## CURRICULUM VITAE

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## **CURRENT ACADEMIC APPOINTMENT**

DATE	INSTITUTION	TITLE
2016-present	Rollins School of Public Health of Emory University, Department of Environmental Health	Professor ( <i>with tenure</i> )
2017-present	Rollins School of Public Health of Emory University, Department of Epidemiology	Professor (with tenure)
2014-present	Brown University School of Public Health, Department of Epidemiology	Adjunct Professor
2016-present	Geisel School of Medicine at Dartmouth, Department of Epidemiology	Adjunct Professor
2011-present	Women and Infants Hospital of Rhode Island, Department of Pediatrics	Affiliated Health Professional

# PREVIOUS ACADEMIC APPOINTMENTS

DATE	INSTITUTION	TITLE
2004-2005	Harvard School of Public Health, Department of Genetics and Complex Diseases, Boston, MA	NIH/NIEHS Postdoctoral Fellow
2005-2006	Harvard School of Public Health, Department of Genetics and Complex Diseases, Boston, MA	Research Associate
2007-2011	Brown University, Department of Pathology and Laboratory Medicine, Providence, RI	Assistant Professor
2010-2011	Brown University, Department of Community Health, Center for Environmental Health and Technology, Brown University, Providence, RI	Assistant Professor
2011-2014	Brown University, Department of Epidemiology, Providence, RI	Adjunct Assistant Professor
2014-present	Brown University, Department of Epidemiology, Providence, RI	Adjunct Associate Professor
2011-2012	Geisel School of Medicine at Dartmouth, Departments of Pharmacology and Toxicology, and of Community and Family	Assistant Professor

Medicine, Section of Epidemiology and Biostatistics

2012-2016 Geisel School of Medicine at Dartmouth, Associate Professor Departments of Pharmacology and Toxicology, and of Epidemiology

# EDUCATION

<u>DATE</u>	INSTITUTION	<u>DEGREE</u>
1996-2000	Lafayette College, Easton, PA	B.S., Biochemistry ( <i>summa cum laude</i> )
2000-2004	Harvard University, Cambridge, MA	Ph.D., Biological Sciences in Public Health

## **POSTDOCTORAL TRAINING**

DATE	INSTITUTION	<b>SPECIALTY</b>
2004-2006	Harvard School of Public Health, Boston, MA	Cancer Molecular Epidemiology and Epigenetics

## INSTITUTIONAL LEADERSHIP ROLES

<u>DATE</u>	INSTITUTION	TITLE
2013-2016	Dartmouth Hitchcock Norris Cotton Comprehensive Cancer Center	Director, Program in Cancer Epidemiology
2015-2016	Geisel School of Medicine	Co-Director, Burroughs Wellcome Training Program Bridging Laboratory and Population Sciences
2015-2016	Geisel School of Medicine	Chair, Graduate Program in the Quantitative Biomedical Sciences
2018-current	Rollins School of Public Health of Emory University	Director, Training Program in the Environmental Health Sciences and Toxicology (T32)
2018-current	Rollins School of Public Health of Emory University	Director, HERCULES Exposome Research Center (P30)

## BIBLIOGRAPHY

## Peer Reviewed Original articles:

(\* indicates student authors)

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- 2. Young BA, Meltzer K, **Marsit C**, and Abishahin G. *Cloacal popping in snakes.* Journal of Herpetology, 1999. **33**(4): p. 557-566.
- 3. Young BA, **Marsit C**, and Meltzer K. *Comparative morphology of the cloacal scent gland in snakes (Serpentes: Reptilia).* Anat Rec, 1999. **256**(2): p. 127-38.
- 4. **Marsit CJ**, Fried B, and Sherma J. *Carbohydrate analysis, by high performance thin layer chromatography, of Cerithidea californica (Gastropoda : Prosobranchia).* J Liquid Chromatography Related Technologies, 2000. **23**(15): p. 2413-7.
- 5. **Marsit CJ**, Fried B, and Sherma J. *Neutral lipids in cercariae, encysted metacercariae, and rediae of Echinostoma caproni.* J Helminthol, 2000. **74**(4): p. 365-7.
- 6. **Marsit CJ**, Fried B, and Sherma J. *High-performance thin-layer chromatographic analysis of lutein and beta-carotene in Cerithidia californica (Gastropoda) infected with two species of larval trematodes.* J Parasitol, 2000. **86**(3): p. 635-6.
- 7. **Marsit CJ**, Fried B, and Sherma J. *Neutral lipids in cercariae, encysted metacercariae, and rediae of Zygocotyle lunata.* J Parasitol, 2000. **86**(5): p. 1162-3.
- 8. **Marsit CJ**, Hasegawa M, Hirao T, Kim DH, Aldape K, Hinds PW, Wiencke JK, Nelson HH, and Kelsey KT. *Loss of heterozygosity of chromosome 3p21 is associated with mutant TP53 and better patient survival in non-small-cell lung cancer.* Cancer Res, 2004. **64**(23): p. 8702-7.
- 9. **Marsit, C.J.**, Liu, M., Nelson, H.H., Posner, M., Suzuki, M., and Kelsey, K.T., *Inactivation of the Fanconi anemia/BRCA pathway in lung and oral cancers: implications for treatment and survival.* Oncogene, 2004. **23**(4): p. 1000-4.
- 10. **Marsit, C.J.**, Wiencke, J.K., Liu, M., and Kelsey, K.T., *The race associated allele of Semaphorin 3B (SEMA3B) T415I and its role in lung cancer in African-Americans and Latino-Americans.* Carcinogenesis, 2005. **26**(8): p. 1446-9.
- 11. **Marsit, C.J.**, Karagas, M.R., Andrew, A., Liu, M., Danaee, H., Schned, A.R., Nelson, H.H., and Kelsey, K.T., *Epigenetic inactivation of SFRP genes and TP53 alteration act jointly as markers of invasive bladder cancer.* Cancer Res, 2005. **65**(16): p. 7081-5.
- 12. **Marsit, C.J.**, Zheng, S., Aldape, K., Hinds, P.W., Nelson, H.H., Wiencke, J.K., and Kelsey, K.T., *PTEN expression in non-small-cell lung cancer: evaluating its relation to tumor characteristics, allelic loss, and epigenetic alteration.* Hum Pathol, 2005. **36**(7): p. 768-76.
- Marsit, C.J., Kim, D.H., Liu, M., Hinds, P.W., Wiencke, J.K., Nelson, H.H., and Kelsey, K.T., Hypermethylation of RASSF1A and BLU tumor suppressor genes in non-small cell lung cancer: implications for tobacco smoking during adolescence. Int J Cancer, 2005. 114(2): p. 219-23.
- 14. Hirao, S., Hirao, T., **Marsit, C.J.**, Hirao, Y., Schned, A., Devi-Ashok, T., Nelson, H.H., Andrew, A., Karagas, M.R., and Kelsey, K.T., *Loss of heterozygosity on chromosome 9q and p53 alterations in human bladder cancer.* Cancer, 2005. **104**(9): p. 1918-23.

