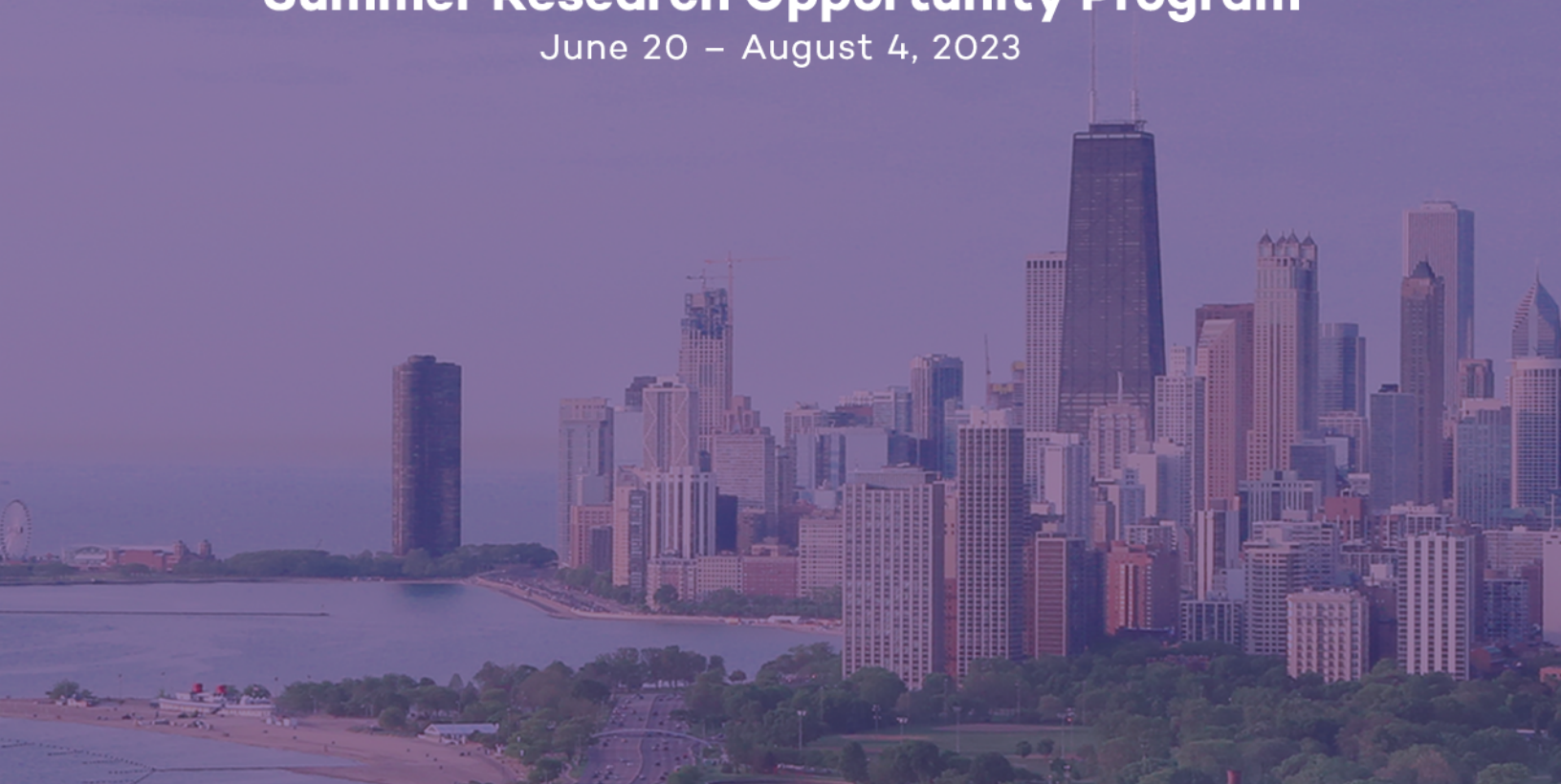


# SROP

**Summer Research Opportunity Program**

June 20 – August 4, 2023





## 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. And over this time we have expanded the disciplinary scope and faculty engagement so that students with broad-ranging interests may benefit from the program.

The Graduate School is proud to advocate for a diverse graduate student and postdoctoral fellow population, as well as an equitable and inclusive graduate student experience across Northwestern. We are stronger as an institution and as a society when we can learn from and consider a broad range of ideas, experiences, and perspectives. This diversity of backgrounds and experiences is a hallmark of SROP, and I hope that you have enjoyed engaging with and learning from other program participants over the course of the summer.

I am pleased that SROP continues to offer student participants a wide-ranging series of academic activities and professional development workshops to aid in preparing each of you for your steps toward graduate education. I greatly appreciate and admire your perseverance and commitment to your scholarly pursuits. 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.

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, your home institutions, 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 38<sup>th</sup> Annual Research Forum for Northwestern's Summer Research Opportunity Program (SROP). We are extremely proud of our SROP participants who will be sharing their summer research projects through oral presentations and poster presentations.

SROP fosters diverse ideas, experiences, and identities for innovation and inclusive excellence. 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.

