PAMELA K. KREEGER, Ph.D.

University of Wisconsin-Madison
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PROFESSIONAL EXPERIENCE

Assistant Professor	Department of Biomedical Engineering, 2009 – present Research focus: Experimental and computational analysis of cell signaling mechanisms and cell-cell interactions, with a focus on women's health (ovarian cancer, endometriosis) and tissue engineering (wound healing, angiogenesis)
Post-Doctoral Fellow	Biological Engineering, Massachusetts Institute of Technology, 2005-2008 Research topic: Experimental and computational investigations of RAS signaling networks in apoptosis utilizing both *in vitro* and *in vivo* systems Post-doctoral advisor: Douglas A. Lauffenburger
Ph.D.	Chemical Engineering, Northwestern University, June 2005 Thesis title: Alginate Matrices for the *in vitro* Culture of Ovarian Follicles: Regulation by Extracellular Matrix and Follicle Stimulating Hormone Thesis advisor: Lonnie D. Shea
Intern	Fermi National Accelerator Laboratory, Summers 1999 – 2000 Beams Division, mechanical engineering support
B.S.	Chemistry, Valparaiso University, May 2000 Minors: Biology, Mathematics, and History *Summa cum laude*

TEACHING EXPERIENCE

BME 201	Biomedical Engineering Design	Spring 2009
BME 510	Introduction to Tissue Engineering	Fall 2009-2012
BME 556	Systems Biology: Mammalian Signaling Networks	Spring 2013
BME 601	Tissue Engineering Lab	Fall 2009-2010
BME 601	Introduction to Systems Biology	Spring 2012
InterEgr 102	Introduction to Society's Engineering Grand Challenges	Fall 2012

PROGRAM AFFILIATIONS

Biotechnology Training Program
Cellular and Molecular Biology Program
Computation and Informatics in Biology and Medicine
Endocrinology and Reproductive Physiology Program
Genomic Sciences Training Program
Molecular and Cellular Pharmacology
Molecular and Environmental Toxicology Training Grant
University of Wisconsin Comprehensive Cancer Center

FELLOWSHIPS AND AWARDS

James G. Woodburn Award for Excellence in Teaching	2013
American Cancer Society Research Scholar	2013
NSF CAREER Award	2010
American Cancer Society Postdoctoral Fellowship	2008
Anna Fuller Fund Fellowship in Molecular Oncology	2006
Northwestern University Fellow	2004-2005
Alpha Lambda Delta Graduate Fellowship	2004-2005
USDA Merit Travel Fellowship Award	2004
Gramm Travel Fellowship Award	2004
Metz Scholarship in Reproductive Biology	2002
Student Travel Award, Biomedical Engineering Society	2002
National Defense Science and Engineering Graduate Fellowship	2001-2004
National Science Foundation Fellowship (declined)	2001
Cabell Fellowship, Northwestern University	2000-2001

CURRENT RESEARCH FUNDING

American Cancer Society Research Scholars Grant (PI)	01/13-12/16
Macrophage-Tumor Cell Interactions in Ovarian Cancer	$720,000
NSF CBET-0951613 (PI)	03/10-02/15
CAREER: Quantitative Analysis of Endocrine Disrupting Chemicals	$423,000
NIH R01-GM099031 (PI: KS Masters)	09/11-04/15
Combinatorial Analysis of Migration Stimuli for Enhanced Wound Healing	$1,124,240
Graduate School Research Committee Grant, University of Wisconsin-Madison (PI)	07/12-06/13
Development of a Biomimetic Microenvironment to Study Ovarian Cancer	$37,969

PREVIOUS RESEARCH FUNDING

American Cancer Society Institutional Research Grant (PI)	09/11-08/12
Microscale Culture to Enable the Study of Ovarian Cancer-Macrophage Interactions	$29,549
Graduate School Research Committee Grant, University of Wisconsin-Madison (PI)	07/11-06/12
Analysis of Signaling Networks in Ovarian Cancer	$48,251
Graduate School Research Committee Grant, University of Madison-Wisconsin (PI)	07/10-06/11
Multi-cellular *in vitro* Culture System to Study Endometriosis	$47,431
Turner BioSystems Instrument Grant Program – Luminescent Plate Reader (PI)	2009
American Cancer Society PF-08-026-01-CCG (PI)	01/08-12/08
Systems Biology Analysis of TNFα and RAS Cross-Talk *in vivo* and *in vitro*	$44,000
MIT CEHS Pilot Project (co-I – PI: DA Lauffenburger)	05/07-04/08
Systems Biology Analysis of Nuclear and Membrane-Initiated Signaling by EDCs	$25,000

