

## J. RICHARD PILSNER, PhD, MPH

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Associate Professor  
Goessmann 173A  
Department of Environmental Health Sciences  
School of Public Health and Health Sciences  
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### ACADEMIC APPOINTMENT

2010 - 2018 Assistant Professor, Department of Environmental Health Sciences, School of Public Health and Health Sciences, University of Massachusetts, Amherst, MA  
2018 – current Associate Professor, Department of Environmental Health Sciences, School of Public Health and Health Sciences, University of Massachusetts, Amherst, MA

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### EDUCATION

1995 B.A., Environmental Sciences, Hamline University, St. Paul, MN. Project: *Hierarchal Behavior Patterns among Gray Wolves*  
2003 M.P.H., Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY. Thesis: *Iron Dysregulation and Idiopathic Parkinson's Disease*  
2007 Ph.D., Environmental Health Sciences, Mailman School of Public Health, Columbia University, New York, NY. Dissertation: *Metabolic Interactions Between Arsenic, Folate, and Selenium and Their Impact on Genomic DNA Methylation (PI: Mary V. Gamble)*

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### POSTDOCTORAL TRAINING

2007 - 2010 Robert Wood Johnson Foundation Health & Society Scholar, Department of Epidemiology, School of Public Health, University of Michigan, Ann Arbor, MI

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### AWARDS AND HONORS

2001 - 2003 STAR Fellowship, Environmental Protection Agency  
2003 - 2007 Pre-doctoral Fellowship, NIH T32 Competitive Training Grant  
2006 First Place, Student Poster, ISEE Annual Meeting, Paris, France  
2007 Special Commendation. Rebecca James Baker Memorial Prize for Scientific Excellence in Cross-Culture Research for the Improvement of Public Health. International Society of Environmental Epidemiology (ISEE) Annual Meeting, Mexico City, Mexico  
2009 -2013 NIH Loan Repayment Program Recipient  
2011 Selected for "Scientific Vision Workshop on the Environment" at Eunice Kennedy Shriver National Institute of Child Health and Development  
2013 Selected for the National Institute of Health Early Career Reviewer Program as an expert in environmental epigenetics.  
2014 School of Public Health and Health Sciences Outstanding Teacher Award Nominee  
2015 School of Public Health and Health Sciences Outstanding Teacher Award Nominee  
2015-2016 Center for Research on Families Scholar, University of Massachusetts Amherst  
2017 School of Public Health and Health Sciences Outstanding Teacher Award Nominee

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### GRANTS

#### Completed

2001-2003 Science to Achieve Results (STAR) Fellowship, Environmental Protection Agency. \$68,000  
Effects of Manganese Exposure on Mitochondrial Respiration: Special Reference to Mitochondrial Iron Homeostasis and Energy Production.

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Role: Principal Investigator

2007-2008 Michigan Institute for Clinical & Health Research's Clinical Translational Service Award Pilot \$16,700  
Epigenetics of Early Life Events and Environmental Toxicants.  
Role: Co-Principal Investigator

2008-2009 Michigan Institute for Clinical & Health Research's Clinical Translational Service Award Pilot. \$25,000  
Epigenetics and Epigenomics in the Etiology of Alzheimer's Disease.  
Role: Principal Investigator

2008-2010 Robert Wood Johnson Foundation Health & Society Scholars Small Grant Program. \$25,000  
Epigenetics and the Intergenerational Transmission of Disease Susceptibility: Maternal Lead and Stress  
and Early-life Events.  
Role: Principal Investigator

2009-2010 Robert Wood Johnson Foundation Health & Society Scholars Small Grant Program. \$24,000.  
Stress and Epigenetic Changes in Cardiovascular Disease  
Role: Principal Investigator

2013-2016 NIH/NCI: R15-CA170111-01 \$414,801  
Epigenotyping in Peripheral Blood DNA and Risk of Breast Cancer  
Role: Co-Investigator (PI: Susan Sturgeon)

2014-2016 Russian Science Foundation: #14-045-00065 30,000,000 Rubles (~\$500,000)  
Effects of persistent organic pollutants and endocrine disrupting chemicals on male fertility and  
epigenetic reprogramming of male germ cells.  
Role: Co-investigator/Scientific advisor (PI: Oleg Sergeev)

2014-2017 NIH/NIEHS: 1K22-ES023085-01 \$449,852  
Phthalate Exposure, Sperm DNA Methylation and Early-life Development  
Role: Principal Investigator

Current

2016-2018 NIH/NIEHS: R21-ES026778 \$458,644  
Embryonic inheritance of sperm methylome after adult exposure to phthalates  
Role: Multi-Principal Investigator with Jesse Mager

