside look on what she believes the industry is looking for.

Adrianne graduated in Fall 2018 and was accepted to a prestigious PhD program in Neuroscience at Brown University in Rhode Island. She hopes to join the industry after studying Neurological Degeneration and Biotechnology at Brown. The last inspiring words she shared were, "Perseverance pays off, don't ever be afraid to ask for help if you're confused or lost in any aspect of your life, and it's okay to change what you want to do, there is a plan for you out there."

# **Reid Vero**



I've learned how to communicate information to a wider audience who may not be familiar with a lot of biological concepts."

**Biology** has always made sense to Reid Vero. It helps him see the bigger picture. "I like when everything fits together. There's constantly a ton of small things going on, that build up to the bigger picture and biology is very applicable," he says.

As a "big picture" guy, he views things through a scientific lens, even when he's at his part time job at a local coffee shop. Drawing parallels between his science classes and coffee, Reid has enjoyed learning about the extraction of coffee, the origins of different coffee beans, and the processing methods of certain beans.

More traditionally, Reid will be able to apply his in class learning while doing research in Dr. Whitney's lab as he conducts honors research. He will be working with zebra finches, studying their ability to learn and reproduce sounds as closed-ended learners. He hopes to draw some connection between the real world and his research. As he's a junior, Reid is enjoying keeping his options open, mentioning that the most important thing to him is to end up doing something he enjoys. In the short term, however, Reid is looking forward to taking classes like Cancer Biology and The Biology of Learning and Memory, which will apply to his lab work with Dr. Whitney. In addition, he hopes to study abroad in Australia to study its different ecosystems.

Reid was the Biology Club Secretary 2017-2018 and President 2018-2019. He is a Macaulay Honors Junior majoring in Biology and minoring in Cinema Studies. Through the Biology Club, Reid met one of his mentors, former Bio Club President Georgio Malouf, who's the current host of WHCR Radio show Health in Harlem. For over a year, Reid has interned at the weekly medical talk show, which covers several health topics. In addition to helping with production, Reid also plays an important role in researching the different topics covered in each session. Even more impressive, the talk show is designed to discuss issues that directly affect the local community. Some past topics have been cigarette smoking, diabetes and AIDS. It's been a rewarding experience to Reid, as he says "It's been a great opportunity to learn about these different medical disorders, but I've also learned how to communicate information to a wider audience who may not be familiar with a lot of biological concepts."

# Study Abroad Course in Thailand, 2019

**Dr. David** Lohman taught this winter session's Tropical Ecology and Thailand course—the first of its kind. The 19-day voyage is the only Study Abroad & International Programs' biology course ever taught by a CCNY faculty member as a CCNY course.

"The course is taught in collaboration with Prince of Songkhla University, and about half of the students will be from that institution," said Lohman. "I definitely hope to offer this course again—either as a winter or summer term course."

Students learned about functioning tropical ecosystems including forests, streams, mangrove swamps, coral reefs and a large subterranean cave. They also got to investigate challenges to biodiversity conservation in developing tropical countries with visits to a shrimp farm and tropical tree plantations, including rubber and oil palm.



Professor Lohman and the students in front of Ton Plio Waterfall.





Jing Leong swings on a *Terminalia catappa* tree at the beach







Coffee growing in an experimental agroforestry plot.







In his left hand, Professor Lohman holds a male *Pachliopta aristolochiae* that would be poisonous to predators. In his right hand, he is holding a female *Paplio polytes* that is not poisonous, but mimics the poisonous species. It is therefore not attacked by predators.

# **Publications & PRESENTATIONS**

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#### **Dr. Hysell Oviedo**

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#### Dr. Bao Vuong

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#### ACCOLADES

In 2018, Prof. David Lohman was awarded a Fulbright ASEAN Research Grant to study in Vietnam and the Philippines. In June 2019, he also conducted field research in the remote Aru Archipelago in Indonesia funded by a grant from National Geographic.



## Dr. Millicent Roth



**Dr. Millicent** Roth has many titles at CCNY, including Deputy Dean of Science for Undergraduate Students, Executive Director of CCAPP, and Professor of Psychology. When asked how long she has been at CCNY, Dr. Roth responds with a humorous tone, "A long, long time, but I actually still really enjoy it." In the always busy CCAPP office, Dr. Roth provides academic support and advising to pre-major students, and also assists faculty. She specializes in giving career enrichment advice to troubled students by creating an action plan made to help students improve.

"There's always something new in the CCAPP office," she says as she recounts how she got to CCNY. Dr. Roth originally received a scholarship to do her B.A. in Social Work from Brooklyn College, which led her to work for an after-care clinic that cared for recently released patients from mental hospitals. She was particularly good at caring for the adolescent patients, so her coworker offered her a counseling job at CCNY, which even her boss encouraged her to apply for. "When I got here, I felt like this is where I'm supposed to be. I feel as though in life, you should be somewhere where you feel fulfilled and get out if you're not."