PUBLICATIONS

1. P.K. Kreeger. "Using Partial Least Squares Regression to Analyze Cellular Response Data." *Science Signaling*. 6, p. tr7, 2013.
2. R. Liu, K.Z. Vang, P.K. Kreeger, S.H. Gellman, K.S. Masters. "Experimental and Computational Analysis of Cellular Interactions with Nylon-3-Bearing Substrates." *Journal of Biomedical Materials Research: Part A*. 100A, p. 2750-2759, 2012.
3. R.D. Prasasya, K.Z. Vang, P.K. Kreeger. "A Multivariate Model of ErbB Network Composition Predicts Ovarian Cancer Cell Response to Canertinib." *Biotechnology and Bioengineering*. 109, p. 213-224, 2012.
4. R.D. Prasasya, D. Tian, P.K. Kreeger. "Analysis of Cancer Signaling Networks by Systems Biology to Develop Therapies." *Seminars in Cancer Biology*. 21, p. 200-206, 2011.
5. P.K. Kreeger, Y. Wang, K.M. Haigis, D.A. Lauffenburger. "Integration of Multiple Signaling Pathway Activities Resolves K-RAS / N-RAS Mutation Paradox in Colon Epithelial Cell Response to Inflammatory Cytokine Stimulation." *Integrative Biology*. 2, p 202-208, 2010.
6. P.K. Kreeger, D.A. Lauffenburger. "Cancer Systems Biology: a Network Modeling Perspective." *Carcinogenesis*. 31, p 2-8, 2010.
7. P.K. Kreeger, R. Mandhana, S.K. Alford, K.M. Haigis, D.A. Lauffenburger. "RAS mutations affect tumor necrosis factor-induced apoptosis in colon carcinoma cells via ERK-modulatory negative and positive feedback circuits along with non-ERK pathway effects." *Cancer Research*. 69, p 8191-8199, 2009.
8. M. Xu, P.K. Kreeger, L.D. Shea, T.K. Woodruff. "Tissue Engineered Follicles Produce Live, Fertile Offspring." *Tissue Engineering*. 12, p 2739-2746, 2006. (highlighted in *Nature Medicine*, Nov. 2008, p 1178 and p 1182)
9. S.K. Bristol-Gould, P.K. Kreeger, C.G. Selkirk, S.M. Kilen, K.E. Mayo, L.D. Shea, T.K. Woodruff. "Fate of the Initial Follicle Pool: Empirical and Mathematical Evidence Supporting its Sufficiency for Adult Fertility." *Developmental Biology*. 298, p 149-154, 2006. (co-first author, highlighted in *Nature Medicine*, Nov. 2008, p 1190)
10. S.K. Bristol-Gould, P.K. Kreeger, C.G. Selkirk, S.M. Kilen, R.W. Cook, J.L. Kipp, L.D. Shea, K.E. Mayo, T.K. Woodruff. "Postnatal Regulation of Germ Cells by Activin: the Establishment of the Initial Follicle Pool." *Developmental Biology.* 298, p 132-148, 2006. (co-first author, highlighted in *Nature Medicine*, Nov. 2008, p 1190)
11. P.K. Kreeger, J.W. Deck, T.K. Woodruff, L.D. Shea. "The *In Vitro* Regulation of Ovarian Follicle Development Using Alginate-Extracellular Matrix Gels." *Biomaterials*. 27, p 714-723, 2006.
12. P.K. Kreeger, N.N. Fernandes, T.K. Woodruff, L.D. Shea. "Regulation of Mouse Follicle Development by Follicle Stimulating Hormone in a Three-Dimensional *In Vitro* Culture System is Dependent on Follicle Stage and Dose." *Biology of Reproduction*. 73, p 942-950, 2005.
13. P.K. Kreeger, T.K. Woodruff, L.D. Shea. "Murine Granulosa Cell Morphology and Function are Regulated by a Synthetic Arg-Gly-Asp Matrix." *Molecular and Cellular Endocrinology*. 205, p 1-10, 2003.
14. P.K. Kreeger, L.D. Shea. "Scaffolds for Directing Cellular Responses and Tissue Formation." In Biomimetic Materials and Design: Interactive Biointerfacial Strategies, Tissue Engineering and Drug Delivery. Marcel Dekker, Inc, 2002.
15. A.G. Cook, P.K. Kreeger. "Reaction of Morpholine with t-Butyl Acetoacetate: A Study of Kinetic vs. Thermodynamic Control, Product Identification, and Molecular Modeling." *Journal of Chemical Education*. 77, p 90-92, 2000.