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- 224. Grieshober L, Graw S, Barnett MJ, Thornquist MD, Goodman GE, Chen C, Koestler DC, Marsit CJ, Doherty JA. *Methylation-derived Neutrophil-to-Lymphocyte Ratio and Lung Cancer Risk in Heavy Smokers.* Cancer Prev Res (Phila) 2018, 11(11): 727-34.
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- 227. Deyssenroth MA, Gennings C, Liu SH, Peng S, Hao K, Lambertini L, Jackson BP, Karagas MR, **Marsit CJ**, Chen J. *Intrauterine multi-metal exposure is associated with reduced fetal growth through modulation of the placental gene network.* Environ Int 2018, (epub ahead of print).
- 228. Thompson JA, Christensen BC, **Marsit CJ**. Pan-Cancer Analysis Reveals Differential Susceptibility of Bidirectional Gene Promoters to DNA Methylation, Somatic Mutations, and Copy Number Alterations. Int J Mol Sci 2018, 19(8): pii. E2296.
- 229. Everson TM, **Marsit CJ.** Integrating -Omics Approaches into Human Population-Based Studies of Prenatal and Early-Life Exposures. Curr Environ Health Rep 2018, 5(3):328-37.
- 230. Freedman AA, Hogue CJ, **Marsit CJ**, Rajakumar A, Smith AK, Goldenberg RL, Dudley DJ, Saade GR, Silver RM, Gibbins KJ, Stoll BJ, Bukowski R, Drews-Botsch C. *Associations Between the Features of Gross Placental Morphology and Birthweight*. Pediatr Dev Pathol 2018, (epub ahead of print).
- 231. Monastero RN, Vacchi-Suzzi C, **Marsit C**, Demple B, Meliker JR. *Expression of Genes Involved in Stress, Toxicity, Inflammation, and Autoimmunity in Relation to Cadmium, Mercury, and Lead in Human Blood: A Pilot Study.* Toxics 2018, 6(3): pii. E35.
- 232. Tian F-Y, **Marsit CJ**. Environmentally Induced Epigenetic Plasticity in Development: Epigenetic Toxicity and Epigenetic Adaptation. Curr Epidemiology 2018, (epub ahead of print).

## **Book chapters:**

- Marsit CJ, LaMontagne AD, Kelsey KT. Biological Markers in Occupational and Environmental Medicine. In: Rosenstock, L., Cullen, M.R., Brodkin, C.A., and Redlich, C.A. Textbook of Clinical Occupational and Environmental Medicine (2<sup>nd</sup> edition). Philadelphia: Elsevier, Inc. 2005:139-46.
- Christensen BC, Marsit CJ, and Kelsey KT. Role of environmental factors on the epigenome. In: Michels, K.B. Epigenetic Epidemiology. London: Springer Science 2012.
- 3. **Marsit CJ** and Christensen BC. Blood-derived DNA methylation markers of cancer risk. In: Karpf, A. Epigenetic Alterations in Oncogenesis. New York: Springer 2013.
- 4. Lester BM, **Marsit CJ**, and Bromer C. Behavioral Epigenetics and the Developmental Origins of Child Mental Health Disorders. In: Brandt, Perry, Seligman, Tronick. Infant and Early Childhood Mental Health: Core Concepts and Clinical Practice. Arlington, VA: American Psychiatric Publishing 2014.

## Conference Abstracts (Most Recent 5 Years):

- 40. **Marsit, C.J.**, Lambertini, L., Bromer, C.\*, Filiberto, A.\*, Maccani, M.\*, Gagne, L., Padbury, J.F., Lester, B.M., and Chen, J. *Epigenetic Alterations in the Placenta are Associated with Infant Neurobehavioral Outcomes.* Society for Gynecological Investigation Annual Meeting, 2011.
- 41. Lambertini, L., **Marsit, C.J.**, Sharma, P., Ma, Y., Wetmur, J., and Chen, J. *Imprinted Genes and Fetal Development*. Society for Gynecological Investigation Annual Meeting, 2011.
- 42. Waterboer, T., Liang, C., **Marsit, C.J.,** McClean, M.D., Nelson, H.H., Pawlita, K., and Kelsey, K.T. *Prognostic significance of HPV-16 serologic markers in head and neck squamous cell carcinoma.* Annual Meeting of German Society of Epidemiology, 2011.
- 43. Lesseur C\*, Gilbert-Diamond D, Andrew AS, Mason R, Li Z, Kelsey KT, **Marsit CJ** & Karagas MR. *A case-control study of arsenic metabolism gene polymorphisms and bladder cancer in New Hampshire*. Superfund Research Program Annual Meeting, Lexington, Kentucky, 2011.
- 44. Lesseur C\*, Armstrong D, Paquette AD\*, Koestler DC, Appleton AA, Karagas MR, & **Marsit CJ**. *Pregnancy factors and arsenic exposure effects on Leptin DNA methylation*. Superfund Research Program Annual Meeting, Raleigh, North Carolina, 2012.
- 45. Maccani MA\*, Padbury JF, Lester BM, Knopik VS, **Marsit CJ**. *Placental miRNA expression profiles associated with measures of infant neurobehavioral outcomes*. Max Planck Institute Epigenetics Meeting, Germany, 2012. *(Student [MA Maccani] platform presentation)*
- 46. Lesseur C\*, Armstrong DA, Paquette AG\*, Appleton AA, Koestler DC, Padbury JF, Karagas MR, **Marsit CJ**. Cord Blood Leptin Gene Promoter DNA Methylation is Associated with Infant Birthweight. Society for Gynecological Investigation Annual Meeting, 2013.
- 47. Paquette AG\*, Lesseur C\*, Armstrong DA, Koestler DC, Lester BM, **Marsit CJ**. Epigenetic *Modulation of the Placental Serotonin Response Pathway and its Role in Development.* Society for Gynecological Investigation Annual Meeting, 2013.
- 48. Koestler DC, Murphy MA, Houseman EA, Karagas MR, Kelsey KT, **Marsit CJ**. *Profiles of DNA methylation in peripheral blood are associated with bladder cancer survival.* Proc Am Assoc Cancer Res, 54, 2013.
- 49. **Marsit CJ**, Koestler DC, Maccani JZJ\*, Lesseur C, Armstrong D, Kelsey KT, Houseman EA, Karagas MR. *Epigenetic Effects of Environmental Trace Metals Exposure In Utero*. NIEHS/USEPA Children's Health Centers Annual Meeting, Washington, DC, 2013.
- 50. Lesseur C\*, Armstrong DA, Paquette AG\*, Li Z, Padbury JF, **Marsit CJ**. *Maternal Obesity and Gestational Diabetes are Associated with Leptin Promoter DNA Methylation in Human Placenta*. Pediatric Academic Societies Annual Meeting, Vancover BC, 2014.

