



Hostos Community College



Natural Sciences Department

NEWSLETTER

FALL 2025



Dr. Yoel Rodríguez
Professor and
Chairperson

Dear colleagues, students, and alumni,

Happy New Year! On behalf of the Natural Sciences Department (NSD), I extend my warmest wishes for a happy, healthy, and successful 2026!

In this **Fall 2025 edition of the NSD Newsletter**, I am pleased to share highlights of the initiatives and events our department organized or participated in during the Fall 2025 semester. Featured in this issue is the **2025 Science Week - Open House**, which welcomed more than 200 participants and included a keynote address by Dr. Derek M. Shore on artificial intelligence and the search for improved medicines. We also celebrated our **STEM graduates** in collaboration with the Mathematics Department, and hosted a meaningful and inspiring **HEAT² End-of-Semester Gathering**. Additionally, this newsletter recognizes the **long-standing contributions of dedicated faculty and staff**, and celebrates the **achievements of our students and alumni**, including their participation in research internships and presentations at professional conferences. The year concluded with a joyful holiday celebration. Beyond these events, the department remained highly engaged in **scholarly activity**, with several peer-reviewed publications, grants, and conference presentations. The NSD continues to play a vital role in educating both our students and the broader community by **fostering informed dialogue around authentic scientific inquiry—something especially important in today's world**. I invite you to explore this newsletter to learn more about our department's events, people, and accomplishments.

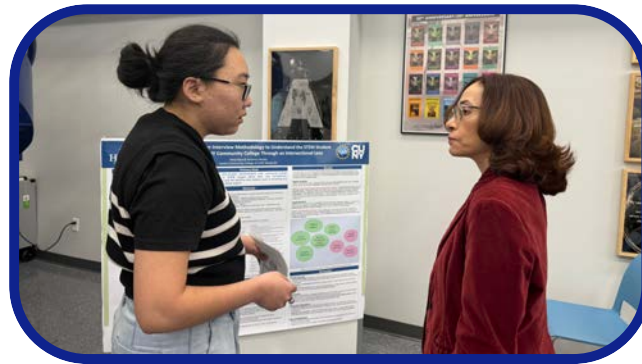
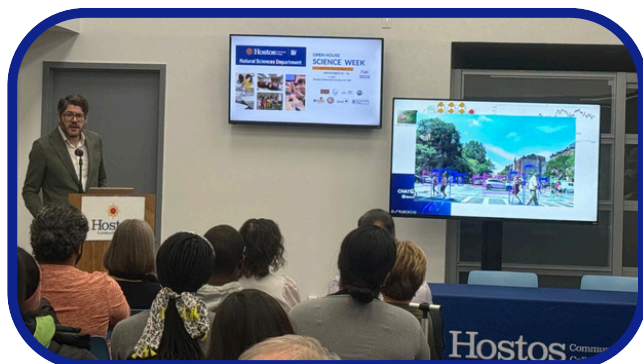
Looking ahead, the **NSD remains firmly committed to excellence** in alignment with the College's mission. Our priorities include delivering high-quality education in Science, Engineering, and Forensic Science, as well as foundational courses supporting A.A.S., Allied Health, and Liberal Arts programs; embracing the evolving role of artificial intelligence to enhance teaching and learning; developing **new academic programs** aligned with the workforce needs of New York City and the nation; expanding **undergraduate research and internship opportunities**; modernizing laboratory facilities to better prepare our students; and supporting **faculty and staff in securing internal and external funding**.

I would like to express my sincere gratitude to Madame President Daisy Cocco De Filippis and Provost Andrea Fabrizio for their continued and dedicated support of our department and students. The NSD looks forward to collaborating with all of you to further strengthen our academic and research programs and to make 2026 a productive and successful year. Best wishes, and above all, continue to enjoy the work you do. **Thank you very much!**

Fall 2025 Science Week – Open House

The **Natural Sciences Department (NSD) | 2025 Science Week – Open House** | November 10 – 14 and Beyond was a tremendous success!

More than **200 students, faculty, staff, and administrators** joined us on Wednesday, November 12, for a full day of events—featuring the inspiring keynote presentation by Dr. Derek M. Shore, the STEM Student Research Presentation and Robotics Exhibition, and the STEM Alumni Conversation: Professional Experiences. Throughout the week of November 10 and beyond, we also hosted an exciting array of Teach-in activities, Field Trips, the Eye-Bank Portrait Studio and Presentation, and the Hostos STEM Olympiad. Thank you all. Simply amazing!