INVITED PRESENTATIONS

1. P.K. Kreeger. "Bioengineering Research in Women's Health." Valparaiso University Celebration of Summer Undergraduate Research. July 2013.

2. P.K. Kreeger. "Using Systems Biology Methods to Study Cancer." Wisconsin Board of the American Cancer Society. April 2013.
3. P.K. Kreeger. "Experimental and Computational Modeling for Ovarian Cancer." WID Systems Biology Seminar Series, April 2013.
4. P.K. Kreeger. "Experimental and Computational Modeling for Ovarian Cancer." University of Wisconsin-Madison, Molecular and Cellular Pharmacology Seminar. Apr. 2013.
5. P.K. Kreeger. "Women's Health: FIR-tile Ground for Engineers." *MBL Frontiers in Reproduction Minisyposium*. Woods Hole, MA. June 2012.
6. P.K. Kreeger. "Systems Biology Approaches to Ovarian Cancer and Endometriosis." *Tumor Microenvironment/Cell Signaling Bring Your Own Biology*. Madison, WI. May 2012
7. P.K. Kreeger. "Biological Engineering Approaches for Women's Health." *32nd Annual Minisymposium on Reproductive Biology*. Chicago, IL. Apr. 2012.
8. P.K. Kreeger. "Multivariate Modeling to Predict Drug Sensitivity in Ovarian Cancer." *MathBio3: Modeling*. Madison, WI. Sept. 2011.
9. P.K. Kreeger. "Systems Biology Analysis of Cellular Signaling: Extension to the ER Network." University of Wisconsin School of Medicine and Public Health, Endocrine Grand Rounds. Jan 2010.
10. P.K. Kreeger. "Experimental and Computational Analysis of Cancer Signaling Networks." University of Michigan, Department of Biomedical Engineering Seminar Series. Apr. 2009.
11. P.K. Kreeger. "Biomedical Engineering and Cancer." Valparaiso University, Department of Chemistry Seminar Series. Mar. 2009.
12. P.K. Kreeger. "Biological Engineering Approaches for Women's Health." *Moving Into the Future: New Dimensions and Strategies for Women's Health Research*. St. Louis, MO. Mar. 2009.
13. P.K. Kreeger. "Analysis of Cancer Signaling Networks." University of Wisconsin-Madison, Department of Chemical and Biological Engineering Seminar Series. Feb. 2009.
14. P.K. Kreeger, D.A. Lauffenburger. "Validation of Multiplexing Technology for Systems Biology Approaches." Merrimack Pharmaceuticals. Cambridge, MA. Apr. 2007.
15. P.K. Kreeger, T.K. Woodruff, L.D. Shea. "Alginate Matrices for the *In Vitro* Culture of Immature Murine Ovarian Follicles." *Midwest Microscopy and Microanalysis Society*, Evanston, IL. Mar. 2004.
16. P.K. Kreeger, L.D. Shea. "Tissue Engineering: General Principles and Application in Ovarian Biology." Valparaiso University, Department of Chemistry Seminar Series. Mar. 2003.

PRESENTATIONS

1. R. Liu, K.Z. Vang, S.H. Gellman, P.K. Kreeger, K.S. Masters. "Nylon-3 Copolymer Libraries as a Model System for Experimental and Computational Characterization of Cell-Material Interactions." *Biomedical Engineering Society*. Atlanta, GA. Oct. 2012.
2. C. Rodriguez, D. Bourgeois, P.K. Kreeger. "Crosstalk between ErbB1/3, IL-8 and GROα Signaling in Ovarian Cancer." *2nd Undergraduate Research Symposium*. University of Puerto Rico at Mayaguez, Mayaguez, PR. Apr. 2012.
3. K. Pollock, P.K. Kreeger. "An *In Vitro* Model of Endometriosis." *Materials Research Society*. San Francisco, CA. Apr. 2012.
4. R.D. Prasasya, P.K. Kreeger. "Identification of a Multivariate ErbB Network Signature in Epithelial Ovarian Cancer." *Biomedical Engineering Society.* Hartford, CT. Oct. 2011.
5. P.K. Kreeger, K.M. Haigis, T. Jacks, D.A. Lauffenburger. "Experimental and Computational Analysis of RAS Mutation Effects in Apoptosis Signaling." *American Institute of Chemical Engineers*. Salt Lake City, UT. Nov. 2007.
6. P.K. Kreeger, K.M. Haigis, T. Jacks, D.A. Lauffenburger. "Systems Biology Analysis of RAS Mutation Effects in Apoptosis." *Biomedical Engineering Society*. Los Angeles, CA. Sept. 2007.