- 51. Paquette AG\*, Lester BM, Armstrong DA, Lesseur C, **Marsit CJ**. Placental FKBP5 Genetic and Epigenetic Variation is associated with Infant Neurobehavioral Outcomes. Pediatric Academic Societies Annual Meeting, Vancover BC, 2014. (Student [AG Paquette] Platform Presentation)
- 52. Rideout K, Parade S, Seifer R, **Marsit C**, Lesseur C, Armstrong D, Eslinger N, McWilliams M, Philip N, Josefson B, Tyrka A. *Exposure to adversity in pre-school aged children, glucocorticoid receptor gene methylation, and behavioral outcomes*. ACNP 53<sup>rd</sup> Annual Meeting.
- 53. Paquette AG\*, Lester BM, Lesseur C\*, Armstrong DA, Guerin DJ, Appleton AA, **Marsit CJ**. *Placental epigenetic patterning of cortisol response genes is associated with infant neurodevelopmental outcomes and maternal environment*. Prenatal Programming and Toxicology IV, Boston, MA. 2014
- 54. Green BB, Armstrong DA, Guerin DJ, Houseman EA, **Marsit CJ**. *Linking Differential Placental Methylation To the Occurrence of Intrauterine Growth Restriction.* Society for Reproductive Investigation Annual Meeting, San Francisco, CA. 2015
- 55. Green BB, Kappil M, Lambertini L, Armstrong DA, Geurin DG, Lester BM, Chen J, Marsit CJ. Expression Profiles of a Subset of Placental Imprinted Genes May Predict Infant Neurobehavioral Outcomes. Teratology Society Annual Meeting, Montreal, Quebec, Canada, 2015.
- 56. Kappil M, Lambertini L, Guerin D, Green B, **Marsit C**, Chen J. *Disruption in Placental Expression of Imprinted Genes is Associated with Birthweight*. Teratology Society Annual Meeting, Montreal, Quebec, Canada, 2015.
- 57. Everson TM, Armstrong DA, Guerin DJ, Punshon T, Jackson BP, Lambertini L, Chen J, Karagas MR, **Marsit CJ**. *Differential methylation throughout the placental genome and upstream of H19 is associated with cadmium exposure: an epigenome-wide association study*. Central and Eastern European Conference on Health and the Environment Conference; Prague, Czech Republic, 2016.
- 58. Thompson J, **Marsit CJ**. Methylation to Expression Quantitative Trait Loci (m2eQTL) Reveal Disruption of Networks Associated with Cancer Prognosis. Proc Am Assoc Cancer Res, 57, 2016.
- 58. Everson TM, Armstrong DA, Jackson BP, Punshon T, Karagas MR, **Marsit CJ**. *Marker of placental cytotoxicity, KLRK1 expression, associated with maternal cadmium exposure.* International Society for Environmental Epidemiology Annual Meeting, Rome, Italy, 2016.

## ENTREPRENEURIAL ACTIVITIES

- 1. US Patent: **Marsit CJ**, Karagas MR, Andrew AS, Liu M, Kelsey KT. *Compositions and Methods for Detecting Markers of Cancer.* **USPTO Application #:** 20090155786.
- US Patent: Christensen BC, Houseman EA, Yeh RF, Godleski JG, Bueno R, Sugarbaker DJ, Karagas MR, Wrensch MR, Wiemels JL, Zheng S, Marsit CJ, Nelson HH, Wiencke JK, Kelsey KT. Diagnosing, prognosing, and early detection of cancers by DNA methylation profiling. USPTO #: 61/222,558
- 3. US Patent: Avissar M, Christensen BC, Kelsey KT, Marsit CJ. Methods of Diagnosing Carcinoma. USPTO#: 61/209,320, PCT/US2010/026388

## PAPER PRESENTATIONS

### International Location:

#### DATE TOPIC/TITLE

- 2005 Carcinogen exposure and epigenetic silencing in bladder cancer
- 2008 MicroRNA Alterations in Malignant Pleural Mesothelioma as Biomarkers of Disease
- 2013 Prenatal Environment, Epigenetic Mechanisms and the Developmental Origins of Health and Disease

## National Location:

## DATE TOPIC/TITLE

- 2004 Promoter hypermethylation defines clonal fields in lung cancer patients
- 2007 Does DNA hypermethylation and genetic deletion occur as distinct pathways in aerodigestive malignancy
- 2010 DNA Methylation Arrays Identify HOXB2 and KRT13 Methylation as Markers of Invasive Bladder Cancer and Poor Patient Survival
- 2010 DNA Methylation Array Analysis Identified Profiles of Blood-derived DNA Methylation Associated with Bladder Cancer.
- 2012 Placental Epigenetics and Infant Neurobehavior

# **ORGANIZATION**

ORGANIZATION

## LOCATION Bologna, Italy

Amsterdam.

Netherlands

Switzerland

Basel,

Conference of the Collegium Ramazinni

9<sup>th</sup> International Conference of the International Mesothelioma Interest Group (IMIG)

International Society for Environmental Epidemiology Annual Meeting

AACR Special Conference on

## LOCATION

Charleston,

SC

Kona, Hawaii

Chromatin, Chromosomes, and Cancer Epigenetics

AACR Special Conference: Advances and Challenges in Aerodigestive Epithelial Cancer: Genetics, Diagnosis, and Therapy

AACR Special Meeting on Cancer Epigenetics

AACR, Future of Molecular Epidemiology Meeting Miami, FL

San Juan,

Puerto Rico

Children's Environmental Health Network Meeting San Francisco, CA

- 2014 Placental DNA Methylation Related to Both Infant Toenail Mercury and Adverse Neurobehavioral Outcomes (Session Chair)
- 2016 Implications of Environmental Exposures in Human Population
- 2018 Epigenome-wide Analysis Identifies Genes and Pathways Linked to Neurobehavioral Variation in Preterm Infants

International Society for Environmental Epidemiology Annual Meeting Seattle, WA

Central and Eastern European Conference on Health and the Environment Pediatric Academic Societies Annual Meeting Prague, Czech Republic Toronto, Ontario, Canada

