

Biographical Sketch

Education

University of Puerto Rico, Rio Piedras Campus
BS Cellular and Molecular Biology
School of Natural Science
Rio Piedras, Puerto Rico
Expected Graduation Date: May, 2020

Research Experience

Eduardo Nicolau Lab (Undergraduate Researcher)
- Bone tissue regeneration and water remediation project.
- Creation of membranes by the electrospinning technique to use them as scaffolds to enhance the adhesion and proliferation of osteoblast cells.

Amgen Scholars Program (Undergraduate Researcher)
- Title of Project: Antibacterial Coatings through Sustained Quorum Sensing Inhibition
- Immobilization of acylase 1 from porcine kidney through polydopamine dip coating to hydrolyze quorum sensing molecule, thus preventing biofilm formation.
Phillip B. Messersmith
University of California, Berkeley
May, 2017 – August, 2017

Honors

Dean's List University of Puerto Rico, Rio Piedras
January, 2016 – Present

Member of Program for Honor Students University of Puerto Rico, Rio Piedras
August, 2016- Present

Enrichment Experience

Summer Enrichment Program at University of Connecticut
June, 2016

Research Interest

Through our project we want to evaluate the potential of modified alginate membrane for use in cell culture with osteoblasts and endothelial cells. One of our goals is to modify our membranes with extracellular matrix components, nano diamonds and polyphenols. We want to provide the ideal environment for the growth of osteoblasts and endothelial cells. If we are able to co-culture these cell lines, we want to mimic *in vivo* behavior of bone biology to provide a platform for potential bone disease drug evaluation; this might result in accelerating the time involved in the approval process of a new clinical drug.