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EDUCATION:

August 2001-
August 2004

Ph.D., Chemistry
UNIVERSITY OF SOUTHERN CALIFORNIA (Los Angeles, CA)
Thesis Title: Crosslinked Siloxanes: Preparation and Properties
Thesis Advisor: Prof. William P. Weber

August 1995-
May 1997

M.S., Polymers and Coatings
NORTH DAKOTA STATE UNIVERSITY (Fargo, ND)
Thesis Title: Carbohydrate Polymers in Coatings
Thesis Advisor: Prof. J. Edward Glass

August 1991-
August 1995

B.S., Chemistry
NORTH DAKOTA STATE UNIVERSITY (Fargo, ND)

RESEARCH & PROFESSIONAL EXPERIENCE:

August 15, 2005-
present

Assistant Professor
TEXAS A&M UNIVERSITY (College Station, TX)
Dept. of Biomedical Engineering
Research: Si-based polymeric materials

Faculty - Material Science & Engineering Program (TAMU)
- Polymer Technology Center (TAMU)

- Design of novel silicon-based polymeric materials with molecular control to improve performance or function in applications such as: medical device coatings, sensor membranes, tissue engineering scaffolds, and anti-fouling marine coatings.

Sept. 15, 2004-
August 12, 2005

Post-doctoral Research Associate
TEXAS A&M UNIVERSITY (College Station, TX)
Dept. of Chemistry
Research Advisor: Prof. David E. Bergbreiter
Research: Polymers for catalyst supports

- Synthesis of polysiloxanes as soluble, inorganic polymer supports for a catalyst having phase selective solubility for catalyst recovery.

January 2002-
August 2004

Research Assistant (Ph.D. Thesis Research)
UNIVERSITY OF SOUTHERN CALIFORNIA (Los Angeles, CA)
Dept. of Chemistry

- Synthesis and characterization novel silicon-containing polymers, crosslinked silicone elastomers, and analysis of thermal, mechanical, and surface properties of silicone surfaces.

June 1997-
August 2001

Senior Chemist
H.B. FULLER COMPANY (St. Paul, MN)

- Synthesis and characterization of latex emulsion polymers and methanol solution polymers.

January 1996-
May 1997

Research Assistant (M.S. Thesis Research)
NORTH DAKOTA STATE UNIVERSITY (Fargo, ND)
Dept. of Polymers & Coatings

- Synthesis of associative thickeners based on cellulose and evaluation of rheology of solution and coatings formulations.

August 1993 to
December 1994

Undergraduate Research Assistant (Undergraduate Research)
NORTH DAKOTA STATE UNIVERSITY (Fargo, ND)
Dept. of Chemistry (with Prof. Mukund P. Sibi)

- Synthesis of chiral liquid crystalline mesogens and natural products.

June 1993 to
August 1993

Undergraduate Research Assistant (Undergraduate Research)
NORTH DAKOTA STATE UNIVERSITY (Fargo, ND)
Dept. of Chemistry (with Prof. Stephen Castellino)

- Synthesis of aluminum cations in chelated structures.

FUNDED RESEARCH PROJECTS

Micropatterned Thermoresponsive Nanocomposite Hydrogel Surfaces with Self-Cleaning Behavior (0756783. National Science Foundation (NSF; CBET). **M.A. Grunlan** (PI), A. Han (Co-PI), M.S. Hahn (Co-PI). Dates: 09/09/09 – 09/08/12. Dollar Value: \$300,000.

Self-Cleaning Sensor Membranes to Improve Glucose Monitoring In Vivo (1R21DK082930-01). National Institute of Health (NIH; NIDDK); Grunlan, M.A. (PI), G.L. Coté (Co-I). Dates: 07/17/09-06/30/11. Dollar Values: \$378,010.

Novel Star-PDMS/PEO Hydrogel Scaffolds with Tunable Properties for Tissue Engineered Vascular Grafts (TEVGs) (1R21HL089964-01). National Institute of Health (NIH; NIBIB). **M.A. Grunlan** (dual-PI), M.S. Hahn (dual-PI). Dates: 07/01/08 – 06/30/10. Dollar Value: \$376,298.

