Hostos Community College | CUNY

# Natural Sciences Department

# NEWSLETTER

## FALL 2024


**Dr. Yoel Rodríguez**
**Professor and Chairperson**

Dear colleagues, students, and alumni,

Happy New Year! On behalf of the Natural Sciences Department (NSD), I want to wish you all much happiness, health, and success in 2025!

In this inaugural edition of the **NSD Newsletter | Fall 2024**, I am proud to share the initiatives and events that our department held and/or participated in during Fall 2024. Among them you will see the highlight about the **2024 Science Week – Open House**, which included over 125 participants and the **CUNY BMI Day Celebration at Hostos** which shined once more. We celebrated for the first time our **STEM Graduates** together with the Mathematics Department. It was amazing! The **HEAT End-of-Semester Gathering,** wrapping up five-year project, was moved and inspirational. HEAT team was awarded a new NSF grant for $2,000,000 to support 30 Scholars. Here, we also welcome **new members of the NSD** and highlight the work of some faculty and staff who have been contributing to our department for many years. We also **got together and celebrated the holidays** at the end of the year 2024. In addition, the **department secured NIH funding** in collaboration with external partners. **The NSD plays a key role in educating not only our students, but also our community by creating a forum for meaningful discussion about true science – much needed in these times**. Thus, I invite you to read more about the NSD, its events, students, alumni, and accomplishments in this NSD Newsletter.

Our NSD vision goes hand in hand with the College mission; to keep providing high quality in educational programs in Science, Engineering, Forensic Science as well as in support courses for Associate in Applied Science degrees, Allied Health Science and Liberal Arts programs. Our priorities are to 1) continue providing **excellence in education** embracing the new AI era, 2) **create new academic programs** aligned with the need of the NYC and nation's workforce, 3) enhance **undergraduate research and internship opportunities**, 4) furnish our NSD l**aboratories with state-of-the-art facilities** to better prepare our students, and 5) encourage and support **faculty and staff to apply for internal and external funding opportunities**.

I want to thank Madame President Daisy Cocco De Filippis and Provost Shiang-Kwei Wang for their tireless support of our department and students. The NSD is looking forward to working with each of you to strengthening our academic and research programs, and to have a wonderful and successful 2025. Good luck and most important, enjoy what you do! Thank you very much!

Yoel

# Fall 2024 Science Week – Open House

The **Natural Sciences Department | 2024 Science Week – Open House** celebration on November 18 - 22 was a great success!

There were **over 125 students, faculty, staff, and administrators** attending the events on Wednesday, November 20 including the Keynote Presentation by Dr. Bianca Rivera Peña, STEM Student Research Presentation and Robotics Exhibition, STEM Conversation - Internship Experiences Panel. We also had a myriad of Teach-in activities, Workshops, Seminars, and the Hostos STEM Olympiad during the week of Nov 18. Thank you! Amazing collective effort!



**Presenters and Attendees at the Natural Sciences Department | 2024 Science Week - Open House**

# Keynote Presentation

## Bridging Science and Community: Advancing Cancer Research, Awareness, and Wellness in the Bronx

**Dr. Bianca Rivera-Peña** delivered an impactful keynote presentation during **2024 Natural Sciences Department Science Week - Open House**, emphasizing the importance of connecting groundbreaking research with community needs to address health disparities. Focusing on the Bronx, she showed how **basic science discoveries, such as the role of microRNAs in gene regulation, ehave transformed the understanding of cancer biology**. MicroRNAs have emerged as powerful tools for early cancer detection, offering the potential for non-invasive diagnostics and personalized treatment strategies.