2017-2022 NIH/NIEHS: R01-ES028214 \$2,364,872  
Male preconception phthalates and offspring embryo and sperm allele-specific methylome programming  
Role: Principal Investigator

2018-2023 NIH/NIEHS: R01-ES028298 \$2,710,966  
Paternal preconception phthalates and reproductive health - potential mediation through sperm DNA  
methylation.  
Role: Principal Investigator

Non-research grants

2009-2013 NIH Loan Repayment Clinical Research Program. \$25,000  
The Environment and Epigenetics across the Lifecourse.  
Role: Principal Investigator

2013-2014 UMass Amherst Mellon Mutual Mentoring Team Grant \$10,000  
Role: Co-Investigator

2014 School of Public Health and Health Sciences Course Enhancement Fund. \$10,000  
Support Laboratory Equipment Acquisition for SPHHS Teaching Lab  
Role: Principal Investigator

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#### **PUBLICATIONS (\*signifies student mentee)**

1. **Pilsner JR**, Shershebnev A, Medvedeva YA, Suvorov A, Wu H\*, Goltsov A, Loukianov E, Andreeva T, Gusev F, Manakhov A, Smigulina L, Logacheva M, Shtratnikova V, Kuznetsova I, Speranskiy-Podobed P, Burns JS, Williams PL, Korricks S, Lee MM, Rogaev E, Hauser R, Sergeyev O. Peripubertal serum dioxin concentrations and subsequent sperm methylome profiles of young Russian adults. *Reprod Toxicol*. 2018 Jun;78:40-49.
2. Huffman AM\*, Wu H\*, Rosati A\*, Rahil T, Sites CK, Whitcomb BW, **Pilsner JR**. Associations of urinary phthalate metabolites and lipid peroxidation with sperm mitochondrial DNA copy number and deletions. *Environ Res*. 2018 May;163:10-15.
3. Suvorov A, Shershebnev A, Wu H\*, Medvedeva Y, Sergeyev O, **Pilsner JR**. Perinatal Exposure to Low Dose 2,2',4,4'-Tetrabromodiphenyl ether (BDE-47) Alters Sperm DNA Methylation in Adult Rats. *Reproductive Toxicology* 2017 Oct 28.
4. Wu H\*, Estill M, Shershebnev A, Suvorov A, Krawetz SA, Whitcomb BW, Sites C, Rahil T, and **Pilsner JR**. Preconception Urinary Phthalate Concentrations and Sperm DNA Methylation Profiles among Men Undergoing IVF Treatment. *Human Reproduction*. 2017 Nov 1;32(11):2159-2169.
5. **Pilsner JR**, Parker M, Sergeyev O, and Suvorov A. Spermatogenesis Disruption by Dioxins: Epigenetic Reprogramming and Windows of Susceptibility. *Reproductive Toxicology*. 2017 Apr;69:221-229.
6. Wu H\*, Ashcraft L, Whitcomb BW, Rahil T, Tougais E, Sites CK, and **Pilsner JR**. Parental contributions to early embryo development: influences of urinary phthalate and phthalate alternatives among couples undergoing in-vitro fertilization treatment. *Human Reproduction*. 2017 Jan;32(1):65-75.
7. Lindaman LA\*, **Pilsner JR**#, Kroll-Desrosiers AR, Haskell S, Brandt CA, and Mattocks KM. Semen Quality Parameters among U.S. Veterans of Operation Enduring Freedom, Operation Iraqi Freedom and Operation New Dawn. *Military Medicine*. 2017 May;182(5):1775-1781. # corresponding author
8. Wu H\*, Olmsted A\*, Cantonwine DE, Shahsavari S\*, Rahil T, Sites C, and **Pilsner JR**. Urinary phthalate and phthalate alternative metabolites and isoprostane among couples undergoing fertility treatment. *Environmental Research*. 2016 Nov 19;153:1-7.
9. Wu H\*, Hauser R, Krawetz SA, and **Pilsner JR**. Environmental Susceptibility of the Sperm Epigenome During Windows of Male Germ Cell Development. *Current Environmental Health Reports*. 2015 Dec;2(4):356-66.
10. Wu H\*, de Gannes M\*, Luchetti G\*, and **Pilsner JR**. Rapid Method for the Isolation of Mammalian Sperm DNA. *BioTechniques*. 2015 June;58(6):293-300.
11. Peters BA, Hall MN, Liu X, Neugut YD, **Pilsner JR**, Levy D, Ilievski V, Slavkovich V, Islam T, Factor-Litvak P, Graziano JH, and Gamble MV. Creatinine, arsenic metabolism, and renal function in an arsenic-exposed population in Bangladesh. *PLoS One*. 2014 Dec 1;9(12).
12. Perng W, Villamor E, Shroff MR, Nettleton JA, **Pilsner JR**, Liu Y, and Diez-Roux AV. Dietary intake, plasma homocysteine, and repetitive element DNA methylation in the Multi-Ethnic Study of Atherosclerosis (MESA). *Nutrition, Metabolism, and Cardiovascular Diseases*. 2014 Jun;24(6):614-22.