7. E.R. West, P.K. Kreeger, J.W. Deck, T.K. Woodruff, L.D. Shea. "Alginate Hydrogel Mechanics Regulate Follicle Growth in a Three-Dimensional *In Vitro* Culture System." *American Institute of Chemical Engineers*. Cincinnati, OH. Nov. 2005.
8. E.R. West, P.K. Kreeger, J.W. Deck, T.K. Woodruff, L.D. Shea. "Alginate Hydrogel Mechanics Regulate Follicle Growth in a Three-Dimensional *In Vitro* Culture System." *Northwestern University Reproductive Mini-Symposium*. Evanston, IL. Oct. 2005.
9. P.K. Kreeger, N.N. Fernandes, J.W. Deck, T.K. Woodruff, L.D. Shea. "Extracellular Matrix Regulation of Follicle Development in an *In Vitro* Culture System." *European Society for Human Reproduction Campus: Mammalian Oogenesis and Folliculogenesis*. Paris, France. Mar. 2005.
10. P.K. Kreeger, N.N. Fernandes, T.K. Woodruff, L.D. Shea. "Alginate-Extracellular Matrix Gels to Promote Maturation of Ovarian Follicles." *American Institute of Chemical Engineers*. Austin, TX. Nov. 2004.
11. K.E. Mayo, S.K. Bristol-Gould, J.L. Kipp, J. Weck, S.M. Kilen, A. Burkart, C. Matulis, P.K. Kreeger, T.K. Woodruff. "Regulation and Actions of Inhibin and Activin in the Ovary." *Serono Ovarian Workshop*. Vancouver, Canada. July 2004.
12. T.K. Woodruff, P.K. Kreeger, C.B. Berkholtz, J. Roh, S. Kalra, J. Zhang, R. Kazer, L.D. Shea. "TGFβ Family Members that Impact on Follicle Development and Oocyte Growth." *Updates in Infertility Treatment*, Marco Island, FL. Jan. 2004.
13. P.K. Kreeger, C.B. Berkholtz, T.K. Woodruff, L.D. Shea. "Alginate Matrices for the Culture of Immature Murine Ovarian Follicles." *American Institute of Chemical Engineers*, San Francisco, CA. Nov. 2003.
14. P.K. Kreeger, T.K. Woodruff, L.D. Shea. "Collagen Type I Improves Survival and Stimulates Granulosa-Oocyte Complex Growth *In Vitro*." *Northwestern University Reproductive Mini-Symposium*. Evanston, IL. Oct. 2003. Constance Campbell Award.
15. P.K. Kreeger, C.B. Berkholtz, T.K. Woodruff, L.D. Shea. "*In Vitro* Maturation of Granulosa-Oocyte Complexes in Synthetic Scaffolds." *Society for Biomaterials*. Reno, NV. Apr. 2003.
16. P.K. Kreeger, C.B. Berkholtz, T.K. Woodruff, L.D. Shea. "A Novel System for *In Vitro* Culture of Immature Granulosa-Oocyte Complexes." *Northwestern University Reproductive Mini-Symposium*. Evanston, IL. Oct. 2002. Constance Campbell Award.
17. S.A. Pangas, H. Saudye, P.K. Kreeger, T.K. Woodruff, L.D. Shea. "Hydrogel Scaffolds for the Culture of Primary Ovarian Follicles." *American Institute of Chemical Engineers*. Reno, NV. Nov. 2001.