Dr. Rivera-Peña highlighted the ongoing disparities in cancer detection and treatment within underserved communities, stressing that social, cultural, and systemic barriers exacerbate these challenges. **For instance, in the Bronx, differences in screening rates and outcomes often result from multiple community barriers which include medical mistrust, lack of health insurance, and time constraints.** She shared actionable strategies to overcome these barriers through initiatives like the Bronx Oncology Living Daily (BOLD) program, which provides free wellness workshops, cancer support groups, peer mentorship, and cancer screening assessments to the community. Through BOLD's Integrative Oncology approach, residents gain access to vital resources that enhance awareness, foster trust, and improve health equity. **Dr. Rivera-Peña called for greater inclusion of diverse populations in cancer research, emphasizing that diversity drives innovation and progress.**

**Bianca Rivera-Peña, PhD**
**Project Manager**
**BOLD Cancer Wellness/Psychosocial Oncology Program**
**Montefiore Einstein Comprehensive Cancer Center**

Her **presentation served as a powerful reminder of the need for inter-disciplinary collaboration between researchers, healthcare providers, and communities to advance cancer care and improve survival rates.** Dr. Rivera-Peña's message underscored the critical role of community engagement in translating science into meaningful health outcomes.

# Food Studies: A Story of Innovation, Succcess and Legacy

By Dr. Flor Henderson

The Associate in Science Degree in Food Studies was launched in 2016. The program offered Hostos Community College students a unique opportunity to explore a field of **critical importance, food systems education. The program addressed topics such as food scarcity, hunger, malnutrition, food production, and the social, economic, and environmental factors influencing food access.** Students were immersed in an interdisciplinary platform aimed to understanding and addressing some of the most significant challenges related to food security and sustainability in contemporary society.

After eight years of infusing these innovative and impactful experiences, the program was archived in the fall of 2024. With that the Natural Sciences Department closed a chapter that is leaving a legacy that will endure through its graduates and their contributions to the betterment of society. Nearly **forty students completed the degree, some of them are continuing their academic journeys at four-year colleges, others are in the workforce**, all applying their knowledge and skills to improve the food systems and advocate for social equity that were embodied in the mission of the program.

The achievements of the **Food Studies alumni would not have been possible without the work and dedication of the faculty and staff of our institution**, some of whom crossed academic boundaries to contribute to the academic foundation of the students.

**Food Studies students benefited from receiving a comprehensive education** to help reframe the food sector and food landscape of disenfranchised communities affected by traditional planning and policy inequities, by putting those challenges at the very center of knowledge acquisition, planning and generation. **The Natural Sciences Department remains proud of its graduates and grateful for the efforts of everyone involved in this unique educational endeavor.**

# Faculty Spotlight | New Members

## Prof. Jennifer Sabour

**Professor Jennifer Sabour** joined Hostos as a lecturer in Spring 2023. She received her master's degree in science from Brooklyn College with a specialization in microbiology. Her philosophy of education is echoed in Albert Einstein's famous quote, **"education is not the learning of many facts, but the training of the mind to think."** To successfully implement this philosophy in the classroom, she believes there are four essential elements that are conducive to student learning: 1) Implementing critical thinking questions, 2) Partaking in hands-on activities, 3) Consistent analysis and interpretation of science data, and 4) Utilizing interactive technology.

At Hostos, Professor Sabour has taught microbiology, anatomy and physiology I & II, organismic biology, and general biology II. **Her research interests include public health and infectious diseases,** and she has recently **co-published a research article entitled, "Evaluation of Plant Essential Oils as Natural Alternatives** for Alcohol-Based Mouthwashes: Spotlight – Lemongrass and Citronella Java" in the European Journal of General Dentistry in February 2024.

Professor Sabour was also a **recipient of the IDEAS** (Innovating, Developing, and Executing Actions with Success) sponsored by the Hostos Research Center (HRC) Committee on Sponsored Programs and Grants (CSPG). Her grant **project examines whether the use of Smart Boards improve student engagement and achievement**. At Hostos, she is **passionate and dedicated to helping students optimize their science academic performance and literacy skills** by sharing her research experiences and skills. In her free time, **Professor Sabour enjoys traveling and interacting with animals, particularly her old friend, Beethoven the beluga whale.**