We welcomed our SROP students seven weeks ago with orientation programming including workshops on mentoring, research, and writing skills. Our SROP participants networked with current graduate students and administrators, participated in our virtual graduate school professional development series led by campus partners, and enjoyed socializing and coaching in our Purple Table Talks 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,

**Sheehan Fisher**

Associate Professor in the Department of Psychiatry and Behavioral Sciences and  
Associate Dean for Diversity and Inclusion at The Graduate School  
Northwestern University



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

Thank you for joining us today as we celebrate the achievements and research of our 38<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



## **Adriana Rodriguez**

**Psychology, Indiana University-Bloomington**

**Faculty Mentor: Changiz Geula, PhD • Mesulam Center for Cognitive Neurology & Alzheimer's Disease**

Adriana Rodriguez is a rising junior at Indiana University-Bloomington studying clinical psychological science, neuroscience, and Spanish. She is originally from Chicago Heights, Illinois, but now lives in Saint John, Indiana. Throughout the summer, Adriana will be working with Dr. Changiz Geula at the Mesulam Center for Cognitive Neurology and Alzheimer's Disease through the Feinberg School of Medicine. At this lab, Adriana will be examining SuperAgers. She is extremely grateful for the opportunity to expand her research experiences in a city she considers to be home. While at Indiana University, Adriana is an undergraduate research assistant for the Clinical Neurotrauma Lab with Dr. Keisuke Kawata exploring the relationship between lifetime exposure to sports-related head impacts and midlife brain health. In addition to being a research assistant, Adriana is also a member of the IU chapter of Nu Rho Psi, the National Honor Society in Neuroscience, Neuroscience Club, and the Alzheimer's Student Alliance. She plans on pursuing a clinical psychology PhD with aspirations of becoming a clinical neuropsychologist studying neurodegenerative disease, especially chronic traumatic encephalopathy in athletes, and associated personality changes.



## **Alejandra Ruiz**

**Biological Sciences, Northeastern Illinois University**

**Faculty Mentor: Brian J. Mitchell, PhD • Cell and Developmental Biology**

Alejandra is an ardent and dedicated senior pursuing her bachelors in biology. Guided by the esteemed mentorship of Dr. Cantú, Alejandra's focus lies in the comprehensive study of gene expression and localization of Pig11 in zebrafish, employing a repertoire of sophisticated protocols such as HCR, PCR, and immunohistochemistry. In recognition of her academic prowess and research acumen, Alejandra earned a position in Northwestern's SROP cohort, working closely alongside Dr. Brian Mitchell to augment her research skills and deepen her knowledge in cellular biology. She has presented her findings at the SCSE Fall Symposium and LSAMP, and was fortunate to partake in the SACNAS conference, where she hopes to showcase her own research. She aims to acquire extensive expertise as an undergraduate researcher and later pursue a PhD in cancer biology, propelled by her passion for scientific exploration and the invaluable mentorship provided by Dr. Cantú, Dr. Brian Mitchell, and her esteemed lab partners. Alejandra eagerly anticipates the opportunity to immerse herself further in the lab, maximizing her knowledge acquisition before commencing her professional career.



## **Alicia Thompson**

**Biology and Biomathematics, Northeastern Illinois University**

**Faculty Mentor: Hao Zhang, PhD • Biomedical Engineering**

Alicia Thompson is from Chicago, Illinois. She graduated from Harold Washington College in 2017 with an associates in general studies. Before and during her time in college, Alicia worked as a science educator at various museums across Chicago where she focused on astronomy, ecology, and history. Alicia attends Northeastern Illinois University where she earned scholarships in the McNair and Marc Star-U programs. Alicia currently is working on her senior thesis focusing on research of the CMA pathways in ALS muscle neurons. She also volunteers her time with Expanding Your Horizons where she helps to create events for young girls to continue their interests in STEM subjects. Alicia is expected to graduate in December 2024 with a BS in biology with biomathematics minor. After graduation, she plans on completing a PhD in microbiology with interests in the fields of bacteriology, virology, and pathogenesis. She plans on working with public health and anthropological collaborators to focus her research on diseases that affect communities outside of the walled world. In her free time, Alicia enjoys traveling, baking, ceramics, consuming comic/anime media, and listening to music.

# SROP Participants



## Andrea Thompson

**Chemistry and Biochemistry, Northeastern Illinois University**

**Faculty Mentor: Vadim Backman, PhD • Biomedical Engineering**

Andrea Thompson is from Chicago, Illinois. She graduated with an associate degree in science from Harold Washington College in 2014. Before going back to school, Andrea worked at the Field Museum of Natural History as a researcher studying ecology and evolution in lichens and ants. She later became a lab manager at Northwestern University in an RNA engineering laboratory. Andrea attends Northeastern Illinois University where she earned a scholarship in the Marc Star-U program. She is majoring in chemistry with a concentration in biochemistry and a minor in math and statistical modeling. She volunteers with Expanding Your Horizons where she helps to create programs to encourage girls in STEM. She is also a tutor that specializes in working with students with disabilities. Andrea expects to graduate in December of 2024 and plans on attending graduate school and completing a PhD in biochemistry or chemical and biological engineering. She hopes to study the mechanisms of various diseases and help to create therapeutic treatments for those struggling chronic illnesses. In her free time, Andrea enjoys listening to music and scientific podcasts, playing video games, and watching movies.



