

A panoramic view of the Chicago skyline at dusk, with the city lights beginning to glow against a purple and blue sky. The Willis Tower is the most prominent building in the center. The foreground shows a park area with trees and a road.

# SROP

**Summer Research Opportunity Program**

June 20 – August 5, 2022



## A Message from the Dean

### A Message from the Dean

The Summer Research Opportunity Program (SROP) is a signature activity hosted by The Graduate School at Northwestern University. SROP was launched at Big Ten Academic Alliance universities in 1986 as a gateway to graduate education for underrepresented students. Over the past three-and-a-half decades, it has grown into a supervised, research-intensive experience, complemented by academic enrichment activities and exposure to graduate school as a post-baccalaureate option.

The Graduate School is proud to advocate for a diverse graduate student and postdoctoral trainee population, as well as an equitable graduate student experience across Northwestern. The recruitment and retention of a diverse graduate student and postdoctoral community of scholars is central to our mission, and programs such as SROP are vital in these efforts. I have had the pleasure of mentoring and working with a number of SROP students, and it has always been extremely rewarding to watch their careers develop.

Despite the ongoing challenges of the pandemic, I am glad SROP was able to return to an in-person, research-intensive experience this year. The program continues to offer student participants a wide-ranging series of academic activities and professional development workshops to aid in preparing each individual for their next steps toward graduate education. I greatly appreciate and admire your perseverance and commitment to your scholarly pursuits.

Congratulations to all our student participants, faculty and student mentors, and staff who have made this experience possible. We hope that SROP inspires your continued learning and exploration, at Northwestern and beyond.

Sincerely,

**Kelly E. Mayo**

Walter and Jennie Bayne Professor of Molecular Biosciences

Dean of The Graduate School and Associate Provost for Graduate Education  
Northwestern University



## A Message from the **Associate Dean**

Thank you for joining us for our milestone 37th Annual Research Forum for Northwestern's Summer Research Opportunity Program (SROP). We are extremely proud of our 30 SROP participants who will be sharing their summer research projects through oral presentations and poster presentations in our first in-person program since 2019.

We recognize that innovative research and scholarship must include diversity, equity, and inclusion. To remain competitive as a research university of the first rank, we must recommit, restructure, and reframe discussions that tie diversity to access, matriculation, retention, progress, and mentoring. SROP fosters diverse ideas, experiences, and identities for innovation and inclusive excellence.

We welcomed our SROP students seven weeks ago with orientation programming including workshops on mentoring, time management, research, and writing skills. Our SROP participants networked with current graduate students and administrators at professional development events, practiced presentation skills with Ready, Set, Go programming, and enjoyed remote socializing and coaching in our inaugural Purple Table conversation hosted by the SROP group leaders who are current Northwestern PhD students.

The success of SROP would not be possible without the partnership of many Northwestern colleagues. I would like to extend a sincere thank you to Dean Mayo, The Graduate School, SROP faculty mentors, and SROP group leaders, as well as The Graduate School's Office of Diversity and Inclusion. We look forward to continuing to sponsor this wonderful program in the years to come.

Congratulations to our scholars on this milestone accomplishment!

Sincerely,

**Damon L. Williams, Jr**

Associate Dean for Diversity and Inclusion  
The Graduate School



## A Message from the **SROP Team**

Thank you for joining us today as we celebrate the achievements and research of our 37<sup>th</sup> Summer Research Opportunity Program (SROP) cohort. We, the SROP team, have had the honor of engaging with the SROP students as The Graduate School's Office of Diversity and Inclusion (ODI) staff, ODI fellows, and collaborators to make our return to an in-person research experience one of quality, co-learning, and community.

We have been impressed by the high caliber of our students, their resilience, and joy throughout this entire process, resulting in a cohort of tenacious and forward-thinking scholars and innovators. After an online program for the past two years, we returned to an in-person experience this summer, eager to nurture the education and aspirations of such promising minds.

We are proud to have worked with and learned from such gifted scholars, and we are excited to experience what they will contribute to the future of academia and society.

Our success this year would not have been possible without the partnership of many Northwestern colleagues and the commitment, dedication, and focus of our students. We would like to extend a sincere thank you to The Graduate School staff, SROP faculty mentors, and all our guest speakers for their support of SROP. We look forward to continuing working with you and enhancing this incredible program in the years to come.

Sincerely,

**The SROP Team**

# SROP Participants



## Alexis Tiara Mitchell

Psychology, California State University, Fullerton

Faculty Mentor: Jennifer Tackett

Alexis Mitchell is a rising senior from Hayward, California pursuing a Psychology major and Food Science minor at California State University, Fullerton. Alexis has been on the Dean's Honors List since her first year. Alexis is also an Honors and McNair Scholar, currently working on her undergraduate thesis under the supervision of Dr. Christine Scher. Alexis' thesis examines undergraduate college students' emotional distress levels during the return to regular in-person university operations, considering the effects of marginalized group status. Alexis plans to examine the psychopathology effects of post-traumatic stress disorder on low-income minority adolescents, and to conduct research to help children manage their emotional distress levels and develop effective coping strategies, limiting childhood trauma. Alexis is also interested in generational trauma that African American adolescents might face and examining the psychopathology effects across different places in America to assist these children better. Alexis plans to obtain a Ph.D. in clinical adolescent psychology and become a pediatric psychologist with an emphasis on trauma while still conducting clinical psychology research. Alexis enjoys spending time with her friends and family, trying new foods, and traveling.