REFEREED PUBLICATIONS:

Corresponding author⁺

Advised graduate student^{*}

Advised undergraduate student^{**}

- (19) Murthy, R^{*}; Bailey, B.M.^{**}; **Grunlan, M.A.⁺** "Silicones with enhanced protein resistance: Introduction of branched PEO silanes with siloxane tethers," *in preparation*.
- (18) Hou, Y.^{*}; Schoener, C.A.^{*}; Regan, K.R.^{**}; Munoz-Pinto, D.; Hahn, M.S.; **Grunlan, M.A.⁺** "Photo-crosslinked PEO-PDMS_{star} hydrogels: Synthesis, characterization, and potential application for tissue engineering scaffolds," *submitted*.
- (17) Schoener, C.A.^{*}; Weyand, C.B.^{**}; Murthy, R.M.^{*}; **Grunlan, M.A.⁺** "Shape memory polymers with silicon-containing segments," *submitted*.

- (16) Hou, H.; Kim, W.; **Grunlan, M.**; Han, A.⁺ "A thermoresponsive hydrogel poly(*N*-isopropylacrylamide) micropatterning method using microfluidics techniques," *J. Micromech. Microeng.*, *accepted*.
- (15) Hou, H.; Hou, Y.*; **Grunlan, M.A.**; Munoz-Pinto, D.J.; Hahn, M.S.; Han, A.⁺ "Micropatterning of poly(*N*-isopropylacrylamide) PNIPAAm hydrogels: Effects of thermosensitivity and cell release behavior," *Sensors and Materials*, *accepted*.
- (14) Gant, R.; Hou, Y.*; **Grunlan, M.A.**, Coté, G.L.⁺ "Development of a self-cleaning sensor membrane for implantable biosensors," *J. Biomed. Mater. Res.* **2009**, 90A, 695-701.
- (13) Pierce, L.M.*; **Grunlan, M.A.**; Hou Y.*; Baumann, S.S.; Kuehl, T.J.; Muir, T.W. "Biomechanical properties of synthetic and biologic graft materials following long-term implantation in the rabbit abdomen and vagina," *Am. J. Obstet. Gynecol.* **2009**, 200, 549.e1-e8.
- (12) Murthy, R.*; Shell, C.E.**; **Grunlan, M.A.**⁺ "Surface-grafting of PEO via siloxane tethers for enhanced protein resistance" *Biomaterials* **2009**, 30, 2433-2439.
- (11) Hahn, M.S.⁺; Liao, H; Munoz-Pinto, D.; Xin, Q.; Hou, Y.*; **Grunlan, M.A.**; "Influence of hydrogel mechanical properties and mesh size on vocal fold fibroblast extracellular matrix production," *Acta Biomaterialia* **2008**, 4, 1161-1171.
- (10) Hou, Y.*; Matthews, A.R.**; Smitherman, A.M.**; Bulick, A.S.; Hahn, M.S.; Hou, H.; Han, A.; **Grunlan, M.A.**⁺ "Thermoresponsive nanocomposite hydrogels with cell-releasing behavior," *Biomaterials* **2008**, 29, 3175-3184.
- (9) Murthy, R.*; Cox, C.D.**; Hahn, M.S.; **Grunlan, M.A.**⁺ "Protein-resistant silicones: Incorporation of poly(ethylene oxide) via siloxane tethers," *Biomacromolecules*, **2007**, 8, 3244-3252.
- (8) **Grunlan, M.A.**; Regan, K.R.; Bergbreiter, D.E.⁺ "Liquid/liquid separation of polysiloxane-supported catalysts," *Chem. Comm.* **2006**, 1715-1717. *Selected as HOT TOPIC article.*
- (7) **Grunlan, M.A.**; Lee, N.S.; Mansfeld, F.; Kus, E.; Finlay, J.A.; Callow, J.A.; Callow, M.E.; Weber, W.P.⁺ "Minimally adhesive polymer surfaces (MAPS) prepared from star oligosiloxanes and star oligofluorosiloxanes," *J. Poly. Sci., Part A: Polym. Chem.* **2006**, 44, 2551-2566.
- (6) Kus, E.; **Grunlan, M.A.**; Weber, W.P.; Mansfeld, F.⁺ "Evaluation of nontoxic polymer coatings with potential biofoul release properties using EIS," *J. Electrochem. Soc.* **2005**, 152, B236-B243.
- (5) **Grunlan, M.A.**; Lee, N.S.; Weber, W.P.⁺ "Crosslinking of 1,9-bis-[glycidyoxypropyl]penta-(1'H,1'H,2'H,2'H-perfluoroalkylmethylsiloxane)s with α,ω -diaminoalkanes: The cure behavior and film properties," *J. Appl. Poly. Sci.* **2004**, 94, 203-210.
- (4) **Grunlan, M.A.**; Lee, N.S.; Cai, G.; Gädda, T.; Mabry, J.M.; Mansfeld, F.; Kus, E.; Wendt, D.E.; Kowalke, G.L.; Finlay, J.A.; Callow, J.A.; Callow, M.E.; Weber, W.P.⁺ "Synthesis of α,ω -bis epoxy oligo(1'H,1'H,2'H,2'H-perfluoroalkyl siloxane)s and properties of their photo-acid cross-linked films," *Chem. of Mater.* **2004**, 16, 2433-2441.
- (3) **Grunlan, M.A.**; Lee, N.S.; Weber, W.P.⁺ "Synthesis of 1,9-bis[glycidyoxypropyl]penta-(1'H,1'H,2'H,2'H-perfluoroalkylmethylsiloxane)s and their copolymerization with piperazine," *Polymer* **2004**, 45, 2517-2523.
- (2) **Grunlan, M.A.**; Mabry, J.M.; Weber, W.P.⁺ "Synthesis of fluorinated copoly(carbosiloxane)s by Pt-catalyzed hydrosilylation copolymerization," *Polymer* **2003**, 44, 981-987.
- (1) Grunlan, J.C.; Ma, Y.; **Grunlan, M.A.**; Francis, L.F.⁺ "Monodisperse latex with variable glass transition temperature and particle size for use as matrix starting material for conductive polymer composites," *Polymer* **2001**, 42, 6913-6921.