13. Basu N, Head J, Nam DH, **Pilsner JR**, Carvan MJ, Chan HM, Goetz FW, Murphy CA, Rouvinen-Watt K, and Scheuhammer AM. Effects of methylmercury on epigenetic markers in three model species: mink, chicken and yellow perch. *Comparative Biochemistry and Physiology Part C: Toxicology and Pharmacology*. 2013 Apr;157(3):322-7.
14. Subramanyam MA, Diez-Roux AV, **Pilsner JR**, Villamor E, Donohue KM, Liu Y, and Jenny NS. Social factors and leukocyte DNA methylation of repetitive sequences: the multi-ethnic study of atherosclerosis. *PLoS One*. 2013 ;8(1).
15. Burghardt KJ, **Pilsner JR**, Bly MJ, and Ellingrod VL. DNA methylation in schizophrenia subjects: gender and MTHFR 677C/T genotype differences. *Epigenomics*. 2012 Jun;4(3):261-8.
16. **Pilsner JR**, Hall MN, Liu X, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Yunus M, Rahman M, Graziano JH, and Gamble MV. Influence of prenatal arsenic exposure and newborn sex on global methylation of cord blood DNA. *PLoS One*. 20127(5):e37147.
17. Stansfield KH, **Pilsner JR**, Lu Q, Wright RO, and Guilarte TR. Dysregulation of BDNF-TrkB signaling in developing hippocampal neurons by Pb(2+): implications for an environmental basis of neurodevelopmental disorders. *Toxicological Sciences*. 2012 May;127(1):277-95.
18. **Pilsner JR**, Hall MN, Liu X, Ahsan H, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Graziano JH, and Gamble MV. Associations of plasma selenium with arsenic and genomic methylation of leukocyte DNA in Bangladesh. *Environmental Health Perspectives*. 2011 Jan;119(1):113-8.
19. **Pilsner JR**, Hu H, Ettinger A, Sánchez BN, Wright RO, Cantonwine D, Lazarus A\*, Lamadrid-Figueroa H, Mercado-García A, Téllez-Rojo MM, and Hernández-Avila M. Maternal MTHFR Genotype and Haplotype Predict Deficits in Early Cognitive Development in a Lead-exposed Birth Cohort in Mexico City. *American Journal of Clinical Nutrition*. 2010 Jul;92(1):226-34.
20. **Pilsner JR**, Lazarus AL\*, Nam DH, Letcher RJ, Sonne C, Dietz R, and Basu N. Mercury-Associated DNA Hypomethylation in Polar Bear Brains Via the Luminometric Methylation Assay (LUMA): A Sensitive Method to Study Epigenetics in Wildlife. *Molecular Ecology*. 2010 Jan;19(2):307-14.
21. **Pilsner JR**, Hu H, Ettinger A, Sánchez BN, Wright RO, Cantonwine D, Lazarus A\*, Lamadrid-Figueroa H, Mercado-García A, Téllez-Rojo MM, and Hernández-Avila M. Influence of Prenatal Lead Exposure on Genomic Methylation of Cord Blood DNA. *Environmental Health Perspectives*. 2009 117(9):1466-71.
22. **Pilsner JR**, Liu X, Ahsan H, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Graziano JH, and Gamble MV. Folate Deficiency, Hyperhomocysteinemia, Low Urinary Creatinine and Hypomethylation of Leukocyte DNA are Risk Factors for Arsenic-Induced Skin Lesions. *Environmental Health Perspectives*. 2009 117(2):254-60.
23. Hall MN, Liu X, Slavkovich V, Ilievski V, **Pilsner JR**, Alam S, Factor-Litvak P, Graziano JH, and Gamble MV. Folate, Cobalamin, Cysteine, Homocysteine, and Arsenic Metabolism among Children in Bangladesh. *Environmental Health Perspectives* 2009 117(5):825-831.
24. Terry MB, Ferris JS, **Pilsner JR**, Flom JD, Tehranifar P, Santella RM, Gamble MV, and Susser E. Genomic DNA Methylation among Women in a Multiethnic New York City Birth Cohort. *Cancer Epidemiology, Biomarkers and Prevention*. 2008 17(9):2306-2310.
25. **Pilsner JR**, Liu X, Ahsan H, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Graziano JH, and Gamble MV. Genomic Methylation of Peripheral Blood Leukocyte DNA: influences of Arsenic and Folate in Bangladeshi Adults. *American Journal of Clinical Nutrition*. 2007 86(4):1179-86.
26. Gamble MV, Liu X, Slavkovich V, **Pilsner JR**, Ilievski V, Factor-Litvak P, Levy D, Alam S, Islam M,