Presenters and Attendees at the Natural Sciences Department | Fall 2025 Science Week Celebration

Keynote Presentation

How AI, Supercomputers, and Massive Datasets Accelerate the Search for Better Medicines

Dr. Derek M. Shore delivered a compelling keynote during the **Fall 2025 Natural Sciences Department Science Week—Open House**, launching the week's theme of "Artificial Intelligence (AI) and Science Discovery" with a standing-room-only audience at the Hostos Research Center. He presented AI as a practical toolkit that is already reshaping biomedical research by helping scientists find patterns in complex data and focusing downstream experiments. He emphasized that today's biggest advances often come from specialized AI systems built to solve specific problems and described how these tools can accelerate discovery without replacing careful scientific judgment.



Derek M. Shore, PhD
Department of System and Computational
Biomedicine
Weill Cornell Medicine

In clear, student-friendly terms, Dr. Shore highlighted several ways AI is already supporting discovery: assisting with medical image analysis by surfacing subtle signals, organizing and learning from large biomedical datasets, and using breakthroughs like AlphaFold to rapidly predict and utilize accurate protein structures that help scientists better understand biology at the molecular level. He explained how many medicines work by binding to specific proteins, and why knowing a protein's 3D shape helps researchers design candidates that "fit" and achieve desired therapeutic outcomes. **He described how AI can pre-screen enormous libraries of molecules to prioritize the most promising leads, and how computer simulations can test how proteins and molecules move and interact over time.** These approaches often rely on national-scale supercomputers such as Frontier at Oak Ridge National Laboratory. Dr. Shore closed by underscoring a hopeful message: **when open data, AI, and high-performance computing come together, they can speed the path from fundamental biology to new therapeutic possibilities.**

The Eye-Bank of New York

On November 17, the Natural Sciences Department partnered with **The Eye-Bank of New York to celebrate 2025 Science Week** by highlighting the importance of eye donation and by sharing an overview of The Eye-Bank's sight-saving programs with students.

The event featured a keynote presentation by **Yonejung (YJ) Yoon, PhD, Adjunct Assistant Professor** in the Natural Sciences Department and The Eye-Bank's Research and Relationship Development Manager. In addition to providing donor eye tissue for sight-saving cornea transplants, The Eye-Bank also provides ocular tissue to a wide variety of researchers. Professor Yoon shared exciting ocular research advancements with students, including current studies on how retinal pigment epithelial (RPE) cells may be used to treat blinding eye diseases like age-related macular degeneration in the future. **Eye-Bank Communications Director Maria Chelko** also provided students with a general overview of The Eye-Bank's history as the world's first eye bank established in New York in 1944.

Throughout the day, local cornea transplant recipients stopped into the Research Center to participate in The Eye-Bank's 400 Faces of Sight Restoration portrait project, an ambitious initiative that aims to create a large-scale photomosaic featuring portraits of cornea transplant recipients. Special thanks to Department Chair Professor Yoel Rodriguez, PhD and to Professor Julie Trachman, PhD for their support and assistance organizing this event.

Each year, **The Eye-Bank offers two \$3,000 academic scholarships**—one of which is for students pursuing higher education in STEM—with an application deadline of May 15. We encourage you to apply! **Visit eyedonation.org/scholarship** for more information and to access the application forms.



Faculty Spotlight | Full Time

Professor Flor Henderson is a biologist with expertise in botany, and an educator. Her work brings together science education, plant sciences, ethnobotany, plant histology and phylogenetics. She was born and raised in Cusco, Peru. She grew up in a landscape surrounded by nature, where plants are part of everyday life and culture. Her early upbringing shaped her curiosity and laid the foundation for a lifelong commitment to understanding the world of plants, and her desire to share her knowledge with others.

She earned her undergraduate degree in Biology from the Universidad Nacional de San Antonio de Abad del Cusco. During her early studies, she had the opportunity to collaborate with visiting scientist from the Smithsonian Institution conducting research in Manu National Park, one of the most diverse nature reserves on Earth. That connection sparked her interest in plant sciences and developed a special interest in the Palm Family (Arecaceae).

She worked as a research assistant at the Institute of Economic Botany at The New York Botanical Garden in the Bronx, gaining experiences that shaped her scientific training and approach to research. During that time, she completed a master's degree in biology at Lehman College and earned a Ph.D. in Biology from CUNY's Graduate Center. Her research focused on the study of the Morphology and Anatomy of Palm Seedlings, analyzing anatomical features and evolutionary relationships within the members of the family.

