

Thomas Quinn

Biomedical Engineering Student in Senior Year at Drexel University

Philadelphia, PA - Email me on Indeed: [indeed.com/r/Thomas-Quinn/55e8cb3e655457a8](https://www.indeed.com/r/Thomas-Quinn/55e8cb3e655457a8)

I am currently enrolled at Drexel University pursuing my undergraduate degree in Biomaterials and Tissue Engineering. I have been given the opportunity to work with a wide array of companies in the field, from start-up research businesses to reputable and established medical corporations. My focus has primarily been the applications of and research in biomaterials technology. I am currently searching for an employer who would provide training and exposure to drug delivery systems, stem cell applications, vaccine research and development, or regenerative medicine. After several years in the field, I am contemplating returning to school in order to obtain an M.S., Ph.D., or possibly an M.D. to expand my career opportunities and further enhance my understanding of human physiology and pathology, healthcare systems, and/or medical devices.

WORK EXPERIENCE

Polymer Engineer

DSM Biomedical - Exton, PA - September 2013 to March 2014

- = Correlated mechanical and chemical properties of polymer by interpreting trends between inherent viscosity and molecular weight
- = Modified tooling and fixtures for lab equipment through Pro/E in order to better conduct research on various polymer parts
- = Worked in cleanroom area and assisted in production of polymer implants
- = Implemented ECNs for routers and SOPs as well as to account for CAPA and noncompliance forms
- = Inspected parts for purchase orders to ensure all processing parameters produced acceptable products

Cardiovascular Research Center

Temple University - Philadelphia, PA - 2014 to 2014

- = Generated 2D image of porcine heart by x-ray imaging with contrast solution injected via PICC line
- = Utilized electrode inserted via catheter to create 3D map of heart for reference
- = Induced cardiac arrest by inflation of balloon catheter in carotid artery for about 90 minutes
- = Created another 3D map of heart to compare to healthy heart prior to induced cardiac arrest
- = Seeded stem cells onto damaged portion of heart to study regenerative effect over several weeks

Research Analyst

Bard Holding Inc - Morrisville, PA - September 2012 to March 2013

- = Performed various laboratory experiments on optimization of growth and stress conditions for algal cultures
- = Sterilized laboratory equipment to maintain culture integrity and reduce contamination probability
- = Collaborated on experiments and process design for large-scale production and sustainability in photobioreactors
- = Conducted growth and stress experiments on *Haematococcus pluvialis*, a source for the carotenoid astaxanthin, a high-valued antioxidant used for pharmaceuticals and cosmetics

Lab Administrator and Customer Service Representative

Rosetta Genomics - Philadelphia, PA - September 2011 to March 2012

- = Updated laboratory information system with patients' sample info
- = Recorded inventory of non-patient related specimens, products, and laboratory equipment
- = Handled client inquiries and prepared promotional materials for distribution to prospective clients

Research - Thrombosis Research Center

Temple University - 2011 to 2011

- = Tail clipped lab mice and bathed tissue samples in a lysis buffer solution to extract DNA
- = Genotyped the DNA and aliquoted the DNA samples that would be suitable for further experiments
- = Expanded DNA through PCR, ran DNA through agarose gel electrophoresis, and subsequently examined bands of DNA through a fluorescence image reader

Spinal Cord Paralysis Elimination

Drexel University - 2009 to 2009

- = Generated an injectable hydrogel containing growth factors which would allow nerve cells to reproduce in the spinal cord
- = Examined hydrogel properties through NMR spectroscopy and performed tension-compression tests to predict functionality

EDUCATION

BS in Biomedical Engineering, Biomaterials and Tissue Engineering Concentration

Drexel University - Philadelphia, PA

2010 to 2015

SKILLS

Laboratory and Production Skills: Aseptic Technique

Micropipette Technique

Compound Microscope with Oil Emersion

pH Probe Operation

Centrifuge Operation

Autoclave Operation

Stock Solution Preparation

Nutritional Agar Preparation

Agarose Gel Plate Preparation

Hemocytometry

Cell Lysis with Solvents and Ultrasonic Waves

Algal Culture Sustainability

PCR Amplification

Gel Electrophoresis

Flow Cytometry with GuavaSoft 2.2

Micro-Vu Inspection Equipment

Qualitest Impact Tester

Nissei HM7 Plastic Injection Molding Machine

Java

Pro/ENGINEER

AutoCAD

Maple 14

Microsoft Word

Excel

and PowerPoint Operating Systems: Mac OS X

Windows 7

Windows 8

Instron 5940 and 5960 Series and Bluehill Software
ImageJ