

Curriculum Vitae
Nicole Mayerli Constante
347-608-8707 || mayerliconstante@gmail.com

EDUCATION

Bachelor of Arts in Biological Sciences, Northwestern University, Evanston, IL, 2020-2024

RELEVANT COURSEWORK

Molecular Biology	Cell Biology	Organic Chemistry (+ lab)
Biology of Cancer	Molecular Genetics	General Chemistry (+ lab)
Statistics	Biochemistry	Cell Signaling
Biology of Aging	Human Genomics	Single-Variable Differential Calculus
Single-Variable Integral Calculus		

RESEARCH EXPERIENCE

July 2024 - Present

Postgraduate Research Associate

Yale University, New Haven, CT || Dr. Joseph Contessa

- Mechanisms of Radioresistance in Head & Neck Cancer
 - Investigating cetuximab resistance in Head and Neck cancer cells upon the loss of Janus Kinase TYK2 and visualizing cell cycle stages in JAK1 Knockout (KO) cell lines using FUCCI reporters.

March 2021 - June 2024

Research Aide III

Feinberg School of Medicine, Chicago, IL || Dr. Daniel Brat

- Mechanisms of Glioma Progression
 - Investigating how Glioblastoma invokes a dormancy state upon radiation therapy to develop therapeutic resistance.
 - Examined the expression of stem cell and quiescent markers in hypoxic and normoxic conditions to analyze mechanisms of GBM progression.

June 2022 - August 2022

Yale BioMed Amgen Scholar, American Cancer Society Scholar

June 2023- August 2023

Yale University, New Haven, CT || Dr. Joseph Contessa

- Determining the Role of TYK2 Loss on Cell Cycle Dynamics
 - Performed cell cycle based assays to determine if TYK2 loss leads to the same mechanism of radioresistance as loss of JAK1, another Janus Kinase

June 2018 - August 2018

Summer Research Volunteer

June 2019 - August 2019

NYU Langone Health, New York City, NY || Dr. Ben Neel

- Modeling High Grade Serous Ovarian Cancer in Organoids
 - Research experience at the Neel Lab involved training in a variety of experimental techniques, including Western blot, PCR, gel electrophoresis, and IHC & IF staining.

HONORS AND AWARDS

July 2024	Research Supplements to promote Diversity in Health-Related Research Program (active from 2024-2025), NIH Award number: 3P50DE030707-05S3
Spring 2023	Wildcat Excellence Award, Northwestern University
January 2024	Northwestern Public Interest Program Finalist
Spring 2023 - Spring 2024	Dean's List
October 2022	Annual BioMedical Research Conference for Minoritized Students Travel Award
June 2020	Hispanic Scholarship Fund Scholar

PROFESSIONAL MEMBERSHIPS

Member, American Association for Cancer Research
Member, Society of Hispanic Professional Engineers

TECHNICAL SKILLS

Tissue Culture	Small Animal Research
Real Time Polymerase Chain reaction (RT-PCR)	Western Blot (Film)
Flow Cytometry	Tissue Staining
Bacterial Culture	Plasmid Engineering
Micronuclei Staining	

POSTERS

Constante, Nicole., Kelley, Vanessa., Contessa, Joseph.; Investigating Mechanisms of Radioresistance in TYK2 Knockout Head and Neck Cancer Cells. 115th Annual Conference for American Association of Cancer Research, San Diego, CA, April 2024.

Karwacinski, Victor., Carneiro-Lobo Correa, Tatiana., Olson, Cheryl., **Constante, Nicole.**, Pradhan, Puja., Mesci, Pinar., Muotri, Allyson R., Brat, Daniel J; TAMS and Hypoxia Enhance Glioblastoma Stem-Cell Enrichment and may Impact Radioresistance. 2023 Immune Assessment Symposium.

Constante, Nicole., Katoch, Aanchal, Contessa, Joseph.; Effects of Oligosaccharyltransferase (OST) Inhibitors on Osteosarcoma Cell Lines. Undergraduate Research and Arts Exposition, Evanston, IL May 2023.