## Amber Rojas

Biochemistry and Biology, Northeastern Illinois University

Faculty Mentor: Dr. Hao Zhang

Amber Rojas is currently attending Northeastern Illinois University and studying Biology and Chemistry. She was born in Harlingen, Texas, but later moved to Chicago to continue her education. She has two adorable female pet cats, Rudolph and Comet, who run around the house like children. Amber also enjoys scuba diving and hiking whenever she has free time as well. Now, she is doing research using RP-HPLC at Northeastern Illinois University with Dr. Miodragović. In the future, she hopes to better understand physics and technology to further her appreciation of biology and chemistry.



## Andrés Polanco Molina

Latina/o Studies, Northwestern University

Faculty Mentor: Mérida Rúa

Andrés Polanco Molina is a rising junior at Northwestern University where he is majoring in Latinx Studies and is a Mellon Mays Undergraduate Fellow. His scholarly and political passions include internal colonialism, immigration justice, intergenerational trauma/knowledge, and cultural identity. Andrés was raised by immigrants from Ecuador and Guatemala in Sleepy Hollow, NY. His hometown contains one of the largest Ecuadorian populations in the U.S., influencing his aspirations to conduct research around Latine populations that are often undertheorized. This summer, Andrés is working with Dr. Merida Rúa on a project related to gentrification's impact on culture, community, and concepts of identity within Latine communities. Outside of his research, Andrés enjoys listening to music, reading poetry, and giving back to his communities. He is the Internal President of Alianza – The Latinx Student Alliance, Education Chair of Northwestern's chapter of YDSA, and a Peer Advisor. Andrés has worked in Northwestern's admissions office and his local community-based organization, LatinoU College Access, to promote the enrollment of first-generation, lower-income Latine students in higher education. After graduation, he hopes to earn a PhD and continue supporting marginalized students in academia.

# SROP Participants



## Chantel McCrea

**African-American Studies and Gender & Sexuality Studies, Northwestern University**  
**Faculty Mentor: Joshua Chambers-Letson**

Chantel McCrea is a rising junior in Weinberg College of Arts and Sciences from Rochester, NY studying African American Studies and Gender and Sexuality Studies. Her academic interests include Performance Studies, Trans Studies, Black Feminism, Affect Theory, and Sex Work. Previously, they have conducted archival research on Octavia Butler and conducted and transcribed oral history interviews for Emergence: Intersections at the Center, an exhibition at the South Side Community Art Center that is open until July 2nd that looks at Black Queer art and artists in 20th century Chicago. For this project, she is working alongside Dr. Josh Chambers-Letson on a project interrogating care, intimacy, love and empathy and exploring forms of the aforementioned subjects that are undervalued and denigrated through the lens of Black trans femme performance art and sex work with the desire to destabilize care and intimacy as well as to develop an alternative theory of relationality. Chantel hopes to become a professor and in their free time they can be found reading, exploring Chicago, meeting new people at cafes, listening to music, writing, and singing.



## Chloe Chow

**Classics and Religious Studies, Northwestern University**  
**Faculty Mentor: J. Michelle Molina**

Chloe Chow is a student at Northwestern University in the Class of 2024. She is majoring in both Religious Studies and Classics and studying Latin, Ancient Greek, and Hebrew. Her research is focused on the concept of blasphemy and how accusations of blasphemy can give insight into views on orthodoxy. She is also interested in researching Sophocles' Phaedra and Statius' Achilleid. Chloe is a Mellon Mays Undergraduate Fellow originally from Evanston, Illinois. She is president of the Northwestern chapter of Splash, treasurer for the Northwestern Quizbowl Team, and a Books and Breakfast tutor. After graduation, she plans to pursue a PhD in Religious Studies.



## Crystal Lovato

**Biological Studies and Microbiology, Idaho State University**  
**Faculty Mentor: Dr. Erik C. Anderson**

Crystal Lovato is a rising senior at Idaho State University, majoring in Microbiology and Music. She was born in New Mexico and raised in Boise, Idaho. Her hobbies include singing Jazz, Baroque, and Romantic music, painting watercolors, and playing tennis. She loves biological research and the possibility this field gives her to help others. At Idaho State University, she had the opportunity to research the microbial physiology and biochemistry of the opportunistic pathogen *S. pneumoniae*. Through the Northwestern University SROP, she has been able to meet new people and learn new techniques. She now knows what it's like to work at a world-class research institution, and experience Northwestern as an avenue for her future career. Crystal is working with Dr. Erik Andersen to learn new techniques such as CRISPR, studying the nematode *C. elegans*, and induce genetic mutation. She plans to graduate December 2022 and hopes to seek a PhD program in the Fall of 2023. She aims to study immunology and the causes and mechanisms by which autoimmune diseases arise. As a Latina, she hopes to bring new ideas, perspectives, and experiences to her academic community.

