

Erick Mitchell-Velasquez

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Research Experience

Cancer Biology Graduate Program – Perelman School of Medicine, University of Pennsylvania

Dr. Irfan Asangani's Prostate Cancer Epigenetics Lab

August 2019-Present

Project: Regulation of Nicotinamide N-Methyltransferase (NNMT) Expression by Androgen Receptor (AR) Dependent Chromatin Looping and Elucidation of its Tumor Suppressor Function in Prostate Cancer

- Utilizing CRISPR-Cas9 to target looping anchors to determine the mechanism regulating NNMT expression
- Examining whether NNMT has a tumor suppressive role in prostate cancer progression

MARC U*STAR Scholar – California State University, Northridge

August 2017-May 2019

Dr. Rheem Medh's Molecular Genetics of Cell Death Lab

Project: The Role of the E4BP4 Gene in the Apoptosis Pathway

- Utilized E4BP4 knockdown leukemic cell line models to assess expression of cell death pathway genes
- Studied the effects of glucocorticoids on leukemic lymphoblasts

Summer Undergraduate Internship Program – University of Pennsylvania

June 2018-August 2018

Dr. Irfan Asangani's Prostate Cancer Epigenetics Lab

Project: The Role of Cyclin-Dependent Kinase 7 in the Transcription Pathway in Prostate Cancer

- Generated CDK7 knockdown prostate cancer cell line models with CRISPR-Cas9
- Employed colony formation assays to evaluate cell proliferation

Research Assistant - University of Oxford, United Kingdom

May 2017-July 2017

Dr. Kieran Clarke's Cardiac Metabolism Research Lab

Project: Ketone Supplement in Type II Diabetes

- Induced Type II diabetes in Han-Wistar rat model
- Demonstrated ketones are an efficient energy supplement in absence of carbohydrates

Research Assistant – California State University, Northridge

August 2016-May 2017

Dr. Randy Cohen's Neurobiology Research Lab

Project: High-Fat Diet Reverses Neuroprotection Attained by Moderate Aerobic Exercise in the spastic Han-Wistar Rat, a Model of Ataxia

- Conducted behavioral tests to measure mental and physical fitness

Education

University of Pennsylvania

August 2019-Present

Cancer Biology PhD Candidate

California State University, Northridge

August 2014-May 2019

Bachelor of Science in Cell & Molecular Biology and Biotechnology (cum laude)

Honors, Awards and Fellowships

David C. Lizárraga Fellowship

August 2019-Present

Cal State Northridge MARC U*STAR Scholar

August 2017-May 2019

TELACU College Success Program Scholar

August 2015-May 2019

ABRCMS Travel Award Recipient

November 2018

Leadership Alliance Scholar at the University of Pennsylvania

June 2018-August 2018

Cal State Fullerton MHIRT Scholar at the University of Oxford, UK

May 2017-July 2017

Cal State Northridge Dreamer Scholarship Recipient

2015

Cal State Northridge Dean's List

2015 Fall and Spring, Fall 2017, and Spring 2019

Publications

Deng, Q., Natesan, R., Cidre-Aranaz, F., Arif, S., Liu, Y., Rasool, R. U., Wang, P., **Mitchell-Velasquez, E.**, ... Asangani, I. A. Oncofusion-driven de novo enhancer assembly promotes malignancy in Ewing sarcoma via aberrant expression of the stereociliary protein LOXHD1. *Cancer Research* (in review).

Alam, Z., Devalaraja, S., Li, M., To, T. K., Folkert, I. W., **Mitchell-Velasquez, E.**, . . . Haldar, M. (2020). Counter Regulation of Spic by NF- κ B and STAT Signaling Controls Inflammation and Iron Metabolism in Macrophages. *Cell Reports*, 31(13), 107825. doi:10.1016/j.celrep.2020.107825.

Rasool, R. U., Natesan, R., Deng, Q., Aras, S., Lal, P., Effron, S. S., **Mitchell-Velasquez, E.**, . . . Asangani, I. A. (2019). CDK7 Inhibition Suppresses Castration-Resistant Prostate Cancer through MED1 Inactivation. *Cancer Discovery*, 9(11), 1538-1555. doi:10.1158/2159-8290.cd-19-0189.

Extracurricular Activities

University of Pennsylvania SACNAS Chapter Social Media Co-Chair	2021-Present
University of Pennsylvania SACNAS Chapter Outreach Co-Chair	2020-2021
Cal State Northridge SACNAS Chapter Member	2017-2019
University of California, Los Angeles volunteer – Oncology Department, Ronald Reagan Hospital	2017-2019
Cal State Northridge Chemistry and Biochemistry Club Member	2017-2019