

Keishla Colon Montanez

1119 S 19th St.

Milwaukee, WI 53204

414-614-5009

keishlanicolecolon@gmail.com

EDUCATION

The University of Chicago, Chicago, IL

June 2024

Bachelor of Arts in Biological Sciences and Bachelor of Arts in Global Studies

Abroad Education

Hebrew University

Spring 2023

Jerusalem, Israel Study Abroad, Middle Eastern Studies

University of Chicago Paris Campus

Winter 2024

Paris, France Study Abroad, Global Health Program

AWARDS AND HONORS

2024 *Barbara A. Horwitz & John M. Horowitz Excellence in Undergraduate Research*

- Recipient of the Excellence in Undergraduate Research Award, part of the distinguished Barbara A. Horwitz and John M. Horowitz Undergraduate Research Awards program. This competitive accolade is awarded to just 15 of the initial 30 recipients of the Outstanding Abstract Award, following a rigorous selection process. My project, 'Identifying Associations of Human Surfactant Protein A SNPs and Allelic Variants with Retinopathy of Prematurity,' conducted under Dr. Patricia Silveyra at Indiana University, was among those honored. Final selection was made by a panel of judges at the American Physiology Summit meeting, based on an in-depth presentation of my research. This award signifies exceptional achievement in undergraduate research within the APS community.

2024 *Barbara A. Horwitz & John M. Horowitz Outstanding Abstract Award*

- Recipient of the Barbara A. Horwitz and John M. Horowitz Outstanding Abstract Award at the American Physiology Summit, a prestigious recognition awarded to only 30 undergraduate students annually. My abstract, 'Identifying Associations of Human Surfactant Protein A SNPs and Allelic Variants with Retinopathy of Prematurity,' conducted within Dr. Patricia Silveyra's lab at Indiana University, was distinguished for its excellence, contributing novel insights into neonatal health research.

2024 *Undergraduate Research Award by Society of Toxicology*

- Recipient of the Society of Toxicology (SOT) Undergraduate Student Research Award, an elite honor awarded to only 16 undergraduates across the United States and Canada from hundreds of applicants. This award was earned for my project on 'Exposure to Acute Ambient Ozone Triggers Differential Lung Inflammation in Asthmatic Male and Female Mice,' conducted under the guidance of Dr. Patricia Silveyra at Indiana University Bloomington.

2022 *Barbara A. Horwitz & John M. Horowitz Outstanding Abstract Award*

- Recipient of the 2022 Outstanding Abstract Award, part of the prestigious Barbara A. Horwitz and John M. Horowitz Undergraduate Research Awards, presented annually at the American Physiology Summit. This selective accolade recognizes only 30 undergraduate students each year for their exceptional research presentations. My awarded project, titled 'Sex Differences in Lung Inflammation Profiles in Asthmatic Mice Exposed to Ambient Ozone’.

2020 Odyssey Scholarship by University of Chicago

- Awarded full undergraduate tuition and housing funding based on financial need and family background, as part of a program dedicated to supporting first-generation and low-income students. Received academic, social, and career support, along with additional funding for study abroad and essential costs, enhancing my educational experience and global exposure.

RESEARCH EXPERIENCE

2025 Research Technologist at Dr. Carol Everson’s Lab at The Medical College of Wisconsin

- Taking part in a major research project investigating the effects of chronic sleep deficiency in rats and leading two experiments on sleep deprivation and ambulation control protocols.
- Undergoing direct oversight of experimental mouse colonies, comprehensive animal care management, and upcoming analysis of post-intervention necropsies following 2-month sleep disruption protocols.

2023 - 2024 Undergraduate Research Investigator at Dr. Jasmin Tiro Lab at University of Chicago

- Engaged in "Promoting HPV Vaccination Among Latinx Young Adults" research, utilizing Photovoice to identify key informational needs and decision drivers.
- Facilitated Spanish translation of research materials, coordinated community health outreach, mastered Redcap for data collection, and aided in IRB proposal development.

2023 University of Chicago Global Health Fellowship at Universidad del Quindío

- Joined the final phase of a KAP study on congenital toxoplasmosis in Armenia, Colombia, focusing on statistical analysis of clinic visit data to evaluate prevention strategies, and directly contributed to data gathering from local clinics.
- Actively involved in a forensic study examining the prevalence of toxoplasmosis in victims of violent deaths, conducting serological ELISA tests and brain histology analysis to determine the infection's impact on public health outcomes.

2021 - 2022 Research Intern at Dr. Patricia Silveyra’s Lab at Indiana University Bloomington

- Investigated sex and environmental differences in asthmatic mice, using PCR, gel electrophoresis, and histology; led lab meetings and contributed to four conference presentations.
- Explored genetic factors in retinopathy of prematurity using PCR and statistical analysis on human and mouse samples; identified protective SP-A1/SP-A2 polymorphisms, aiding in understanding of this condition.

