Dali Xitlali Nemecio
(310) 866-7209
dxn201@nyu.edu
linkedin.com/in/dalixitlalinemecio

Education

Case Western Reserve University - PhD in Systems Biology and Bioinformatics — 2023 - Current

New York University - B.A in Biochemistry, Minor in Genetics — 2018

Experience

Lab Manager and Research Assistant II — 2020 - 2023
Research Project - *The role of UVRAG in UV induced DNA damage in melanoma* — The Wistar Institute

- Consulted literature to optimize UVB experiment design
- Collected and analyzed mouse tissue with Prism and Qupath
- Optimized NSG library preparations for whole exome sequencing
- Taught basic molecular biology protocols to lab members
- Reviewed and wrote IACUC protocols and amendments
- Established mutant UVRAG transgenic mouse model via cloning and breeding
- Managed husbandry of mouse colony composed of 27 strains

Lab Manager and Research Assistant I — 2019 - 2020
Research Project - *The effect of TFEB upregulation in melanoma* — USC

- Validated TFEB upregulation model via qPCR and western blot
- Created and optimized genotyping protocols for unique UVRAG strains
- Established SOPs for experimental, organizational, and biosafety protocols

Undergraduate Researcher — 2016 – 2018
Research Project - *Exploring Zelda's function in Central Nervous System Development* — NYU

- Classified flies based on sex, genetic markers, and virginity for crossing purposes
- Designed genetic crosses involving iRNA, P-elements, balancer chromosomes, lethal mutations
- Preserved fly embryos and stained using *in situ* hybridization
- Maintained daily fly husbandry for stock populations

Skills

Protocols	Mice Related	Programs
NGS library prep	IP/SC/ID/RO injections	Prism/GraphPad
DNA/RNA extraction	bone marrow harvesting	Qupath
PCR/qPCR	macrophage isolation	Snapgene
western blot	husbandry	Adobe Photoshop and Illustrator
plasmid isolation (maxi/mini)		JBrowse (FlyBase)
transfection (retroviral, lentiviral)		GeneBank (NCBI)
cloning		
in situ hybridization		

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Publications

Zhu Q, Wang R, **Nemecio D**, Liang C. How autophagy is tied to inflammation and cancer. Mol Cell Oncol. 2020 Feb 4;7(2):1717908. doi: 10.1080/23723556.2020.1717908. PMID: 32158928; PMCID: PMC7051155.

Quach C, Song Y, Guo H, Li S, Maazi H, Fung M, Sands N, O'Connell D, Restrepo-Vassalli S, Chai B, **Nemecio D**, Punj V, Akbari O, Idos GE, Mumenthaler SM, Wu N, Martin SE, Hagiya A, Hicks J, Cui H, Liang C. A truncating mutation in the autophagy gene UVRAG drives inflammation and tumorigenesis in mice. Nat Commun. 2019 Dec 12;10(1):5681. doi: 10.1038/s41467-019-13475-w. PMID: 31831743; PMCID: PMC6908726.

Li S, Song Y, Quach C, **Nemecio D**, Liang C. Revisiting the role of autophagy in melanoma. Autophagy. 2019 Oct;15(10):1843-1844. doi: 10.1080/15548627.2019.1635386. Epub 2019 Jun 29. PMID: 31242070; PMCID: PMC6735499.

Awards

STAR Award for Excellence in Leadership at USC 2019

DURF Grant for Fall 2017 2017
Locating Zelda's CNS Enhancer using P-insertion Elements

DURF Grant for Spring 2017 2017
Determining the Role of Zelda during CNS Development using interference RNA

DURF Grant for Summer 2016 2016
The Influence of Adult Media on Relationship Behavior in College Students

Conferences

New York University College of Arts and Sciences Undergraduate Research Conference 2018
Determining the Location of Zelda CNS Enhancer using P-insertion Elements
Nemecio, Dali; Huang, Shao-Kuei Dr.; Rushlow, Christine Dr.

New York University College of Arts and Sciences Undergraduate Research Conference 2017
The Influence of Adult Media on Relationship Behavior in College Students
Nemecio, Dali; Sun, Chyng Dr.

Leadership

Dean's Undergraduate Research Fund Ambassador (DURF) 2017 – 2018
- Represented and advocated for the DURF program at public events to support the program
- Consulted and reviewed potential grant proposals and advised applicants

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References:

Chengyu Liang, M.D, Ph.D.
Professor
Molecular & Cellular Oncogenesis Program
The Wistar Institute
Philadelphia, PA
cliang@wistar.org
(215) 898-3862

Christine Rushlow, Ph.D.
Professor
Director Masters Program in Biology
New York University
New York, NY
chris.rushlow@nyu.edu
(212) 998-8270

Kavitha Sarma, Ph.D.
Assistant Professor
Gene Expression & Regulation Program
The Wistar Institute
Philadelphia, PA
ksarma@wistar.org
(215) 898-3970