Parvez F, Ahsan H, and Graziano JH. Folic Acid Supplementation Lowers Blood Arsenic. *American Journal of Clinical Nutrition*. 2007 86(4):1202-9.

27. Hall M, Gamble M, Slavkovich V, Liu X, Levy D, Cheng Z, van Geen A, Yunus M, Rahman M, **Pilsner JR**, and Graziano J. Determinants of Arsenic Metabolism: Blood Arsenic Metabolites, Plasma Folate, Cobalamin, and Homocysteine Concentrations in Maternal-Newborn Pairs. *Environmental Health Perspectives*. 2007 115(10):1503-9.
28. Gamble MV, Liu X, Ahsan H, **Pilsner JR**, Illievski V, Slavkovich V, Parvez F, Levy D, Chen Y, Factor-Litvak P, and Graziano JH. Folate and Arsenic Metabolism: A Double-Blind Placebo Controlled Folic Acid Supplementation Trial in Bangladesh. *American Journal of Clinical Nutrition*. 2006 84:1093-01
29. Gamble MV, Liu X, Ahsan H, **Pilsner JR**, Illievski V, Slavkovich V, Parvez F, Levy D, Factor-Litvak P, and Graziano JH. Folate, Homocysteine and Arsenic Metabolism in Bangladesh. *Environmental Health Perspectives*. 2005 13(12):1683-8.

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#### INVITED TALKS

- 2018 Influence of Environmental Contaminants on Fertility, Reproduction, and Epigenetic Outcomes in Human Populations. American Society of Andrology. April 23. Portland, Oregon.
- 2017 Identification of sperm DNA methylation loci associated with chronological age. The 4<sup>th</sup> Annual Canadian Conference on Epigenetics. November 28. Whistler, Canada.
- 2017 Phthalate exposure during spermatogenesis in adult mice and sperm epigenetic dysregulation. International Congress of Andrology. May 7. Copenhagen, Denmark.
- 2016 Paternal phthalate exposure and embryo quality: the role of sperm DNA methylation. University of Missouri Epigenetics Day. November 9. Columbia, MO.
- 2016 Influence of paternal phthalate exposure on embryo development: the role of sperm DNA methylation. Russian Association of Human Reproduction. September 9. Moscow, Russia.
- 2016 Sperm DNA methylation mediates the influence of paternal phthalates on embryo development. Genetic and Epigenetic Markers of Environmental Exposure. May 24. Moscow, Russia.
- 2015 Paternal phthalates and oxidative stress on the sperm methylome. International workshop on Environmental Epidemiology and Toxicology. December 7. Moscow, Russia. Distance presentation via Skype.
- 2015 Influence of phthalate exposure on genome wide DNA methylation of human sperm. International workshop on Endocrine Disrupting Chemicals, Epigenetics and Reproduction. November 11. Moscow, Russia.
- 2014 Rapid method of processing sperm for nucleic acid extraction. International workshop on Endocrine Disrupting Chemicals, Epigenetics and Reproduction. December 5. Moscow, Russia.
- 2014 Epigenetic reprogramming of male germ cells: a life-course perspective. International workshop on Endocrine Disrupting Chemicals, Epigenetics and Reproduction. December 5. Moscow, Russia
- 2014 Sperm epigenetics: paternal environmental contribution to reproductive health. Phthalate symposium. Harvard and Brigham and Women's Hospital. September 17. Boston, MA.
- 2013 Do Men Matter? The Prenatal Environment and Fetal Epigenetic Programming. Institution of Computational Biology, Biostatistics and Bioinformatics Symposium. November 15. University of Massachusetts, Amherst, MA.

