

Biographical Sketch

Adriana P. Claudio-Vázquez

Undergraduate Student

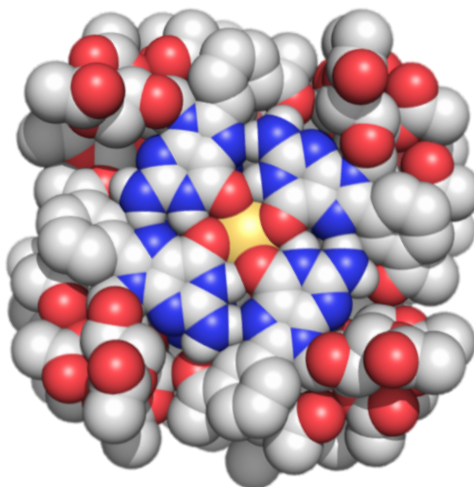
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Education

2017-2022 BS Chemistry (expected)



Current Research Interest

Our lab focuses in the synthesis and characterization of deoxyguanosine derivatives (dG) and their applications. These dGs self-assemble in supramolecular G-Quadruplexes (SGQs) which aggregates into supramolecular Hacky Sacks (SHSs) in certain conditions. Both assemblies have shown important biomedical applications (e.g. interacting with cellular components or as drug delivery agents). Currently we are working in the synthesis and characterization of a dG that contains a formyl moiety. SHSs of this dG may react with certain bio thiols such as cysteine to achieve a spatiotemporal control over supramolecular self-assembly by forming a more hydrophilic monomer compared to the unreacted dG.

Research Experiences

May 2018 - Present	Undergraduate Researcher at Dr. José M. Rivera's research laboratory, UPRRP
Summer 2019	Undergraduate Researcher at Dr. John C. MacDonald's research laboratory, Worcester Polytechnic Institute (WPI)

Honors and Awards

2018 - present	Dean's List
2018 - 2019	Puerto Rico Louis Stokes Alliance for Minority Participation (PR-LSAMP) Fellowship
2019 - present	Research Initiative for Scientific Enhancement (RISE) Fellowship
November, 14 2019	Chemistry Presentation Awardee at the Annual Biomedical Research Conference for Minority Students (ABRCMS).

Presentations at Local Meetings

Claudio-Vázquez, A.P., Silva, D., Rivera, J. Detection of Supramolecular Deoxyguanosine Derivatives by a Cu-Catalyzed Huisgen Cycloaddition Reaction. 53rd ACS Junior Technical Meeting, University of Puerto Rico Mayagüez, PR, May 4, 2019.

Presentations at National Meetings

Claudio-Vázquez, A.P., MacDonald, J.C. Trapping Molecular Guests in Metal Organic Frameworks Using Surface Capping Groups. Annual Biomedical Research Conference for Minority Students, Anaheim, CA, November 11-14, 2019.