# SROP Participants



## David Carlos Arteaga

Cell Biology, Purdue University – Main Campus

Faculty Mentor: Dr. Kathleen J. Green

David Arteaga is a rising junior from Lafayette, IN, majoring in Cell, Molecular, and Developmental Biology at Purdue University. He began his research journey during his sophomore year studying the effect oncogenic KRAS signaling has on extracellular vesicles in non-small cell lung cancer. This experience sparked David's research interest in studying aberrations in cell signaling pathways that lead to cancer. At Northwestern, David's research focuses on investigating the paracrine factors involved in melanoma and keratinocyte crosstalk that promote melanoma progression. After college, David plans to pursue a PhD. As a first-generation college student who felt like higher education is out of reach, David wants to serve as a mentor and support disadvantaged students find their path to graduate school. David enjoys spending his free time with friends, going on nature walks, and listening to music.



## Delan Xingyue Hao

Biomedical Engineering, Northwestern University

Faculty Mentor: Dr. Hao Zhang

Delan Hao, a class of 2022 Northwestern alumnus, will be a first year PhD student at Northwestern within the Biomedical Engineering program. As part of the Functional Optical Imaging Laboratory, his research is on gathering quantitative data analysis on mitochondria degeneration. Current research on mitochondria degeneration relies only on qualitative analysis. Delan's work will focus on developing methods for quantitative analysis using spectroscopic single-molecule localization microscopy, a technology developed within the FOIL group. Upon completion of his PhD, he plans to continue working in academia and pursue professorship. Outside of the lab, Delan spends his time painting and biking along the Chicago lakefront. On most days, he can be found playing the piano or saxophone to his heart's content.



## Fionnán de Goeas Malone

Anthropology, CUNY Hunter College

Faculty Mentor: Jessica Winegar

Fionnán de Goeas Malone (he/him/his) is a rising senior at Hunter College of the City University of New York, majoring in Anthropology and French. His concentration focuses on Visual Anthropology, the combination of anthropological practices and the study, analysis, and production of ethnographic media. Through his research, he focuses on the the Arawak (also known as the Lokono) Amerindian peoples of South America and the Caribbean. At CUNY Hunter College, Fionnán is a Ronald E. McNair scholar as well as a Thomas Hunter Honors Program Scholar, Hunter's interdisciplinary scholars' program. He is also a former member of the Hunter College chapter of the Young Democratic Socialists of America (YDSA). His future plans are to obtain a Ph.D. in Anthropology, specializing in Visual Anthropology, culminating in producing a documentary film. In his free time, Fionnán enjoys watching films, particularly older French films, riding his longboard, writing, and reading.

# SROP Participants



## Gorav Saluja

**Biology, Northeastern Illinois University**  
**Faculty Mentor: Dr. Luisa Marcelino**

Gorav Saluja is a senior at Northeastern Illinois University majoring in Biology. He was born and raised on Chicago's north side in Rogers Park. He has worked at Edward Hines, Jr. VA Hospital in Hines, Illinois researching the topics of testosterone and cholesterol. Furthermore, he enjoys interacting with patients and learning about their history. Gorav's NU-SROP research focuses on studying strategies to prevent coral reef bleaching due to global warming effects under Dr. Luisa Marcelino's mentorship. Gorav intends to pursue a medical career within the specialization of plastic surgery. In his free time, Gorav likes to travel to different countries, follows Formula One competitions, and enjoys working out, playing chess, and spending time with friends.



## Irenosen Aboiralor

**Biomedical Sciences, Pomona College**  
**Faculty Mentor: Dr. Zhe Ji**

Irenosen Aboiralor is a twenty year-old rising junior from Gardena, California studying Biology and Pre-Medicine at Pomona College in Claremont, California. In the future, she plans to earn either a MD, PhD, or MD-PhD in biological science with a focus in neurogenetics, eventually becoming a genetic counselor or physician-scientist. Alongside Dr. Zhe Ji and PhD student Sheng Wang, she will study how certain gene pathways regulate the drug response of human cancer cells using computational modeling at the Robert H. Lurie Comprehensive Cancer Center. She hopes to specialize in neurology and pediatrics, helping younger patients and those with diseases of the brain and the nervous system. With her work, she hopes to combat Black medical bias in medical genetics research in an effort to increase accuracy in genetic testing for Black people and other minorities. She would also like to combat unequal distribution of biomedical funding and the difficulties associated with recruiting participants from vulnerable and minority populations, as these groups are crucial to diversifying genetic research. In her free time, she enjoys playing tennis, reading young adult fiction novels (specifically John Green books), playing with her dog Chloe, listening to RnB and alternative music, and playing the violin.



## Ivoryana Neal

**Political Science and Sociology, Spelman College**  
**Faculty Mentor: Alvin Tillery**

Ivoryana Neal (she/her) is a Social Justice Scholar and a rising sophomore at Spelman College, majoring in Political Science and minoring in Sociology. Ivoryana's research interests include examining the effect of the prison pipeline system on black youth, white privilege and its attributions in the legal system, and misogynoir. Through her research, Ivoryana hopes to bring awareness to the systemic barriers placed upon people of color in their everyday lives. Ivoryana has gravitated to quantitative analysis and the pros of her independent studies. As a West Chicago native and a noble product of Proviso Mathematics and Science Academy. Furthermore, Ivoryana's research this summer will gear toward the disappropriation of Breonna Taylor and other Black women. In contrast, George Floyd and other Black men are the mainstream faces of the Social Movement formerly known as the Black Lives Matter Movement. This upcoming Fall, Jada was invited to become a Social Justice Associate through Spelman's Social Justice Program. Besides academic life, Ivoryana plays many servant roles in the Atlanta Metropolitan Area. She is not only a part of Spelman's Speech and Debate Team but serves in the Spelman Chapter of the NAACP. Upon completing her undergraduate studies at Thee Spelman College, Ivoryana plans to pursue a joint Undergraduate/JD degree program to excel in criminal defense law.

