

Katherine E. Pelch, Ph.D.

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Education and Employment:

- Research Associate: 2016-present, The Endocrine Disruption Exchange, Paonia, Colorado
- Postdoctoral Training, 2012-2016, National Toxicology Program Laboratories, National Toxicology Program, National Institutes of Environmental Health Sciences, Mentors: Michael Waalkes & Michael DeVito
- Postdoctoral Training, 2012-2016, Office of Health Assessment and Translation, National Toxicology Program, National Institutes of Environmental Health Sciences, Mentor: Kristina A. Thayer
- Graduate Training, 2006-2011, Division of Biological Sciences, University of Missouri, Doctor of Philosophy, December 2011, Advisor: Susan C. Nagel, Ph.D.
Area of Study: Reproductive and Environmental Endocrinology
Dissertation Title: Developmental Programming by Xenoestrogens
- Senior Research Laboratory Technician: 2005-2006, Principal Investigator: Susan C. Nagel, Ph.D. Obstetrics, Gynecology & Women's Health, University of Missouri
- Bachelor of Science in Biology and Medicinal Chemistry with Departmental Honors, General Honors, and Magna Cum Laude, May 2005, University of Missouri
- Undergraduate Laboratory Research Assistant: 2002-2004, Principal Investigator: Jay J. Thelen, Ph.D. Proteomics Center, University of Missouri

Publications:

1. Howard BE, Phillips J, Miller K, Tandon A, Mav D, Shah MR, Holmgren S, **Pelch KE**, Walker V, Rooney AA, Macleod M, Shah RR, Thayer K. 2016. SWIFT-Review: a text-mining workbench for systematic review. *Systematic Reviews*, 5(87). DOI: 10.1186/s13643-016-0263-z.
2. Thayer KA, **Pelch KE**, Birnbaum LS, Bucher JR. 2015. Bisphenols: more unnecessary surprises. *Endocrine Disruptors*, 4(1):e1131032. DOI: 10.1080/23273747.2015.1131032.
3. **Pelch KE**, Tokar EJ, Merrick BA, Waalkes MP. 2015. Differential DNA methylation profile of key genes in malignant prostate epithelial cells transformed by inorganic arsenic or cadmium. *Toxicology and Applied Pharmacology*, 286:159-167. Epub2015 April 25. PMID: 25922126.
4. **Pelch KE**, Sharpe-Timms KL, Nagel SC. 2012. Mouse model of surgically-induced endometriosis by auto-transplantation of uterine tissue: lesion characteristics. *Journal of Visualized Experiments*, 59. e3396, DOI: 10.379/3396.
5. **Pelch KE**, Carleton SM, Schroder AL, Phillips CL, Nagel SC. 2011. Developmental exposure to low dose xenoestrogens alters femur length and tensile strength in adult mice. *Biology of Reproduction*, 86(3):69. Epub2011 Nov 18. PMID: 22088916.
6. Syrcle SM, **Pelch KE**, Schroder AL, Nichols BM, Mills MP, Barrier BF, Havey AD, Nagel SC. 2011. Altered gene expression profile in vaginal polypoid endometriosis resembles peritoneal endometriosis and is consistent with increased local estrogen production. *Gynecologic and Obstetric Investigation*, 71(2):77-86. Epub2010 Dec 9. PMID: 21150157.
7. **Pelch KE**, Schroder AL, Kimball PA, Sharpe-Timms KL, Davis JW, Nagel SC. 2010. Aberrant gene expression profile in a mouse model of endometriosis mirrors that observed in women. *Fertility and Sterility*, Mar;93(5):1615-1627. Epub2009 May 26. PMID: 19473656.
8. Schroder AL, **Pelch KE**, Nagel SC. 2009. Estrogen modulates the expression of putative house

keeping genes in the mouse uterus. *Endocrine*, Apr;35(2):211-219. Epub2009 Feb 14. PMID: 19219570.