## Aniekan Odong

**Political Science, Northwestern University**

**Faculty Mentor: Stephen C. Nelson, PhD • Political Science**

Aniekan Odong is a third-year undergraduate student attending Northwestern University and was born and raised in Las Vegas, Nevada. He is majoring in political science and data science in the Weinberg College of Arts and Sciences. He has interests in political economy, political corruption, and philosophical theories of ethics. Aniekan has a focus on combining quantitative and qualitative skills within his research. Having been part of the Mathematical Methods in the Social Sciences program and a current project leader in the Brady Scholars Program in Ethics and Civic Life, Aniekan's enriched perspectives allows him to thrive in a research environment. He is currently researching Chicago as a global city; investigating how economic shocks in the US and world economy have promoted wealth disparity. He aims to continue working on research projects in his undergraduate and graduate studies. For fun, Aniekan enjoys reading, music production, drawing, and skateboarding.



## Asiah Florczak

**Philosophy and Psychology with a Minor in Critical Theory, Northwestern University**

**Faculty Mentor: Corey Barnes, PhD • Philosophy**

Asiah Florczak (she/her) is a rising junior at Northwestern University majoring in philosophy with minors in Black Studies and critical theory. She is a first generation student from Frederick, Maryland and a Mellon Mays Undergraduate Fellow. Her academic interests include philosophy of race, Africana philosophy, philosophy of sport, and philosophy of protest. This summer, Asiah will be investigating the moral implications of Black professional athletes' participation in activism and protest, with a particular focus on the NBA. Outside of her research, Asiah serves as the co-chair for the Black Health and Wellness Collaborative, and is committed to cultivating a safe space for Black students on campus to share their struggles with mental health. In her free time, Asiah enjoys watching and participating in various sports such as basketball and football, reading, and listening to music. After graduating, she aspires to pursue a PhD in philosophy with the purpose of forging pathways for more Black women to enter the academy.

# SROP Participants



## Audrey Glosso

**Psychology, Psychobiology, and Computing, University of California-Los Angeles**  
Faculty Mentor: Richard Zinbarg, PhD • Psychology

Audrey Glosso (she/her) is currently attending the University of California, Los Angeles (UCLA) where she is majoring in psychobiology with a specialization in computing. Passionate about advancing mental health treatment, Audrey's research explores psychopathology and the implementation of evidence-based treatments for anxiety and depressive disorders. At UCLA, Audrey's honors thesis examines the effects of augmented behavioral activation therapy on anhedonia, a common symptom of depression. This summer, Audrey will be studying under the faculty mentorship of Dr. Rick Zinbarg at Northwestern's Anxiety and Panic Laboratory. Looking ahead, Audrey hopes to attend a PhD program in clinical psychology upon graduating from UCLA. Outside academia, Audrey enjoys the serenity of hiking, reading a good book, and the companionship of animals.



## Austin Nguyen

**English and Languages & Literatures, University of California-Los Angeles**  
Faculty Mentor: Lauren Michele Jackson, PhD • English

Austin Nguyen (he/they) is a rising senior at UCLA, double majoring in English and language & literatures. His research interests include contemporary poetry and poetics, Asian American studies, queer theory, affect theory, and psychoanalysis. Born and raised in the San Gabriel Valley, he has interned at Kaya Press and the Los Angeles Review of Books, and has contributed to Electric Literature, The Rumpus, and Ploughshares, among other publications. As a Mellon Mays Undergraduate Fellow, he hopes to pursue a PhD in English.



## Beatriz Galeana

**Psychology, University of California-Irvine**  
Faculty Mentor: Melissa Simon, MD, MPH • Obstetrics and Gynecology

Beatriz Galeana is a first-generation, rising fourth year student at the University of California-Irvine where she studies psychological science and medical anthropology. As a Mexican American and daughter of immigrants, she is passionate about advancing health equity for under-served, marginalized populations. Beatriz is interested in how intersectional individuals (i.e., queer people of color) find sources of resilience against social stressors within their communities and forms of collective action. In her future career as a public health professional, she hopes to develop community-based health initiatives with culturally humble practices to solve disparities in intersectional communities. Under the mentorship of Dr. Melissa Simon, Beatriz is working with the Chicago Cancer Health Equity Collaborative to develop strategies on how to increase the representation of historically marginalized groups in pre-health fellowship programs. At UCI, she's worked on cardiovascular health research, serves as peer tutor at the Writing Center, and teaches a seminar about Studio Ghibli films. When she's not doing research, Beatriz loves to watch animated films, take street photography, and go thrifting. She hopes to be a life-long learner and a source of empowerment for individuals from underrepresented backgrounds to pursue their passions.

# SROP Participants



## **Bryan Cárcamo Aceves**

**Latina and Latino Studies, Northwestern University**

**Faculty Mentor: Audrey Silvestre, PhD • Latina & Latino Studies**

Bryan Cárcamo Aceves hails from Compton, California, and is a proud product of the local public school system. He is a first-generation, low-income student of color at Northwestern University, majoring in Latina and Latino studies. Bryan's academic and research interests are grounded in his personal and family experiences with immigration, particularly undocumented immigration, and issues of race and ethnicity. As the child of Mexican immigrants, he is committed to honoring his parents' sacrifices through his academic and research pursuits. To this end, Bryan has participated in several programs, including the Emerging Scholars Program (ESP), the Council for Race and Ethnic Studies (CRES) Undergraduate Fellowship, the Mellon Mays Undergraduate Fellowship (MMUF), the Posse Summer Leadership Award (PSLA), and the Summer Research Opportunities Program (SROP). Through these programs, he plans to collaborate with mentors and community organizations on research projects at the intersection of undocumented immigration and race/ethnicity. Outside of academia, Bryan is a Posse Scholar and a QuestBridge Scholar. He is also an organizer with Students Organizing for Labor Rights (SOLR) and the Undergraduate Prison Education Partnership (UPEP).