## Prof. Daniel Amarante

**Professor Daniel Amarante** received his Bachelor of Science in Chemistry, with minors in physics and mathematics, from St. John's University and a Ph.D. in Chemistry from Stony Brook University. He has taught college level chemistry and physics for the past fifteen years. His research focuses on synthesizing inorganic complexes that have biological/medical (e.g. anticancer agents), technological (e.g. solar cells) and catalytic applications. Cancer studies and renewable energy are critical areas that require additional research to improve our way of life. By understanding the photochemical and photophysical properties of these inorganic complexes we can, in turn, develop new medications and more efficient light-harvesting materials. Professor Amarante's **areas of expertise include inorganic chemistry, bio-inorganic chemistry, organometallic chemistry, analytical chemistry, X-ray crystallography, and catalysis. In addition, he has a growing interest in chemical education**. The reason why he chose Hostos, which has a large population of minority students, is because being a Latino-American (family from Dominican Republic), **a first generation born and the first in his family to receive a college education he has a unique understanding of the Hostos students and their background**. Professor Amarante wants to inspire and mentor students to show them that a first-generation born Latino can be successful in the scientific field and that nothing is beyond their reach.

Professor Amarante recently started at Hostos during the Fall 2024 semester. At Hostos, Professor Amarante taught Introduction to Chemistry, General Chemistry I and Environmental Science Lab. In addition to teaching, Professor Amarante is a **member of several professional societies** such as the **American Chemical Society, New York Academy of Sciences, National Science Teachers Association and Society for College Science Teaching.** He is also a member of several honor societies such as Sigma Xi Research Honor Society, Pi Mu Epsilon Mathematical Honor Society, Kappa Mu Epsilon Mathematical Honor Society and Gamma Sigma Epsilon Chemistry Honor Society. Also, he has received academic honors and fellowships such as the Peer Based Learning (PBL) Fellowship (2024), Godfrey Excellence in Teaching: Physical Sciences (2021), The Center for Excellence in Learning and Teaching "Thank-a-Teacher" (2021) and GAANN Fellowship (2006). Recently, he has been accepted to **participate in the Association of College and University Educators Program for Elective Online Teaching Practices.**

# Faculty Spotlight | Adjuncts

## Prof. Faina Riftina

On July 4, 1976, I boarded a plane to Austria, leaving my family, my comfortable life, my dear trusted friends, and the city of my birth, Moscow, USSR, where I worked at the Institute of Biological and Medical Chemistry in the Protein Chemistry lab as a Research Scientist while pursuing my dissertation. **There was no way back for me; I became "an enemy of the people."**

When I explain why I left the Soviet Union some shake their heads in disbelief. But it's true; the reasons for which I decided to emigrate to the United States were neither political nor economic. **My decision came from learning about new Western discoveries in the fields of Biochemistry and Molecular Biology.** I felt that the science in those fields was moving fast and I wanted to be a part of that process. In the Moscow lab, by contrast, I felt as if I was sinking in a marsh.
In the **United States, I had a successful research career at the University of Chicago's Department of Biochemistry; at Hunter College, where I obtained my Ph.D. in Biochemistry; and as a postdoc in the Neuroendocrinology lab at Rockefeller University.**

Last September marked my 30 years anniversary at both Hostos CC and NYU.

**My teaching philosophy is, first make students feel comfortable with me to ask questions or enter a discussion.** I try to challenge them with questions to make them think and to stimulate their curiosity, to inspire them to learn more, and even to look beyond their current goal. **My motto is "Per Aspera ad Astra."**

As for my other interests, my husband and I maintain memberships at the Metropolitan Museum of Art, MOMA, the Museum of Natural History, the NYC Botanical Garden, and the Bronx Zoo. We also have seasonal subscriptions to concerts at Carnegie Hall and Alice Tully Hall, and to the New York City Ballet, and we love traveling.

After coming to NYC **I learned to play tennis, downhill ski, dance Argentine tango, salsa, merengue, and English Country Dance.**

## Prof. Christopher Pascoff

I've been teaching at Hostos since spring 2013. My educational background is rather eclectic; the most relevant parts are **my undergraduate degree in physics from Massachusetts Institute of Technology (MIT), and coursework toward a Ph.D. in philosophy of science at Columbia**. My abiding scholarly interests are in history and philosophy of natural sciences, with a focus on problems in the foundations of physics.

