LISA A. SAWICKI lsawicki@udel.edu

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EDUCATION

University of Delaware, Newark, DE **August 2011 – present**
Ph.D. Candidate, IGERT Fellow
Department of Chemical and Biomolecular Engineering

University of Florida, Gainesville, FL **August 2007 – May 2011**
B.S. in Chemical Engineering, Magna Cum Laude
Department of Chemical Engineering

EXPERIENCE

Graduate Research Assistant and NSF IGERT Fellow **January 2012 – present**
University of Delaware, Department of Chemical and Biomolecular Engineering
Advisor: Prof. April Kloxin; IGERT Advisor: Prof. Kelvin Lee

Developing a 3D synthetic hydrogel model of the extracellular matrix (ECM) to understand cell-ECM interactions responsible for breast cancer cell dormancy and activation.

R&D Intern, Product Development **October – December 2015**
Becton Dickinson Medical, Diabetes Care, Andover, MA

Worked in a cross-functional project team engaged in new product development for electromechanical and software-driven medical devices.

NSF-REU in Functional Materials **Summer 2010**
University of Colorado, Department of Chemical and Biological Engineering
Advisor: Prof. Kristi Anseth

Studied photodegradable step-growth poly(ethylene glycol)-based (PEG) hydrogels formed through a base-catalyzed Michael-type addition for biological applications.

Biological Wastewater Treatment Lab **Summer 2009, Fall 2010 – Spring 2011**
University of Florida, Department of Chemical Engineering, Department of Environmental Engineering
Advisors: Prof. Spyros Svoronos, Prof. Ben Koopman

Investigated the *Paracoccus Pantotrophus* and *Pseudomonas Denitirificans* bacteria strains and their effects on diauxic lag time during the nitrogen cycle.

RESEARCH SKILLS

Materials Synthesis and Characterization
Peptide and polymer synthesis, HPLC, ^{1}H-NMR, ESI, MALDI-MS, rheology, profilometry, tensile stress/strain testing.

Cell Culture
Mammalian and bacterial cell culture, 3D cell culture, immunostaining, flow cytometry, SDS-PAGE, Luminex assays, fluorescent and confocal microscopy.

TEACHING

Graduate Teaching Assistant **Fall 2012, 2013**
University of Delaware, Department of Chemical and Biomolecular Engineering
Undergraduate Kinetics, Led recitation sections and held office hours.

VOLUNTEERING AND EXTRACURRICULAR ACTIVITIES

WVUD Radio **October 2013 – present**
Host and co-founder of the science-themed radio show *Science Rocks!*
www.sciencerocksradio.com

Educational Kiosk at the Delaware Museum of Natural History **June 2014 – April 2015**
Helped design and install a kiosk exhibit at the Delaware Museum of Natural History to teach families about biomaterials research for human health.

Science Night in Sussex County **March 2015**
Led activities to teach K-12 students about scientific research at the University of Delaware.

Bike and Build **June – August 2008, June – August 2011**
Cross-country cycling trip to support affordable housing.

Habitat for Humanity **August 2007 – May 2011**
University of Florida campus chapter president (2009-2011) and vice president (2008-2009).

HONORS AND AWARDS

NSF IGERT Fellowship **January 2013 – June 2015**
University of Delaware Graduate Fellowship **Awarded September 2014**
Schipper Fellowship **August 2012 – 2013**
Robert L. Pigford Fellowship **August 2011 – 2012**
Graduated Magna Cum Laude, University of Florida **May 2011**
Florida Bright Futures Scholarship **August 2007 – May 2011**

PUBLICATIONS

L. Sawicki, A. Kloxin, "Mimicking the Extracellular Matrix: The Intersection of Matrix Biology and Biomaterials" Editors: W. Murphy, G. Hudalla. *Royal Society of Chemistry*. 2015. Chapter 9, 285-334.

L. Sawicki, A. Kloxin, "Design of Thiol-ene Photoclick Hydrogels Using Facile Techniques for Cell Culture Applications" *Biomaterials Science*. 2014. 2, 1612-1626. Featured on Front Cover.

M. Smithmyer, **L. Sawicki**, A. Kloxin, "Hydrogel Scaffolds as In Vitro Models to Study Fibroblast Activation in Wound Healing and Disease" *Biomaterials Science*. 2014. 2, 634-650.

M. Tibbitt, A. Kloxin, **L. Sawicki**, K. Anseth, "Mechanical Properties and Degradation of Chain and Step-Polymerized Photodegradable Hydrogels" *Macromolecules*. 2013. 46, 2785-2792.

PRESENTATIONS AND POSTERS

6th Northeast Regional IDeA Conference. Bar Harbor, ME. September 2015 (Poster)

AIChE Annual Meeting. Atlanta, GA. November 2014 (Presentation)

Gordon Research Conference: Signal Transduction by Engineered Extracellular Matrices. Waltham, MA. July 2014 (Poster)

MRS Fall Meeting. Boston, MA. December 2013. (Poster)

5th Northeast Regional IDeA Conference. Newark, DE. August 2013. (Poster)