Jorge D. Zhingre Sanchez

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OBJECTIVE

To pursue doctoral studies in a biomedical engineering Ph.D. program to advance my engineering career.

EDUCATION

University of Minnesota – Twin Cities, Minneapolis, MN 2021 (Anticipated)
Doctor of Philosophy (Ph.D.) in Biomedical Engineering

Rensselaer Polytechnic Institute, Troy, NY May 2016
Bachelor of Science (B.S.) in Biomedical Engineering (Minor in Economics)

EXPERIENCE

The Visible Heart Laboratory at University of Minnesota, Minneapolis, MN November 2016 – Present
Graduate Research Assistant
- Advised by Dr. Paul A. Iaizzo (Department of Biomedical Engineering and Department of Surgery)
- Thesis title: Anatomical, structural, and device-tissue characterizations of the atrioventricular valves: considerations for percutaneous valve repairs and/or replacement therapies.

Medtronic Coronary Structural Heart Research and Innovation, Mounds View, MN July 2018 – Present
Graduate Engineer Intern Contingent
- Reconstructions and deformation analysis of implanted trancatheter aortic valve replacement (TAVR) devices.

Innovative Science Solutions LLC, Morristown, NJ June 2016 – August 2016
Pharmaceutical Consulting Intern
- Regulatory project support for pharmaceutical, medical device, biotechnology, and dietary supplement companies.
- Conduct research for product ingredients review, labeling, clinical development, quality, and regulatory affairs.
- Reviewing, editing, and writing client company reports, articles, FDA guidance documents, and marketing blogs.

REU in Cellular Bioengineering at Rutgers University, New Brunswick, NJ May 2015 – July 2015
Biomedical Engineering Research Intern
- Researching poly(ethylene glycol) diacrylate (PEGDA) based hydrogels as a conditioned medium delivery system for healing tendon sub-failure injuries.
- Designed and tested PEGDA hydrogel release systems using multiple PEGDA weight percentages and medium encapsulation methods to determine the optimal formulation to allow for stable and prolonged protein release.

BioREU Program at Johns Hopkins University Department of Biology, Baltimore, MD May 2014 – August 2014
Molecular Biology Research Intern
- Researching the mechanism by which the Ku protein recruits the telomerase complex to the telomeres in *Saccharomyces cerevisiae*.
- Successfully tested our budding yeast model that validates Ku's interaction with the Sir4 silencing protein using cell culturing and proteomic techniques.

Rensselaer Polytechnic Institute, Cell and Molecular Biology course, Troy, NY January 2014 – May 2015
Undergraduate Tutor/Mentor
- Instructed a section of twenty enrolled students in weekly recitation sessions and office hours.
- Presented subject content, led discussions in journal studies, reviewed lecture material, and administered quizzes.

Rensselaer Polytechnic Institute Folsom Library, Troy, NY August 2012 – May 2016
Library Associate Assistant
- Assisted library associates in retrieving, organizing, and scanning books, journals, and articles for various patrons.
- Operated the circulation desk and was responsible for training new student employees on the library operations.

HONORS AND AWARDS

- NSF Graduate Research Fellowship Honorable Mention (2018)
- 3M Science and Technology Fellowship (2016)
- Rensselaer Polytechnic Institute Magna Cum Laude (Cumulative GPA: 3.89)
- The Rensselaer Founders Award of Excellence (2014)
- Rensselaer Polytechnic Institute Dean's List (Fall 2012 – Spring 2016)
- The Rensselaer Medal Award (2012)