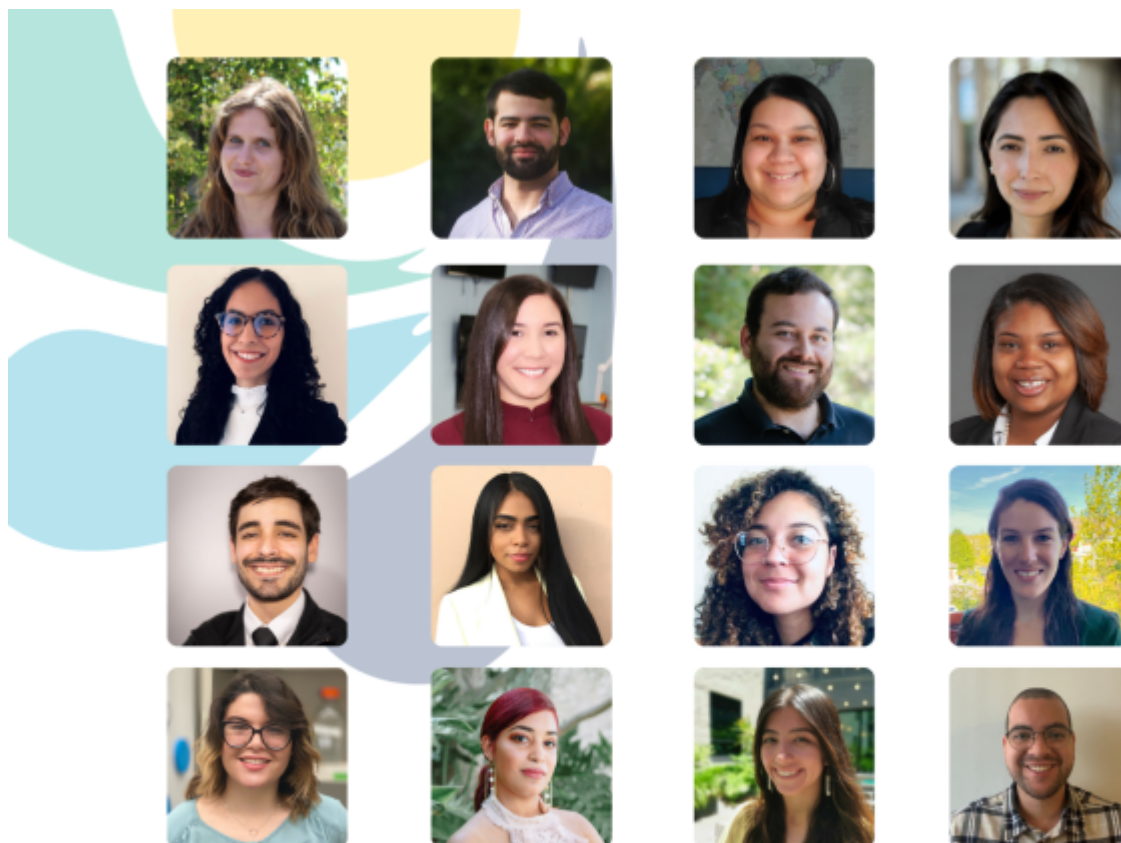
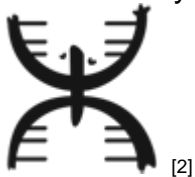


Meet the 2021 Yale Ciencia Academy Fellows! ^[1]

Submitted by [Janet Desmarais](#) ^[2] on 21 May 2021 - 12:58pm



Welcome YCA 2021 Fellows!



Lanazha Belfield is a fourth-year doctoral candidate in the Molecular and Cellular Biology program with a concentration in Molecular Medicine and Translational Science in Medicine. Her passions include research, academia, and mentorship. She earned her Bachelor's in Biology with a minor in Physics from Winston-Salem State University as a College of Arts and Sciences academic scholarship). While there she participated in various research programs including the Ram Scholars and IBS-REU providing her with the tools and research experience for her PhD program. During her time at WSSU, she presented at numerous conferences in scientific communication and scientific exposure. To provide scientific exposure to graduate/professional school panels for WSSU students and provided elementary school students the opportunity to perform scientific experiments. She continues to provide mentorship during her graduate school career. She serves on her departmental executive committee and the School Honors Grievance Committee. Her thesis work focuses on the glucocorticoid-induced muscle wasting and recovery to improve the long-term functional outcomes of patients. Her term career goal is to become a professor at a predominantly undergraduate institution to provide students with the tools and opportunities to directly matriculate into graduate-level programs, increasing scientific literacy and education in the minority community. In essence, her goal is the improvement of student learning, the enhancement of student creativity, and the expansion of research beyond the classroom setting.