Professor Henderson joined Hostos Community College in 2003, where **teaching became central to her professional identity**. The **college's mission** resonated with her desire to provide a **wholesome education to students seeking to expand their professional horizons**. Early in her tenure, she sought to introduce botanical knowledge in the curriculum. She designed BIO 130 Plants and Society, with the goal of sharing her passion for plants while helping students appreciate the relevance of plants as sources of food, medicine, crucial for the environment, and valuable cultural assets. The course emphasizes practical experiences and real-world applications. Her efforts lead to the introduction of hydroponic farming practices in the classroom, providing students with unique experiences and introducing them to modern urban farming technologies.

For seven years, Professor Henderson served as Coordinator of the **Food Studies Program**, providing leadership during a period of institutional growth and innovation. In this role she was able to expand plant science into the curriculum by strengthening students' engagement, research skills, communication skills, and awareness about sustainability initiatives. **The Hostos Hydroponic Laboratory was established as a teaching and research resource for faculty and students.**

Professor Henderson's scholarly interest has been supported by PSC-CUNY Grants, CUNY Collaborative Grants, and USDA funded projects in collaboration with colleagues from Lehman College and The New York Botanical Garden. She has given undergraduate students opportunities to gain research skills while collaborating in her projects as active partners.

Professor Henderson's commitment to teaching, research, and leadership continues making science accessible, culturally meaningful, and empowering for Hostos Community students. She continues striving to inspire in her student appreciation and respect for the plant world, and a deeper understanding of its relevance in today's changing environments.



Prof. Flor Henderson



Hydroponic Towers

NSD | Hydroponic Production (2017 - 2024)



Tomato



Haba



Sage



Lemon Balm



Cilantro/Parsley



Swiss Chard



Cucumber



Lettuce



Mustard



Pak Choi



Arugula



Basil

Faculty Spotlight | Full Time

Professor Debasish Roy earned his Master's and Doctoral degrees in Biochemistry, with a specialization in Molecular Biology, from the prestigious University of Calcutta in India. During his doctoral training, he worked with the Rockefeller Foundation's International Program on Rice Biotechnology. Following the completion of his Ph.D., he joined the Biotechnology Research Laboratory at Toyama Prefectural University in Japan as a Research Professor under a fellowship from the Japan Society for the Promotion of Science, where he conducted postdoctoral research in Enzyme Biotechnology.

Subsequently, Professor Roy moved to the United States as an Invitational Fellow supported by the National Institutes of Health at the Center for Radiological Research at Columbia University in New York City. At Columbia, his research focused on radiation-induced breast cancer progression, where he developed a novel radiation-induced gene expression array platform aimed at the early detection of breast cancer. After several years, he joined the NASA Space Radiation Laboratory at Brookhaven National Laboratory as a Principal Beam Line Scientist, studying space radiation-induced genetic alterations in breast cell lines.

Driven by his strong passion for teaching and his affinity for the academic environment and diverse student population of New York City, Professor Roy later joined The City University of New York. He chose the Hostos campus for its welcoming, vibrant atmosphere and its strong connection to Latino culture, which resonated deeply with his own cultural background. At CUNY Hostos, he found a sense of belonging that further strengthened his commitment to education and mentorship. Professor Roy's primary research interest centers on differential gene expression in radiation-induced breast cancer progression. **Breast cancer remains one of the leading causes of cancer-related mortality among women in the United States, and its development involves complex, multistep genetic and molecular changes influenced by both environmental and biological factors. Utilizing advanced high-throughput technologies, his work aims to better understand these mechanisms and contribute to the development of targeted gene therapies.** In addition, Professor Roy is actively involved in research on antimicrobial resistance. His work explores the potential use of non-steroidal anti-inflammatory drugs as alternative treatments against antimicrobial-resistant strains. By studying resistant microbes collected from urban environments and analyzing their genetic profiles and responses to novel treatments, his research contributes to addressing one of the most pressing global public health challenges.

As an educator in the Natural Sciences Department, Professor Roy is deeply committed to student-centered teaching and lifelong learning. He believes that chemistry and biology are integral to everyday life and strives to present scientific concepts in a clear, engaging, and practical manner. His teaching philosophy emphasizes hands-on demonstrations, multimedia resources, and interactive learning strategies that encourage critical thinking and active participation. Through continuous assessment and open dialogue, he ensures that instruction remains responsive to student needs and learning styles. **Professor Roy values his close relationship with students, viewing them as partners in the educational process. Their curiosity and collaboration continually inspire him to refine his teaching methods and introduce innovative approaches, including advance exposure to subject material and visual learning tools.** He believes this integrated approach not only strengthens comprehension but also helps students make informed decisions about their academic and professional futures. Looking ahead, Professor Roy remains dedicated to advancing both teaching and research. He actively integrates emerging technologies, interactive software, and modern instructional strategies into the curriculum. He also supports the development of innovative, technology-enhanced classroom collaborations with other institutions and emphasizes the importance of strong mentoring and advising programs. Through these efforts, he continues to enrich the academic experience and foster student success.