# SROP Participants



## Jada Marie Daniel

Political Science, Sociology, and Critical Identity Studies, Beloit College  
Faculty Mentor: Mary Pattillo

Jada Daniel (she/her) is a McNair Scholar and rising senior at Beloit College, triple majoring in Political Science, Sociology, and Critical Identity Studies. Jada's research interests include criminal justice, stratification and inequality, and prison abolition at the nexus of Black feminist epistemologies. Through her research, Jada hopes to apply her lived experiences to challenge the sociological canons with activism through scholarship. During her independent study and research assistantship, Jada has gained invaluable experience in mixed-methods scholarship. As a Chicago native and a proud product of Chicago Public Schools, Jada's research this summer will examine the relationship between Black students' excessive exposure to punitive discipline measures and their academic performance and social outcomes under the guidance of Dr. Mary Pattillo. This summer, Jada was invited to the undergraduate cohort of the Center for Black, Brown, and Queer Studies Research Fellowship. Outside of academia, Jada plays many roles in her campus community as part of her school's volleyball team, the Black Students United President, and Students For an Inclusive Campus Chairperson at Beloit. Upon completion of her undergraduate education, Jada plans to pursue a joint PhD/JD degree program to produce compelling mixed-methods scholarship and practice criminal defense law.



## Jasmine Martina Flowers

African-American Studies, Columbia University in the City of New York  
Faculty Mentor: Alexander Weheliye

Jasmine "Jas" Flowers is a rising senior at Columbia University studying African-American Studies and Human Rights with a specialization in African Studies. Jas is interested in the resonances between racializing mechanisms and contemporary conceptions of disability, illness, and sanity. Jas interrogates how white supremacy is tied to notions of dis/ability that upholds certain subjectivities and "fixes" Black and other racialized bodies. Jas enjoys all sorts of sports and just ran their first of hopefully many marathons; they are also adept at finding moments of stillness under the sun. Jas grew up near Orlando, Florida and constantly misses the weather as well as Publix subs. Jas likes to read novels about multi-generational families and kinships and enjoys learning about local Southern history. Eventually, Jas will earn a PhD in African American Studies, travel, and then keep learning forever.



## Jesse Vela

Latina & Latino Studies and Legal Studies, Northwestern University  
Faculty Mentor: Dr. Myrna García

A rising junior at Northwestern University, Jesse Vela is a Mellon Mays Fellow researching intergenerational dynamics of American, post-first generation queer Latines; moreover, how this demographic interacts and engages with their communities founded on identity development, and whether they choose to support the uplifting and fostering of consolidating, coalescent, and celebratory spaces for the greater queer Latine community. Inspired by disruptive methods to educational canon, Vela also aspires to utilize the film medium to convey these intergenerational dynamics through autoethnography. Having crafted a previous short film regarding the consultation of their own queer and Latine identity, Vela hopes to employ similar creative techniques in visuals and music to make the piece more effective in capturing this narrative. The overarching goal of Vela's current and future research is to communicate essential themes reflecting the experiences and curative methods of minoritized communities through both an academic and creative lens. As a native of Los Angeles, he intends to expand beyond the sphere of Evanston and Chicago, as he is passionate about continuing to explore his own identity and those adjacent. Currently, he is a Latina/o Studies major and Legal Studies minor with an interest in acquiring an additional Film History minor.

# SROP Participants



## **John Anthony Fuller**

**Human/Individual & Family Development, Ohio State University – Main Campus**  
**Faculty Mentor: Dr. Charlesnika T. Evans**

John Fuller (he/him) is a first-generation scholar from Akron, Ohio pursuing a B.S. in Human Development & Family Science with a minor in Global Public Health and certificates in Diversity, Equity, & Inclusion and Health Communication. John's research addresses social determinants of health at the community and population health levels and examining the intersection(s) of racial, LGBTQ+, and disability identity in healthcare delivery experiences. At the OSUCCC-James Cancer Hospital and Solove Institute, John is a Pelotonia Fellow and co-investigator on the recently submitted NIH administrative supplement aimed at systematically collecting sexual orientation and gender identity data. With a focus on health equity, John's goal is to use a community-engaged methodology to inform a culturally sensitive paradigm for cancer research, develop sustainable interventions, and center the intersecting identities of SGM individuals to create a more optimal cancer care experience. John currently serves as the Associate Director of the Ohio Student Government Association, Vice President of Traditions of the Mortar Board National College Senior Honor Society, and a Teaching Assistant for the Department of Human Sciences. John aspires to earn a PhD in Population Health Sciences from Harvard to continue his intentions of creating structural and transformational change for students with marginalized identities.