Cristhian Calo is a fourth-year PhD candidate in the Department of Physiology and Biophysics, P.R. Medical Sciences Campus. He obtained his bachelor's degree in Biotechnology from the University of Puerto Rico. As an undergraduate, he worked elucidating hypothalamic-pituitary-adrenal axis after exposure to anabolic steroids. Furthermore, he participated in the Summer Research Program (SROP) at the University of Illinois at Urbana Champaign, studying the effects of mild Traumatic Brain Injury. He is interested in the nervous system, especially in the role of the hypothalamus in behavior. For this reason, in 2018, he joined the laboratory of Dr. Carlos Jiménez-Linan, studying the role of the hypothalamus on substance dependence from an electrophysiological level. His research focuses on the properties and excitability of VTA's dopaminergic neurons after a cocaine injection. In addition to this research, he also looks to elucidate if these changes are acquired during the process of learning, which may be related to the pathological learning process that underlies substance use disorder. His career goal is to work at an academic institution as a principal investigator conducting research on the pathophysiology of degenerative diseases that involves the dopaminergic system.



Marjorine Castillo is a sixth-year Developmental Psychology doctoral student at the University of New York (CUNY). She is also a Diversity Supplement Research Assistant at the State Psychiatric Institute through the Environmental influences on Child Health Institute Program NIH. She received her Bachelor of Arts and Master of Arts in Psychology from CUNY. She was born in New York City and raised in Washington Heights, NY (New York City, Republic). Her own experiences as the daughter of Dominican immigrants compel her to pursue a research career focused on how cultural experiences shape the mental health of ethnically diverse youth and their families in the US. Current work includes her dissertation, Y. Niwa's guidance, which explores acculturation from childhood to young adulthood, and psychological stress among Puerto Rican youth in the US and Puerto Rico. A previous project, under Cristiane S. Duarte's leadership, examines the intergenerational relationship between parents and their child's neurodevelopment and well-being among the racially, ethnically, and linguistically diverse ECHO cohorts. She enjoys teaching and mentoring students to develop their skills and empower them to achieve their academic aspirations. Her long-term career goal is to become a tenure track university professor who utilizes a strength-based, interdisciplinary framework in her teaching, mentoring, and research. Outside of academia, Marjorine likes to read and do arts and craft with her husband, family, and friends.



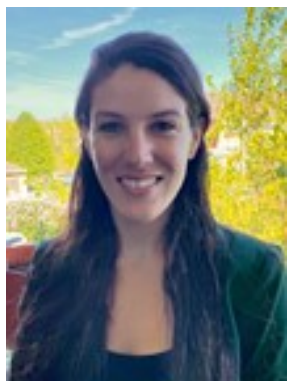
Crystal Colón Ortiz was born and raised in Puerto Rico and presently is a fourth-year graduate student in the Department of Pathology and Cell Biology at Columbia University Irving Medical Center. She received her Bachelor of Science degree in general biology from the University of Puerto Rico. Afterward, she conducted studies in neuroscience. Afterward, she participated in the Postbaccalaureate Education Program (PREP) at Case Western Reserve University, where she worked with Dr. Johannes vonLintig, studying the biochemical basis of vitamin A production. Currently, her research, under the guidance of Dr. Carol Troy, is focused on understanding the role of caspases in a retinal injury. During her graduate trajectory, she has been awarded the NSF-Graduate Research Fellowship Program, the Association for the American Advancement of Science (AAAS) Trainee Fellowship, the Society for Neuroscience (SfN) Trainee Professional Development Award, and the Columbia University Graduate Journey of Underrepresented Minorities Award. To advance the graduate journey of underrepresented minorities and to create a space for all to thrive in STEM, about social injustices, Crystal co-founded and co-directs the Graduate Initiative for Underrepresented Minorities at Columbia. In the future, she aspires to be an established principal investigator at a research institution. She also looks forward to mentoring underrepresented minorities and creating an inclusive environment in STEM.



