

# PAMELA K. KREEGER, Ph.D.

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Department of Biomedical Engineering  
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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 (e.g., ovarian cancer, endometriosis).
- 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)<br>Macrophage-Tumor Cell Interactions in Ovarian Cancer   | 01/13-12/16<br>\$720,000   |
| NSF CBET-0951613 (PI)<br>CAREER: Quantitative Analysis of Endocrine Disrupting Chemicals   | 03/10-02/15<br>\$412,000   |
| NIH R01-GM099031 (co-I - PI: KS Masters)<br>Combinatorial Analysis of Migration Stimuli for Enhanced Wound Healing                                     | 09/11-04/15<br>\$1,124,240 |
| Graduate School Research Committee Grant, University of Wisconsin-Madison (PI)<br>Development of a Biomimetic Microenvironment to Study Ovarian Cancer | 07/12-06/13<br>\$37,969    |

## PREVIOUS RESEARCH FUNDING

|  |                         |
|--|-------------------------|
| American Cancer Society Institutional Research Grant (PI)<br>Microscale Culture to Enable the Study of Ovarian Cancer-Macrophage Interactions          | 09/11-08/12<br>\$29,549 |
| Graduate School Research Committee Grant, University of Wisconsin-Madison (PI)<br>Analysis of Signaling Networks in Ovarian Cancer                     | 07/11-06/12<br>\$48,251 |
| Graduate School Research Committee Grant, University of Madison-Wisconsin (PI)<br>Multi-cellular <i>in vitro</i> Culture System to Study Endometriosis | 07/10-06/11<br>\$47,431 |
| Turner BioSystems Instrument Grant Program – Luminescent Plate Reader (PI)   | 2009                    |
| American Cancer Society PF-08-026-01-CCG (PI)<br>Systems Biology Analysis of TNF $\alpha$ and RAS Cross-Talk <i>in vivo</i> and <i>in vitro</i>        | 01/08-12/08<br>\$44,000 |
| MIT CEHS Pilot Project (co-I – PI: DA Lauffenburger)<br>Systems Biology Analysis of Nuclear and Membrane-Initiated Signaling by EDCs                   | 05/07-04/08<br>\$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. "Experimental and Computational Modeling for Ovarian Cancer." University of Wisconsin-Madison, Molecular and Cellular Pharmacology Seminar. Apr. 2013.

2. P.K. Kreeger. "Women's Health: FIR-tile Ground for Engineers." *MBL Frontiers in Reproduction Minisymposium*. Woods Hole, MA. June 2012.
3. P.K. Kreeger. "Systems Biology Approaches to Ovarian Cancer and Endometriosis." *Tumor Microenvironment/Cell Signaling Bring Your Own Biology*. Madison, WI. May 2012
4. P.K. Kreeger. "Biological Engineering Approaches for Women's Health." *32nd Annual Minisymposium on Reproductive Biology*. Chicago, IL. Apr. 2012.
5. P.K. Kreeger. "Multivariate Modeling to Predict Drug Sensitivity in Ovarian Cancer." *MathBio3: Modeling*. Madison, WI. Sept. 2011.
6. 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.
7. P.K. Kreeger. "Experimental and Computational Analysis of Cancer Signaling Networks." University of Michigan, Department of Biomedical Engineering Seminar Series. Apr. 2009.
8. P.K. Kreeger. "Biomedical Engineering and Cancer." Valparaiso University, Department of Chemistry Seminar Series. Mar. 2009.
9. 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.
10. P.K. Kreeger. "Analysis of Cancer Signaling Networks." University of Wisconsin-Madison, Department of Chemical and Biological Engineering Seminar Series. Feb. 2009.
11. P.K. Kreeger, D.A. Lauffenburger. "Validation of Multiplexing Technology for Systems Biology Approaches." Merrimack Pharmaceuticals. Cambridge, MA. Apr. 2007.
12. 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.
13. 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 GRO $\alpha$  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. "TGF $\beta$  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, Advisory Board   | 2012-present |
| UW-Madison Delta Program, Facilitator for Faculty Mentor Training                              | 2010-2011    |
| 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. *Journal of Biological Engineering*
7. *Journal of Ovarian Research*
8. *Journal of Visualized Experiments*
9. *Macromolecular Bioscience*
10. *Molecular BioSystems*
11. *PLoS Computational Biology*
12. *Science*
13. *Tissue Engineering*

### Additional 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

### Conference Service

1. Modeling and Experimental Systems Approaches for Cellular Signaling. BMES Annual Meeting. Co-chair, 2012.
2. Systems Biology and Personalized Medicine in Cancer Therapy. BMES Annual Meeting. Co-chair, 2012.
3. Cellular Engineering and Modeling. BMES Annual Meeting. Co-chair, 2011.
4. Systems Cell Biology. BMES Annual Meeting. Co-chair, 2010.

5. Integrative Cancer Biology Program Junior Investigator National Meeting. Organizing Committee, 2009.

## PROFESSIONAL SOCIETIES

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

## GRADUATE STUDENTS MENTORED

|  |                |
|--|----------------|
| 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 |
| Mary Regier, Biomedical Engineering (PhD, joint with Kristyn Masters)    | 2011 – 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

|                    |  |
|--------------------|--|
| Ciara Hendricks    | Biochemistry, 2013 - present           |
| Karl Kabarowski    | Biomedical Engineering, 2013 - present |
| Lauren Stopfer     | Biomedical Engineering, 2013 - present |
| Greta Pietraszek   | Pharmacology, 2012 - present           |
| 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      |