- 2009 Influence of Prenatal Lead Exposure on Genomic Methylation of Cord Blood DNA. International Society for Environmental Epidemiology (ISEE) Annual Meeting. Dublin, Ireland.
- 2009 Early-life Environment, Epigenetics and Neurodevelopment. Epigenetics Seminar Series. University of Michigan, Ann Arbor, MI.
- 2008 Genomic DNA Methylation via Pyrosequencing of Peripheral Blood Leukocytes Among a Mother-Cord Study in Bangladesh. NIEHS Superfund Research Program Seminar Series, Columbia University, NY, NY.
- 2008 Surrogate Measures of Genomic DNA Methylation: A Comparison of Methodologies. Epigenetics Working Group Series. Columbia University, NY, NY.
- 2007 Arsenic exposure and Epigenetics in Bangladesh. Interdisciplinary Research Collaboration Outreach Epigenetics Symposium. University of Michigan, Ann Arbor, MI.
- 2006 Folate and Arsenic Metabolism: A double-blind placebo controlled folate supplementation trial in Bangladesh. NIEHS Superfund Basic Research Program Annual Meeting. NY, NY.

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#### SELECTED ABSTRACTS (\*signifies student mentee)

1. Wu H\*, Estill M, Shershebnov A, Suvorov A, Krawetz SA, Whitcomb BW, Sites C, Rahil T, and **Pilsner JR**. Influence of Phthalate and Phthalate Alternatives on Sperm DNA Methylation among male partners undergoing assisted reproductive technologies. Prenatal Programming Toxicology. Torshavn, Faroe Islands, May 2018
2. Olmstead AM\*#, Wu H\*, Sites C, Rahil T, and **Pilsner JR**. Sperm Mitochondrial Copy Number and Deletions: Associations with Urinary-Isoprostane and Phthalate Metabolites in Male Partners Undergoing Assisted Reproductive Technologies. American Society of Andrology Annual Meeting. Miami, FL. April 2017.  
# Top student abstract selected for platform presentation.
3. **Pilsner JR**, Shershebnov A, Wu H\*, Suvorov A, Marcho C, and Mager J. Phthalate exposure during spermatogenesis in adult mice and sperm epigenetic dysregulation. American Society of Andrology Annual Meeting. Miami, FL. April 2017.
4. Shershebnov A, Medvedeva Y, Suvorov A, Goltsov A, Rogaev E, Hauser R, Sergeyev O, and **Pilsner JR**. Peripubertal dioxin concentrations and subsequent sperm methylome profiles of Russian young adults. American Society of Andrology Annual Meeting. Miami, FL. April 2017.
5. Wu H\*#, Estill M, Krawetz SA, Sites C, Rahil T, and **Pilsner JR**. Associations of Phenols and Parabens with Sperm Genome-Wide DNA Methylation. American Society of Andrology Annual Meeting. Miami, FL. April 2017.  
# Top student abstract selected for platform presentation.
6. **Pilsner JR**, Wu H\*, Rahil T, and Sites C. Influence of paternal phthalate exposure on embryo development: the role of sperm DNA methylation. NIEHS - 25 Years of Endocrine Disruption Research: Past Lessons and Future Directions Meeting. Bethesda, MD. September 2016.
7. Wu H\*#, Sites C, Rahil T, and **Pilsner JR**. Associations of Paternal Urinary Phthalates with Embryo Development. International Society of Environmental Epidemiology (ISEE). Rome, Italy. September 2016.  
# Top student abstract selected for platform presentation.
8. Wu H\*#, Sites C, Rahil T, and **Pilsner JR**. Associations of Paternal Urinary Phthalates with Genome-Wide DNA Methylation of Sperm. International Society of Environmental Epidemiology (ISEE). Rome, Italy. September 2016.  
# Top student abstract selected for platform presentation.