Bianca Espinosa is a fifth-year Chemistry PhD candidate at the University of Pennsylvania. She is a National Science Foundation GRFP fellow, and a National Institutes of Health (NIH) F31 fellow. She earned her Bachelor of Science in Biochemistry in 2016 from California State University, San Bernardino, where she worked as a medicinal chemistry undergraduate researcher. Now as a graduate student in chemistry, her research centers on developing covalent, small molecule probes for studying diverse pathologies from cancer to COVID-19. Beyond her research interests, Bianca is committed to increasing college retention of underrepresented students through the establishment of a scholarship for minorities in STEM. In her personal life, Bianca enjoys reading and fostering rescue dogs.



Jose J. Gorbea Colón is a fifth-year biochemistry and molecular biophysics PhD candidate at the University of Pennsylvania. He earned his bachelor's degree in Biology at the University of Puerto Rico, Piedras campus. During his undergraduate career, Jose was awarded an NIH F31 fellowship (2015-2017), and now, as a graduate student, he is a National Science Foundation Graduate Research Fellow in 2019. As an NSF fellow, his current research focuses on elucidating the structural and mechanistic bases underlying transmembrane protein function. Jose is also passionate about diversity, equity, and inclusion initiatives in academia, working with the Office for Research in Diversity Training at Penn and student organizations like the SACNAS Chapter, which he Co-Chaired in 2019-2020. Outside of academia, Jose enjoys gardening, martial arts, scientific illustration, and photography.



Casey Imperio is a sixth-year PhD candidate in the Psychology: Behavioral and Brain Sciences Program at CUNY The Graduate Center. She earned both her undergraduate and master's degrees in Psychology at James Madison University, where her research focus was on memory and younger adults. She also spent time in an animal research lab working with rats. Her current research focuses on the neural basis of metamemory processes in episodic memory. Specifically, she uses a form of non-invasive brain stimulation, called transcranial direct current stimulation (tDCS), in attempts to elucidate the role of the prefrontal cortex in metamemory. Her hope is that this research will lay the foundation for treatments using tDCS for memory and memory issues. Casey loves mentoring undergraduate and master's students and hopes to become researchers in the fields of cognitive psychology and neuroscience. She is an avid cook and likes to play video games with her husband and hang out with friends.



Amanda Christine Maldonado is a fourth-year doctoral candidate at the University of Illinois at Chicago (UIC) in the Medicinal Chemistry Program. She is originally from Miami, Florida, and received her Bachelor of Science in Chemistry and Associates of Arts (Chemistry) from Miami Dade College. She received her Bachelor of Science in Chemistry, with a focus in organic synthesis, as a Ronald E. McNair Scholar from the University of Illinois at Chicago. Recently, she was awarded the T32 NIH Fellowship to aid in her research on Natural Products and Women's Health. Her doctoral dissertation will focus on elucidation of a fungal metabolite in high-grade serous ovarian cancer. This work will help in the development of therapeutics approved for use in high-grade serous ovarian cancer. Her other research interests include how metabolites produced from cyanobacteria may play a role in decreasing the incidence of high-grade serous ovarian cancer and screening novel Natural Products that may have bioactivity against serous ovarian cancer. Outside of her research, Amanda serves as the President for the Society for Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS) Graduate Chapter at UIC and collaborates with the ChickTech Organization to engage middle and high school girls in technology. Amanda's long-term interests lie in women's health, community engagement, and increasing minority participation in STEM fields. She loves to work out and go hiking in the outdoors. She is an enthusiastic foodie.