I view teaching as a constant dynamic tension between concrete reality and lofty aspiration. The reality: we must meet our students where they are, with their mixture of life circumstances, motivations, often harsh past educational experiences, and often unflattering self-images of themselves as learners. The aspiration: despite all these practical realities, **the goal of all natural science pedagogy is to generate and nurture the sparks of authentic curiosity about the natural world.** This tension is present in all our courses, for all our students, whether LAS, engineering, allied health, or general education.

I feel a special duty regarding teaching elective courses. The undergraduate course that made the deepest, most enduring impression on me was an elective, unrelated to my major: Contemporary Issues in Politics and Ideology, taught by Noam Chomsky. This remains a model for me of how an **elective course can broaden the student's intellectual horizons, not only with content, but with the spirit of free inquiry and the habits of critical discourse**.

Why Hostos? Our **structure** of a Natural Sciences Department, **rather than separate departments for separate sciences, has enabled me to teach a wider variety of courses** than would have been possible elsewhere. This is an ongoing privilege for me.

# Staff Spotlight | College Lab Technicians

## Ms. Karin Contreras

**Ms. Karin Contreras** has been working at Hostos Community College for eight years. She began this journey as an Adjunct College Lab Technician, which gave her the opportunity to broaden her horizons. Six years ago, she started working in Food Studies, focusing on hydroponics. That experience was one of the most interesting in her career. **She worked with twelve hydroponic towers, which allowed her to explore an entirely new world here in the South Bronx.** We could say it was one of the first communities to incorporate hydroponic towers into its classrooms.

She also work with BMI, which excites her because it gives her the energy to believe in the immense talent at Hostos. The students have such promising futures. **She is a teacher at heart.** She holds a Bachelor's degree in Education from the National University of San Marcos, as well as an Associate's degree from LaGuardia Community College. Additionally, she have earned a wide range of certifications in hydroponics.

Being at Hostos has given her the chance to be part of various research projects. **The most recent one she contributed to was for LSAMP, where she provided plants grown through hydroponics.** It was a pleasure to assist and be part of their work. She is also very proud to be part of the **Young Center for Immigrant Children's Rights, where she serves as a Child Advocate**. This is something not many people know about her, but it fills her with **pride to dedicate her time to those in need**. Finally, she is honored to be part of the editorial team for this newsletter.

**"Time brings everything that belongs to you"**

## Mr. Emilio Peña Torrez

In my 66 years on Earth, I have had the opportunity to earn a Bachelor's Degree in Education with a concentration in Chemistry and a Master's Degree in Environmental Science. Over the years, **I have gained expertise in teaching chemistry and conducting extensive experimental work.** This includes not only collecting environmental samples such as soil, sediment, water, and tissues, but also analyzing them to determine the presence of heavy metals and other pollutants.

Before coming to Hostos, I worked at the National Autonomous University of Nicaragua (UNAN). I have now been at Hostos for 9 years, and **I truly believe that the unique features and values of New York City are reflected in this extraordinary college. I am so happy to work her**e.

**As a College Laboratory Technician, I feel that my work is extremely valuable to the staff, students, and faculty, and I take great pride in being a resource that they can rely on. I am always happy to help whenever I can.**

My first language is Spanish, and my family has a strong Catholic tradition. I enjoy collaborating with others to achieve collective goals.

Something funny: When I first started my professional career, I began as a CLT (College Laboratory Technician)!

**"Never say 'No,' even if the pain consumes you." - Unknown**

# Staff Spotlight | New Member

## Ms. Tanya Navarro

**Ms. Tanya Navarro** is a proud Hostos alum of Puerto Rican descent and mother of two. She earned her associate's degree in liberal arts from Hostos but now holds degrees in social work and education. Prior to joining the Natural Sciences team, where she provides vital support for both faculty and students, she worked in Hostos' Legal Affairs and Labor Relations Office and Bronx Community College's Admissions Office. With Tanya's return to Hostos, **it serves as a new beginning in which she hopes to be a source of support to faculty, students, and staff.** Tanya is excited to see where the future takes her career wise and with her personal pursuits.