## **Kenia S. Garcia-Ramos**

**Humanities, Ponom College**  
**Faculty Mentor: Dr. María Jesús Barros García**

Kenia Garcia-Ramos (she/they) is a first-generation, low-income rising senior at Ponom College pursuing a degree in Chicana-Latinx Studies with a minor in Gender & Women's Studies. Although Kenia grew up in the Inland Empire (IE), her family hails from the states of Nayarit and Michoacan in Mexico. Her research interests lie at the intersection of immigration, race, religion, gender, storytelling, and radical care, which are a direct reflection of the identities and social conditions that have most shaped her positionality. As a Mellon Mays Undergraduate Fellow, Kenia explores radical love as a praxis of life, futurity, and resistance, as it is embodied by Latinx migrant mothers in the face of multi-state violence; she will continue this work for her thesis. Kenia aspires to attend graduate school and obtain a PhD. Having worked within her community in the IE to ensure more equitable conditions for the Black and Brown folks who reside there, provided mentorship to youth of the IE to support their educational aspirations, and many other initiatives, Kenia is intentional about holding integrity to the voices, needs, and joys of her community in her work. She aims to explore avenues to ensure her research is accessible and transformative.



## **Kristina Bell**

**Anthropology, Northwestern University**  
**Faculty Mentor: Melissa Rosenzweig**

Kristina Bell (she/her) is a third year at Northwestern University majoring in Anthropology from Pearland, Texas. With minors in Environmental History and Environmental Policy & Culture, Kristina hopes to take a multidisciplinary approach to understanding past and present people's relationship with the environment through Archaeology. Her current research examines Black people's recreational land use and their low presence in National Parks. Kristina is a Mellon Mays Fellow interested in pursuing a PhD and encouraging more people of color to bring their knowledge to the field of Anthropology. In addition to becoming a professor, Kristina hopes to engage in research to benefit environmental justice groups and their ongoing battles against environmental racism. Outside of academics, Kristina's first passion was dance. She is a member of Northwestern's tap group Tonik Tap and ballet club Eight Counts.

# SROP Participants



## **Madeleine Ellie Harris**

**Neuroscience, The College of William & Mary**

**Faculty Mentor: Dr. Ravi Allada**

Madeleine Harris is a rising junior from Northbrook, IL studying Neuroscience at the College of William & Mary. Her time spent with her grandmother, who experienced rapid health decline due to worsening dementia, brought Madeleine to develop an interest in studying the brain. She began research in a lab studying the role of tau in Alzheimer's disease. Currently Madeleine works with Ravi Allada, MD and Dr. Bridget Lear in Allada's lab, studying the circadian rhythm and autism spectrum disorder through the use of *Drosophila melanogaster*, also known as fruit flies. In her free time, Madeleine enjoys reading, playing the piano and spending time with friends. She also serves as a Variety Editor for her college newspaper The Flat Hat. Madeleine hopes to pursue graduate studies in Neuroscience and contribute to the field as a researcher.



## **Odein Karibi-Whyte**

**Psychology, Morehouse College**

**Faculty Mentor: Dr. Mark Beeman**

Odein Karibi-Whyte is a rising junior Psychology major with a double minor in Spanish and Entrepreneurship at Morehouse College. He is a proud New Jersey native with a variety of interests; enjoying community service, baking, faith, investing, exploring nature, basketball, mental wellness, and music production. Odein has always been intrigued by social interactions and the various elements that influence relationships. This summer at Northwestern, Odein is researching Individual differences in creative problem solving under the mentorship of Dr. Mark Beeman and Nia McClendon. Through the McNair Scholars Program, Odein has seen the pivotal role that research plays in society, especially in identifying solutions to inequitable disparities among minoritized groups. Odein plans to earn a Ph.D. in social psychology and establish a network of counseling and wellness services for adolescents of color. A primary motivation fueling his career is knowing that he is contributing to a future where mental health and wellness services are normalized and accessible for everyone.



## **Olivia Paige Cutshaw**

**Psychology, University of West Florida**

**Faculty Mentor: Dr. Karen R. Gouze**

Olivia Cutshaw is a first-generation college student at the University of West Florida in Pensacola, Florida pursuing a Bachelor of Science in Psychology. After completing her undergraduate studies, Olivia hopes to pursue a PhD in clinical child psychology in order to become a researcher, clinician, teacher, and advocate within this field. Her research interests revolve around the developmental effects of early childhood trauma on psychopathology throughout the lifespan. These interests were formed as a result of her volunteer work with child survivors of commercial sexual exploitation as well as her previous research in developmental psychology. Olivia values an approach to research that is both culturally-attuned and trauma-informed. Olivia's current research examines the efficacy of school-based interventions aimed at promoting trauma-informed practices for preschool teachers who serve primarily Black and Latinx children in the Chicago area. In her free time, she shares her passion for contemporary, jazz, and hip-hop dance through attending classes regularly and teaching children's classes.