Jose Ortiz is a sixth-year doctoral candidate in Biology at the Irwin & Manella Center for the Study of the Sciences at the Beckman Research Institute within the City of Hope National Medical Center. He is a recipient and originally from Tijuana, Mexico. Jose obtained his undergraduate degree in Biology and Developmental Biology (MCDB) at the University of California – Los Angeles (UCLA). At UCLA, Jose completed his thesis work studying latent HIV establishment and reactivation in patients undergoing antiretroviral treatment. He then entered graduate school at the University of California – San Diego (UCSD) where he received a doctoral Ford Fellowship award in 2016. At the Beckman Research Institute, Jose is working with Dr. Hsun Teresa Ku to study pancreas organ development and regeneration. Jose studies the role of Trefoil factor 2 (Tff2) during mammalian pancreas organ development and identifies new mechanisms regulating the production of insulin-producing beta cells. During his graduate studies, Jose was admitted into the Future Leaders Advancing Research in Endocrinology program. After completing his PhD, Jose plans to pursue post-doctoral training in the field of pancreas biology. His career goal is to work at an academic institution as a Professor and mentor. Outside the lab Jose enjoys painting, running, and exploring bars and restaurants.



Jailenne I. Quiñones-Rodriguez earned her Bachelor of Science in Biomedical Sciences from the University of Puerto Rico – Ponce. In 2015, she joined the Biomedical Sciences Graduate Program at the University of Puerto Rico – Central del Caribe – School of Medicine, where she is currently a PhD candidate in the field of Anatomy and Cell Biology. Due to her research interest and background, Jailenne was selected as a Research Associate from Puerto Rico IDeA Network Biomedical Research Excellence (IDeA-NBRE) program. After earning her PhD, she graduated with honors from a master's degree in Anatomy and Biomedical Sciences. Her research interest in human anatomy and neuroanatomy has led her to coordinate, instruct, and mentor students with interest in surgical field through a project called “Mastering Anatomy.” This project promotes an integration of clinical anatomy research and teaching to peers. Jailenne is currently working on transferring modern fixation technology to electron microscopy. Her goal is to achieve the highest magnification while localizing proteins with the outmost accuracy using immunocytochemistry. These advances are applicable and of interest for all areas of anatomy, electron microscopy and immunogold localization of proteins. One of her long-term goals is to become an academic scientist to conduct research in reverse translational human anatomy. Her research and surgical problems are identified and focused on anatomical studies. As a first-generation scientist herself, she has been actively involved in several outreach initiatives with the goal to communicate science to the community and raise her voice for underrepresented minorities in science.



Jelissa Reynoso García is a fourth-year PhD candidate in Microbiology at the University of Puerto Rico – Rio Piedras Campus (UPR-RP). Jelissa is a first-generation college student who earned a bachelor's degree in Interdisciplinary Sciences with honors at the University of Puerto Rico – Rio Piedras Campus. During her undergraduate studies, she completed an undergraduate thesis under the mentorship of Dr. María del Carmen Martínez studying the rainfall chemistry in San Juan, Puerto Rico. She also served as a research assistant at the University of Vermont, collaborating in the project “Total Phosphorus and Total Nitrogen in the Connecticut River by Bioretention Systems.” These experiences reinforced her interest in science and led her to pursue a PhD degree. Since her doctoral admission under the guidance of Dr. María del Carmen Martínez, she investigates fungi in paleomicrobiological samples as a mean to inferring the microbial diversity in Caribbean cultures. Her work in this project led her to be a recipient of the Outstanding Student Award from the American Society for Microbiology (2018). Currently, she is a doctoral trainee supported by a National Science Foundation fellowship. In addition to her doctoral dissertation, she has worked as a research assistant studying the high levels of fungi, spores, and pro-inflammatory dust after Hurricane Maria. Her research investigations, she serves as the President of the Microbiology Student Chapter. Her goal is to become a scientist and educator that promote women and underrepresented minorities in science. Jelissa also enjoys books, arts, museums, travel, and spending time with her family.





Isabel Rojas-Ferrer was born and raised in Puerto Rico and possesses a doctorate specializing in cognitive and behavioral ecology. She has a BSc in industrial microbiology from the University of Puerto Rico-Mayagüez, where she studied the rhythmic meter of plant growth under the guidance of Dr. David Logue. During her undergraduate years, she interned at the Center for the Study of Animal Behavior (CISAB) at the University of Indiana- Bloomington with Dr. Emilia Martins. She then completed her MSc in ecology, evolution, and systematics at the University of Missouri-Saint Louis where she focused her thesis on bee memory and navigation modelling under the advisership of Dr. Aimee Dunlap. Isabel has recently completed her PhD at the University of Ottawa, Canada, where she worked with Dr. Julie Morand-Ferro on the genetic and environmental causes of individual variation in animal decision-making. Currently, Isabel works as a research assistant at the Caribbean Primate Research Center with Dr. L. L. L. Isabel has collaborated with Soapbox Science, the Journal of Animal Ecology, and the American Psychological Association in order to bring awareness to mental health, equity, diversity, and inclusion. Isabel is also a mother and is loved by her Belgian Shepherd mix dog, Vito.