POSTER SESSIONS

1. D. Tian, H.M. Pezzi, P.K. Kreeger. "Insulin-Like Growth Factor (IGF) Signaling in Ovarian Cancer." *Biomedical Engineering Society*. Atlanta, GA. Oct. 2012.
2. D. L. Bourgeois, O.M. Rice, P.K. Kreeger. "Quantitative Analysis of Autocrine Cascades in Ovarian Cancer." *Biomedical Engineering Society*. Atlanta, GA. Oct. 2012.
3. M.C. Regier, K. Dittloff, K. Carlson, P.K. Kreeger, K.S. Masters. "Analysis of How Immobilized and Soluble EGF Determine Cellular Response in Wound Healing." *Biomedical Engineering Society*. Atlanta, GA. Oct. 2012.
4. K. Pollock, P.K. Kreeger. "An *In Vitro* Model of Cell-Cell Interactions in Endometriosis." *Biomedical Engineering Society*. Atlanta, GA. Oct. 2012.
5. K. Z. Vang, R. Liu, K.S. Masters, P.K. Kreeger. "Partial Least Squares Regression Analysis of Protein Adsorption and 3T3 Cell Attachment to Nylon-3 Copolymers." 20th Annual National McNair Research Conference and Graduate Fair. Lake Geneva, WI. Nov. 2011.
6. G.J. Czaplewski, P.K. Kreeger. "Microfluidic Co-culture System to Study Soluble Factor Signaling in Epithelial Ovarian Cancer." *Biomedical Engineering Society.* Hartford, CT. Oct. 2011.
7. K. Pollock, P.K. Kreeger. "Characterization of Endometriotic Cell Behavior Using a 3D Culture Model." *UW Undergraduate Symposium*. Madison, WI. Apr. 2011.

8. R. Prasasya, K. Pollock, P.K. Kreeger. “Analysis of ErbB Inhibitor Sensitivity and ErbB Network Patterns in Epithelial Ovarian Cancer.” *Biomedical Engineering Society*. Austin, TX. Oct. 2010.
9. M. Gnazzo, K. Pollock, R. Prasasya, P.K. Kreeger. “Signal Pathway Cross Talk Between the ErbB Receptor and IL-6 and IL-8 Cytokines in Ovarian Cancer Tumor Cells.” *CIC/SROP Summer Research Conference*. Columbus, OH. July 2010.
10. P.K. Kreeger, R. Mandhana, T. Jacks, K.M. Haigis, M. Yaffe, D.A. Lauffenburger. “Autocrine Signaling Loops are Altered by Mutations in Different RAS Isoforms.” *American Association for Cancer Research: Chemical and Biological Aspects of Inflammation and Cancer*. Ko Olina, Oahu, HI. Oct. 2008. Aflac, Inc. Scholar-in-Training award.
11. P.K. Kreeger, R. Mandhana, T. Jacks, K.M. Haigis, D.A. Lauffenburger. “Autocrine Signaling Loops are Altered by Mutations in Different RAS Isoforms.” *Biomedical Engineering Society*. St. Louis, MO. Oct. 2008.
12. P.K. Kreeger, R. Mandhana, T. Jacks, K.M. Haigis, D.A. Lauffenburger. “Autocrine Signaling Loops: Impact of Different RAS Isoforms.” *Systems Biology of Human Disease*. Boston, MA. Oct. 2008. Selected for oral presentation briefs.
13. P.K. Kreeger. “Systems Biology Approach to Endocrine Signaling.” *American Institute of Chemical Engineers*. Salt Lake City, UT. Nov. 2007.
14. P.K. Kreeger, K.M. Haigis, R. Mandhana, T. Jacks. D.A. Lauffenburger. “Systems Biology Analysis of RAS Mutation Effects in Apoptosis.” *Engineering Cell Biology – the Cell in Context.* Cambridge, MA. Aug. 2007.
15. P.K. Kreeger, K.M. Haigis, D.A. Lauffenburger, T. Jacks. “Integrating Systems Biology and Mouse Models of Colon Cancer through the Study of N-Ras.” *Integrative Cancer Biology Program & Mouse Models of Human Cancer Joint Meeting*. Bethesda, MD. Dec. 2006.
16. P.K. Kreeger, S.K. Bristol-Gould, C.G. Selkirk, S.M. Kilen, K.E. Mayo, L.D. Shea, T.K. Woodruff. “The Fate of the Initial Follicle Pool: Empirical and Mathematical Evidence Supporting its Sufficiency for Fertility.” *Endocrine Society.* Boston, MA. June 2006.
17. S.K. Bristol-Gould, P.K. Kreeger, C.G. Selkirk, S.M. Kilen, R.W. Cook, J.L. Kipp, L.D. Shea, K.E. Mayo, T.K. Woodruff. “Postnatal Regulation of Germ Cells by Activin: Establishment of an Optimal and Necessary Quantity of Follicles Prior to Puberty.” *Endocrine Society.* Boston, MA. June 2006.
18. M. Xu, P.K. Kreeger, L.D. Shea, T.K. Woodruff. “Tissue Engineered Follicles Produce Live, Fertile Offspring.” *Endocrine Society.* Boston, MA. June 2006.
19. S.K. Bristol-Gould, P.K. Kreeger, C.G. Hutten, S.M. Kilen, R.W. Cook, J.L. Kipp, L.D. Shea, K.E. Mayo, T.K. Woodruff, “Postnatal Regulation of Germ Cells by Activin.” *Northwestern University Reproductive Mini-Symposium*. Evanston, IL. Oct. 2005.
20. P.K. Kreeger, J.W. Deck, N.N. Fernandes, T.K. Woodruff, L.D. Shea. “Reconstructed Basement Membrane Regulation of Murine Follicle Maturation in a Three-Dimensional Culture System.” *Society for the Study of Reproduction*. Vancouver, Canada. Aug. 2004. USDA Merit Award.
21. P.K. Kreeger, N.N. Fernandes, C.B. Berkholtz, T.K. Woodruff, L.D. Shea. “Gonadotropin Supplementation Enhances Development for Murine Preantral Follicles Cultured in a Three-Dimensional System.” *Society for the Study of Reproduction*. Vancouver, Canada. Aug. 2004.
22. P.K. Kreeger, T.K. Woodruff, L.D. Shea. “Reconstructed Basement Membrane and Gonadotropin Regulation of Murine Follicle Maturation in a Three-Dimensional Culture System.” *Serono Ovarian Workshop*. Vancouver, Canada. July 2004. Cornelia Channing Award.
23. P.K. Kreeger, T.K. Woodruff, L.D. Shea. “Alginate Scaffolds for the Culture of Ovarian Follicles in a Stage Specific Manner.” *American Institute of Chemical Engineers*. Austin, TX. Nov. 2004.
24. P.K. Kreeger, T.K. Woodruff, L.D. Shea. “Three-Dimensional Culture of Murine Follicles *In Vitro*: Extracellular Matrix Effects.” *Gordon Research Conference: Reproductive Tract Physiology*, New London, CT. June 2004. Gramm Award.