Constante, Nicole., Katoch, Aanchal, Contessa, Joseph.; Effects of Oligosaccharyltransferase (OST) Inhibitors on Osteosarcoma Cell Lines. 20th Annual Conference for Annual Biomedical Conference for Minoritized Students, Anaheim, CA, November 2022.

Constante, Nicole., Lobo, Tatiana., Markwell, Steve., Brat, Daniel J; Studying Mechanisms of Glioma Stem Cell Accumulation in Glioblastoma. NUBioscientist Symposium, October 2021.

ORAL PRESENTATIONS

Constante, Nicole., Kelley, Vanessa., Contessa, Joseph.; Investigating Mechanisms of Radioresistance in TYK2 Knockout Head and Neck Cancer Cells. Northwestern Undergraduate Research and Arts Exposition, May 2024.

CONFERENCES

Annual Biomedical Conference for Minoritized Students, Anaheim, CA, November 2022
American Association of Cancer Research, San Diego, CA, April 2024

COMMUNITY OUTREACH

June 2022 - June 2022	Bienestar: Latinx Service Club <ul style="list-style-type: none">● Created a college mentorship program for first-generation/ low-income Latinx students in Evanston public schools with expansion to Chicago public schools.
September 2020 - June 2022	Relay for Life, Northwestern University <ul style="list-style-type: none">● Recruited university and community organizations for our annual Relay for Life event at Northwestern University which aimed to fundraise for cancer research for the American Cancer Society.
2019 - 2020	NYU Langone Health <ul style="list-style-type: none">● Provided comfort to patients and their guests by arranging lodging and food accommodations.

LEADERSHIP EXPERIENCE

August 2021 - June 2024	Dale Duro Latin Dance Co. <ul style="list-style-type: none">● Co-President: June 2023 - June 2024● Vice-President: June 2022 - June 2023● Community Engagement Chair: August 2021 - June 2022<ul style="list-style-type: none">○ Managed four dance workshops yearly to educate the Northwestern community on classical and modern Latin American dance styles. Coordinated rehearsals for 20 dances in the annual showcase over 15 weeks to ensure timely preparation. Oversaw a budget of \$5,000 to organize a Latinx formal attended by 600 guests, fostering community engagement. Managed email and social media communication between external parties and Dale Duro.
June 2022 - March 2024	Bienestar: Latinx Service Club <ul style="list-style-type: none">● Co-President: June 2023- March 2024● Vice-President: June 2022 - June 2023<ul style="list-style-type: none">○ Bienestar is an organization dedicated to serving Latino communities in the Chicagoland area and beyond. Created a program for first-generation, low-income high school students at Evanston Township High School to support college preparation through application editing and mentorship. Led the development of initiatives such as clothing drives, park clean-ups, and fundraisers to support campus workers.
August 2021- June 2022	Alianza: The Latinx Student Alliance <ul style="list-style-type: none">● Co-President<ul style="list-style-type: none">○ Led the development of social events such as Bienvenida, Comedy Beatdown, and Festival LatinNU. Managed monetary transactions between external groups and Alianza, ranging from \$3,000 to \$10,000.
October 2020 - March 2022	Hobart: Women's Residential College <ul style="list-style-type: none">● Social Chair: March 2021 - March 2022● Ecological Representative: October 2020 - March 2021<ul style="list-style-type: none">○ Developed and led social and bonding events for a community of 40 female and non-binary identifying residents. Sent weekly email reports to

encourage our residents to become more environmentally friendly in their daily lives.

TEACHING/ MENTORING EXPERIENCE

August 2022 - September 2023 Bridge 2 Counselor

- Teaching assistant for 30 undergraduate students in an intensive three week preparatory organic chemistry course. Led daily office hours where students could come in for extra support.

September 2021 - June 2022 NUBioscientist Mentor

- Served as a mentor and teaching assistant to 30 first year undergraduate students. Assisted students in finding research laboratories and writing grants to fund their research over the summer.

LANGUAGES: Spanish, English, limited proficiency in French