Prof. Roy Debasish

Faculty Spotlight | Adjuncts



Prof. Jaime Brandao

I, **Professor Jaime Brandao**, was born and raised in Rio de Janeiro, Brazil, in a working-class family, and came to the United States at age 22. Navigating this transition has been a significant personal challenge and a formative experience.

I hold a bachelor's in mathematics from Queens College and a Master of Science in Education from Touro College, with additional studies in fields including Meteorology, Chemistry, Biology, Computer Science, Economics, and Marketing.

I began my teaching career in Rio de Janeiro, Brazil, supporting holistic development through school-community connections. Since 2007, I have taught mathematics and science to newly arrived immigrant students in the NYC Department of Education, creating culturally responsive classrooms that foster both learning and social-emotional growth. In 2010, I joined Hostos Community College as an adjunct lecturer, where I continue to support student success and engagement at the college level.

My teaching philosophy is shaped by both the content I teach and my classroom experiences. I believe learner-centered approaches foster meaningful, purposeful, and lasting learning. Respect for each learner and ongoing reflection guide my evolving teaching practice over time. I view teaching as a dynamic, collaborative process and encourage curiosity, critical thinking, and active engagement, as these make learning more engaging and enduring for students across diverse educational contexts.

Outside the classroom, I enjoy reading, travel, learning new languages, experimenting in the kitchen, and connecting with people from diverse backgrounds.

"Life has two rules: #1 Never quit; #2 Always remember rule #1." — Unknown author



Prof. Dennis Bates

Professor **Dennis Bates** holds a B.S. degree from Iona College, a M.S. degree from Fordham University, and completed ABD status at New York University. With over sixty years of dedication to education, he has served as a New York City high school science teacher, Mediator/Negotiator administrator, and as a Biology Professor at Hostos Community College, Fordham University, St. John's University, and several other New York and New York State community colleges. He also worked as a Process Microbiologist at Miles Laboratories (CDC-trained) and as an Animal Rides Supervisor at the Bronx Zoo.

A passionate world traveler who has explored Europe, Asia, Africa, and the Americas, Professor Bates has always embraced learning in all its forms. His experience reflects not only academic excellence but also a genuine curiosity about life, people, and cultures. Known for his interactive and developmental teaching style, he guides students from foundational knowledge to complex understanding through engagement, storytelling, and reflection. His academic and athletic scholarships, along with his enthusiasm for artificial intelligence, future technologies, and scientific advancements, reflect his curiosity and lifelong commitment to knowledge. Proudly of Italian heritage, he believes deeply in the idea that true teaching is a shared journey of learning and growth. Although not Muslim, he lives by the spirit of "Mashallah to Inshallah" even in teaching.

As he affirms, **"If the story is complete from start to finish, I have succeeded - and so have my students."**

In Loving Memory of Dr. Damaris-Lois Yamoah Lang

(March 21, 1975 – November 13, 2025)

The passing of **Dr. Damaris-Lois Yamoah Lang** in 2025 represents a profound and irreplaceable loss to our academic community and to all who had the privilege of knowing her. Her absence leaves a deep silence – one felt not only in the institutions she served, but in the hearts of colleagues, students, and friends who were forever changed by her presence.

Dr. Yamoah Lang dedicated her life to education with extraordinary passion and purpose. During her time at Hostos Community College and across multiple institutions, she distinguished herself as a leader, a mentor, and an advocate for excellence and equity. She believed in education as a transformative force and lived that belief daily, empowering others through her knowledge, her guidance, and her unwavering commitment to learning.

Beyond her professional achievements, Dr. Yamoah Lang was a remarkable human being. She was a colleague who uplifted others, a friend who listened without judgment, and a maternal figure whose care extended far beyond the workplace. She had a rare ability to make people feel seen, valued, and capable – even in moments of doubt. Her kindness, wisdom, and generosity created lasting bonds and a sense of community that will endure long after her passing.

