

Nicolas Buitrago

Molecular
Engineering
+ Neurobiology
+ Computer Science

nicolas.buitrago@einsteinmed.org
mail@nsbuitrago.com

Twitter - @NSBuitrago

1925 Eastchester Rd
Bronx, NY 10461

nsbuitrago.com

EDUCATION

University of Texas at San Antonio
B.S. Biochemistry, *Summa Cum Laude*
Aug 2016 - May 2020

RESEARCH ACTIVITIES

NIH PREP Scholar | Aug 2020 - Present
Laboratory of Dr. Jean Hébert, Departments of Neuroscience & Genetics
Albert Einstein College of Medicine

Undergraduate Research Assistant | Nov 2018 - Aug 2020
Laboratory of Dr. Fidel Santamaria, Department of Biology
University of Texas at San Antonio

- Investigated the temperature dependence of Q_{10} factors associated with neuronal excitability
- Analyzed the effects of macromolecular rate theory derived Q_{10} parameters in models of neuronal activity based on Hodgkin-Huxley dynamics

Summer Researcher | May 2019 - Jul 2019
Peripheral Neural Engineering & Urodynamics Lab (PI: Dr. Tim Bruns)
University of Michigan

- Developed tools and methods to facilitate surgical implants of novel carbon fiber microelectrode arrays in rodent pelvic ganglia

PRESENTATIONS & ABSTRACTS

Buitrago NS and Santamaria F: The temperature correction factor Q_{10} that you use to model neuronal activity is not constant; Here is how to fix it, BRAIN Initiative Investigators Meeting, 2020.

Bottorff EC, Jiman AA, **Buitrago NS**, Mentzelopoulos G, Welle EJ, Patel PR, Seymour JP, Chestek CA, Bruns TM: Acute intraganglia recordings of single-unit neural activity with a novel microelectrode array, Society for Neuroscience Annual Meeting, Chicago, IL, 2019.

Bottorff EC, Jiman AA, **Buitrago NS**, Mentzelopoulos G, Welle EJ, Patel PR, Seymour JP, Chestek CA, Bruns TM: Intraneural recordings of single-unit autonomic neural activity with a novel microelectrode array, International Society for Autonomic Neuroscience Congress, Los Angeles, CA, 2019.

Buitrago NS: Alpha order dependence of firing rate in a fractional integrate and fire model, UTSA 3-Minute Thesis Competition, San Antonio, TX, 2019.

AWARDS & HONORS

Dean's Fund for Excellence	2020
NIH MARC U*STAR Scholar	2018 - 2020
President's List	2017 - 2020
Honors College Member	2017 - 2020
Dean's List	2016, 2020
Rising Researchers Scholar	2016

TEACHING & OUTREACH

Rising Researchers Student Panelist, 2019

UTSA Chemistry Bootcamp Leader, 2019

University of Michigan Explore Engineering Camp Group Leader, 2019

Chemistry Tutor (CHE 1103), 2017 - 2018