PUBLICATIONS:

1. Nathalia Marulanda-Orozco, **Keishla Colon-Montanez**, Morgan Ramirez, Jennifer Nessim, Elizabeth Torres-Morales, Juan Carlos Medina, Ofelia del Socorro Hincapie, Miguel

- Baquero, Jose Fernando Marín, Jorge E. Gomez-Marin, Prevalence of IgG and IgM antibodies to *Toxoplasma gondii* in forensic blood samples from different causes of death in central Andes region in Colombia, *Journal of Forensic and Legal Medicine*, Volume 109, 2025, 102795, ISSN 1752-928X, <https://doi.org/10.1016/j.jflm.2024.102795>.
2. [Colon Montanez KN](#), Brass K, Rousselle D, Aston C, Silveyra P, Bhatti F. Identifying associations of human surfactant protein A SNPs and allelic variants with retinopathy of prematurity *Physiology*, Volume 31, Issue S1, May 1, 2024. (Published Abstract & Manuscript has been submitted)
 3. [Colon Montanez KN](#), Fuentes N, Montes M. Silveyra P. Sex differences in lung inflammation and microbiome profiles in asthmatic mice exposed to ambient ozone *The FASEB Journal*, Volume 36, Issue S1, May 12, 2022. (Published Abstract)

Research Conferences & Presentations

1. Colon Montanez, K. (2024). Society for the Advancement of Native Americans/Hispanics and Chicanos in Science National Diversity Conference (SACNAS), Attendee; Phoenix, Arizona.
2. Colon Montanez, K. (2024). American Physiological Society Summit. “Identifying associations of human surfactant protein, A SNPs and allelic variants with retinopathy of prematurity”. Award Poster Presenter; Long Beach, California
3. Colon Montanez, K. (2024). Society of Toxicology Annual Conference. “Exposure to acute ambient ozone triggers differential lung inflammation in lung tissue from asthmatic male and female mice”. Award Poster Presenter; Salt Lake City, Utah.
4. Colon Montanez, K. (2024). Consortium of Universities for Global Health Conference. “Prevalence of IgG and IgM antibodies to *Toxoplasma gondii* in forensic blood samples from different causes of death and initiation of studies of brain histopathology in decedents.” Poster Presenter; Los Angeles, California.
5. Colon Montanez, K. (2023). Center for Global Health Global Health Symposium. “Prevalence of IgG and IgM antibodies to *Toxoplasma gondii* in forensic blood samples from different causes of death and initiation of studies of brain histopathology in decedents.” Poster Presenter; Chicago, Illinois
6. Colon Montanez, K. (2023). NDI STEM Conference by Society for the Advancement of Native Americans/Hispanics and Chicanos in Science (SACNAS). Attendee; Portland, Oregon.
7. Colon Montanez, K (2022) Society of Toxicology Annual Conference “Exposure to Ambient Ozone Exerts Differential Lung Inflammatory and Immune Responses in Asthmatic Male and Female Mice”. Poster Presenter; San Diego, California.
8. Colon Montanez K (2022) Experimental Biology Conference by American Physiological Society. “Sex differences in lung inflammation and microbiome profiles in asthmatic mice exposed to ambient ozone”. Oral Presenter & Poster Presenter; Philadelphia, Pennsylvania.
9. Colon Montanez, K. (2022) Society for the Advancement of Native Americans/Hispanics and Chicanos in Science National Diversity Conference (SACNAS). Sex differences in ozone air pollution effects on lung inflammation and microbiome profiles in asthmatic mice. Poster Presenter; San Juan, Puerto Rico
10. Colon Montanez, K. (2021). Society for the Advancement of Native Americans/Hispanics and Chicanos in Science (SACNAS). STEM Virtual Research Conference; Attendee.

SKILLS & EXPERTISE

Wet lab: Mice Model, Cell Culture, Sample Handling, DNA/RNA Extraction, PCR/qPCR, Gel Electrophoresis, Western Blotting, Genotyping, Microscopy, ELISA, Histological Analysis, Brain Scan Analysis, Mice & Rat Dissection, Rat Necropsy.

Dry Lab: Data analysis, Text-Interpretation, Bilingual Survey Building and Analysis, Mapping

Relevant Coursework: Molecular and Cell Biology, Quantitative Biology, Genetics, Stem Cell Biology, Physiology, Epidemiology, Developmental Biology.