25. P.K. Kreeger, C.B. Berkholtz, T.K. Woodruff, L.D. Shea. "A Novel Three-Dimensional System for the *In Vitro* Culture of Immature Murine Ovarian Follicles." *Society for the Study of Reproduction*. Cincinnati, OH. July 2003.
26. C.B. Berkholtz, P.K. Kreeger, T.K. Woodruff, L.D. Shea. "Follicle Size Increases in a Synthetic Stroma." *Northwestern University Reproductive Mini-Symposium*. Evanston, IL. Oct. 2002.
27. P.K. Kreeger, T.K. Woodruff, L.D. Shea. "Alginate Matrices to Regulate Granulosa Cell Morphology and Steroid Production." *Biomedical Engineering Society*. Houston, TX. Oct. 2002. Student Travel Award.
28. P.K. Kreeger, T.K. Woodruff, L.D. Shea. "Synthetic Scaffolds to Regulate Granulosa Cell Adhesion and Spreading." *Northwestern University Reproductive Mini-Symposium*. Evanston, IL. Oct. 2001. Constance Campbell Award.

ACTIVITIES AND UNIVERSITY SERVICE

BME Seminar Committee, Chair	2012-present
UW-Madison Delta Program, Steering Committee	2012-present
UW-Madison Delta Program, Facilitator for Faculty Mentor Training	2010-present
Valparaiso University Chemistry Alumni Advisory Board	2009-present
UW-Madison CoE Women Faculty Mentoring Lunches Co-Chair	2009-present
UW-Madison BME Graduate Recruitment Committee	2009-2010
MIT Cell Decision Processes Center	2005-2008
MIT Integrative Cancer Biology Program	2005-2008
Faculty Search Committee, Northwestern Department of Chemical and Biological Engineering	2002, 2004
Graduate Recruitment Committee, Northwestern Department of Chemical and Biological Engineering	2003
Co-President of Chemical Engineering Graduate Student Fellowship	2001