## INVITED PRESENTATIONS

### International location:

DATE	TOPIC/TITLE	<b>ORGANIZATION</b>	<b>LOCATION</b>
2006	Epigenetic Alterations in Exposure- related Disease	Centre for Research in Environmental Epidemiology (CREAL)	Barcelona, Spain
2014	Epigenomics and the Natural Environment	Experimental Biology: Epigenetics in Comparative Physiology	Banff, Canada
2016	Epigenetics and Environmental Origins of Cancer	International Agency for Research on Cancer	Lyon, France
2018	Importance of the Placenta in Children's Environmental Health	University of British Columbia, Children's Hospital	Vancouver, Canada

## National location:

DATE	TOPIC/TITLE	ORGANIZATION	LOCATION
2005	SFRP Gene Methylation and p53 Alteration in Bladder Cancer	Diller Comprehensive Cancer Center University California – San Francisco	San Francisco, CA
2008	Survival Skills for Effective Leaders	Lafayette Leadership Institute, Lafayette College	Easton, PA
2008	Epigenetics in Environmental Health	Boston University School of Public Health	Boston, MA

2008	Epigenetics in Toxicology and Cancer Biology	Nutmeg Conference, Marine Biological Laboratories	Woods Hole, MA
2009	Clinical and Etiological Significance of Epigenetic Profiles in Bladder Cancer	Cancer Center Seminar Series, Masonic Cancer Center, University of Minnesota	Minneapolis, MN
2009	Clinical and Etiological Significance of Epigenetic Profiles in Bladder Cancer.	Flight Attendants Medical Research Institute 8 <sup>th</sup> Annual Symposium	Boston, MA
2009	Epigenetics and Imprinting in the Placenta	American Society of Reproductive Immunology Annual Conference	Orlando, FL
2009	MicroRNA Alterations in Malignant Pleural Mesothelioma as Biomarkers of Disease	Mesothelioma Applied Research Foundation Symposium	Washington, D.C.
2009	Placenta Epigenetics – Clinical and Environmental Implications	Mt. Sinai School of Medicine	New York, NY
2010	Epigenetics in Development and Beyond	Pediatric HIV/AIDS Cohort Study Annual Meeting, Plenary Session	Baltimore, MD
2010	Alterations of DNA Methylation Associated with Growth Restriction and Infant Neurobehavior	Behavioral Epigenetic Symposium, New York Academy of Sciences	Boston, MA
2010	DNA methylation array analysis identifies profiles of blood-derived DNA methylation associated with bladder cancer	International Bladder Cancer Consortium Annual Meeting	Houston, TX
2011	Practical How-to and Pitfalls Associated with Current Epigenetic Studies: Population-based DNA Methylation Profiling in Exposure- Related Disease.	Society of Toxicology Annual Meeting, Continuing Education Course	Washington, DC
2012	<i>MicroRNAs in Biology and Toxicology: MicroRNA Profiling in Population-Based Studies of Exposure-Related Health Outcomes</i>	Society of Toxicology Annual Meeting, Continuing Education Course	San Francisco, CA
2012	Exposure Biology and DNA Methylation	Society for Gynecological Investigation Annual	San Diego, CA

2012	A Role for in-utero Arsenic Exposure in Epigenetic Alterations Associated with Infant Health Outcomes	Meeting, Symposium NIEHS/SBRP Special Meeting: Epigenetic Actions of Environmental Arsenicals	Tucson, AZ
2012	Role of miRNA in regulating placental function and fetal growth	2012 Alltech Distinguished Lecture Series in Nutrigenomics at the University of Kentucky	Lexington, KY
2013	Placental miRNA as Biomarkers of Exposure and Outcome	Duke University Epigenomic Toxicology Symposium	Durham, NC
2013	Epigenome-wide Association Studies in Cancer	AACR Annual Meeting	Washington, DC
2013	Placental Biomarkers of Exposure and Outcome	EPA/NIEHS Children's Centers Webinar Series	Nationally Broadcast Webinar
2013	Epigenetic Mechanisms Linking Environment to Developmental Outcomes	NIEHS Superfund Research Program Annual Meeting	Baton Rouge, LA
2013	Epigenetic Mechanisms Linking Environment to Newborn Developmental Outcomes	Icahn School of Medicine at Mt. Sinai, Child Health Research Seminars	New York, NY
2014	Developmental Effects of Arsenic	NIEHS Workshop "Health effects and mitigation of arsenic: current research efforts and future directions"	Durham, NC
2014	Early life and epigenetics/response and impact on immune system	EPA/NIEHS Children's Centers Webinar Series	Nationally Broadcast Webinar
2014	Epigenetic Effects of Early Life Environmental Exposures (Session Chair)	International Society for Environmental Epidemiology Annual Meeting	Seattle, WA
2014	Epigenetics in Infant Cohort Studies	Pediatric HIV/AIDS Cohort Studies	Baltimore, MD

Annual Network

2014	Placental Epigenetic Mechanisms	Meeting Prenatal Programming and Toxicity (PPTOX IV): Environmental Stressors in Disease and Implications for Human Health	Boston, MA
2015	Placental Toxicants and Disruption to Development	Fertility & Reproductive Health Working Group of the Collaborative on Health and the Environment	National Teleconference
2015	Environmental Epigenetics	EPA/NIEHS Children's Centers Webinar Series	Nationally Broadcast Webinar
2015	Role of the Placenta	EPA/NIEHS Children's Centers Webinar Series	Nationally Broadcast Webinar
2015	Epigenetic mediators of the environment and children's health	University of Kentucky Superfund Program Seminar	Lexington, KY
2015	Considerations in Study and Experimental Design in Epigenetic Epidemiology	Society for Epidemiologic Research Annual Meeting, Contributed Symposium	Denver, CO
2015	Placental Epigenetics in Children's Environmental Health	University of Southern California, Division of Environmental Health	Los Angeles, CA
2015	Readily Measurable Epigenetic Marks and Significance	US EPA, Workgroup on Considering Epigenetic Mechanisms in Risk Assessment	Washington, DC
2015	Epigenetic Mechanisms in Children's Environmental Health	Emory University, Rollins School of Public Health, Environmental Health Seminar	Atlanta, GA
2015	Epigenetic mechanisms linking the maternal environment to lifelong	Gerontological Society of America	Orlando, FL

health

Society of America Annual Meeting:

2016	Technologies and informatics in epigenetic profiling and assessments	Womb to Tomb, aging as a life long process Toxicology Risk Assessment Conference (TRAC) jointly hosted by multiple federal agencies including US EPA, NIOSH, and DOD	Cincinatti, Oh
2016	Considering the Placenta in Birth Cohort Studies	Pediatric HIV/AIDS Cohort Studies Annual Meeting	Bethesda, MD
2016	Understanding Biological Mechanisms Related to Environmental Justice	Emerging Science for Environmental Health Decisions, National Academies of Science and Medicine	Washington, DC
2016	Epigenomic Effects of the Environment on Human Development and Carcinogenesis	Society of Toxicology Meeting on Toxicoepigenetics	Washington, DC
2016	Placental Epigenetics in Children's Environmental Health	Dept. of Preventative Medicine Grand Rounds, Icahn School of Medicine at Mt. Sinai	New York, NY
2016	Placental Epigenetics in Children's Environmental Health	Environmental Health Center Seminar Series, Columbia University	New York, NY
2017	Epigenetic Mechanisms in Children's Environmental Health	Center for Environmental Health and Technology Seminar, Brown University	Providence, RI
2017	Epigenetic Effects of the Antenatal Environment	Pediatric Academic Societies Annual Meeting 2017	San Francisco, CA
2017	Importance of the Placenta in the Developmental Origins of Health and Disease	Invited Seminar, National Institute of Environmental Health Sciences	Durham, NC
2018	Molecular Mechanisms Linking the Environment to Human Health	Kick-off Seminar of the Environmental Health Seminar Series at Boston University School of	Boston, MA

### Public Health

- 2018 Environmental Epigenetics and Mendelian Randomization
- 2018 Epigenomic Effects of Cadmium on the Placenta Influence Newborn and Early Childhood Growth
- 2018 Epigenetic mechanisms linking early life exposures and child health
- 2018 Epigenetics Influences on Child Health
- 2018 Molecular Mechanisms Linking the Environment and Human Health
- 2018 Impacts of the Intrauterine Environment on Newborn Health

#### **Regional/local location:**

#### DATE TOPIC/TITLE

- 2005 A Case-only Approach to Understanding the Mechanisms Involved in Bladder Cancer
- 2006 Epigenetic Alterations in Environmental Pathology

2007 Epigenetics in Cancer Biology and Toxicology

2007 Epigenetics in Cancer Biology and Toxicology

Session Chair, ECHO	Bethesda, MD
Genetics and	
Epigenetics	
Workshop at NIH	

Society of Toxicology San Antonio, TX Annual Meeting 2018

Pediatric Academic Societies Annual Meeting 2018

Pediatric Academic Societies Annual Meeting 2018

Department of Epidemiology Seminar Series, Brown University School of Public Health Grand Rounds, Lurie Children's Hospital,

Northwestern University

ORGANIZATION

Providence, RI

Toronto, Ontario,

Toronto, Ontario,

Canada

Canada

Chicago, IL

## LOCATION

Dartmouth Medical School	Lebanon, NH
Pathology Research and Teaching Rounds, Department of Pathology and Laboratory Medicine, Brown University	Providence, RI
Pathobiology Seminar Series, Program in Pathobiology, Brown University	Providence, RI
Pediatrics Research	Providence, RI

Pediatrics Research Providence, RI Colloquium, Women and Infants Hospital

2007	Epigenetics in Cancer Biology and Toxicology	COBRE Center for Cancer Research Development Seminar, Rhode Island Hospital	Providence, RI
2007	Epigenetics in Cancer Biology and Toxicology	Pathology Grand Rounds, Rhode Island Hospital	Providence, RI
2008	Epigenetics, Exposures, and Fetal Programming	Pediatric Research Colloquium, Women and Infants Hospital	Providence, RI
2009	Clinical and Etiological Significance of Epigenetic Profiles in Bladder Cancer	Clinical Epidemiology Seminar, Dartmouth Medical School	Lebanon, NH
2009	Beyond the Barker Hypothesis: Lifespan Implications of the Intrauterine Environment	Office of Women's Health, NIH, The Warren Alpert Medical School of Brown University, and Women and Infants Hospital, Moving into the Future: New Dimensions and Strategies for Women's Health Research for the NIH	Providence, RI
2009	Clinical Importance of Epigenetic Profiles in Bladder Cancer	Grand Rounds, Rhode Island Hospital, Department of Oncology	Providence, RI
2009	<i>Clinical Importance of Epigenetic Profiles in Bladder Cancer</i>	Program in Epidemiology Seminar Series, Department of Community Health, Brown University	Providence, RI
2010	Placental Epigenetic Alterations as Markers of the Intrauterine Environment	Children's Environmental Heath and Disease Research Center at Dartmouth	Lebanon, NH
2010	Epigenetics in Development and Beyond	Brown Center for Children at Risk	Providence, RI

Brown Center for Providence, RI Children at Risk Journal Club, Women

		and Infants Hospital	
2010	Beyond the Barker Hypothesis: Lifespan Implications of the Intrauterine Environment	Department of Pediatrics, Hasbro Children's Hospital, Grand Rounds	Providence, RI
2012	Epigenetic Epidemiology of Bladder Cancer	Norris Cotton Cancer Center, Dartmouth Medical School, Grand Rounds	Lebanon, NH
2012	Epigenetics in Human Health and Disease	Medical Genetics Seminar Series, Department of Pediatrics, Dartmouth-Hitchcock Medical Center	Lebanon, NH
2012	Placental Epigenetics as Markers of the Intrauterine Environment	COBRE Center for Perinatal Biology, NIH Site Visit, Women and Infants Hospital	Providence, RI
2013	Children's Environmental Health	Grand Rounds, Department of Pediatrics, Geisel School of Medicine at Dartmouth	Lebanon, NH
2014	Epigenetic Mechanisms Linking Environment to Newborn Outcomes	Department of Epidemiology, Brown University School of Public Health	Providence, RI
2014	Role for Placental Epigenetics in Newborn Neurobehavioral Development	Grand Rounds, Department of Psychiatry, Geisel School of Medicine at Dartmouth	Lebanon, NH
2015	Role of Placental Epigenetics in Predictive Newborn Outcomes	Pediatrics Research Colloquium, Women and Infants Hospital	Providence, RI
2016	Importance of the Placenta in Children's Environmental Health	C-CHEM <sup>2</sup> Seminar Series, Emory University, Woodruff School of Nursing	Atlanta, GA
2016	Importance of the Placenta in Children's Environmental Health	Grand Rounds, Dept. of Obstetrics and Gynecology, Emory University School of Medicine	Atlanta, GA
2017	Molecular Mechanisms Linking the Environment and Human Health	Grand Rounds, Rollins School of	Atlanta, GA