CONFERENCE PROCEEDINGS:

Corresponding author[†]

Advised graduate student*

Advised undergraduate student**

- (18) Schoener, C.A.*; Charanya, T.**; Weyand, C.B.**; **Grunlan, M.A.**[†] "Photocurable Si-containing shape memory polymer," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.)*, **2009**, *50*, 843-844.
- (17) Bailey, B.M.**; Murthy, R.*; **Grunlan, M.A.**[†] "Protein resistant silicones prepared with branched PEO-silanes," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.)*, **2009**, *50(1)*, 535-536.
- (16) Murthy, R.*; Shell, C.E.**; Bailey, B.M.**; **Grunlan, M.A.**[†] "Grafting of linear and branched PEO via siloxane tethers for enhanced protein resistance," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.)*, **2009**, *50(1)*, 43-44.
- (15) Hou, Y.*; Burkes, J.C.**; Lee, S.D.**; Bullick, A.S.; Hahn, M.S.; **Grunlan, M.A.**[†] "Thermoresponsive nanocomposite hydrogels with cell-releasing behavior," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.)*, **2009**, *50 (1)*, 21-22.
- (14) Murthy, R.*; Shell, C.**; **Grunlan, M.A.**[†] "Protein-resistant biomaterials: Grafting of PEO via flexible siloxane tethers," *PMSE Preprints (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.)*, **2008**, *99*, 174-175.
- (13) Murthy, R.*; Cox, C.D.**; Hahn, M.S.; **Grunlan, M.A.**[†] "Enhancing the protein-resistance of silicones," *PMSE Preprints (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.)*, **2008**, *99*, 522-524.
- (12) Xin, Q.; Bullick, A.; Schoener, C.*; Munoz, D.; Hou, Y.*; **Grunlan, M.A.**; Hahn, M.S.[†] "Modulating smooth muscle cell response with tunable inorganic-organic hydrogels," *PMSE Preprints (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.)*, **2008**, *98*, 328.
- (11) Hou, Y.*; Regan, K.R.**; Schoener, C.A.**; Hahn, M.S.; **Grunlan, M.A.**[†] "Inorganic-organic hydrogels with tunable properties," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Chem.)*, **2007**, *48(2)*, 900-901.
- (10) Regan, K.R.**; Hou, Y.*; Hahn, M.S.; Huimin, L.; **Grunlan, M.A.**[†] "Tunable hydrogels prepared from star PDMS and linear PEO," *PMSE Preprints (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.)*, **2007**, *96*, 730-731.
- (9) Murthy, R.*; **Grunlan, M.A.**[†] "Regioselective synthesis of crosslinkable α -(EtO)₃-Si-oligodimethylsiloxane-block-oligo(oxyethylene)s," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Chem.)*, **2006**, *47(2)*, 1189-1190.
- (8) Regan, K.R.; **Grunlan, M.A.**; Bergbreiter, D.E.[†] "Polysiloxanes as inorganic soluble polymer supports in synthesis," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Chem.)*, **2006**, *47 (1)*, 596-597.
- (7) **Grunlan, M.A.**; Lee, N.S.; Weber, W.P.[†] "Hybrid networks generated from star polysiloxanes/linear PDMS: Preparation of minimally adhesive polymer surfaces," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Chem.)*, **2005**, *46 (1)*, 407-408.
- (6) **Grunlan, M.A.**; Lee, N.S.; Weber, W.P.[†] "Crosslinking of α,ω -(epoxy)fluorosiloxanes with α,ω -diaminoalkanes: Cure behavior and properties," *POLY Preprints (Amer. Chem. Soc., Div. Poly. Chem.)*, **2004**, *45 (1)*, 581-582.