PROFESSIONAL SERVICE

Journal Reviews

1. *Biology of Reproduction*
2. *Bioinformatics*
3. *Biomaterials*
4. *Biotechnology and Bioengineering*
5. *Cellular and Molecular Bioengineering*
6. *Integrative Biology*
7. *Journal of Biological Engineering*
8. *Journal of Ovarian Research*
9. *Journal of Visualized Experiments*
10. *Macromolecular Bioscience*
11. *Molecular BioSystems*
12. *PLoS Computational Biology*
13. *PLoS ONE*
14. *Science*
15. *Tissue Engineering*

Proposal Reviews

1. NSF Graduate Research Fellowship Program. 2010
2. NIH Special Emphasis Panel on Microphysiological Systems. 2012
3. INSERM: Systems Biology Applied to the Cancer Research. 2013
4. Royal College of Surgeons in Ireland. 2013

Conference Service

1. Cancer Technologies. BMES Annual Meeting. Reviewer, 2013.
2. Modeling and Experimental Systems Approaches for Cellular Signaling. BMES Annual Meeting. Co-chair, 2012.
3. Systems Biology and Personalized Medicine in Cancer Therapy. BMES Annual Meeting. Co-chair, 2012.
4. Cellular Engineering and Modeling. BMES Annual Meeting. Co-chair, 2011.
5. Systems Cell Biology. BMES Annual Meeting. Co-chair, 2010.
6. Integrative Cancer Biology Program Junior Investigator National Meeting. Organizing Committee, 2009.

PROFESSIONAL SOCIETIES

American Society for Engineering Education (ASEE)
Biomedical Engineering Society (BMES)

POST-DOCTORAL ASSOCIATES MENTORED

Yao Fu, Biomedical Engineering (joint with Kristyn Masters)	2012 - present

RESIDENTS MENTORED

Katherine Lee, ObGyn (joint with Dan Lebovic)	2012 - present

GRADUATE STUDENTS MENTORED

Taylor Jaraczewski, Biomedical Engineering (MS)	2013 - present
Chloe Kim, Biomedical Engineering (PhD, joint with Kristyn Masters)	2012 - present
Anthony Berger, Biomedical Engineering (PhD, joint with Kristyn Masters)	2012 - present
Molly Carroll, Biomedical Engineering (PhD)	2012 - present
Danielle Bourgeois, Biomedical Engineering (PhD)	2010 - present
Dan Tian, Biomedical Engineering (PhD)	2009 - present
Greg Czaplewski, Biomedical Engineering (MS)	2010 - 2012
Rexxi Prasasya, Biomedical Engineering (MS)	2009 - 2011

UNDERGRADUATE STUDENTS MENTORED

Alexandra Picard	Biomedical Engineering, 2013 - present
Shaun Pomerenke	Biomedical Engineering, 2013 - present
Min Sung Kim	Biomedical Engineering, 2013 - present
Jordan Otto	CAREER program, summer 2013
Ciara Hendricks	Biochemistry, 2013
Karl Kabarowski	Biomedical Engineering, 2013 - present
Lauren Stopfer	Biomedical Engineering, 2013 - present
Greta Pietraszek	Pharmacology, 2012 - 2013
Sarah Dicker	Biomedical Engineering, 2012 - present
Kevin Beane	Biomedical Engineering, 2012
Olivia Rice	Biomedical Engineering, 2012 - present
Hannah Pezzi	Biomedical Engineering, 2011 - 2012
Lauren Prusinski	CAREER program, summers 2011, 2012
Christie Rodriguez	SURE-REU program, summer 2011
Marika Xydes-Smith	IBS-SRP, summer 2011
Kang Vang	IBS-SRP (CIBM), summer 2011

Tyler Vovos	Biomedical Engineering, 2010
Megan Gnazzo	IBS-SRP, summer 2010
Valery Adorno Cruz	SURE-REU program, summer 2010
Katie Pollock	Biomedical Engineering, 2009 - 2011
Rexxi Prasasya	Biomedical Engineering, 2009
Brandon Ingalls	Biology, 2009
Roli Mandhana	Biological Engineering, 2007 - 2008
Amy Marshall	Biology, 2007 - 2008
Rebecca Kusko	Biology, summer 2006
Jason Deck	Biomedical Engineering, 2003 - 2005
Stephen Sung	Chemical Engineering, 2002 - 2003
Amy Lewis	Chemical Engineering, 2001 - 2002