## **Cesar Perez**

**Chemistry, Northeastern Illinois University**

**Faculty Mentor: Zhe Ji, PhD • Pharmacology**

Cesar Perez Olivares is a rising senior from Northeastern Illinois University. He was born and raised in Chicago and was the first in his family to attend college. Cesar's academic interests lie in STEM, specifically polymer chemistry and biochemistry. His future goals are to contribute the development of green polymers to deliver drugs safely to the body, and to use his background of biochemistry to explain how the use of green polymer plastic affects the metabolism and other health factors when delivering drugs to peoples' health. During his days off, he enjoys riding his bike throughout the city and the suburbs to discover new places, activities, and bike routes to traverse. His hobbies include cooking, volunteering in food shelters, weightlifting, and reading books.



## **Claire Nesathurai**

**Psychology, Vassar College**

**Faculty Mentor: Jennifer Tackett, PhD • Psychology**

Claire Nesathurai is a rising junior at Vassar College in Hudson Valley, New York, majoring in psychological science and minoring in evolutionary anthropology. She was born in Western New York to a Tamil Sri Lankan father and a white Canadian mother. Her childhood was split between Boston, Toronto, and Northern California. Her personal background and interdisciplinary studies have spurred her interest in psychological research on how specific cultural communities can affect and influence psychological well-being. Claire is working with the PADlab team to study differences in leadership aspirations of college students based on demographic factors and institution type to contribute to our understanding of what factors influence leadership outcomes. Outside the lab, she loves to paint using acrylic washes and wax pastels. She has participated in group exhibitions at Cryptic Gallery and James W. Palmer III Gallery, displaying her portraiture that expresses the shift of the relational self that is inevitable as persons enter adulthood.



# SROP Participants



## Cristian Bonilla

**Biological Sciences, Northeastern University**

**Faculty Mentor: Lauren Balmert Bonner, PhD • Preventative Medicine (Biostatistics) and Pediatrics**

Cristian Bonilla has an associate degree in science from Bunker Hill Community College where he successfully graduated with honors through a well-balanced program of study. He will be starting at Northeastern University next fall, where he will major in biology with a strong interest in the clinical pathway and a passion for healthcare. He successfully completed a Medical Assistant course and has worked as a student intern at Dana Farber/Harvard Cancer Center where he gained solid research, analytical, and problem-solving skills such as RNA isolation, RT-PCR, transfection, and cell culture. He was selected to do a poster presentation at the 2022 Annual Biomedical Research Conference for Minoritized Scientists in Anaheim, California, and also at the 22nd Annual New England Science Symposium at Harvard Medical School. His presentations focused on the different known splicing factors that regulate the production of surviving isoforms and how splicing factors that influence survivin-2B expression are identified. This summer, he will be working alongside Dr. Lauren Balmert Bonner to learn about scoping and systematic reviews through an extensive search, and the development of a REDCap database to catalog publications and summarize critical trial design components. Cristian also enjoys spending time with friends and discovering new spots to watch the sunset.



## Dulce Lopez Alvarez

**Psychology, Wake Forest University**

**Faculty Mentor: Leondra Onnie Rogers, PhD • Psychology**

Dulce Lopez Alvarez is a rising senior at Wake Forest University majoring in psychology and sociology with a minor in Spanish. Born in Queretaro, Mexico and raised in an immigrant household in North Carolina, Dulce's first-hand experiences have informed her passion for exploring how the intersections between race, ethnicity, and citizenship influence immigrant and refugee youth identity development. Dulce hopes to pursue this passion in a doctoral program either in psychology or sociology. This summer, as a research assistant in Dr. Onnie Rogers' Development of Identities in Cultural Environments (DICE) Lab, Dulce will explore how multiracial individuals conceptualize their identity. At Wake Forest, Dulce serves as the president of the Organization of Latin American Students, a co-president of the Psychology Club, and a student advisor for incoming undergraduate students. Outside of academics, Dulce enjoys spending her time with friends and family as well as dancing, working out, taking care of her lab-husky mix, and binge-watching reality TV.



## Emily Weidner

**Mathematics and Mathematics Statistics, University of Cincinnati**

**Faculty Mentor: Noelle Samia, PhD • Statistics and Data Science**

Emily Weidner is a rising senior at the University of Cincinnati where they are currently studying mathematics and statistics. They plan on pursuing data science during a gap year, before pursuing a PhD in statistics. Their academic interests lie in mathematical statistics and statistical analysis of mathematical models. They have previously conducted research on the alignment and proliferation of Schwann cells on scaffolding in the lab of Dr. Harris at the University of Cincinnati. Their research as a part of Northwestern's Summer Research Opportunity Program focuses on change-point analysis of climate change data. Outside of school, they enjoy hiking, crocheting, and community organizing.

