

ADITYA GIRISH

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Work Address:

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Local Address:

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EDUCATION

Case Western Reserve University

PhD in Biomedical Engineering, Expected May 2019, GPA: 4.00/4.00

Advisor: Dr. Anirban Sen Gupta

Core Coursework: Biomedical Instrumentation & Signal Analysis, Organ/Tissue Physiology & Systems Modeling, Cell Biology

Cleveland, OH

Aug 2014 – Present

Columbia University

BS in Biomedical Engineering, May 2014, GPA: 3.52/4.00

New York, NY

Aug 2010 – May 2014

HONORS

Columbia University SEAS Dean's List (Spring 2011 – Spring 2012, Fall 2013 – Spring 2014)

C.P. Davis Scholar, Columbia University Scholars Program

Recipient, Booz Allen Hamilton Vision Scholarship

RESEARCH EXPERIENCE

Case Western Reserve University, Cleveland, OH

Graduate Research Assistant, Bio-Inspired Engineering for Advanced Therapies Lab

PI: Dr. Anirban Sen Gupta

Sep 2015 – Present

Case Western Reserve University, Cleveland, OH

Graduate Research Assistant, Lavik Lab

PI: Dr. Erin B. Lavik

Aug 2014 – Aug 2015

- Investigate viability of hemostatic nanoparticles (hNPs) in alleviating hemorrhage due to internal trauma
 - Develop hNPs with ideal clotting parameters by tuning peptide moiety density and conducting dosing studies using Rotational Thromboelastometry (ROTEM)
 - Evaluate efficacy of administering drug loaded hNPs in reducing hemorrhage, improving survival odds and enhancing long-term neurological outcomes in rodents subjected to full body blast trauma (in collaboration with Virginia Tech) and traumatic brain injury (in collaboration with Cleveland VA APT Center)
 - Evaluate use of peristaltic and syringe pump-driven fluidic nanoprecipitation system to create hNPs suitable for industrial scale up

Columbia University, New York, NY

Undergraduate Researcher, Biomaterials and Interface Tissue Engineering Laboratory

PI: Dr. Helen H. Lu

Jun 2013 – Jun 2014

- Assisted with ongoing studies testing the utility of tissue engineering scaffolds for regeneration of human periodontal ligament tissue
- Prepared assays to test cell proliferation in seeded scaffolds, conducted histology tests, and analyzed mechanical properties of unseeded scaffolds
- Developed protocols for pilot studies involving experimental scaffold materials

Undergraduate Researcher, Bioelectronic Systems Lab

PI: Dr. Kenneth L. Shepard

May 2011 – Feb 2013

- Investigated the scope of monolayer graphene based devices as ion filters
- Utilized photolithography and dry etching techniques to construct silicon nitride membranes

PRESENTATIONS:

- Aditya Girish. *Hemostatic Nanoparticles: Applications in Blast Trauma & Maximizing Clotting Parameters*. Case Neural Engineering Center Seminar: Cleveland, OH. Podium Presentation 7/31/15
- Aditya Girish. *Designing a Graphene Based Ion Filter*. BioIGERT RPU Symposium: New York, NY. Podium Presentation: 8/4/11

SKILLS

Analysis: Microsoft Excel, MATLAB, JMP, RStudio, ImageJ, Adobe Photoshop, NI SignalExpress

Synthesis: hemostatic nanoparticle synthesis, peptide conjugation

Instrumentation: Malvern Zetasizer (DLS/Zeta Potential), Rotational Thromboelastometry (ROTEM), Coulter Counter, Plate Reader, HPLC (Sample Preparation)

Animals: Anesthesia, Tail Vein Catheterization, TBI Surgery, Cardiac Blood Draws, Organ Harvesting, Stapling, Suturing, Post-Operative Care (All with rats)

Design: CREO Parametric

Additional Skills: Cell Culture, Histology (H&E, Trichrome), Confocal Microscopy, Mechanical Testing

ADDITIONAL EXPERIENCE

St. Luke's/Roosevelt Hospital, New York, NY

Jan 2013 – Aug 2013

Academic Associate, Emergency Department

- Identified eligible patients and collected data for clinical research studies

Shanghai United Family Hospital and Clinics, Shanghai, China

Jun 2012 – Aug 2012

Intern, Quality and Safety Department

- Assisted department staff with revision of hospital workflows to meet safety and accreditation standards
- Participated in emergency drills and compiled drill report summaries
- Devised a hospital-specific massive transfusion protocol based on international guidelines

COCURRICULAR ACTIVITIES:

Case BME Graduate Student Association, Cleveland, OH

Jun 2015– Present

- Member; Public Relations Co-Chair

ACS Publications, Cleveland, OH

Jan 2015 – Present

- Work with assigned editor to populate, maintain and manage social media outlets of ACS *Bioconjugate Chemistry*

Society for Biomaterials (SFB), Cleveland, OH

Sep 2014 – Present

- Member; Observer at 2014 Biomaterials Day Regional Conference, University of Kentucky