# SROP Participants



## Quentin Jenkins

Sociology, Pitzer College

Faculty Mentor: Kihana Miraya Ross

Quentin Jenkins (he/him) is a rising senior studying Sociology and Africana Studies at Pitzer College. Growing up on the south side of Chicago, Quentin is a change agent and advocate for equal opportunity education. Throughout his tenure at Pitzer, he has held many leadership positions being handpicked by the College President to be the Student Representative on Pitzer's Racial Justice Initiative, a mentor for queer and Black students, and the Student Representative for the Sociology field group. As a first-generation college student, Quentin hopes to continue his research to dismantle the barriers that students of color face in educational institutions. As an aspiring sociologist of education and Mellon Mays fellow, Quentin's previous research analyzed the ways that COVID-19 exacerbated the inequalities and inequities for first-gen, low-income students of color in higher education during a summer research program at Harvard. Currently, Quentin is an SROP participant within the African-American Studies department analyzing the disparate experiences of Black LGBTQ+ students that may result in them being punished and criminalized differently from Black cis-gender heterosexual students and from non-Black LGBTQ+ youth. Outside of academe, Quentin enjoys playing volleyball, listening to music, and trying out new foods.



## Sarah-Fatime Kadijah Yoda

Bioengineering & Biomedical Sciences, University of Maryland – Baltimore County

Faculty Mentor: Dr. Guillermo Ameer

Sarah Yoda is a rising junior at the University of Maryland, Baltimore County, where she is majoring in chemical engineering with a concentration in biotechnology and bioengineering. She holds broad research interests in regenerative medicine and drug delivery and hopes to pursue clinical work with a focus in women's health. After completing her undergraduate degree, Sarah plans to continue her education by obtaining an MD-PhD in biomedical engineering. Her goal as a future researcher and physician is to tackle and reduce current health disparities prevalent in obstetric and gynecologic conditions. Sarah's interests outside of academia include cooking and trying new foods, baking, running, and playing basketball with her family.



## Sergio Quechol

Gender & Feminist Studies, Pitzer College

Faculty Mentor: John Marquez

Sergio Quechol hails from Inglewood, California and identifies as a non-binary femme, Mexican-Salvadoran, and first-generation low-income college student at Pitzer College where they are double majoring in Latin-American & Caribbean Studies and Gender Feminist Studies. As a Mellon Mays Undergraduate Fellow and a previous Chicana/Latinx Studies Department Research Assistant at The Claremont Colleges, they draw from their fields to conduct research on Transness in El Salvador and Salvadorans in the US. Through the exploration of body-based knowledges by feminist scholars such as Audre Lorde and Horacio Ramiro Roque, as well as Latinx/Latin American Trans literature and testimonies, they will focus on moments of individual/communal pleasure, hopes, and desires that trans women experience as a way to disrupt oversaturated narratives of violence, death, and scarcity that trans women have been forced to experience. While gendered violence is pertinent to acknowledge, not giving room for other bodily knowledge does not give full expansivity to trans folks and their experiences. Their frameworks strategically center community building and trans futurities critical to their well-being. They plan to pursue a PhD in Gender/Latinx Studies and continue centering trans experiences. Sergio enjoys collecting records, going on long walks, and trying new restaurants.

# SROP Participants



## **Shannon Michelle Arias Ortega**

**Biological Sciences, California State University – Northridge**

**Faculty Mentor: Dr. Hojoon Lee**

Shannon Arias Ortega is a first generation U.S. citizen and college student. She grew up in a small town in northern Indiana. She is a senior at California State University, Northridge majoring in Cell and Molecular Biology. At CSUN, she works in Dr. Rachel Mackelprang's research lab dealing with antibiotic resistance in permafrost soils. This summer she is working in Dr. Hojoon Lee's lab focusing on taste cells. They are interested in what the determining factor is for stem cells to differentiate into specific taste receptors such as bitter or sweet. She will be using mice tongue receptors to conduct her research. Shannon plans to pursue a Ph.D. in Neurobiology. Her aspirations are to diversify the STEM field and serve as a role model to those who come from disadvantaged backgrounds. She served as a healthcare specialist combat medic in the Army National Guard for six years. Outside of work and research she enjoys dance, she is the Vice President of the Hip Hop Team at CSUN.



## **Sierra Rosetta Tumbleson**

**Drama & Theater Arts, Northwestern College**

**Faculty Mentor: Danielle Bainbridge**

Sierra Rosetta is a rising senior studying theatre at the honors level at Northwestern College in Orange City, Iowa—amidst the cornfields that were her first stage. Raised on a small farm in Southern Minnesota with nothing to do but “play pretend,” Sierra learned to foster imagination into stories from a young age. She is Lac Courte Oreilles, a band of Lake Superior Chippewa Indians who have a long history of oral narrative tradition. The inherent need to create is why she loves using theatre to bring people together and form bridges between cultures. Sierra fell in love with research her senior year of high school when she was named Perpich Center for the Performing Arts “Theatre Scholar of the Year” in 2019 for her research in performance theory and script analysis. In her college's honors program that she leads as a student TA, Sierra presented research this year after adapting and directing a play that showcased Byzantine and Renaissance image theory in modern religious drama. Her research with Northwestern University this summer includes using the ancient theory of rasa by Bharata Mundi in his dramatic treatise Natyashastra, and how this showcases the evolution of modern democracy through a theatrical lens.