# SROP Participants



## Erin Skillon

**Chemical Engineering, University of Michigan-Ann Arbor**

**Faculty Mentor: Jefferey Lopez, PhD • Chemical and Biological Engineering**

Erin Skillon is a rising junior at the University of Michigan-Ann Arbor, pursuing a degree in chemical engineering. During Northwestern's Summer Research Opportunity Program, she is working in Dr. Jeffrey Lopez's research group. In her research project, she will be constructing coin cell lithium batteries and testing them in BioLogic battery cyclers. Her research goal is to compare an organic and inorganic electrolyte and conclude which of the two is the most energy efficient and provides the longest battery life in lithium batteries. This project aligns with Erin's future career goals, as her aspiration is to be part of the process of mitigating climate change by developing more efficient, sustainable, abundant, and inexpensive sources of energy. Outside of her academic pursuits, Erin is passionate about piano performance, learning new languages, and keeping active. She enjoys spending time outside and traveling with her friends.



## Isabella Bonnewit

**Health Sciences and Public Health, University of Michigan-Ann Arbor**

**Faculty Mentor: Lisa Kuhns, MPH, PhD • Pediatrics and Preventative Medicine**

Isabella Bonnewit is a rising senior at the University of Michigan, double majoring in biology, health and society, social theory and practice, and minoring in quantitative methods in the social sciences. Her scholarship has provided her an interdisciplinary lens on public health, research methodology, and critical theory. Isabella's research goal is to lessen racial health disparities through HIV prevention for adolescents, especially by taking an asset-based approach to improve mental and physical health outcomes. She aspires to utilize mixed-method design to develop implementable research that serves as a tool for social change. As a researcher at the University of Michigan Student Opportunities for AIDS/HIV Research Program, Isabella evaluates how critical consciousness develops among key populations affected by HIV under the direction of Rogério Pinto. Isabella hopes to pursue an MPH and PhD in public health in order to become a researcher, educator, and advocate for sexual and gender minority youth and youth of color. In her free time, Isabella enjoys cooking, playing board games, and spending time with her friends and family.



## Isis Murillo Bravo

**Latin American Studies and Gender & Sexuality, Pomona College**

**Faculty Mentor: Nathalie Bouzaglo, PhD • Spanish & Portuguese**

Isis Murillo Bravo is a rising junior majoring in Latin American studies, with a specialization in gender & sexuality, at Pomona College. Isis was born and raised in Lima, Peru before moving to Connecticut as a teenager. Her educational journey was unorthodox. After taking a gap year, she attended Manchester Community College, where she graduated with an AS in business administration and accounting. Because of her background as an immigrant and community college graduate, Isis has a first-hand experience of the lack of support and representation that underrepresented students face in higher education. Her goal is to be part of that representation and become a mentor for future generations. Furthermore, the liberal arts education at Pomona opened a new world of inquiries for her. Her current research interests lie at the intersection of Latin American studies, gender & sexuality studies, and religious studies. Her goal is to have a thorough understanding of the historical impact of religion in the way Latin American women understand and relate to their sexual pleasure. In the long-term, she aims to establish that sexual pleasure as a starting point in sex education can lead to healthier, safer and pleasurable sex.

# SROP Participants



## Janelle Baker

**Biomedical Engineering, Stanford University**

**Faculty Mentor: Eric Perreault, PhD • Biomedical Engineering**

Janelle is originally from Dallas, Texas and is a rising senior studying at Stanford University. After completing her undergraduate studies, Janelle hopes to pursue a Ph.D. in biomechanical engineering or rehabilitation science. She is interested in doing research in biomechanics and eventually becoming a professor. Janelle has previously done research in cancer cell biology, biomedical electronics, and musculoskeletal radiology. She has worked with faculty at UT Southwestern Medical Center, Stanford University, and the University of Southern California. This summer, Janelle is working with the Perreault group at the Shirley Ryan Ability Lab. Her research is focused on estimating the dimensionality of multi-muscle EMG recordings to better understand how the central nervous system organizes the activation of muscles to complete activities of daily living. Outside of academia, Janelle enjoys the performing arts. She has trained in all dance styles and has served as a Teaching Assistant for dance classes at Stanford. Also at Stanford, Janelle is a performer for a student-led Hip Hop dance group.



## Janvi Subramanyan

**Neurosciences, University of California-Los Angeles**

**Faculty Mentor: Paul J. Reber, PhD • Psychology**

Janvi Subramanyan (she/her) is a rising Senior at UCLA majoring in neuroscience and minoring in anthropology. She is curious about how our understanding of multiple memory systems in the brain can inform how to help people learn better. Her research investigates what kind of training/learning can produce the highest semantic memory performance. Through neuroscience, psychological, and anthropological lenses, Janvi hopes her research can inform educational professionals and students about effective learning practices. Janvi loves to learn and ask questions, and she enjoys her classes at UCLA as well as working in Dr. Ladan Shams' multi-sensory perceptual learning lab. After graduating, she intends to pursue a PhD to continue her research. Expanding on her academic interest in education, Janvi volunteers with Women in Data Science to inspire high school girls to pursue careers in STEM, Interaxon at UCLA where she writes, translates, and teaches neuroscience lessons to elementary school students in underfunded neighborhoods around LA, and DemocraShe, where she creates curriculum and runs workshops on engagement in politics and activism for high school girls. Janvi is also President of the UCLA Women's Club Soccer team and loves to spend whatever free time she has out on the field.