Technical Proficiencies: RStudio, Prism Modeling, REDCap, EPIC, MAX QDA, Excel, ClockLabs

Languages: English (fluent), Spanish (fluent)

LEADERSHIP

- Chapter Co-President, UC SACNAS (Society for the Advancement of Chicanos/Hispanics & Native Americans in Science) (3 years)
 - Served as co-president leading initiatives like workshops and networking events that support underrepresented students and further expose them to careers in STEM.
 - Encouraged conference participation and fostered a research-driven chapter, resulting in over 12-chapter members from the undergraduate and graduate level attending SACNAS national conference.
 - Attended the C.O.L.O.R Retreat in 2023 and 2024, a leadership development program for SACNAS officers, and earned completion certificates for both years.
- Executive Board Social and Cultural Chair, OLAS (2 years)
 - Coordinated fundraisers and networking events to raise awareness of Latinx issues for the broader campus community with average turnouts of 30+ participants.
 - Led the organization and execution of the "Cultural Show/Week," the largest annual event, featuring a series of cultural, political, and social activities, as well as community service initiatives and fundraising efforts.

STUDENT ENGAGEMENT & TEACHING

- Teaching & Laboratory Assistant (Carmen High School SE Campus) Summer 2024-Present
 - PLTW Laboratory and Teaching Assistant Biomedical Engineering Course (12th Grade)
 - Chemistry Laboratory and Teaching Assistant (10th grade level)
 - Supported high school lab setup and conducted in-class testing prior to student use, ensuring functionality and safety. Guided students through lab exercises in areas such as forensic chemistry & toxicology, teaching essential techniques like pipetting and gel electrophoresis. Assisted with classroom organization, managed inventory and chemical supplies, proctored exams, and engaged in grading and answering student questions.
- Center for Student Success Communications Coordinator June 2022-June 2024

- Spearheaded social media engagement and flyer creation to inform and involve FLI students with the office, resulting in high turnout (150+)
- Managed weekly newsletter content curation and served as front desk attendant, providing guidance on office resources for FLI Students (First Generation, Low Income, Immigrant).
- Science Montgomery Project Intern Summer 2024
 - Supported the island-wide "Taller de Ciencias" initiative across four regions and over eight schools in Puerto Rico in collaboration with Puerto Rico's Department of Education. Assisted in research and evaluation, analyzing the impact of a 5-hour educational session on students' engagement and facilitated the project's focus on mentoring, scientific communication, and guiding students in competitive science fair projects.
 - As a Science Montgomery intern, managed post-conference awards and maintained communication with funders. Assisted in drafting the initial planning for the 2025 ScienceMontgomery Conference, a high school science fair supported by sponsors like AstraZeneca and MRI Global.

Relevant Experiences

- Pozen Global Health Scholars Program (Junior and Senior Years) 2022-2024
 - Selected for a rigorous, two-year program focused on global health equity and career readiness. Completed skills workshops in areas such as digital health, decolonizing global health, policy analysis, and human-centered design; received access to funding for certifications and conference attendance.
- University of Chicago Kigali, Rwanda Global Health Trek Participant December 2023
 - During the 5-day immersive experience, I analyzed community-based public health interventions through site visits to organizations like AHF (Aids Healthcare Foundation) and Gardens for Health, focusing on HIV reduction and maternal-child health strategies.
 - Gained insights into integrating cultural sensitivity with research-driven health solutions, reinforcing my commitment to translating scientific findings into impactful interventions.
- US in STEM Program (Freshman and Sophomore Years) 2020-2022
 - Selected for a two-year cohort program dedicated to advancing underrepresented students in STEM through technical training, skills-building workshops, and internships. Completed a three-part "Excel Training Series" by Training the Street, covering banking fundamentals, Excel best practices, and data analysis skills, including advanced functions and efficiency tips, to develop industry-standard competencies.
- AMREF Health Africa
 - Business Development & Partnerships Intern (Remote) March 2023-June 2023
 - Prioritized fundraising efforts for AMREF Health Africa's Kefeta project, driving research to secure contributions for youth empowerment and health education in Ethiopia, while also sourcing support for the Koota Injena initiative.

- Broadened funding strategies to encompass a portfolio of AMREF's projects, including imminent ventures, thereby ensuring the continuity and expansion of health programs to African communities.
- Advocate Aurora St. Luke's Hospital (Surgical Department)
 - Nursing Assistant December 2020-August 2021
 - Delivered comprehensive patient care in a surgical department, delivering meals, administering medicine, conducting vital checks, and assisting with therapy, ensuring optimal postoperative recovery.
 - Served as a COVID-19 screener during the pandemic, meticulously screening patients, and family members, managing treatment protocols, and providing critical support in a high-risk environment.

OTHER:

- Public Rights Project
 - Legal Team Intern January 2023-March 2023
 - Conduct research on national reproductive health legislation and help drafting amicus briefs for Wisconsin's reproductive health court case agenda.
 - Liaise with local and state government stakeholders on trial and amicus brief preparation.
- Evan Guthrie LLC
 - Law Firm Intern September 2022-January 2023
 - Conduct legal research and data inquiry for publication in PreLawLand.com
 - Researched and synthesized legislation and current events for presentation to key firm.