When she's not at CCNY, Dr. Roth enjoys horseback riding in upstate NY to clear her mind. But, for as long as she has been at CCNY, she does not feel like her work is done yet, "If I'm enjoying myself, then why leave?" She strives to get more money for the grant dedicated to the students and their education. "The students at CCNY are very special because they don't feel entitled. They work hard to be here. I hope they all come to realize one day that their advisors are always here to help them succeed."

## Arthur Brown



**"L'Ve** been around this college since I was a kid. I grew up around the block, and it's crazy to think that I was just honored for working here for 25 years," Arthur Brown looks back nostalgically. On a daily basis, Arthur Brown, Senior Supervisor for Custodians at CCNY, supervises the South Campus including: Aaron Davis Hall, CDI, ASRC, and even the North Campus at times. He is a man who has chosen never to stray too far from his roots and lucky for us, City College is deeply embedded in them. "Art" is one of the people on campus his colleagues have learned to trust. He handles situations efficiently and in a timely manner. Everyone can count on him. He believes that the diversity among the students and staff can really draw you in to CCNY. "This is a wonderful place to go to school," he recounts, "I've seen six graduating classes and had many interesting conversations with the students. I even like to think that I've helped many of them."

In the past, Brown used to bring his two sons to CCNY when they were 5 and 10 years old to see the school. They were always so excited to see how big and beautiful the school is. Every time his sons would meet Brown's supervisor, at the time, the supervisor would give the kids a dollar or two and it would always bring a smile to their faces. This easily became Brown's favorite memory. He held these exchanges dear to his heart to this day, and has gone on to pass down this tradition to his coworker's children. As retirement approaches, Brown dreams of sitting on a beach and relaxing. For now, he enjoys cooking for his family in his free time, watching all types of sports, and even bike riding in the summer. When asked what he'd like to say to the students before departing, he seemed to already have his answer ready, "Keep studying, don't be afraid to try, and make a change."



# Khadija Diallo



**Khadija** Diallo came to City College because of the diversity and acceptance she would feel from people of all backgrounds. She wears a full length burka and veil with confidence as she enters The City College of New York, CUNY campus. Even after she graduated in June 2018, she kept coming back to be part of the community. "It's like my home away from home. I cannot stay away from this place," she says as she greets several people passing by.

Khadija has been part of countless organizations on campus: The Student Empowerment Engagement Development Series (SEEDS), Caduceus Society, Project Sunshine, Medical Roots Project, WinS (Women in Science), Malala's Room, Guinean Student Association, MSO/WII, Relay For Life of CCNY and The National Society of Leadership and Success. She has also done three study abroad programs in Rabat, Morocco, Meknes, Morocco and Jamkhed, India. She was also an Office Assistant in the Biology Office. Needless to say, she knows the value of networking and gaining life experiences.

Studying abroad has proven to be life-changing for Khadjia. She deferred her degree twice to go to Morocco for six weeks on the Chancellor's Global Scholarship. She worked in a Medical Research Hospital in Morocco, a Muslim country. When she was first greeted there by the Chief of Surgery, he told her she was not allowed to set foot in the hospital with a veil on. Khadija stood her ground and spoke with the Chief of Surgery until he saw things her way. She said, "I hope no one else has to go through that. It wasn't easy at all." One highlight of her trip was when a patient in the hospital was blessing her for being veiled in the hospital. The patient shared that she always dreamed of doing that too. The patient motivated and helped Khadija push forward

as she shadowed a neurosurgeon and researched genetic typing in Morocco. She discovered her dream is to be a neurosurgeon, perhaps the first ever to wear a veil.

She was recently accepted into Teach for America where she will be a NYC public school teacher for the next two years while attending Relay Graduate School of Education to obtain her Masters degree in education. Khadija was also admitted into Fordham University where she will begin the postbaccalaureate premedical program in preparation for medical school.







# **Division of Science Student Council**



The Division of Science Student Council created a two part event this spring 2019 semester. First was a panel showcasing a stellar group of five panelists from each of the Division of Science disciplines. The individuals who participated were Adrianne Corseri from Biology, Abdoulaye Maiga from Math, Calvin Forde from Chemistry, Jake Reitman from Earth and Atmospheric Sciences, and Shirley Chan from Physics/Biology. Each panelist shared their personal experiences with getting into research and their journeys thus far throughout. Students in attendance learned tips on how to approach professors, some expectations while in a lab, benefits of doing research, and some hardships one may encounter and suggestions on how to cope.

A major theme that was conveyed was one of curiosity. Students need to make sure they are researching a subject they like, which may mean making changes along the way, and not being afraid to ask questions.

This panel led into the second week event of our Research Opportunity Fair, which included several opportunities for students to join on campus. Those that attended the panel were well equipped to make connections at the fair.

The Division of Science Student Council is an organization that brings together leaders in the Science Division who collaborate on bi-annual events: an Opportunity Fair in the fall and a Research Opportunity Fair in the spring. The Council also works on improving at least one item for the science student body per year, focusing on the five-point mission plan that was established in 2015, the year the council began. All levels of study and college involvement are welcome to participate, as the current council includes undergraduate and graduate students and staff. To learn more about the council or to join the council or collaborate, email CKlusko@ccny.cuny.edu.







# Submit Your Photos

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