**Fun Facts:**

Tanya volunteers with God's Love We Deliver, an organization that prepares and delivers free meals tailored to the medical needs of clients and their families.

Tanya is interested in the esoteric arts and has a tarot channel on YouTube.

**"Sometimes you will never know the value of a moment until it becomes a memory." - Dr. Seuss**

# Student Spotlight

## Marilin Rodríguez

**Marilin Rodríguez** is currently pursuing an **associate in Science** at Hostos Community College. Throughout her academic journey she has been leaning towards research and public health in order to serve within her community.

She is the eldest of three sisters and a proud Mexican American, representing the first generation in her family to attend college.

She is graduating as Science, A.S., which allows her to explore interdisciplinary knowledge and develop a strong foundation for future studies in STEM and public health.

**Hostos provided a sense of community and trust that she hadn't experienced before.** The professors' unwavering dedication to their students' success, the faculty's commitment to research opportunities, and the abundance of resources they make available all reaffirmed her decision. **Hostos has become more than just a college—it's a place where she feels supported and inspired to grow.**

In the future, she sees herself **thriving in the STEM field, advocating for critical issues that demand attention, and contributing to research that creates meaningful change**. She believes that perseverance in seeking knowledge and solutions can inspire others to join efforts in addressing the root causes of societal challenges.

**Her family has been her greatest source of inspiration, particularly her parents whose sacrifices and hard work have allowed her to pursue opportunities they never had.** Additionally, professors and mentors at Hostos have shown her the transformative power of education and mostly perseverance.

**"Every challenge is an opportunity to grow, and every small step forward contributes to a larger impact on the world around us."**

## Altagracia De La Rosa

Born and raised in NYC to parents from Dominican Republic, **Altagracia De La Rosa** is a soon-to-be graduate pursing her Associate in Science degree in **Environmental Engineering at Hostos CC**. Looking for an academic institute with amazing opportunities and reasonably priced tuition, Altagracia has been attending Hostos on a part-time basis since July 2021. While studying, she has had the privilege of serving as the **president of the Science club; supporting LAS-AS students as a research assistant with ADELANTE; attending HACU, an international conference, in Salamanca, Spain; and gaining research experience as a CRSP and LSAMP scholar.** She has been a part of research teams investigating environmental topics, including isotope geochemistry applications in paleoceanography and the use of phytoremediation for water contaminated with heavy metals. **None of this would have been possible without the amazing support of her professors and mentors at Hostos.**

During her free time, Altagracia likes to rest and spend quality time with family and friends eating delicious food. In the future, she hopes to obtain a **role where she can help solve environment issues and protect human health.**

**"You may forget what you're capable of but those who know you best won't — believe them."**

# Student Research Spotlight | Internship Experiences

## Jose A Keppis

**Jose A Keppis** is an **Earth Systems Science and Environmental Engineering** major at City College, CUNY. During summer 2024, he interned with **NOAA NESDIS JPSS LEO Office in Washington, DC, and Suitland, Maryland**. His project focused on analyzing JPSS VIIRS products for Urban Heat Island studies, specifically in Houston, Texas, using GIS. He assessed the feasibility of these products for accurate evaluations of Urban Heat Island effects.

The internship **provided mentorship from NOAA and NASA teams**, a professional network through the JPSS team, and transformative experiences with fellow interns. Access to official NOAA emails broadened his engagement with events and webinars, furthering his involvement with NOAA.

**This experience reinforced his passion for remote sensing and data science, shaping his goal to pursue a PhD and a career as a NOAA physical scientist.** He aspires to contribute to satellite projects and influence instrument specifications while also becoming a professor to advance research and mentor future scientists.

A **major challenge was adapting to the fast-paced work schedule and solving issues** like data validation and automation. He overcame these obstacles by seeking support from NOAA-NASA team members, who offered innovative solutions.