Public Health, Emory University

# **RESEARCH FUNDING**

<u>Current:</u> DATES	<u>PROJECT</u> <u>TITLE/NUMBER</u>	ROLE/%EFFORT	<u>SPONSOR</u>	<u>ANNUAL</u> <u>DIRECT</u>
9/1/2013- 4/30/2019 (NCE)	R01 ES022223 Environment, Imprinting, and Neurodevelopment	PI 20% Effort (Jia Chen, Mt. Sinai, mPI)	NIH/NIEHS	<u>COSTS</u> \$500,000
7/10/2015- 04/30/2016 (NCE)	R01 ES022223- 03S1 Environment, Imprinting, and Neurodevelopment – Supplement	PI (Jia Chen, Mt. Sinai, mPI)	NIH/NIEHS	\$441,147
6/1/2013- 5/31/2019 (NCE)	P01 ES022832 Children's Environmental Health and Disease Prevention Center Project 3: Placental Biomarkers of Exposure and Outcome	Project PI 20% Effort	NIH/NIEHS	\$1,000,000
6/01/2016- 09/31/2019	R01 ES025145-01A1 Investigating MicroRNA, Environmental Exposures and Newborn Outcomes	PI 20% Effort (Devin Koestler, Kansas University Medical Center, mPI)	NIH/NIEHS	\$446,000
4/1/2014- 3/30/2019	R01 MH101107 Early Life Stress: Epigenetic Regulation of Endocrine and Immune Pathways	Subcontract PI 5% Effort (PI-Audrey Tyrka, MD, PhD, Butler Hospital)	NIH/NIMH	\$75,000 subcontract
8/1/2015- 7/31/2016	U01 HD052104 Coordinating Center for the Pediatric HIV/AIDS Cohort Study	Subcontract PI 5% Effort (PI-Russell Van Dyke, MD, Tulane University)	NIH/NICHD Tulane University Subcontract	\$12,000 subcontract
09/01/2016- 08/31/2023	UG3OD023347 ECHO Environmental Influences on Neurodevelopmental	PI 15% Effort (Barry Lester, Brown Center for	NIH	\$1,000,000

	Outcome in Infant Born Very Preterm	Children, mPI)		
7/27/2017- 2/28/2022	<b>R01MD011698</b> Influence of prenatal psychosocial stressors on maternal and fetal circulating miRNAs	PI 15% Effort (Carrie Breton, University of Southern Californ mPI)	NIH-NIMHD ia,	\$495,000
04/01/2017- 03/31/2022	<b>P30ES019776</b> HERCULES: Health and Exposome Research Center at Emory	Co-Inv 5% Effort (Gary Miller, PI)	NIH-NIEHS	\$1,000,000
07/01/2017- 06/30/2019	R21ES028226 Environmental influences and function of cytosine modification in human placenta	PI 10% Effort	NIH-NIEHS	\$150,000
09/30/2017- 06/30/2022	R24ES028507 Enriching the Rhode Island Child Health Study	mPI 10% Effort (Laura Stroud, Miriam Hospital, mPI)	NIH-NIEHS	\$250,000
04/01/2018- 03/30/2023	R01ES029212 Placental Functional Networks Linking Developmental Pesticide Exposure and Offspring Neurodevelopment	mPI 15% Effort	NIH-NIEHS	\$400,000
Past:				
<u>DATES</u>	<u>PROJECT</u> <u>TITLE/NUMBER</u>	ROLE/%EFFORT	<u>SPONSOR</u>	ANNUAL DIRECT COSTS
04/01/05- 03/31/06	P50 CA093683 Patterns of Epigenetic Inactivation in Non- Melanoma Skin Cancer	Co- I 25% Effort (PI-Heather Nelson, PhD)	NIH/NCI Harvard Skin Spore Development Project	\$50,000
07/01/06- 06/30/11	YCSA 052341 Role of SHS on Somatic Alterations in Bladder Cancer	PI 30% Effort	Flight Attendants Medical Research Institute Young Clinical Scientist	\$100,000

09/01/07- 02/28/12	R01 CA121147 The Molecular Epidemiology of Bladder Cancer	Co-I 10% Effort (PI- Karl Kelsey, MD, MOH, Brown University)	NIH/NCI	\$250,000
01/01/08- 04/04/08	P20RR016457 RI- INBRE Pilot Project: Profile of miRNA expression alterations by endocrine disrupting toxicants	Pilot Project PI 5% Effort	NIH/NCRR University of Rhode Island Subaward RI- INBRE for Molecular Toxicology	\$15,000
01/01/08- 12/31/08	0548311 ADVANCE Career Development Award: Creating Opportunities for Collaboration and Scientific Discussion	Development Award PI No Effort	NSF-HRD ADVANCE Institutional Transformation Award	\$13,000
01/01/08- 12/31/09	Array Based miRNA Expression and Methylation Profiling of Normal and Tumorigenic Pleural Mesothelium	PI 10% Effort	Mesothelioma Applied Research Foundation (MARF)	\$50,000
08/15/08- 07/31/11	P20 RR018728 COBRE for Perinatal Biology: Epigenetic alterations as markers of the intrauterine environment	Project 4 PI 33% Effort	NIH/NCRR Women and Infants Hospital Subcontract	\$160,000 Project Direct Costs
02/15/09- 02/15/10	Epigenetic Effect of Oxygen Tension During Embryo Culture In Assisted Reproductive Technologies	PI No effort (mPI, Jared Robbins, MD)	Rhode Island Foundation Medical Research Grant	\$15,000
04/01/09- 08/31/11	P42 ES013660 Superfund Research Program: Environment, Genetics and Epigenetics in a R.I. Birth Cohort	Project 8 PI 20% Effort	NIH/NIEHS	\$185,000 Project Direct Costs
04/01/09- 08/31/11	R01 CA100679 Patterns of Somatic Gene Alterations in Oral Cancer	CO-I 5% Effort (PI – Karl Kelsey, MD, MOH, Brown University)	NIH/NCI	\$250,000