9. Olmstead AM\*, Wu H\*, Cantonwine D, Sites C, Rahil T, and **Pilsner JR**. Phthalate Exposure and 15-F2t Isoprostane Concentrations Among Couples Seeking Assisted Reproductive Technologies. International Society of Environmental Epidemiology (ISEE). Rome, Italy. September 2016.
10. Wu H\*, Sites C, Rahil T, and **Pilsner JR**. Phthalate Exposure and Sperm DNA Methylation among Men Seeking IVF Treatment. American Society of Andrology Annual Meeting. Salt Lake City, Utah. April 2015.
11. **Pilsner JR**, De Gannes M\*, and Wu H\*. Rapid Method of Sperm DNA Extraction for Epigenetic and Genetic Studies. Copenhagen Workshop on Endocrine Disruptors. Copenhagen, Denmark. April 2015.
12. **Pilsner JR**, Sites C, and Wu H\*. Sperm Environmental Epigenetics and Development Study (SEEDS): An Overview. Copenhagen Workshop on Endocrine Disruptors. Copenhagen, Denmark. April 2015.
13. Olmsted AM\*, Wu H\*, Cantonwine D, Sites C, Rahil T, Shahsavari S\*, and **Pilsner JR**. Associations Between Urinary Phthalate Exposure and 15-F2t Isoprostane Concentrations Among Couples Seeking Assisted Reproductive Technologies. School of Public Health and Health Sciences Research Day. University of Massachusetts, Amherst, MA. April 2015.
14. Wu H\*, De Gannes M\*, and **Pilsner JR**. Rapid Method of Sperm DNA Extraction for Epigenetic and Genetic Studies. Prenatal Programming Toxicology (PPTOX). Boston, MA. October 2014
15. Wu H\*#, de Gannes\* M, Luchetti G\*, and **Pilsner JR**. Novel Storage and Processing Methods for Sperm Nucleic Acid Research in Clinical Settings. North Atlantic Chapter of the Society of Environmental Toxicology and Chemistry's Annual Meeting. Amherst, MA. June 2014.  
#1<sup>st</sup> Place Student Research Award
16. Wu H\*#, de Gannes M\*, Luchetti G\*, and **Pilsner JR**. Novel Storage and Processing Methods for Sperm Nucleic Acid Research in Clinical Settings. School of Public Health and Health Sciences Research Day. University of Massachusetts, Amherst, MA. April 2014.  
#1<sup>st</sup> Place Student Research Award
17. de Gannes M\*#, Kwong M\*, Arny M, Sites C, and **Pilsner JR**. Method Development for Epigenetic Profiling in Human Sperm. School of Public Health and Health Sciences Research Day. University of Massachusetts, Amherst, MA. March 2013.  
#3<sup>rd</sup> Place Research Award
18. **Pilsner JR**, Liu X, Ahsan H, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Graziano JH, and Gamble MV. The Influence of Selenium on Genomic Methylation of Leukocyte DNA, Blood and Urinary Arsenic Concentrations and Arsenic Metabolites in Bangladeshi Adults. International Society for Environmental Epidemiology (ISEE) Annual Meeting. Dublin, Ireland. August 2009.
19. **Pilsner JR**, Hu H, Wright R, Sanchez B, Cantonwine D, Lazarus A, Ettinger A, Lamadrid-Figueroa H, Téllez-Rojo MM, and Hernández-Avila M. The Impact of Maternal MTHFR677 Genotype and Lead Exposure on Infant Genomic DNA Methylation. Poster Presentation. International Society for Environmental Epidemiology Annual Meeting. Dublin, Ireland. August 2009.
20. **Pilsner JR**#, Hu H, Ettinger A, Sánchez BN, Wright RO, Cantonwine D, Lazarus A, Téllez-Rojo MM, and Hernández-Avila M. Association between Cumulative Lead Measures and Genomic DNA Methylation of Cord Blood. Developmental Origin of Health and Disease Symposium. University of Michigan. October 2008.  
#Finalist; Poster Competition.

21. **Pilsner JR**, Liu X, Ahsan H, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Graziano JH, and Gamble MV. The Influence of Selenium on Arsenic Metabolism and Genomic DNA Methylation of Leukocyte DNA in Bangladesh. Society of Toxicology (SOT) Annual Meeting. Seattle, Washington. March 2008.
22. **Pilsner JR**, Liu X, Ahsan H, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Graziano JH, and Gamble MV. Folate Deficiency, Hyperhomocysteinemia, Low Urinary Creatinine and Hypomethylation of Leukocyte DNA are Risk Factors for Arsenic-Induced Skin Lesions. International Society of Environmental Epidemiology (ISEE) Annual Meeting. Mexico City, Mexico. September 2007.
23. **Pilsner JR#**, Liu X, Ahsan H, Ilievski V, Slavkovich V, Levy D, Factor-Litvak P, Graziano JH, and Gamble MV. Genomic methylation of peripheral blood leukocyte DNA: influences of arsenic and folate in Bangladeshi adults. International Society of Environmental Epidemiology (ISEE) Annual Meeting. Paris, France. September 2006.  
#1<sup>st</sup> Place Student Poster Competition.
24. **Pilsner JR**, Zhao Q, and Zheng W. Increase Transferrin Receptor Activity in a GABA-ergic Cell Line, M26-1F, Following Exposure to Manganese *In Vitro*. Society of Toxicology (SOT) Annual Meeting. Nashville, TN. March 2002.