Dr. Yoel Rodríguez, his mentor at Hostos Community College, **inspired his with his dedication and accomplishments, transforming Keppis life and academic journey.**

**"A pathfinder may feel lost and scared, but they move forward, knowing fear is just the shadow of their courage to achieve greatness."**

## Sor A Bello Meléndez

**Sor A Bello Meléndez** was born in Dominican Republic. She is currently majoring in **Earth Science and Environmental Engineering** at The City College of New York. This past summer of 2024, she participated in an internship at the **National Oceanic and Atmospheric Administration (NOAA**) as an Educational Partnership Program with Minority Serving Institutions (EPP/MSI) scholar, class of 2024, in Silver Spring, Maryland. During this summer, she worked with satellite imagery in the JPSS office Low Earth Orbit (LEO) to evaluate power outages and socioeconomic disparities. **She used satellite imagery to evaluate power outages in Lee County, Florida.** She evaluate how power was restored in different neighborhoods with varying socioeconomic statuses. Her background in doing research at Hostos highlights an influence on my performance during this research as she was able to use different skills like critical thinking, time management, and read academic papers for literature reviews. **One of the skills she brought back is that she learned how to do remote sensing using Geographic Information System (GIS) and how to obtain and process satellite imagery.** This experience was enlightening for her as it reaffirmed her passion for working as an environmental scientist, finding new ways on how science can be applied to help underserved communities.

During her internship, she was completely new to remote sensing, **but thanks to the help of her mentor, she was able to excel as well** as thanks to the resources her mentor provided her with. In the future, she sees herself working either for NOAA or DEP as a water quality scientist. The people from whom she found major inspiration were her research mentors and lab instructor; they supported her and encouraged her to try different research projects. **By attempting the impossible, she not only learned new skills but also uncovered new aspects of herself.**

**"It is in the exploration of limits that we often find our true potential."**

# Student Research Spotlight | Internship Experiences

John M Santana

**John Manuel Santana** is a mechanical engineering student at The City College of New York. He worked as an intern from June to August at the California Institute of Technology (Caltech) in the summer of 2024. He had the practical and technically challenging responsibility of designing, building, and running the hot fire testbed for the PILLARS project during his internship. He had some basic SolidWorks experience before the internship, but he was able to greatly enhance his skills, especially with the assembly menu. Additionally, he discovered how crucial it is to refrain from overengineering, which has improved his design methodology. **His enthusiasm for mechanical engineering, particularly in the aerospace industry, was strengthened by this internship. Notwithstanding the difficulties, the experience was priceless and gave him confidence that is headed in the right direction.** Although his professional objectives have not changed, the knowledge he have acquired has strengthened his dedication to his field. Overcoming imposter syndrome was one of the biggest challenges he encountered. He dealt with this by proactively asking questions and seeking advice, which boosted his confidence and improved his relationships with his team. In the future, he envisions himself working for an aerospace company, a Department of Energy national laboratory, or NASA's Jet Propulsion Laboratory at Caltech, designing lunar application systems or renewable energy systems. Although he doesn't have a particular source of inspiration, **"Remember why you started your journey"** is my guiding principle. This helps him stay motivated and focused so he can accomplish his goals.

# Featured Alumni

Yassine Gaye

**Yassine Gaye** is a junior majoring in Chemical and Biological Engineering at Princeton University. She transferred in the fall of 2023 after completing her associate's degree in Chemical Engineering at Hostos Community College. Originally from Dakar, Senegal, Yassine enjoyed being actively involved in student government, the Student Leadership Academy, and the Black Male Initiative during her time at Hostos. **These organizations provided a supportive community of peers she could rely on and thrive with as a first-generation student.**

**The bonds she formed during professional conferences, such as those organized by HEAT, continue to last beyond her time at Hostos.** Many of her former peers and mentors remain valuable sources of advice, whether she's making decisions or seeking insights about personal and professional growth. **This supportive network helped her overcome challenges like misinformation about college and the resources available for academic success.**