09/01/09- 08/31/11	P42 ES013660 Superfund Research Program: Environment, Genetics and Epigenetics in a R.I. Birth Cohort	Project 8 PI 5% Effort	NIH/NIEHS (ARRA Supplement)	\$75,000
07/01/10- 08/31/11	HHSN267200700032C National Children's Study – Pilot Project 8: Examination of miRNA in Placenta Samples	Pilot Project PI 20% Effort	NIH/NICHD	\$104,000
04/08/2011- 03/31/2013	R21 MH091508 Childhood Maltreatment: Epigenetic Modulation of the Glucocorticoid Receptor	Co-I 10% Effort	NIH/NIMH Butler Hospital Subcontract	\$32,200
01/01/2013- 12/31/2013	Hopeman Award Identification of Accessible Biomarkers of Bladder Cancer Treatment Response, Recurrence, and Progression	PI	Norris Cotton Cancer Center	\$100,000
3/19/2013- 1/31/2015	R01ES019202-03S1 Urinary Cadmium and risk of breast cancer VICTER Supplement	Subcontract PI 5% Effort (PI-Jaymie Meliker, PhD, SUNY Stonybrook)	NIH/NIEHS SUNY Stonybrook Subcontract	\$100,000 subcontract
4/1/2013- 3/31/2018	P20 GM104416 COBRE Center for Molecular Epidemiology: Biorepository Core	Core Co-Director Mentor 5% Effort (PI- Margaret Karagas, PhD Dartmouth)	NIH/NIGMS	\$1,400,000
08/15/2011- 04/30/2016	R01 DA031188 Maternal Smoking: HPA and Epigenetic Pathways in Infant Neurobehavioral Deficits	Subcontract PI 5% Effort (PI-Laura Stroud, PhD, Miriam Hospital)	NIH/NIDA Miriam Hospital Subcontract	\$50,000 subcontract

2/1/2015- 5/31/2016	Burroughs Wellcome Institutional Program Unifying Population and Laboratory Sciences: Big Data in the Life Sciences Training Program	PI 10% Effort (Michael Whitfield, mPI)	Burroughs Wellcome Foundation	\$500,000
09/01/2011- 06/30/2017	R01 MH094609 Epigenetics in Neurodevelopment and Mental Health	PI 30% Effort	NIH/NIMH	\$400,000
07/01/2016- 06/30/2018	R01HD084515 Epigenetic Predictors of Impairment in Very Preterm Infants	PI 5% Effort (Barry Lester, Women and Infants Hospital, mPI)	NIH-NICHD	\$200,000
Pending:				
<u>Pending:</u> DATES	<u>PROJECT</u> <u>TITLE/NUMBER</u>	ROLE/%EFFORT	<u>SPONSOR</u>	<u>ANNUAL</u> <u>DIRECT</u> <u>COSTS</u>
		ROLE/%EFFORT mPI 15% Effort (Jeremy Sarnat, Emory, mPI)	SPONSOR NIH-NIEHS	DIRECT

## **TEACHING ACTIVITIES**

Undergraduate (College) Education:					
<u>DATES</u>	I <u>NSTITUTION</u>	NAME OF <u>COURSE/ACTIVITY</u>	<u>ROLE</u>	FREQUENCY	<u>HOURS</u>
2007- 2011	Brown University	BIOL 182: Environmental Health and Disease	Lecturer	Yearly	3
2017	Emory University	BIO 352: Epigenetics and Human Disease	Lecturer	Yearly	2

# Graduate Education:

DATES	INSTITUTION	NAME OF COURSE/ACTIVITY	ROLE	FREQUENCY	<u>HOURS</u>
2006	Harvard School of Public Health	ID518: Integrated Cancer Biology	Co-course Leader	Once	40
2007- 2009	Brown University	BIOL 285: Introduction to Faculty Research	Lecturer	Yearly	1.5
2007- 2010	Brown University	BIOL 286: Molecular Mechanisms of Human Disease	Course Leader	Yearly	30
2010	Brown University	BIOL 2840H: Reproductive Biology and Toxicants	Lecturer	Once	1.5
2011- present	Geisel School of Medicine	GENE 110: Integrative Biomedical Sciences	Lecturer	Yearly	1
2012- present	Geisel School of Medicine	PEMM 103: Biostatistics	Course Co-Leader	Yearly	24
2013	Geisel School of Medicine	PEMM 123: Graduate Toxicology	Lecturer	Once	2
2013- 2014	Geisel School of Medicine	QBS 131: Foundations of Molecular Epidemiology	Lecturer	Once	2
2014	Geisel School of Medicine	GEN 146: Foundations of Bioinformatics	Lecturer	Twice	4
2015	Geisel School of Medicine	QBS 100: Human Biology for Population Research	Course Developer & Leader	Twice	40
2016- present	Emory University Rollins School of Public Health	EH 520: Human Toxicology	Lecturer	Yearly	2
2017	Emory University Rollins School of Public Health	EH 501	Lecturer	Yearly	1
2017	Emory University Rollins School of Public Health	EH 790: Research Design	Lecturer	Yearly	2
2017	Emory University Rollins School of Public Health	EPI 510: Intro to Genetic and Molecular Epidemiology	Lecturer	Yearly	1

2017	Emory University Dept of Biology	Bio 352: Epigenetics in Human Disease	Lecturer	Yearly	1
2018	Emory University Rollins School of Public Health	EH 590R_4: Omics in Public Health	Course Developer and Leader	Semi-Annual	20
2018- 2019	Emory University Rollins School of Public Health	EH 790R: Research Design	Course Co-Leader	Yearly	40

## Graduate Medical Education:

<u>DATES</u>	INSTITUTION	NAME OF <u>COURSE/ACTIVITY</u>	ROLE	FREQUENCY	<u>HOURS</u>
2008	Brown University	Obstetric Resident Core Curriculum	Lecturer	Once	2
2014	Dartmouth Hitchcock Medical Center	Pathology Residents Research Seminar	Lecturer	Once	1

# **Continuing Medical Education:**

<u>DATES</u>	NAME OF <u>COURSE/ACTIVITY</u>	ROLE	FREQUENCY	<u>HOURS</u>
2012	Synergy Translational Research Certificate Course	Panel Discussant and Small Group Leader	1 week	12
2014	Synergy Translational Research Certificate Course	Panel Discussant and Mentor	1 week	12

#### SUPERVISORY TEACHING

## Undergraduate Students:

Thesis Committee Chair			
<u>Dates</u>	Student Name	Program/ Current Position	
2007-2008	Keila Veiga	Human Biology Concentration, Brown University	
		Current Position: Pediatric Fellow, Mt. Sinai Kravis Children's Hospital	
2007-2008	Stuart Schussel	Environmental Studies Concentration, Brown University	
		Current Position: Associate at O'Melveny & Myers LLP, San Francisco, CA	

2012-2013	Ashlee Roberson	Dartmouth College Undergraduate
Dates	Student Name	Institution/Program
Mentored Re	esearch Supervision	
		<i>Current Position: Graduate Student in Neuroscience at UCSD</i>
2010-2011	Cailey Bromer	Neuroscience Concentration, Brown University
		Current Position: Attending Surgeon, University of Florida Medical Center
2009-2011	Amanda Filiberto	Human Biology Concentration, Brown University
		Current Position: Assistant Professor, Geisel School of Medicine at Dartmouth
2008-2009	Erika Moen	Human Biology Concentration, Brown University
		Current Position: Graduate Student, University at Albany
2008-2009	Kristen Uhl	Human Biology Concentration, Brown University