Sofia Romero is a fourth-year PhD candidate in the Microbiology Doctoral Training Program on molecular virology at the University of Wisconsin–Madison. She earned her undergraduate degree from the University of California, Santa Cruz majoring in Molecular, Cell, and Developmental Biology. Sofia's dissertation focuses on understanding the subcellular trafficking dynamics of the viral core protein during replication and packaging of viral genome by single-molecule live, and fixed cell techniques. In addition to research, Sofia works to advocate for an equitable science academy for students from diverse backgrounds and was recently named an Edward Alexander Bouchet Graduate Honor Society member. Recently, Sofia served as a coach for her local Science Olympiad competition where she taught high school students about virology. After her PhD, Sofia aims to continue advocating for underrepresented groups in science to improve science-to-public engagement.



Mitchell R. Sanchez Rosado is a third-year doctoral candidate at the University of Puerto Rico Sciences Campus. He earned his undergraduate degree in biology with a minor in chemistry from the University of Puerto Rico-Rio Piedras. As an undergraduate, his research worked on investigating the efficiency of antimicrobial products against different strains of bacteria. His current research focuses on the quality assessment after Hurricane Maria in Puerto Rico. His current research focuses on how that both age and social adversity can have on immune function and response. Outside of academia, Mitchell enjoys trips to the beach, cooking, and talking about sports.

	<p>Ana Vazquez-Pagan is a rising-third-year PhD candidate at the St. Jude Graduate School of Biomedical Sciences at St. Jude Children’s Research Hospital. After moving from her hometown of San Juan, Puerto Rico, Ana earned her Bachelor of Science in Biology with a minor in French from Northeastern University in Boston, Massachusetts. During her time at Northeastern, Ana participated in a research (internship) program where she worked with Drs. Jens Boch and Thomas Reinard at the Max Planck Institute of Biotechnology in Germany. There, she studied the production of recombinant Wolffia Australiana, which has high potential as a bioreactor. For her second year at St. Jude, she worked at the Farber Cancer Institute under the mentorship of Dr. Wilfred Ngwa and Dr. Robert Schreiber. She explored combining the radiosensitizing effect of gold nanoparticles with the DNA damage response inhibitor, Nano Talazoparib, a liposomal formulation of the PARP inhibitor, Talazoparib. When Ana prepared to embark towards a PhD, she felt called to explore other scientific fields. Her current research focuses on better understanding how influenza virus infection can cause severe disease in high-risk populations and why that happens. More specifically, she wants to develop a better understanding on why pregnant women are at an increased risk of developing severe complications and how infection results in adverse fetal outcomes. Outside of academia, Ana enjoys reading, hiking with her dog Buddy.</p>
	<p>Kirsten Verster is a fifth-year doctoral candidate in the Department of Integrative Biology at the University of California – Berkeley. She earned her Bachelor of Science in Zoology at the University of Wisconsin-Madison, where she was always intrigued and excited by the diversity and abundance of insects in her environment. She then went to graduate school to learn more about how they evolved. For her doctoral dissertation, she worked in the lab of Dr. Noah Whiteman studying how horizontal transfer of toxin genes occurs and the evolution of insects. Kirsten and collaborators discovered that toxin-encoding genes from bacteria or viruses into the genomes of fly and aphid species. Interestingly, these genes may play a role in protecting these insects from deadly parasitoid wasps. Kirsten is a National Science Foundation Graduate Research Fellow and recently won the Extraordinary Times award for her approach to remote pedagogy during the COVID-19 pandemic. Her career goal is to build a research and education program that incorporates her interests in evolutionary biology and functional genomics. Outside of lab, Kirsten is enthusiastic about Latin dance and hiking.</p>

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