

## Biographical Sketch

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Nicole Zambrana García  
Molecular Biology  
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### Education

2017-present: UPR-RP Molecular Biology BS  
2015-2017: UPR-CA Interdisciplinary Studies BS

### Research Interest

Since 2014, I have worked with inorganic complexes and their biomedical application and the use of titanium(IV)-protein complexes for effective metal transportation into cells. Through my REU experiences, I have focused on characterization of human induced pluripotent stem cells derived cells which has sparked an interest in cell work and vascular tissue engineering.

### Research Experience

2018 (Summer): Exploring the Effects of Hypoxia on Human Pluripotent Stem Cells Derived Pericytes. Mentor: Bria L. Macklin, PI: Dr. Sharon Gerecht. Johns Hopkins University

2017-present: Determining the Ti(IV) sTf Speciation Responsible for Optimal Uptake of Ti(IV) Into Cells. Mentor: Dr. Arthur D. Tinoco. UPR-Rio Piedras

2017 (Summer): Characterization and Expansion of Human Induced Pluripotent Stem Cells Derived Mural Cells. Mentor: Bria L. Macklin, PI: Dr. Sharon Gerecht. Johns Hopkins University

2015-2017: Synthesis of New Transition Metal Complexes Based on Pyrene Derivatives with Promising Applications Memory Devices. Mentor: Dr. Karylis González Nieves. UPR-Carolina

2015 (Summer): SEED Program Student. Determining the Ti-HBED Cytotoxic Activity in the Presence of Citrate. Mentor: Dr. Arthur D. Tinoco. UPR-Rio Piedras

2014 (Summer): SEED Program Student. Determining the Importance of Citrate and Bicarbonate in the Binding of Titanium(IV) to the Transport Protein Transferrin. Mentor: Dr. Arthur D. Tinoco. UPR-Rio Piedras

### Honors

2018: Minority Access to Research Careers (MARC) Award Recipient

2018: NSF-REU Fellowship Institute of NanoBioTechnocology at Johns Hopkins University

2017: NSF-REU Fellowship Institute of NanoBioTechnocology at Johns Hopkins University

2016-2018: Louis Stokes Alliance for Minority Participation (LSAMP) Award Recipient

2014-2015: ACS Project SEED Summer Research Opportunity for High School Students Award Recipient

### Presentation at Local Meetings

April 28, 2018-Puerto Rico Interdisciplinary Scientific Meeting (PRISM), Junior Technical Meeting (JTM) Turabo University