## Jinhee Heo

**Asian American Studies, English: Literature, and Asian Languages & Cultures, Northwestern University**

**Faculty Mentor: Jeon Eun Annabel We, PhD • Asian Languages & Cultures**

Jinhee Heo is a rising junior at Northwestern University majoring in creative writing and Asian American studies. She is a first generation student and Mellon Mays Undergraduate Fellow from Lexington, Massachusetts. Her academic interests include the Korean diaspora, post-colonial literature, and asexuality studies. This summer, she will be researching memoirs written by Korean American authors that center mother-daughter relationships to explore intergenerational and diasporic identity formation, family construction, and memory. As a Matriculate college advisor and member of Northwestern's Multicultural Student Affairs team, Jinhee is committed to educational equity, accessibility, and diversity. She is also the director of the Lexington Debate Institute, a nonprofit debate program for middle-grade students in the Greater Boston area. Jinhee enjoys long walks, baking, and journaling in her free time.

# SROP Participants



## **Kiana Mohammadian**

**Engineering, Bioengineering, and Biomedical, Columbia University in the City of New York**  
Faculty Mentor: Guillermo Ameer, D.Sc • Biomedical Engineering

Kiana is a rising senior at Columbia University, where she is studying biomedical engineering and minoring in entrepreneurship. Kiana was born in Toronto, Canada, but she grew up in Naperville, Illinois (about 1.5 hours away from Evanston). She is interested in the areas of clinical engineering and translational research. Kiana has experience researching sensor-based medical devices, such as wearable physiological symptom sensors to detect COVID, inflatable hip-airbag belts, powered prosthetics, and robotic walkers. During the semester, Kiana is involved with a microfluidics lab, where she helps develop point-of-care (bedside) chips to detect cancer mutations through a liquid biopsy. She hopes to continue developing devices and techniques that improve healthcare for patients and providers in the future. In her free time, Kiana enjoys volunteering as a tour guide at her local history museum (Naper Settlement), biking, cooking, and spending time with family.



## **Muskan Aslam**

**Engineering, Bioengineering, and Biomedical, North Carolina State University at Raleigh**  
Faculty Mentor: Guillermo Ameer, D.Sc • Biomedical Engineering

Muskan Aslam is a rising senior at North Carolina University, where she is majoring in biomedical engineering with dual concentrations in regenerative medicine and rehabilitation engineering. At her home institution, she has contributed to the fabrication of a tendon-on-chip system to study the effects of fluid shear on tenocyte gene expression for tendon wound healing therapies. This summer, Muskan will be working on the development of a proregenerative ointment for diabetic wound healing in the Ameer lab. Outside of research, Muskan is passionate about reducing gender disparity in engineering and serves as president of Girls Engineering Change, an organization dedicated to this mission. After completing her undergraduate degree, Muskan plans to pursue a PhD in biomedical engineering. Her goal as a future research is to conduct research regarding treatments for chronic diseases that disproportionately affect minority communities. She also hopes to perform service work to reduce gender disparity and encourage diversity in the field of engineering.



## **Naima Akter**

**Genetics and Biochemistry & Molecular Biology, Hamilton College**  
Faculty Mentor: Yogesh Goyal, PhD • Cell and Developmental Biology

Majoring in biochemistry & molecular biology at Hamilton College, Naima is a participant in the 2023 Dual SROP Biomedical Engineering EFRI Research Experience and Mentoring Program offered at Northwestern University. She is interested in the several pathways of stem cell differentiation, using single-cell omics to study cell development, cardiovascular diseases, and other malignant cancers. As a summer undergraduate research in the Goyal lab, Naima explored the resistant fates in KRAS G12C cancers. Being a low-income student hailing from Queens, New York, Naima was most ever grateful for this opportunity to dive into the world of single-cell biology and use its approaches to study the complex nature of the cancers that arise from the KRAS G12C mutation. She knows that her time in the lab will prepare her for the MD-PhD degree she hopes to pursue in the future. Outside of research, Naima enjoys painting, watching and critiquing movies, reading horror books, and hanging out with her friends and family.

# SROP Participants



## **Natalie Garcia**

**Political Science, Rutgers University-New Brunswick**

**Faculty Mentor: Reuel Rogers, PhD • Political Science**

Natalie Garcia is a rising senior studying political science at Rutgers University-New Brunswick. She is a New Jersey native, born and raised in the small Central Jersey town of Middlesex. Natalie is the proud daughter of Colombian immigrants and the youngest in a family of five siblings. Last summer at her home institution, she participated in the McNair Scholars Summer Institute and worked alongside Dr. Stacey Greene. Her project explored how online social movements impact the self-identities of students of color in higher education. This year, under the guidance of Dr. Reuel Rogers, she is researching mass incarceration, a socio-political issue facing black and brown communities within the United States. Natalie strives to obtain her PhD in political science with a focus on race and ethnicity politics and data science after completing her undergraduate career. In her free time, she enjoys reading, traveling, and spending time with family and friends.