For many of us, Dr. Yamoah Lang was more than an educator – she was a source of strength and inspiration. She offered encouragement when it was most needed, spoke with honesty and grace, and led by example in both her words and her actions. Her guidance shaped careers, her compassion shaped lives, and her legacy will continue to live on through the countless individuals she mentored and supported.

Though the pain of her loss is profound, we are grateful for the time we shared with her and for the indelible mark she left on our lives. We honor Dr. Yamoah Lang with deep love and respect, carrying her memory forward as a reminder of the power of humanity, dedication, and genuine care for others. She will always be remembered – not only for what she taught, but for how she made us feel.



Student Research Spotlight Internship Experiences



Blerina Sehiitaj

My academic background began at the University of Tirana, where I, **Blerina Sehiitaj**, earned Bachelor's and Master's degrees in Industrial and Environmental Chemistry. After immigrating to the United States, I continued my education at Hostos Community College and later transferred to The City College of New York (CCNY), where I am currently an undergraduate student majoring in Chemical Engineering.

From June 2023 to March 2025, I conducted undergraduate research in the Department of Chemical Engineering at CCNY, working on organic aluminum battery. **This long-term research experience was fundamental to my development as a scientist.** I learned how to design experiments, handle sensitive materials, troubleshoot unexpected results, and analyze data critically rather than simply collecting it. More importantly, I learned how research truly works—progress is often slow, failure is common, and persistence is essential. Over time, I became more independent in the laboratory, more confident in my decisions, and more thoughtful in interpreting results. The guidance and support of PhD students were especially important, as they provided mentorship not only in research but also in academic planning and internship preparation.

In June 2025, I participated in a **10-week research internship at KTH Royal Institute of Technology in Stockholm, Sweden.** There, I expanded my skills into microbial research, including microbial cultivation, anaerobic techniques, HPLC analysis, and the study of microbial physiology. This experience challenged me to adapt quickly to unfamiliar methods and collaborate across disciplines. I also learned **the value of patience and initiative, as I worked to earn trust and contribute meaningfully to ongoing projects.** Living alone in a new country strengthened my independence and resilience, both professionally and personally. Balancing focused research during the week with independent travel on weekends helped me grow more confident, adaptable, and self-reliant.

Together, these experiences taught me technical skills, scientific discipline, time management, and resilience. They confirmed my desire to pursue a research-focused career in chemical engineering, either in academia or industry, where innovation and problem-solving are central. These combined research experiences—one long-term and one intensive international internship—helped me grow both scientifically and personally. **They reinforced my commitment to chemical engineering research and clarified my interest in pursuing a research-driven career in academia or industry.**

Student Spotlight



Brian Flores Gerardo

Brian Flores Gerardo is a young, legally blind, first-generation Mexican-American college student, lifelong scholar, and advocate. He has been fascinated by Earth's intricate systems and biodiversity for as long as he can remember. At heart, he **believes his purpose is to protect the planet**, which led him to major in Liberal Arts and Science and enroll at Hostos, where accessibility, community, and proximity to home made it the right place to sprout.

At age eleven, Brian was diagnosed with glaucoma. Although total blindness was prevented, adapting to vision loss proved academically challenging. Through perseverance, assistive technology, and reasonable accommodations, **he applies critical thinking in both lecture and laboratory settings, engaging meaningfully with scientific material and enriching his understanding of the world around him.**

Beyond the classroom, Brian has served as Vice Chair of Finance for the CUNY Coalition for Students with Disabilities. He currently serves as Vice President for Academic Affairs and Chair of the Hostos Student Senate, as well as an alternate to the CUNY University Student Senate.

Brian aspires to **become a world-class scientist and environmental advocate dedicated to protecting the Earth.** While the universe is vast, he believes meaningful change is possible through collective effort and the support of friends, family, mentors, and community. **When doubt arises, he recalls the words of Toshinori Yagi: "Young man, you too can become a hero."**

Outside the classroom, Brian enjoys creative writing, anime, reading science articles, and the occasional fighting game tournament—embracing curiosity in all its forms.

Staff Spotlight | College Lab Technician



Michael Padilla

Michael Padilla has been working at Hostos for 13 years. From June 2023 to August 2024, he also worked as a College Assistant in the Natural Science Department. He graduated from the Fashion Institute of Technology (FIT) with a bachelor's degree in fine arts. Born and raised in the Bronx, Michael is of Guatemalan descent and a first-generation college graduate. During high school, he was enrolled in the Naval Junior Reserve Officers Training Corps (NJROTC) and was hand-selected to represent his school at the NJROTC Leadership Academy, highlighting his leadership and dedication early on.