9. Hajduch M, Casteel JE, **Hurrelmeyer KE**, Song Z, Agrawal GK, Thelen JJ. 2006. Proteomic analysis of seed filling in *Brassica napus*: Developmental characterization of metabolic isozymes using high-resolution two-dimensional gel electrophoresis. *Plant Physiology*, May;141(1):32-46. Epub2006 Mar 18. PMID: 16543413.

Book Chapters:

1. **Pelch KE**, Niebrugge BA, Beeman JM, Winkeler SR, Nagel SC. 2010. Endocrine Disruption in Mammals. In Norris DO and Lopez KH (Ed.), *Hormones and Reproduction of Vertebrates – Volume 5 Mammals* (pp. 329-371). San Diego, CA: Elsevier Publishing.
2. **Pelch KE**, Allison JL, Nagel SC. 2011. Fetal Programming. In Winn H, Chervenak FA, Romero R (Ed.), *Maternal-Fetal Medicine, 2nd Edition* (pp. 45.1-45.15). New York: Informa Healthcare.

Ad Hoc Reviewer:

- Chemosphere
- Environmental Health Perspectives

Selected Awards, Fellowships, and Honors

- Postdoctoral Research Award (3rd place) from Society of Toxicology's Metals Specialty Section (2014) \$100
- Larry Ewing Memorial Trainee Travel Fund, Society for the Study of Reproduction (2011) \$200
- Larry Ewing Memorial Trainee Travel Fund, Society for the Study of Reproduction (2010) \$212
- Research Presentation Award at the David G. Hall Symposium University of Missouri (2010) \$250
- Gordon Research Conference on Environmental Endocrine Disruptors Travel Grant (2010) \$1300
- Graduate Professional Council Travel Grant (2010) \$350
- Sigma Xi Grant in Aid of Research (2010) \$400
- Gordon Research Conference on Environmental Endocrine Disruptors Travel Grant (2008) \$725
- Clinical Biodetectives Training Grant (NIH T90) (2007-2010) University of Missouri
- University of Missouri Biology Graduate Student Association Travel Grant (2007) \$167
- Gordon Research Conference on Environmental Endocrine Disruptors Travel Grant (2006) \$250

Professional Activities:

- Society of Toxicology, 2014-present
- The Griffiths Leadership Society for Women, 2010-2011
- Sigma Xi, 2009-2011
- Society for the Study of Reproduction, 2005-2011, 2015

Selected Presentations:

1. "Systematic literature review of bisphenol A (BPA) analogues and analysis of high throughput screening data." Gordon Research Seminar on Environmental Endocrine Disruptors: Newry, ME, June 19, 2016.

2. "Environmental influences on the epigenome: Using SWIFT text mining tool to explore the state of the science." National Toxicology Program's Board of Scientific Counselors Meeting, Research Triangle Park, NC, June 16, 2015.
3. "Upcoming *in vitro* and *in vivo* analyses of BPA analogues." NIEHS Intramural Research on Bisphenol A Analogues, Research Triangle Park, NC, February 2, 2015.
4. "Biological activity of BPA structural analogues and functional alternatives." NIEHS Intramural Research on Bisphenol A Analogues, Research Triangle Park, NC, February 2, 2015.
5. "Environmental influences on the epigenome: using SWIFT text mining tool to assess the current state of the science." NIEHS Cross-divisional Minisymposium on Epigenetics, Research Triangle Park, NC, January 23, 2015.
6. "Developmental programming by xenoestrogens." Environmental Protection Agency, Endocrine Disrupting Contaminant Seminar, Research Triangle Park, NC, May 16, 2012.
7. "Developmental exposure to xenobiotic estrogens permanently programs expression of extracellular matrix and adhesion molecules in a mouse endometriosis model." Society for the Study of Reproduction's 40th Annual Meeting, San Antonio, TX, July 23, 2007.