## **Patrick Reyna**

**Sociology, Northwestern University**

**Faculty Mentor: Beth Redbird, PhD • Sociology**

Reyna is an undergraduate student studying sociology at Northwestern University. Reyna grew up in Arlington, Texas where a lack of public transportation infrastructure greatly shaped their research interests in how people interact with and feel about the physical infrastructures that make up their daily lives. Reyna also is heavily involved in a number of Latino organizations on campus, and they say that their favorite way to connect with their Mexican culture is by playing in their two bands: Mariachi Northwestern and Los Gatos del Norte. In their free time, Reyna loves learning new instruments, exploring local food scenes, and watching video essays. Reyna hopes to continue doing research in graduate school with the goal of advocating for public infrastructure that serves the local communities most impacted by them.



## **Shane Appiah**

**Afro-American Studies and Sociology, Howard University**

**Faculty Mentor: Katrina Quisumbing, PhD • Sociology**

Shane Appiah is a rising senior from Springfield, Massachusetts pursuing an Africana Studies major and sociology minor at Howard University. Shane is a Mellon Mays Undergraduate Fellow and member of the College of Arts and Sciences Honors Program. Under the mentorship of Dr. Michael Ralph and Dr. Amy Yeboah, his undergraduate thesis explores the tension between Howard's 785 million dollar capital investment plan, the largest in institutional history, amidst student protests for inadequate attention to basic infrastructure. His research this summer takes a comparative-historical approach to explore contingencies and differences in how The Hilltop, Howard's student newspaper, covers structural issues at Howard University. For graduate school, he is interested in the mortality and morbidity rates of NYC essential workers during COVID-19. While academic studies of essential workers tend to focus on statistics measuring disproportionate rates of mortality and morbidity, his research will explore the lived experiences of these workers as a way to illuminate to what extent mass media's praise for essential workers reflected structural support for this group. Shane plans to obtain his PhD in sociology and become a tenure-track professor. When he is not researching, he enjoys spending time with friends and listening to music.

# SROP Participants



## Sumreen Akhtar

**Health Sciences and Public Health, University of Michigan-Ann Arbor**

**Faculty Mentor: Leah Neubauer, EdD, MA, CPH • Preventative Medicine (Public Health Practice)**

Sumreen Akhtar is a rising senior at the University of Michigan-Ann Arbor studying public health sciences and psychology with a minor in applied statistics. Sumreen is a research assistant at the Michigan Center on Lifestage Environmental Exposures and Disease, and is a co-author on a paper examining the effects of low socioeconomic status and systemic racism on adolescent cognitive development and health outcomes. 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. Under the mentorship of Dr. Leah Neubauer, Sumreen's research at Northwestern evaluates the long-term impacts of a public health boot camp on HIV/AIDS practitioners. With Dr. Neubauer, she also is working on a NIH-funded international D43 grant on cardiovascular research training in Nigeria. In the future, she hopes to pursue an MPH and a PhD. As a first-generation college student, Sumreen is passionate about promoting educational access and equity for disadvantaged students. Outside research, she enjoys exploring new places, trying new foods, spending time with friends, reading, and journaling.



## Valeria Figueroa Stuart

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

**Faculty Mentor: Erin E. Rowell, MD • Surgery (Pediatric General Surgery)**

Valeria Figueroa Stuart (she/her/ella) is a student at the University of Puerto Rico, Mayagüez pursuing a BS in industrial microbiology with a minor in women & gender studies. Her research interests include reproductive and sexual health, pediatrics, health disparities, and medical ethics. During last summer, Valeria had the opportunity to work with Dr. Erin Rowell as part of Northwestern's SROP in developing her first research project about language barriers for Latine pediatric patients who undergo Fertility Preservation procedures. With this project she received a Research Award at the New England Research Symposium of the Latino Medical Student Association. Back in Puerto Rico, Valeria has developed a research project about sexual health in college-aged women. This summer she will continue her work with Dr. Rowell on health disparities and medical ethics. She is planning to attend medical school and pursue a MD to further her passion for medicine. Valeria wants to engage in multidisciplinary work through medicine, research, and public policy that increases the quality and accessibility to healthcare in under-served populations. Outside of her work, Valeria enjoys cooking, volunteering, spending time with her family, and visiting the beach back home.



## Victor Omojola

**Film & Media Studies and Political Science, Columbia University in the City of New York**

**Faculty Mentor: Seyedeh Mehrnoosh Fetrat, MFA • Radio/Television/Film**

Oluwaseun Victor Omojola is a senior at Columbia University where he studies film & media studies with a minor in political science. At Columbia, Victor has conducted research on early Pan-African film in West Africa. He is also the deputy editor of the school's undergraduate magazine, The Blue and White, where he has written about and interviewed award-winning Nigerian filmmakers such as Arie Esiri and Olive Nwosu. His output for the magazine includes features on the reign of adaptation and IP in Hollywood, the Pan-Africanist currents within 2020's #EndSARS movement, and the politics of Kendrick Lamar's Pulitzer win. Victor has also interned at Film Forum, NYC's only autonomous nonprofit cinema, under repertory programmers Bruce Goldstein, Elspeth Carroll, and Lindsay Harvey. This summer, he will produce a video project that interrogates the work of Cuban Third Cinema film artists by analyzing how the appearance of Yoruba culture in their work enhances or complicates their political messaging. Victor was born in Ilorin, Nigeria and raised in Western Massachusetts. In his free time, he enjoys watching movies at independent theaters like Amherst Cinema and agonizing over the woes of the Boston Celtics and Liverpool Football Club.