## **Sumreen Akhtar**

**Public Health Sciences, University of Michigan – Ann Arbor**

**Faculty Mentor: Dr. Leah Neubauer**

Sumreen Akhtar is a rising junior at the University of Michigan-Ann Arbor studying Public Health and Psychology with a minor in Applied Statistics. She began research in a lab focusing on how socioeconomic status impacts health outcomes and brain development. Sumreen recently co-authored a paper examining the effects of socioeconomic status and systemic racism on adolescent brain and cognitive development. Her motivation to pursue a career in public health stems from her research experiences and volunteer work at a community COVID-19 vaccination clinic in metro Detroit. She is active in student organizations at the University of Michigan such as the Public Health Association and Girl Up Michigan which empowers girls worldwide with access to health and education. Sumreen's current research at Northwestern, under the mentorship of Professor Leah C. Neubauer, explores the impacts of cohort-based learning on student educational outcomes in graduate public health. Her interests outside research include reading, journaling, trying new cuisines, and exploring new places. In the future, she hopes to pursue a dual MPH/PhD.

# SROP Participants



## **Valeria K. Figueroa Stuart**

**Microbiology, University of Puerto Rico – Mayaguez**

**Faculty Mentor: Dr. Erin Rowell**

Valeria Figueroa Stuart is a rising senior at the University of Puerto Rico, Mayagüez Campus. In pursuance of her passions, she is pursuing an Industrial Microbiology degree with a minor in Women & Gender Studies. She is a member of the American Medical Student Association (AMSA) and the Industrial Microbiology Students Organization. Her work as an AMSA Reproductive Health Scholar has further expanded her long interests in women's fertility and sexual and reproductive health, fields that have been historically under-researched. As her first research experience, SROP has provided her with the opportunity to further explore her interests in gynecology and fertility by working with Dr. Erin E. Rowell, MD, as a team member of the Fertility & Hormone Preservation and Restoration Program at the Ann & Robert H. Lurie Children's Hospital of Chicago. She is planning to attend medical school and pursue an MD/PhD program and career. Valeria wants to specialize in gynecology & obstetrics to further knowledge in the field, while providing accessible education to women in reproductive and sexual health.



## **Vanessa Huitron**

**Biology, Northeastern Illinois University**

**Faculty Mentor: Dr. Vadim Backman**

Vanessa Huitron is a Chicago native from the Pilsen community. She attends Northeastern Illinois University and will be completing a Bachelor of Science degree in Biology in Fall 2022. In addition to this, Vanessa enjoys working with animals. She has been a veterinary assistant for 8 years at a general practice animal hospital. She recently began volunteering at PAWS animal shelter and finds it to be very rewarding. Vanessa enjoys studying organisms at the microscopic level. Her work as a veterinary assistant first introduced her to her love of microbiology. In the animal clinic, she found she enjoys identifying and investigating everything under a microscope, from leukocytes to parasites. After this summer, she hopes to continue to gain experience in the microbiology field. She plans to pursue a PhD in Life Sciences.

# SROP Group Leaders



## **Raúl E. Marrero Rosa**

**PhD, Civil and Environmental Engineering**

Raúl E. Marrero Rosa is a new post-doctoral fellow in the Civil and Environmental Engineering (CEE) Department. He completed his Ph.D. in Mechanics, Materials, and Structures program of the CEE program at Northwestern University (NU) in June 2022, as advised by Dr. Corr and Dr. Shah. Raúl is originally from Barranquitas, Puerto Rico. He graduated with a double bachelor's degree in Civil Engineering and Land Surveying & Topography from the University of Puerto Rico Mayagüez Campus. He is a recipient of the National Science Foundation – Graduate Research Fellowship Program (NSF-GRFP) fellowship and an alumna NU Summer Research Opportunity Program (NU-SROP 2015). Raúl's research focuses on examining the fundamental properties of cementitious composites through experimental and some computational modeling to further improve the sustainability, safety, and efficiency of concrete and other infrastructure materials. He is currently working on carbon sequestration in concrete, carbon nanomodified concrete, sulfur-concrete (Martian concrete), and fundamental measurements for concrete 3D printing. He has been a fellow with the TGS Office of Diversity and Inclusion for two years, working in retention and recruiting programs. Raúl likes to hike, play team sports, paint landscapes, and watch anime. Raúl Marrero Rosa aims to obtain a tenure-track position in engineering/structural engineering and provide opportunities and resources to allow underrepresented students to thrive in STEM. He will have his first teaching experience (lecturer) at NU teaching an undergraduate engineering course in the Fall quarter.



## **Monique Newton**

**PhD Candidate, Political Science**

Monique Newton (she/her) is a 4th-year Ph.D. Candidate in the political science department at Northwestern University. She studies Black political behavior in urban settings in the United States. Her research interests lie at the intersection of urban politics, race and ethnic politics, political behavior, and political psychology. A mixed-method scholar, Monique employs ethnographic, interview, survey, and experimental methods to examine Black political behavior in American cities in the United States. Through her research, she examines the effect of police behavior, and the impact traumatic events have on local Black political participation in cities throughout the United States. Before attending Northwestern, she was a Pittsburgh Coro Fellow in Public Affairs and a recent graduate of Oberlin College where she excelled as a student-athlete winning two national titles in women's track and field. A staunch advocate for first-generation low-income college students, Black and Brown students, student-athletes, and those who identify with the LGBT community, Monique prides herself on cultivating strong interpersonal relationships and mentorship. A Sacramento, California native now turned Chicagoan, she enjoys riding her bike along the lakefront trail and cheering for both of Chicago's professional basketball teams in her spare time.



