

# Angel Luis Vázquez Maldonado

Current Status:  
B. S. Student  
Department of Chemistry

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## Education

*University Gardens High School (2011-2015)*

- GPA 3.98

*University of Puerto Rico, Rio Piedras Campus (2015-present)*

- GPA 3.82

## Experience

Bioinorganic Chemistry Undergraduate Research

Professor Arthur D. Tinoco's Research Laboratory

*University of Puerto Rico, Rio Piedras Campus (August 2016—present)*

- Aqueous Speciation of Ti(IV) anticancer compounds
  - ▶ Conducted a potentiometric titration
  - ▶ Worked with the data fitting of the titration for the determination of the dissociation constants of the compounds
- Ubiquitous metal, Difficult to track: A mass spectrometric approach to elucidating the correlation between localization and activity of Titanium(IV) in human cells
  - ▶ Performed cell culture sample preparation for a Time-of-Flight Secondary Ion Mass Spectrometry (TOF-SIMS) analysis
- Metal-Deferasirox Competition Study
  - ▶ Worked with the data fitting and deconvolution of experimental data to determine how the equilibrium and stability of a Metal-Deferasirox species will be affected in the presence of the other metals.
  - ▶ Formation constants and stability constants were determined.

## Extracurricular Activities

Active member of the American Chemical Society, UPRRP Student Chapter since 2015, past member of the American Society for Biochemistry and Molecular Biology (2016-2017), and member of the National Society of Collegiate Scholars.

## Awards and Honors

- First place in both Intel ISEF 2014 San Juan District and Regional Fair.
- Part of the honor roll of the Natural Sciences Faculty 2015-2016
- Awarded with a \$4,800 PR-LSAMP sponsored grant for a summer research collaboration in 2017
- Research Opportunities for Undergraduates Students (RISE) program, University of Puerto Rico, Rio Piedras Campus. (July 2017-June 2018)

## **Technical Presentations**

- Poster presentation titled “Ti(Deferasirox)<sub>2</sub>, a highly cytotoxic chemical transferrin mimetic Ti(IV)-based compound, displays one of the highest aqueous stabilities in the Ti(IV)-based anticancer field” accepted for the technical program of the 255th ACS National Meeting, New Orleans, LA, March, 2018
- Abstract submitted for oral presentation titled “Ti(Deferasirox)<sub>2</sub>, a highly cytotoxic chemical transferrin mimetic Ti(IV)-based compound, displays one of the highest aqueous stabilities in the Ti(IV)-based anticancer field” for the Junior Technical Meeting 2018

## **Publication**

- Loza-Rosas, S. A.; Vázquez-Salgado, A. M.; Rivero, K. I.; Negrón, L. J.; Delgado, Y.; Benjamín-Rivera, J. A.; Vázquez-Maldonado, A. L.; Parks, T. B.; Munet-Colón, C.; Tinoco, A. D. *Inorganic Chemistry* **2017**, *56* (14), 7788–7802.