Nikhil Menon
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OBJECTIVE

To broaden my expertise in bioengineering and implement my research and academic skills at an industrial internship.

EDUCATION

Bachelor of Materials Science and Engineering August 2014 - Expected May 2018
w/ minor in Entrepreneurship & Management
Johns Hopkins University, Baltimore, MD

- Cumulative GPA of 3.65, Departmental GPA of 3.96
- Awarded Dean's List (spring 2015, fall 2015, spring 2016, fall 2016)

SKILLS

Laboratory techniques: Mechanical characterization of hydrogels, hardness and tension testing techniques, histology (including H&E and Masson's trichrome), metal processing techniques (including annealing and cold-rolling), XRD analysis, chemical and lab safety procedures
Laboratory Equipment: TA Instruments Ares-G2 rheometer, Rockwell and Vickers hardness testers, Q-Sense quartz crystal microbalance with dissipation monitoring (QCM-D) device, metallographic polishing and mounting devices, optical microscope, laser capture machine
Software: SolidWorks, mechanical analysis of hydrogels with TRIOS, Vickers hardness data analysis with ConfiDENT
Programming: MATLAB, Python, Java

EXPERIENCE

Research Assistant October 2015 - Present
Translational Tissue Engineering Center, Baltimore, MD

- Mechanical analysis of hydrogels through shear rheometry using an Ares-G2 rheometer
- Synthesis of hydrogels from collagen, small intestinal submucosa (SIS), cardiac tissue, and urinary bladder matrix (UBM)
- Optimization of collagen hydrogel composition through addition of cyclodextrin
- Implementation of hydrogels as tissue scaffold for cellular regrowth

Internship July 2015 - August 2015
National Chemical Laboratories, Pune, India

- Fabrication of supercapacitors through gold nanoparticle coating off PET strips
- Construction of an electrochromic device (ECD) through electropolymerization
- Analysis of ECD through fluorospectroscopy

Student Researcher August 2013 - May 2014
University of Connecticut Health Center, Farmington, CT

- Analysis of differences in osteoblast genotype between Paget's Disease of Bone (PDB) and osteosarcoma
- Correlation of genotype changes with progression from PDB to osteosarcoma
- Preparation of cell samples and collection of gene data through PCR methodology
- Utilization of national databases to analyze and select genes for experimentation