Before joining Hostos, Michael worked at AMC Theatres, where he had the opportunity to watch newly released films and meet celebrities. He joined Hostos after a mutual friend encouraged him to apply for a College Laboratory Technician (CLT) position, believing that Michael's passion for science would make him a perfect fit.

In his role, Michael works in both the biology and chemistry preparation rooms, where he enjoys preparing laboratory materials for students and supporting hands-on learning. He values the opportunity to collaborate with faculty and build meaningful connections with professors. Michael aspires to help others whenever he can and takes pride in being present and supportive for those in need.

A fun fact about Michael is that he is an artist skilled in both traditional and digital media.

As Michael puts it: **"I'm enjoying the uselessness of today and readying my usefulness for tomorrow."**

Staff Spotlight



Dane Guerrero

I am **Dane Guerrero**, born and raised in the Dominican Republic, I was deeply shaped by values centered on community, resilience, and respect for diversity. This background has strongly influenced my perspective and reinforced my commitment to diversity, equity, and inclusion, allowing me to connect meaningfully with the Hostos community.

I earned my associate's degree from Hostos Community College and hold a bachelor's degree in liberal arts from Hunter College. These experiences provided a strong foundation for my professional growth. Prior to joining Hostos in 2015, I worked at the Hunter College Library, where I developed valuable skills in teamwork, collaboration, and service. Supporting students, faculty, and staff strengthened my appreciation for working collectively toward shared goals.

I chose to work at Hostos because of its mission to serve a diverse student population and its dedication to access, opportunity, and academic excellence. Being part of an institution that prioritizes community engagement and student success is both meaningful and rewarding.

Outside of my professional role, I actively volunteer at my church and assist friends and family with application processes, medical and benefits forms, and tax preparation. This work allows me to give back while remaining closely connected to the communities I care about.

Fun Facts: **I enjoy walking and traveling, and cooking is one of my talents**—a skill I've loved since learning it at the age of seven.

"The simple things are also the most extraordinary things, and only the wise can see them." — Paulo Coelho

Featured Alumni



Ricky Bhola

Ricky Bhola began his higher education at Hostos Community College where he majored in Civil Engineering earning an A.S. degree, he then went on to complete his undergraduate degree in Civil Engineering at CCNY Grove School of Engineering and eventually a Master's of Science in Geotechnical Engineering at NYU Tandon School of Engineering. Ricky emigrated with his family from Guyana to the United States and grew up in Queens, New York. As children of immigrants there is the expectation to succeed, since our parents sacrificed everything to give us a better opportunity. Engineering school is also demanding with the implied competition among students to secure internships and jobs immediately after graduation. With the help of professors at Hostos and CCNY, he was able to secure internships at NASA, US Department of Energy, and the NYC Department of Transportation, gaining valuable and insightful real world experience. Ricky is currently a Senior Project Engineer with Michael Baker International, working on transportation projects in New York City. **Through a partnership with Bridges to Prosperity (now Fika), Ricky was able to travel to Rwanda in the spring of 2025 where he assisted in the construction of a 95-meter pedestrian bridge which would facilitate safer access to healthcare, education, and marketplace.** Ricky enjoys scuba diving and hiking. He has logged over 75 dives and has completed a solo hike to the Mt. Everest Base camp.

"Chase your curiosity, it already knows the way, even when the map is upside down."

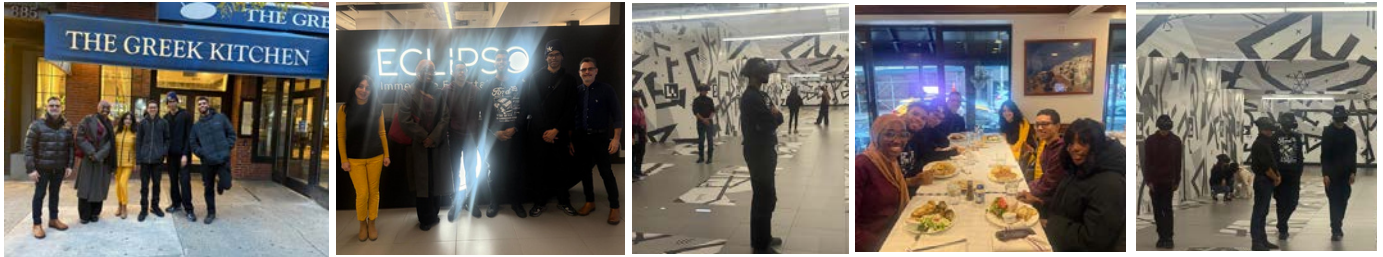
Events

- S-STEM Scholars Meeting, October 2 – 4, 2025, San Diego, CA
- Field Trip to Tonight with the Impressionists, Paris 1874 | November 14, 2025, New York, NY
- STEM Graduates Celebration, December 9, HCC, New York, NY
- Natural Sciences Department, End-of-Semester Celebration, December 11, HCC, New York, NY
- HEAT End-of-Semester Celebration, December 19, HCC, New York, NY