## PROFESSIONAL AFFILIATIONS

### Membership

2007-09	Society of Toxicology
2007-current	International Society of Environmental Epidemiology
2007-current	Epigenetic Society

## EXTERNAL ACADEMIC SERVICE

### Scientific Grant Review Panels

2017	NIH Support for Conferences and Scientific Meetings (Parent R13); NIEHS Special Emphasis Panel 2018/01 ZES1 RAM-K (R) 2, ad hoc reviewer
2017	NIH Psychopathology, Developmental Disorders, Epigenetics, and Health Special Emphasis Panel (ZRG1 BBBP-Z (04)), ad hoc reviewer
2016	NIH Biobehavioral Mechanisms of Emotion, Stress and Health (MESH) study section, ad hoc reviewer
2016	Harvard's National Institute of Environmental Health Sciences (NIEHS) Center Pilot grants, ad hoc reviewer for two cycles: March and October
2015	NIH Epigenetics of Reproduction Special Emphasis Panel (ZRG1 EMNR-P (50)), ad hoc reviewer
2013	NIH Infectious Disease, Reproductive Health and Asthma/Pulmonary Conditions (IRAP) study section, ad hoc reviewer.
2011	NIH NIEHS Center for Environmental Health in Northern Manhattan, Columbia University, ad hoc reviewer
2008	Young Epidemiology Scholars Competition, ad hoc grant reviewer

### National Committee

2011	NIH Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). Scientific Vision Workshop on the Environment. Bethesda, MD
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### Editorial Board Member

2017-	Environmental Health Perspectives
2017-	International Journal of Hygiene and Environmental Health

### Scientific Journal Ad Hoc Reviewer

Clinical Epigenetics  
Dose-Response  
BMC Pharmacology and Toxicology  
Environment International  
Environmental and Molecular Mutagenesis



Environmental Health  
 Environmental Health Perspectives  
 Environmental Research  
 Epigenetics  
 Gene  
 Human Molecular Genetics  
 Human Reproduction  
 International Journal of Cancer  
 Journal of Experimental Biology  
 Journal of Hazardous Materials  
 Scientific Reports  
 The Lancet Diabetes and Endocrinology  
 PLoS One

Scientific Journal Contributor

2007-2009 Faculty of 1000 Medicine

**TEACHING (\*signifies course developer; # permanent course status)**

<u>Course Instruction: University of Massachusetts Amherst, MA</u>		<u>Level</u>	<u>Credits</u>
2016-2017	PUBHLTH 600: Molecular Epidemiology	Grad	3
	PUBHLTH 490VS: Seminar in Environmental Health	Undergrad	1
	EHS 790VS: Seminar in Environmental Health	Grad	1
2015-2016	PUBHLTH 600: Molecular Epidemiology	Grad	3
	EHS 690RP: Teaching the Teacher	Grad	1
2014-2015	PUBHLTH 420: The DNA Experience	Undergrad	4
2013-2014	PUBHLTH 420: The DNA Experience*#	Undergrad	4
	PUBHLTH 600: Molecular Epidemiology	Grad	3
2012-2013	HONORS 391A: Environmental Epigenetics: Why DNA is not Destiny*	Undergrad	1
	PUBHLTH 592E: Environmental Epigenetics*	Undergrad/Graduate	2
	PUBHLTH 592E: Honors Colloquium Environmental Epigenetics*	Undergrad/Graduate	1
	PUBHLTH 600: Molecular Epidemiology	Grad	3
2011-2012	PUBHLTH 600: Molecular Epidemiology*#	Grad	3
2010-2011	PUBHLTH 600: Molecular Epidemiology*#	Grad	3

Independent Study Supervision

2016-2017	EHS 696: Masters Thesis – Alexandra Olmstead	Grad	4
	EHS 699: Masters Thesis – Alexandra Olmstead	Grad	5
	EHS 899: Dissertation credits – Haotian Wu	Grad	9
2015-2016	BIOCHEM 496: Independent Study – Shahin Shahsavari	Undergrad	3
	BIOCHEM 496: Independent Study – Shahin Shahsavari	Undergrad	2
	EHS 796: Independent Study – Alexandra Olmstead	Grad	2
2014-2015	PUBHLTH 696D: MPH project – Luke Lindaman	Grad	3
	PUBHLTH 696: Independent Study – Mathew De Gannes	Grad	3
2013-2014	PUBHLTH 696: Independent Study – Mathew De Gannes	Grad	6
	PUBHLTH 699: Masters Thesis – Mathew De Gannes	Grad	3
	BIOCHEM 499T: Honors Thesis – Kara Page	Undergrad	3
	NATSCI 499E: iCONS Integrative Scientific Research – Gianna Luchetti	Undergrad	3
2012-2013	NATSCI 499F: iCONS Integrative Scientific Research – Gianna Luchetti	Undergrad	3
	BIOCHEM 496: Independent Study – Maggie Kwong	Undergrad	3
2011-2012	PUBHLTH 396: Independent Study – Danielle Adams	Undergrad	2