Now, **at Princeton, Yassine's biggest challenge is adjusting to the new environment.** Despite this, she is hopeful and excited about beginning her senior thesis, with the topic still to be determined. Upon graduation, she plans to work in the industry while pursuing graduate school part-time. **Yassine holds an orange belt in karate!**

**"If you strongly believe in something, go after it. When it gets so hard that you want to quit, remember why you started in the first place and keep pushing through. Things will fall into place. If you weren't meant to accomplish it, the idea wouldn't have crossed your mind, trust me!"**

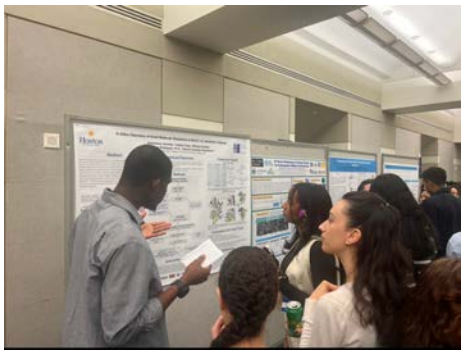
# Student Conference Participation

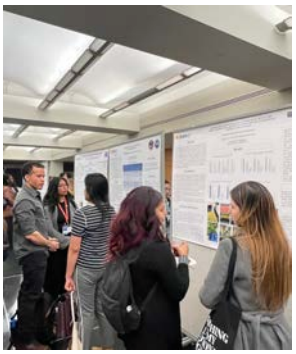
- 2024 CRSP Annual Symposium, June 24, LaGuardia, New York, NY
- 2024 SWE Conference, October 24-26, Chicago, IL
- 2024 NSF S-STEM Scholars and PI Meeting, November 8-10, Chicago, IL
- 2024 Young Research Symposium, November 8, CUNY Graduate Center, New York, NY
- 2024 ABRCMS Conference, November 13-16, Pittsburgh, PA

CRSP Symposium

SW24


Young Researcher Symposium





ABRCMS

# Events

- 2024 CUNY BMI DAY at Hostos, October 16, HCC, New York, NY
- Meeting with STEM Donor, Mr. Benny Lorenzo, December 4, HCC, New York, NY
- Natural Sciences Department, End-of-Semester Celebration, December 5, HCC, New York, NY
- STEM Graduates Celebration, December 12, HCC, New York, NY
- Newton Creek Wastewater Resource Recovery Treatment Facility, December 13, Brooklyn, NY
- HEAT End-of-Semester Celebration, December 20, HCC, New York, NY

