GRACE KIELY FLETCHER

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Education:

Doctoral Graduate Student in Biomedical Engineering, *August 2015-present*
Texas A&M University, College Station, TX
Bachelor of Science in Biomedical Engineering, *Graduated May 2013*
University of Texas, Austin, TX

Work Experience:

Entrepreneur in Training ***May 2017 - present***
Texas A&M University Engineering Experiment Station (TEES), College Station, TX
Director: Dr. Balakrishna Haridas, PhD
Evaluation of intellectual property and commercial opportunities for TEES research entities.

Graduate Research Fellow ***August 2015 - present***
Texas A&M University, College Station, TX
Principal Investigator: Dr. Duncan Maitland, PhD
Research: Synthesis and characterization of shape memory polymers for use in embolization devices.

Research & Development Engineer ***January 2014 - July 2015***
Technologist ***May 2013 - December 2013***
NanoHybrids, Inc
Development of photoacoustic nanodroplets and scale-up of metallic nanorod synthesis.

Senior Design Capstone Course ***November 2012- May 2013***
University of Texas, Austin, TX
Design of an Ergonomic Handpiece with Integrated Finger-Switches for ENT Coblation® Devices

Undergraduate Research Assistant ***October 2009-May 2013***
University of Texas, Austin, TX
Principal Investigator: Dr. Nicholas Peppas, Sc.D.
Research: Synthesis of pH-responsive polymer networks for drug delivery applications.

Awards & Recognition:

3rd Place Undergraduate Poster Presentation: Society for Biomaterials, Biomaterial Day, Rice University (July 2012)
Undergraduate Summer 2012 Research Fellow: One of ten students in the Biomedical Engineering Department awarded a paid summer internship conducting independent research.
Undergraduate Research Fellowship: Chosen as one of the student applicants to receive a $1,000 research grant from the University of Texas Vice President Office of Research.
College of Engineering Doctoral Fellowship: Nominated by the Texas A&M University Biomedical Department and selected by the Dean of Engineering to receive financial support for doctoral studies and professional development.
Enrichment Fellowship: Texas A&M University, 2015
1st Place, Aggies Invent: Developed a dehydration detection pacifier device in Pediatric Medicine themed weekend.
1st Place, Graduate Oral Presentation for Medicine, Biomedical Engineering, Neuroscience: Texas A&M University Student Research Week 2016
Honorable Mention, Raymond Ideas Challenge: Texas A&M Center for New Ventures and Entrepreneurship
National Science Foundation Graduate Research Fellowship Program Honorable Mention: National Science Foundation, Notified Spring 2016
Close the Gap Fellowship: Texas A&M Office of Graduate and Professional Studies, 2016-2017 Academic Year
PEO Fellowship Finalist: PEO Organization, Fall 2016 Cycle
Graduate Poster Finalist: Society for Biomaterials, Biomaterials Day at University of Texas, June 2017

Publications:

- C. Schoener, H. Hutson, **G. Fletcher**, N.A.Peppas, "Amphiphilic Interpenetrating Networks for the Oral Delivery of a Low Molecular Weight, Hydrophobic Molecule," Industrial & Engineering Chemistry Research, **2011** *50*, 12556-12561.
- G. K. Fletcher, M. Caldorera-Moore and N. A. Peppas, "Environmentally Responsive Polymeric Carrier Systems for Oral Delivery of Protein-Based Chemotherapeutic Agents", Preprints, Society for Biomaterials, Biomaterials Days, 18, (**2012**).
- M. Caldorera-Moore, **G. Fletcher**, N.A. Peppas, "Hybrid Responsive Hydrogel Carriers for Oral Delivery of Low Molecular Weight Therapeutic Agents." Journal of Drug Delivery and Science, **2015**. (Accepted Jul 2015)
  A.L. Nathan*, **G.K. Fletcher*,** M.B.B. Monroe, W.Hwang, S.M. Herting, S.M. Hasan, B.K. Keller, D.J. Maitland. Particulate Release fromNanoparticle-Loaded Polyurethane Shape Memory Foams. ASME Journal of Medical Devices, 2016.
  • **G.K. Fletcher,** S.M. Hasan, A.C. Weems, M.B.B. Monroe, A.D. Easley, D.J. Maitland. Biodurable Shape Memory Polymer Scaffolds. (in preparation)