## **Tatiana P. Ortiz Serrano**

**PhD Candidate, Driskill Graduate Program**

Tatiana is a third-year PhD candidate attending the Driskill Graduate Program in Life Sciences at Northwestern University. Under the mentorship of Dr. Karen Ridge, Tatiana's research aims to understand the cellular-molecular aspects of the immune response against severe influenza infection. Her academic pathway in STEM started in the University of Puerto Rico, Río Piedras campus, where she completed a bachelor's degree in Cellular-Molecular Biology with a minor in French Studies. She is currently a Northwestern University Lung Sciences Training Program (NULSTP) trainee, adding to previous fellowships in Maximizing Access to Research Careers (MARC) and Initiative for Maximizing Student Development (IMSD). As an NU-SROP alumna (2018), Tatiana has been thrilled to serve as a group leader this year. In her spare time, she enjoys cooking and baking, among other crafty hobbies.

# SROP Group Leaders



## **Sirenia Sanchez**

**PhD Candidate, Social Psychology**

Sirenia Sanchez is a fifth-year PhD candidate in the Social Psychology PhD program at Northwestern University. She works in the Social Cognition and Intergroup Processes lab under the advisement of Dr. Sylvia Perry, where she investigates the psychological effects of cultural appropriation, the racial and gender differences found in how people perceive risk, and other topics related to stereotyping and prejudice. For her undergraduate studies, she attended the University of California, Santa Barbara where she was a McNair Scholar and double majored in psychology and communication. During undergrad, she also attended Northwestern's Summer Research Opportunity Program in 2017. Sirenia is originally from Southern California and in her free time she enjoys arts & crafts, going on walks with her Chihuahua-mix Nanchi, and taking care of her 15+ house plants.



## **Jamie Guillen Magaña**

**PhD Candidate, Driskill Graduate Program**

Jamie is a fourth-year PhD candidate in the Driskill Graduate Program at Northwestern University. In the lab of Dr. Leonidas Plataniias, her research focuses on investigating the role of Schlafen12 in glioblastoma in the context of cancer progression as well as therapy resistance. In her undergraduate studies, she double-majored in Neuroscience and Behavioral Biology and Psychology at Emory University as a Questbridge Scholar. During her time there, she conducted non-small cell lung cancer research in the lab of Dr. Wei Zhou at the Winship Cancer Institute of Emory University as an Initiative to Maximize Student Development (IMSD) associate. Prior to that, she took part in the microbiology summer undergraduate research program (Micro-SURP) at UTHealth McGovern Medical School in Houston, Texas for two consecutive years as a Gilson Longenbaugh Foundation Fellow. While at Emory, she advocated for students who identified as undocumented or were part of mixed-status families. She also served on the executive board of Camp Kesem, an organization for kids whose parents have been affected by cancer. In her graduate studies, she serves as a member of the DGP Inclusion, Diversity, Equity, and Accessibility (IDEA) Committee, and on the cancer biology cluster leadership team to address issues surrounding diversity and inclusion. She is also the incoming president of Comunidad Latinx, which was originally founded to foster community amongst Latinx graduate students at Northwestern. She is incredibly excited to serve as a summer intern for ODI. As a first-generation student and proud Latina daughter of immigrant parents, she is very passionate about mentoring underrepresented students and advocating for student needs. In her free time, she likes to hike with her mini Australian Shepherd named Ollie, read, listen to Bad Bunny on repeat, and explore Chicago.

# The Office of Diversity and Inclusion

The Graduate School's Office of Diversity and Inclusion (ODI) focuses on the recruitment and support of underrepresented populations to foster an inclusive environment and facilitate community engagement. ODI is committed to the personal and intellectual growth of our diverse student population. ODI partners with the University's [Office of Institutional Diversity and Inclusion \(OIDI\)](#) and the [Office of Equity](#), among others, to provide a transformative educational experience for graduate students and postdoctoral trainees at Northwestern.



**Damon L. Williams, Jr.**  
Associate Dean for Diversity and Inclusion  
The Graduate School



**Rashaad Barnett**  
Assistant Director, Diversity and Inclusion,  
SROP Co-Director  
The Graduate School



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**Cindy Florence Thompson**  
Program Coordinator, Diversity and  
Inclusion  
The Graduate School

# Special Thanks

**The Graduate School**

Northwestern University

**Office of Institutional Diversity and Inclusion**

Northwestern University

**Big Ten Academic Alliance**

**Office of the President**

Northwestern University

**Mellon Mays Undergraduate Fellowship Program**

Northwestern University

**Office of Payroll**

Northwestern University

**Office of the Registrar**

Northwestern University

**All Guest Speakers and Panelists**

**SROP Faculty Mentors and Alumni**

**Ronald E. McNair Post-Baccalaureate Achievement Program**

We would also like to thank all of the graduate students, postdoctoral trainees, and faculty members whose guidance and support were of great importance to our SROP participants.