CUNY BMI Day




STEM Donor




STEM Celebration




Wastewater Treatment Facility





HEAT


# NSD | End-of-Semester Celebration | December 5



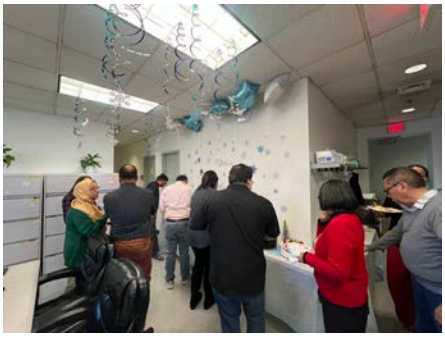












# NSD | Highlight in Scholarship

## Peer-Reviewed Articles

- Mirzoeva F, S. Satorov S. Usufi, **Dushenkov V**, Satorov S. (2024). Comparative analysis of polyphenol content, antioxidant activity and antimicrobial properties in endemic and widespread Allium species of Tajikistan. Afr.J.Bio.Sc. 6(9): 3217-3241.
- Satorov S, Mavlonazarova S, Bogoyavlenskiy A P, Yusufi S D, **Dushenkov V**. (2024). Efficacy of Ferula L. species extracts from Tajikistan against influenza viruses. Afr. J. B.Sc. 6(9): 3254-3268.
- Wong Carriera A, Morales-Valiente C, Manzanero Puebla A, **Nuñez-Rodríguez N**. (2024). A Case Study. Estudios del Desarrollo Social: Cuba y América Latina. University, Culture and Human Development. May-August (2)12: 332-341. RPNS 2346 ISSN 2308-0132.
- Pradanas-González F, Peltomaa R, Lahtinen S, Luque-Uría Á, **Rodríguez Y**, Navarro-Villoslada F, Maragos CM, Soukka T, Moreno-Bondi MC, Benito-Peña E. (2024) Upconversion-Linked Immunosorbent Assay for the Biomimetic Detection of the Mycotoxin Cyclopiazonic Acid. Anal Chem. 2024 Dec 7. doi: 10.1021/acs.analchem.4c05168. Epub ahead of print. PMID: 39644222.

## Grants

- Cox D (PI), Daily J (co-PI), Lauvau G (co-PI), **Nuñez-Rodríguez N** (subaward, PI), Redenti S (Subaward, PI). 2024-2029 NIH IRACDA Grant: Bronx Einstein Training in Teaching and Research (in collaboration with Lehman College and Albert Einstein Institute). Applicant Organization: Albert Einstein College of Medicine. $4,709,796.
- Raskin I, **Dushenkov V** (subaward). International Research Training Center for Botanicals and Chronic Diseases (CBCD) in Tajikistan and Indonesia. National Institute of Health (NIH, Award: 5D43TW009672-11). Applicant Organization: Rutgers University. (NIH, $1,401,303, 2020-2025).
- **Rodríguez Y**, Angulo N, Nieto-Wire C, Varelas A. The Hostos Engineering Academic Talent-2 (HEAT-2) Scholarship Program | National Science Foundation (NSF, $2,000,000, 2024-2030). Senior Personnel: **Biao Jiang** and **Anna Ivanova**.

# Decarbonized Hostos

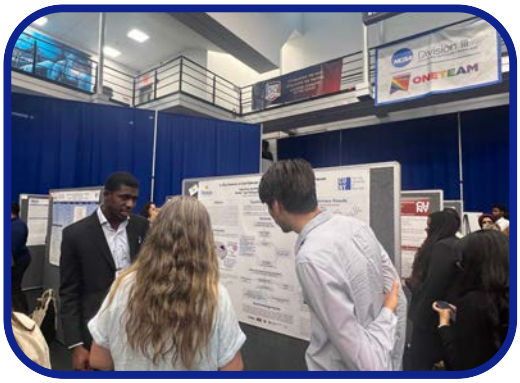
**Event Organizers:** Professors Julie Trachman, Craig Bernardini, Allison Franzese, Marcella Bencivenni, Flor Henderson, Elyse Zucker, Pam Stemberg

During **Climate Week in September 2024**, Hostos took part in the **"Decarbonize CUNY"** Town Hall initiative to address the **growing concerns of environmental and health impacts** due to **climate change**. Emceed by PSC-CUNY co-chair Craig Bernardini, there were several guest speakers and a presentation by Professor Julie Trachman entitled, **"Carbon, Climate Change, and Ramifications."** The Town Hall speakers highlighted the urgency of developing a plan to implement the **Build Public Renewables Act**, the legislation that empowers the state to rapidly scale-up the production of publicly owned, renewable power sources in New York State (NYS), in efforts to decarbonize CUNY's inefficient buildings. Fundamentally, this important initiative supports New York State's ambitious energy goals for **70% reliance on renewable energy by 2030 and 100% by 2040**. To achieve these goals, a collaborative effort with the New York Power Authority (NYPA) is imperative, and the t**ransition to sustainable energy** and **reduce carbon emissions** showcases practical strategies for positioning **Hostos as a leader in sustainability**.

## 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**


**Faculty Research - Prof. Biao Jiang**




**Student Research - Ansumana Jammeh**

**Student Research - Mohamed B Cisse, Alexandra Tejada, Marilin Rodríguez**
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**Student Research - Jannis Tyson, Jared Ramlogan**
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**Education - STEM Students**

Hostos Community College

NSF

HEAT

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