- (5) **Grunlan, M.A.**; Lee, N.S.; Weber, W.P.⁺ "Synthesis of 1,9-bis[Glycidyoxypropyl]penta-(1H',1H',2H',2H'-perfluoroalkylmethylsiloxane)s and their copolymerization with piperazine," *POLY Preprints* (Amer. Chem. Soc., Div. Poly. Chem.), **2004**, 45(1), 712-713.
- (4) **Grunlan, M.A.**; Weber, W.P.⁺ "Preparation of copoly[methyldimethylphosphonopropylsiloxane/dimethylsiloxane] by Arbuzov reaction and its properties," *PMSE Preprints* (Amer. Chem. Soc., Div. Poly. Mater. Sci. Eng.), **2003**, 89, 470-471.
- (3) **Grunlan, M.A.**; Mabry, J.M.; Weber, W.P.⁺ "Synthesis of fluoroalkylsiloxane copolymers by Pt-catalyzed hydrosilylation polymerization," *POLY Preprints* (Amer. Chem. Soc., Div. Poly. Chem.), **2002**, 43 (2), 1079-1080.
- (2) **Grunlan, M.A.**⁺ "Advances in latex modification of urea formaldehyde resins," Conference Proceedings - International Nonwovens Technical Conference, Baltimore, MD, United States, Sept. 5-7, **2001**; pp. 573-580.
- (1) **Grunlan, M.A.**; Glass, J.E.⁺ "Influence of spacer length on the rheology of HMHEC coatings rheology," *PMSE Preprints* (Amer. Chem. Soc., Div. Poly. Mater. Sci.Eng.), **1997**, 76, 120-121.

BOOK CHAPTERS:

- (3) **Grunlan, M.A.**; Lee, N.S.; Finlay, J.A.; Callow, J.A.; Callow, M.E.; Weber, W.P.⁺ "Fluorinated Copoly(carbosiloxane)s: Synthesis, Copolymerization, and Cross-Linked Networks," in Science and Technology of Silicones and Silicone-Modified Materials, ACS Symposium Series 964, Clarson, S.J.; Fitzgerald, J.J.; Owen, M.J.; Smith, S.D.; Van Dyke, M.E., Eds., Amer. Chem. Soc., Washington, D.C., **2007**, pp. 37-48.
- (2) Kus, E.; **Grunlan, M.**; Weber, W.P.; Anderson, N.; Webber, C.; Stenger-Smith, J.D.; Zarras, P.; Mansfeld, F.⁺ "Evaluation of the Protective Properties of Novel Chromate-Free Polymer Coatings Using Electrochemical Impedance Spectroscopy," in New Developments in Coatings Technology, ACS Symposium Series 962, Zarras, P.; Benicewicz, B.C.; Wood, T.; Richey, B., Eds., Amer. Chem. Soc., Washington, D.C., **2007**, pp. 297-322.
- (1) **Grunlan, M.A.**; Xing, L.; Glass, J.E. "Waterborne Coatings with an Emphasis on Synthetic Aspects: An Overview," in Technology for Waterborne Coatings, ACS Symposium Series 663, Glass, J.E., Ed., Amer. Chem. Soc., Washington, D.C., **1997**, pp. 1-26.