Invited Guest Lecturer: University of Michigan, MI

2009 EHS 608: Environmental Epidemiology

2008 EHS 616: Introduction to Toxicology  
EHS 608: Environmental Epidemiology  
2007 EHS 801: Metals Reading Elective

Teaching Assistant: Columbia University, NY

2002 P8303: Molecular Toxicology  
2001 P6300: Environmental Health Sciences

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**MENTORING - Thesis and Dissertation Committees**

Doctoral committees

2013-2018 Chair, Haotian Wu  
2017-current Chair, Oladele Amos Oluwayiose

Master's committees

2015-2017 Chair, Alexandra Olmstead  
2012-2014 Chair, Matthew De Gannes  
2010-2011 Member, Joyce Faraj,  
2007-2009 Member, Alicia L. Lazarus

Commonwealth Honors College Theses

2018-2019 Chair, Allyson Rosati  
2018-2019 Chair, Srinahaari Josyula  
2015-2016 Member, Daniel Portman  
2013-2014 Chair, Kara Page  
2013-2014 Chair, Gianna Luchetti  
2011-2012 Member, Aaron Karp

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**ACADEMIC SERVICE AT UNIVERSITY OF MASSACHUSETTS AMHERST**

Faculty Searches

2015-2016 Member, EHS Department Chair Search  
2014-2015 Chair, EHS Department Chair Search  
2013-2014 Chair, EHS/Commonwealth Honors Assistant Faculty Search  
2012-2013 Chair, Two EHS Assistant/Associate Faculty Searches  
2011-2012 Member, EHS Assistant/Associate Faculty Search

School of Public Health and Health Sciences

2017-2018 Chair, Committee on Research  
2016-2017 Chair, Committee on Research  
2015-2016 Member, Public Health Undergraduate Advisory Board Committee  
2014-2015 Member, Public Health Undergraduate Advisory Board Committee  
2013-2014 Member, SPHHS Ad hoc Executive Council on Space Planning/New Building  
Member, Curriculum Committee  
Member, Public Health Undergraduate Advisory Board Committee  
2012-2013 Member, SPHHS Ad hoc Executive Council on Space Planning/New Building  
Member, Curriculum Committee  
Member, By-Laws Committee  
Member, Public Health Undergraduate Advisory Board Committee  
2011-2012 Member, By-Laws Committee  
Member, Curriculum Committee  
2010-2011 Member, Curriculum Committee

Department of Environmental Health Sciences

2017-2018 Chair, Admissions Committee  
 2016-2017 Member, Admissions Committee  
 2014-2015 Chair, Curriculum Committee  
 2013-2014 Member, Curriculum Committee  
 2012-2013 Chair, Admissions Committee  
 Member, Personnel Committee  
 Member, Curriculum Committee  
 2011-2012 Chair, Personnel Committee  
 Chair, Admissions Committee  
 Member, Curriculum Committee  
 2010-2011 Member, Personnel Committee  
 Member, Admissions Committee

Other

2017 Professor Panel: University-wide. How to run a successful research laboratory  
 2013 Professor Panel for UMass Undergraduate Public Health Club

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**PROFESSIONAL PUBLIC SERVICE**

2017 New England Public Radio. Interview with Kari Njiiri stemming from the phthalate and sperm epigenetic publication. September 12. <http://nepr.net/post/umass-research-tells-dads-be-avoid-plastic-wrap-mac-cheese-cologne#stream/0>  
 2017 Boston Globe. "There's more evidence that chemicals in environment affect sperm, thanks to UMass study". September 12. <https://www.bostonglobe.com/lifestyle/style/2017/09/12/umass-study-adds-evidence-that-chemicals-environment-affect-men-sperm/yC1cuxbSpi0Q1nTQn6CoLJ/story.html>.  
 2014 News article in Valley Advocate published 2/19/2014 on the GMO findings from my DNA Experience course (PUBHLTH 420). <http://valleyadvocate.com/article.cfm?aid=17625>  
 2011 TV spot for PBS (WGBY 57) to increase awareness of research at UMass SPHHS

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**OUTREACH**

2014 & 2015 Eureka Summer Program. Hosted members of Girls Inc. of Holyoke, MA to inspire young girls to pursue science, technology, engineering and mathematics (STEM) learning. Students isolate DNA from their mouth cells.