

Adam Orendain

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Education

Texas A&M University, College Station, TX

Exp. December 2017*

MSc. in Biomedical Engineering, GPA: 4.0

*Thesis and coursework completed

University of Arizona, Tucson, AZ

May 2014

B.S. in Biomedical Engineering, Major GPA: 3.5

Research Positions

Graduate Research Assistant, Texas A&M University, TX

August 2014 – Present

- Designed, manufactured, and evaluated endovascular devices under the supervision of a quality system.
- Characterized chemical, physical, and mechanical properties of materials and devices based on industry standards or government guidelines.
- Fabricated endovascular devices comprised of polymeric films and foams, and shape memory alloys (Nitinol).
- Investigated fluid properties of medical devices experimentally and developed software to automate analysis.

Summer Researcher, University of California San Diego, CA

June – August 2013

- Characterized a novel electrochemical biosensor prototype with the electroanalysis technique of cyclic voltammetry.
- Developed software (MATLAB GUI) that automated data processing.

Maximizing Access to Research Careers (MARC) Trainee, University of Arizona, AZ

June 2012 – May 2014

- Fabricated natural biomaterial-based tubular scaffolds with electrospinning to produce blood vessel analog.
- Characterized the tubular scaffolds with scanning electron microscopy (SEM), atomic force microscopy (AFM), and an *ex ovo* chick chorioallanotic membrane (CAM) assay.

Professional Experience

Shape Memory Therapeutics Intern, College Station, TX

June-August 2014

- Developed anatomical models and device delivery prototypes for medical device testing.
- Developed verification testing methods and characterized embolic medical devices.
- Performed market research and developed device procedure instructions.

Pharmacy Technician, Tucson, AZ

Dec. 2013 – April 2014

- Inputted patient data, filled prescriptions, interfaced with customers, and processed insurance claims.

Relevant Skills and Training

Software: SolidWorks, MATLAB, LabVIEW CLAD Certified, Adobe Illustrator, Microsoft Office, EndNote

Experimental: Benchtop Models, Laser Welding, 3D printing, CT/MRI Image Processing, Laser Machining, DSC, UV/VIS spectroscopy, IR/FTIR, Uniaxial Tensile Testing, SEM, Microcontroller Interfacing, Machining & Manufacturing, Cell Culturing Techniques, Bioconjugation and Bioactivity Techniques, Image-Processing, Metrology, Dip-Molding, Thermoforming

Other: Design Controls, Regulatory, Quality Systems, Design of Experiments

Publications

Orendain, A, Francisco Carrasco, J., Peyman, G., Enikov, ET "Evaluation of Electro-Spun Tubular Scaffolds to Create an Anastomosis Using the CAM Assay", Proceedings of ASME International Mechanical Engineering Congress & Exposition, November 15-21, 2013, San Diego, California, Paper IMECE2013-64687.