PRESENTATIONS:

Corresponding author+

(All presented by M.A. Grunlan)

- (20) "Photocurable Si-containing shape memory polymer," by Schoener, C.A.*; Weyand, C.B.**; Prukop, S.L.**; Giese, M.L.**; Zhang, D.*; **Grunlan, M.A.**⁺ presented at the 237th ACS National Meeting, Washington, D.C, United States, August 16-21, 2009. [talk-INVITED]
- (19) "Enhancing the blood-compatibility of PEO-modified biomaterials," by **Grunlan, M.A.**⁺ presented at the American Chemical Society (ACS) 6th Annual Polymers in Medicine and Biology: 2009 Meeting, Santa Rosa, CA, United States, June 14-17, 2009. [talk-INVITED]
- (18) "Thermoresponsive nanocomposite hydrogels with cell-releasing behavior," by Hou, Y.*; Burkes, J.C.**; Lee, S.D.**; Bullick, A.S.; Hahn, M.S.; **Grunlan, M.A.**⁺ presented at the 237th ACS National Meeting, Salt Lake City, UT, United States, March 22-25, 2009. [talk]

- (17) "Enhancing the blood-compatibility of PEO-modified biomaterials ," by **Grunlan, M.A.**⁺ presented to the Dept. of Chemistry, University of Texas - Dallas, Dallas, TX, United States, March 20, 2009 [talk - INVITED].
- (16) "Grafting of PEO via siloxane tethers for improved blood protein resistance," by **Grunlan, M.A.**⁺; Murthy, R.*; Bailey, B.M.**; Shell, C.E.**, presented at the Gordon Conference on Macromolecular Materials, Ventura, CA, United States, January 11-16, 2009. [poster]
- (15) "Development of a self-cleaning membrane for implantable glucose biosensors," by Gant, R.M.; Hou, Y.*; Coté, G.L.; **Grunlan, M.A.**⁺, presented at the Fall 2008 Material Research Society (MRS) Meeting, Boston, MA, United States, December 1-5, 2008. [talk]
- (14) "Protein-resistant biomaterials: grafting of PEO via flexible siloxane tethers," by Murthy, R.*; Shell, C.; **Grunlan, M.A.**⁺, presented at the 236th ACS National Meeting, Philadelphia, PA, United States, August 17-21, 2008. [talk]
- (13) "Design and characterization of inorganic-organic biomaterials," by **Grunlan, M.A.**⁺, presented at the Spring 2007 NaTex (Texas and Southwest section of the North American Thermal Analysis Society) Meeting, Dallas, TX, United States, May 13th, 2008. [talk-INVITED]
- (12) "Protein-resistant silicones: grafting of poly(ethylene oxide) via siloxane tethers," by **Grunlan, M.A.**⁺, Murthy, R.*, presented at the Fall 2007 Biomedical Engineering Society (BMES) Meeting, Hollywood, CA, United States, Sept. 28, 2007.[poster]
- (11) "Inorganic-organic hydrogel scaffolds based on poly(dimethylsiloxane) and poly(ethylene oxide)," by **Grunlan, M.A.**⁺, Hou, Y.*; Regan, K.R.**; Schoener, C.A.**; Hahn, M.S., presented at the Fall 2007 Biomedical Engineering Society (BMES) Meeting, Hollywood, CA, United States, Sept. 28, 2007. [poster]
- (10) "Inorganic,-organic hydrogels with tunable properties," by Hou, Y.*; Regan, K.R.**; Schoener, C.A.*; Hahn, M.S.; **Grunlan, M.A.**⁺, presented at the 232nd ACS National Meeting, Boston, MA, United States, August 19-23, 2007. [talk]
- (9) "Non-adhesive polymer surfaces from novel amphiphilic block copolymers," by **Grunlan, M.A.**⁺; Hahn, M. S.; Cox, C.D.**; Murthy, R.*, presented at the 62nd Southwest Regional Meeting of the American Chemical Society, Houston, TX, United States, October 19-22, 2006. [talk-INVITED]
- (8) "Regioselective synthesis of crosslinkable alpha-(EtO)₃Si-oligosiloxane-*block*-oligo(oxyethylene)s," by, Murthy, R.*; **Grunlan, M.A.**⁺, presented at the 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006. [talk]
- (7) "Liquid/liquid separation of polysiloxane-supported catalysts," by **Grunlan, M.A.**; Bergbreiter, D.E.⁺, presented at the 38th Central Regional Meeting of the American Chemical Society, Frankenmuth, MI, United States, May 16-20, 2006. [talk]
- (6) "Minimally adhesive siloxane and fluorosiloxanes surfaces," by **Grunlan, M.A.**⁺; Weber, W.P., presented at the 38th Central Regional Meeting of the American Chemical Society, Frankenmuth, MI, United States, May 16-20, 2006. [talk]
- (5) "Hybrid networks generated from star polysiloxanes/linear PDMS: Preparation of minimally adhesive polymer surfaces," by **Grunlan, M.A.**; Lee, N.S; Weber, W.P.⁺, presented at the 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005. [talk]
- (4) "Synthesis of 1,9-bis[Glycidyoxypropyl]penta-(1H',1H',2H',2H'-perfluoroalkylmethylsiloxane)s and their copolymerization with piperazine," by **Grunlan, M.A.**; Lee, N.S; Weber, W.P.⁺, presented at the 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004. [poster]
- (3) "Crosslinking of α,ω -(epoxy)fluorosiloxanes with α,ω -diaminoalkanes: Cure behavior and properties," by **Grunlan, M.A.**; Lee, N.S; Weber, W.P.⁺, presented at the 227th ACS National Meeting, Anaheim, CA, United States, March 28-April 1, 2004. [talk]