S-STEM Scholars Meeting



Field Trip



STEM Celebration



HEAT Gathering



NSD | End-of-Semester Celebration | December 11



NSD | Highlight in Scholarship

Peer-Reviewed Articles

- Manakbayeva, A., A. Bogoyavlenskiy, T. Kerimov, I. Yershov, P. Alexyuk, M. Alexyuk, V. Berezin and **V. Dushenkov** (2025). Gallic, Aconitic, and Crocetin Acids as Potential TNF Modulators: An Integrated Study Combining Molecular Docking, Dynamics Simulations, ADMET Profiling, and Gene Expression Analysis. *Molecules*. 30(15): 3175.
- Oviedo, S., **Rodríguez, Y.**, and Varelas, A. (2025). Building a Culture of Grantsmanship at an Urban Community College via Internal Funding Opportunities. *Journal of Research Administration*. Vol. 56, No. 2:88–102.
- Ramachandra, N., Vegivinti, C.T.R., Sahu, S., Sanawar, R., **Rivera-Peña, B.**, Aminov, S., Fromowitz, A., Zhang, J., Aodengtuya, F., Pradhan, K., Zhao, R., Schwartz, L., Alluri, S., Thiruvananthapuram, V., Rabinovich, E., Ajibade, O., Gordon-Mitchell, S., Shastri, A., Deken, M., Yingling, J.M., Sawyer, S., Lahn, M., Verma, A. (2025). Transforming growth factor beta receptor type I (TGF- β RI) kinase inhibitors IOA-359 and IOA-360 stimulate erythropoiesis in MDS. *Leuk Lymphoma*. 66(5):920–929.

Grants

- **Amarante, D.** Redesigning & Modernizing General Chemistry Laboratory Experiments for Enhanced Chemistry Learning. 2025 IDEAS Project (\$1,000).
- Oviedo, S., **Rodríguez, Y.**, Sosa, K. NSF-funded VOLARÉ Institute 2025 – 2026. Visioning, Organizing, Leading, and Advancing the Research Enterprise. Participants.

Conferences

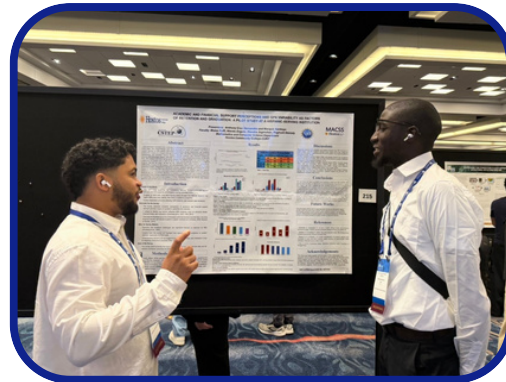
- Acosta, K., R. Abzalimov, S. Mavlonazarova, S. Satorov and **V. Dushenkov**. (2025). Ferula violacea metabolomics: organ-and extraction-dependent phytochemical profiles revealed by untargeted UHPLC-QTOF analysis. Metabolomics of plants, humans, and microorganisms., Dushanbe, Tajikistan, Medical-Social Institute of Tajikistan.
- **Dushenkov, V.** (2025). Demystifying the Role of AI in Biological Science and Medicine Research. 3rd International Conference on Natural Products and Chronic Diseases (IC-NCD), Jakarta, Indonesia, UNAS.
- **Dushenkov, V.**, S. Mavlonazarova, R. Abzalimov, K. Acosta and S. Satorov (2025). Effect of organs and sample processing methods on F. violacea metabolite composition. Metabolomics of plants, humans, and microorganisms., Dushanbe, Tajikistan, Medical-Social Institute of Tajikistan.
- Henkin, J. M., W. H. Perera, R. R. Abzalimov, J. Chen, J. B. Scarsella, A. Boudreau, J. M. Stephens, E. R. M. Zunica, S. Satorov, **V. Dushenkov**, N. T. Bello, S. E. Fields, M. Ashworth, K. Acosta, A. Kaz and I. Raskin (2025). Phytochemistry and bioactivity of two species of aphid-induced Tajikistani Pistacia vera L. (pistachio) galls and comparative fruit, gall, leaf, and resin materials. 23rd Annual International Conference on the Science of Botanicals (ICSB), Oxford, MS, USA.
- Henkin, J.M., S. Satorov, F.D. Mirzoeva, **V. Dushenkov** and S. Sultonov (2025). Metabolomic profiling and bioactivity of aphid-induced galls in Tajikistani Pistacia vera L. (pistachio). Metabolomics of plants, humans, and microorganisms., Dushanbe, Tajikistan, Medical-Social Institute of Tajikistan.
- **Manukyan, A.** (2025). Chirality-Driven Enhancements in PNA Binding: Structural Insights and Applications. TechConnect World Innovation Conference & Expo, June 9–11, 2025, Austin, Texas.
- Berete, D, Ahmed. F, **Rivera-Peña, B.**, Aragon, R., Garrett, C., Chauhan, V., Brittany Miller, B., Moadel-Robblee, A. Sociodemographic Correlates of Cancer Underscreening in a Bronx Community Sample. MECCC Annual Scientific Retreat: Building Bridges. Bronx, NY. September 2025.
- **Lalsingh-Kearns, M.** Optimizing AI Processing in Collaborative Practice Agreements (CPAs) to Alleviate Insurer Drug Expenditure in Pain Management. Pennsylvania Society of Health-System Pharmacists Conference. September 11–12, 2025, Poconos, PA.