# SROP Group Leaders



## Cheyenne Bates

PhD Candidate, Psychology

Cheyenne is a third-year doctoral student studying clinical psychology. Her primary interests consist of identity and leadership development of adolescents. Her research focuses on how early life experiences and identity factors function to influence those developmental processes, in addition to maladaptive outcomes such as psychopathology. Cheyenne's professional and personal passions include mentorship, uplifting marginalized communities, and increasing access to educational opportunities for those facing systemic barriers. Her long-term goals include being a professor, therapist, and opening a nonprofit organization for youth to build upon their interpersonal, emotional, and academic skills. Cheyenne is a San Diego native and a graduate from California State University San Marcos, where she spent two years as a research assistant in a child developmental psychopathology lab. In her free time, she enjoys going on walks with her dog, Kobe, going to the gym, and exploring Chicago.



## Erica Rosario

PhD Candidate, Interdisciplinary Biological Science Program

Erica Rosario is currently a PhD candidate in the Interdisciplinary Biological Sciences Program (IBiS) at Northwestern University. Currently, Erica is leading several projects which investigate how membrane dynamics impact organelle distribution and membrane contact site formation. She received her bachelor's with honors from CUNY Hunter College, where she developed her interest in science communication. Erica has taken part in several STEM outreach and DEI initiatives in the Chicago area, partnering with organizations such as Society for Advancement of Chicanos and Hispanics in Science (SACNAS), Girls4science and Diversity in Biological Sciences (DiBS). Erica joined the Summer Research Opportunity Program (SROP) as a STEM group lead the Summer of 2023.



## Jamie Guillen Magaña

PhD Candidate, Driskill Graduate Program

Jamie is a rising fifth-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 the immune micro-environment, as well as using SLFN12-modulating drugs as a therapeutic tool in Leukemia. In her undergraduate studies, she double-majored in neuroscience and behavioral biology and psychology at Emory University as a Questbridge Scholar. At Emory, she conducted non-small cell lung cancer research in the lab of Dr. Wei Zhou at the Winship Cancer Institute as an Initiative to Maximize Student Development (IMSD) associate. She also served on the executive board of Camp Kesem, an organization for kids whose parents have been affected by cancer, and advocated for students who identified as undocumented or were part of mixed-status families. Prior to Emory, she took part in the microbiology summer undergraduate research program (Micro-SURP) at UTHealth McGovern Medical School in Houston, Texas as a Gilson Longenbaugh Foundation Fellow. Jamie currently 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 president of Comunidad Latinx, which was originally founded to foster community amongst Latinx graduate students at Northwestern. She is incredibly excited to serve as an ODI fellow and SRPO group leader. 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, and explore Chicago.

# SROP Group Leaders



## **Kai Chase**

**PhD Candidate, English**

Kai (they/them) is a trans\* PhD candidate attending the Weinberg College of Arts & Science Graduate Program in English literature at Northwestern University. Their work is primarily concerned with intersections of Black and Indigenous feminist thought across the Americas as well as with embedded questions of environmental justice and critiques of settler sexuality. Their dissertation argues for a new understanding of contemporary Caribbean literature through the “neo-conquest narrative,” a narrative strategy deployed by Black and Indigenous writers that rewrites primal sites and scenes of colonization to critique the machinations of land dispossession. Kai is gratefully aided in their pursuits through the guidance of their committee: Dr. Kelly Wisecup, Dr. Michelle Huang, Dr. Kaneesha Parsard, and Dr. Emily Maquire. As a teacher, they find great purpose in working in the classroom as a liberatory space. Their experience with SROP this summer has further provided them with opportunities to learn from and grow alongside upcoming graduate students as they define their own goals and aspirations. As a poet, they write largely around love, ecology, and freedom, with the occasional piece about dilapidating furniture. When not reading and writing, they enjoy spending time with their pup Atlas, playing video games, and floating in Lake Michigan.



## **Spencer Nabors**

**PhD Candidate, Philosophy**

Spencer Alexandria Nabors is a PhD candidate in philosophy at Northwestern University. She began her philosophy journey at Spelman College where she graduated in 2020 with honors. Her research interests are in critical phenomenology, social epistemology, and philosophy of race. At Spelman, Spencer was a Mellon-Mays Undergraduate Research Fellow. In 2019, she served as president of the Martin Luther King Jr. Chapel Assistants Program at Morehouse College. She is only the second woman to hold the esteemed position. At Northwestern, Spencer is a Critical Theory Mellon Cluster Fellow. She also serves as a fellow in the Office of Diversity & Inclusion where she assists with retention programming and serves as a graduate mentor in the Summer Research Opportunities Program. In her free time, Spencer enjoys reading by the lake and exploring Chicago.



## **Tatiana P. Ortiz Serrano**

**PhD Candidate, Driskill Graduate Program**

Tatiana is a fourth-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) fellow, 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 for the last two years. In her spare time, she enjoys cooking and baking, among other crafty hobbies.



# 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 fellows at Northwestern.



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# Special Thanks

**The Graduate School**

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**Office of Institutional Diversity and Inclusion**

Northwestern University

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**Office of the President**

Northwestern University

**Mellon Mays Undergraduate Fellowship Program**

Northwestern University

**Office of Payroll**

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**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.