- (2) "Preparation of copoly[methyl dimethyl phosphonopropyl siloxane/dimethyl siloxane] by Arbuzov reaction and its properties," by **Grunlan, M.A.**; Lee, N.S.; Weber, W.P.⁺, presented at the 226th ACS National Meeting, New York, NY, United States, September 7-11, 2003. [poster]
- (1) "Synthesis of fluoroalkyl siloxane copolymers by Pt-catalyzed hydrosilylation polymerization," by **Grunlan, M.A.**; Mabry, J.M.; Weber, W.P.⁺, presented at the 224th ACS National Meeting, Boston, MA, United States, August 18-22, 2002. [poster]

COURSES TAUGHT:

BMEN 343: Introduction to Biomaterials
BMEN 482/682: Polymeric Biomaterials

RESEARCH ADVISING: CURRENT STUDENTS

Yaping Hou: Ph.D. candidate; Material Science and Engineering; 08/2005 –present
Brennan Bailey: Ph.D. candidate; Material Science and Engineering; 06/2009 –present
Dawei Zhang: Ph.D. candidate; Material Science and Engineering; 08/2009 –present
Ruochong Fei: Ph.D. candidate; Biomedical Engineering; 08/2009 –present

Jason George: undergraduate; Biomedical Engineering; 08/2009-present
Vivian Hui: undergraduate; Biomedical Engineering; 08/2009-present
Stacy Prukop: undergraduate; Biomedical Engineering; 06/2009-present
Chris Weyand: undergraduate; Biomedical Engineering; 01/2009 – present
Melissa Giese: undergraduate; Biomedical Engineering; 01/2009 – present
Jonathan Burkes: undergraduate; Biomedical Engineering; 01/2008 – present

RESEARCH ADVISING: FORMER STUDENTS

Ranjini Murthy: Ph.D.; Material Science and Engineering (05//2009) – patent engineer at Osha Liang LLP
Cody A. Schoener: M.S.; Biomedical Engineering (08/2009) – Ph.D. candidate at University of Texas

Shin Duk Lee: B.S. Biomedical Engineering (5/2009); 08/2008 – 5/2009
Brennan Bailey: B.S. Biomedical Engineering (5/2009); 01/2008 – 05/2009
Tauseef Charanya: undergraduate; Biomedical Engineering; 08/2008 – 05/2009
Christopher Perry: undergraduate; Biomedical Engineering; 01/2008 – 05/2008
Ashley Smitherman: B.S. Biomedical Engineering (12/2007); 01/2007 – 12/2007
Courtney E. Shell: undergraduate; Biomedical Engineering; 05/2007-05/2008
Casey D. Cox: B.S. Biomedical Engineering (05/2007); 06/2006 – 12/2006
Andrew R. Matthews: B.S. Biomedical Engineering (5/2008); 05/2006-08/2006
Katherine R. Regan: B.S. Chemistry (05/2007); 01/2006-12/2006

AWARDS:

Doctoral Research Award; USC (2005)
Moulton Summer Graduate Fellowship; USC (2002 & 2003)
Women in Science and Engineering (WiSE) Travel Grant; USC (2002)
Quarterly Technical Achievement Award; H.B. Fuller Company (May 2001)
NASA Fellowship, ND Space Grant; North Dakota State University (1994)
Research Experience for Undergraduates (REU) Award; NDSU (1993)

SOCIETY MEMBERSHIPS:

American Chemical Society (ACS), [1997-present]: *POLY and PMSE divisions*
Materials Research Society (MRS), [2007-present]
Society for Biomaterials (SFB), [2009-present]