Contribute

- To make a gift to benefit **students** attending **Hostos Community College**, please visit www.givetohostos.com
- To make a gift to benefit the **Natural Sciences Department** specifically, please contact Idelsa Méndez at imendez@hostos.cuny.edu or **718.518.4341**



Student Research – Jade Blando Rodríguez
Faculty Research – Prof. Anna Ivanova



Student Research – Anthony Cruz Hernández
and Mohamed Bachir Cisse



Student Research and Mentors 2025 CUNY Research Scholar Program – CRSP Symposium



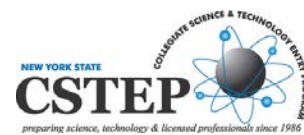
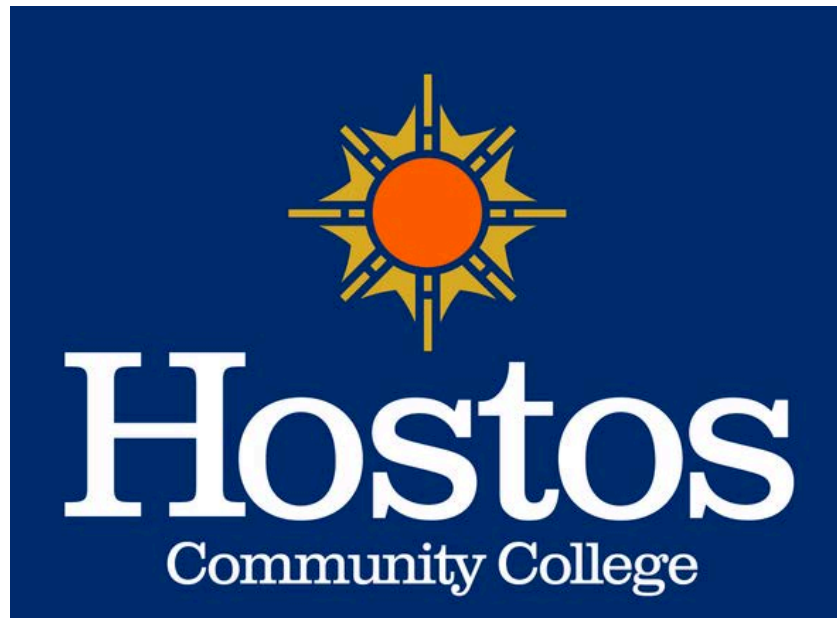
Education – STEM Students



Student Research – Loveline Nwankwo
Research Mentor – Prof. Soheli Chowdhury
Provost Andrea Fabrizio

Newsletter Committee

- Prof. Yoel Rodríguez
- Ms. Karin Contreras
- Prof. Daniel Amarante



The Natural Sciences Department thanks the Office of the President, Office of Academic Affairs, Hostos Research Center, Communication Office, the Mathematics Department, National Science Foundation, National Institute of Health, Campus Operations, STEM Clubs, Institutional Advancement, Office of Student Activities, Student Government Association. Thank you all for your support!