Dates	Student Name	Institution/Program
2012-2013	Ashlee Roberson	Dartmouth College, Undergraduate Research Assistant
2012-2014	Lauren Kwan	Dartmouth College, Undergraduate Research Assistant
2013-2014	Roshen John	Dartmouth College, Howard Hughes Medical Research Institute Junior Research Scholar
2013-present	Daniel Gorman	Dartmouth College, Undergraduate Research Assistant
2015	Bailey Blair	Franklin Pierce University, INBRE Summer Undergraduate Research Fellow (ISURF)

# Masters Students:

Dissertation Committee Chair			
<u>Dates</u>	Student Name	Program/ Current Position	
2016-17	Carmen Marable	M.P.H. Environmental Health, Rollins School of Public Health, Emory University	
2016-17	Natalie Duke	M.P.H. Environmental Health, Rollins School of Public Health, Emory University	

2017-18	Michael Hussey	M.P.H. Environmental Health- Epidemiology, Rollins School of Public Health, Emory University
2017-18	Luisa Sarmiento	M.P.H. Environmental Health, Rollins School of Public Health, Emory University
2018-present	Sarah Menz	M.P.H. Environmental Health and Epidemiology, Rollins School of Public Health, Emory University
Thesis Commi	ittees	
Dates	Student Name	Program/ Current Position
2008	Rachel (Rogers) Worley, M.Sc.	Environmental Studies Program, Brown University
		Current Position: PhD Student, University of Georgia
2010	Kathyrn Ponder, M.D., M.M.S.	Masters of Medical Science Program, Brown University
		Current Position: Clinical Fellow in Neonatology, University of California – San Francisco
Doctoral Stude	ents:	
<b>Dissertation A</b>	dvisor	
<u>Dates</u>	Student Name	Program/ Current Position
2007-2009	Michele Avissar-Whiting, Ph.D.	Pathobiology Graduate Program, Brown University
		Current Position: Managing Editor,

Current Position: Managing Editor, American Journal Experts

Pathobiology Graduate Program, Brown University

*Current Position: Biotechnology Consultant and Mobile App Developer* 

Epidemiology Graduate Program, Brown University

*Current Position: Clinical Trials Statistician, Imperial College, London* 

Program in Experimental Molecular Medicine, Geisel School of Medicine at Dartmouth

2008-2011

2009-2011

2011-2014

Matthew Maccani, Ph.D.

Charlotte Wilhelm-Benartzi,

Corina Lesseur, MD, PhD

Ph.D.

		<i>Current Position: Postdoctoral Fellow,</i> Mt. Sinai School of Medicine
2012-2015	Alison Paquette, PhD	Program in Experimental Molecular Medicine, Geisel School of Medicine at Dartmouth
2015-2017	Jeffrey Thompson, PhD	Current Position: Research Associate, Institute for Systems Biology, Seattle, WA Program in the Quantitative Biomedical Sciences, Geisel School of Medicine at Dartmouth
2015-2018	Julia Litzky, PhD	Current Position, Assistant Professor, University of Kansas Medical Center MD-PhD Student, Program in Experimental Molecular Medicine, Geisel School of Medicine at Dartmouth
2017-present	Aimee Vester	Current Position, Medical Student, Geisel School of Medicine at Dartmouth MD-PhD Student, Environmental Health Sciences Program, Laney Graduate School, Emory University
2017-present	Danielle Clarkson-Townsend	PhD Student, Environmental Health Sciences Program, Laney Graduate School, Emory University
Dissertation C	committee Chair	
<u>Dates</u>	Student Name	Program/ Current Position
2008-2011	Graham Poage, Ph.D.	Program in Molecular Pharmacology and Physiology, Brown University
		Current Position: Medical Science Liason, bioTheranostics
2009-2011	Haley Menard, Ph.D.	Pathobiology Graduate Program, Brown University
2010-2014	Ashley Smith, PhD	Current Position: Non-communicable Diseases Regional Epidemiologist, US Allied Pacific Islands at US Centers for Disease Control and Prevention Pathobiology Graduate Program, Brown
	- ·	University Current Position: Editor, American Journal Experts

2010-2013	William Accomando, PhD	Pathobiology Graduate Program, Brown University
2011-14	Robert Frost, PhD	<i>Current Position: Biomedical Research Scientist, Tocagen, Inc, San Diego, CA</i> Program in Quantitative Biomedical Sciences, Geisel School of Medicine at Dartmouth
2011-2013	Jennifer Joukhader Maccani, PhD	<i>Current Position: Assistant Professor, Geisel School of Medicine at Dartmouth</i> Pathobiology Graduate Program, Brown University
		Current Position: Novelist
2012-2016	Kevin Johnson, PhD	Program in Experimental Molecular Medicine, Geisel School of Medicine at Dartmouth
		Current Position: Post-doctoral Fellow, Jackson Laboratory
Dissertation	Committee Member:	
2009-2011	Nicholas Heger, Ph.D.	Pathobiology Graduate Program, Brown University
		Current Position: Director in Training, Clinical Chemistry Metabolic Laboratory, Tufts Medical Center
2009-2011	Devin Koestler, Ph.D.	Biostatistics Graduate Program, Brown University
2009-2011	Caihua Liang, Ph.D.	Current Position: Assistant Professor, University of Kansas Medical Center Epidemiology Graduate Program, Brown University
2015-2017	Samantha Kingsley, Ph.D.	<i>Current Position: Epidemiologist OptumInsight   Life Sciences</i> Epidemiology Graduate Program, Brown University
		Current Position: Postdoctoral Fellow, Brown University Center for Environmental Health and Technology (Joe Braun)

2016-2018	Alexa Freedman, Ph.D.	Epidemiology PhD Program, Rollins School of Public Health Co-Mentor, NIH F31 Fellowship Application
		Current Position: Postdoctoral Fellow, Northwestern University
2016-present	Aimee Vester	MD/PhD Program, Rollins School of Public Health, EHS
2017-present	Sarah Curtis	Genetics Program, Laney Graduate School, Emory University
Other Graduate	e Student Mentoring	
2014	Andres Cardenas, PH.D.	Co-Mentor, NIEHS KC Donnelly Visiting Fellow, PhD Program in Public Health, Oregon State University School of Public Health
		Current Position: Assistant Professor, Dept of Environmental Health, University of California-Berekeley
Dissertation Ex	ternal Examiner	
2008	Anita Patel, Ph.D.	Biological Sciences in Public Health Program, Harvard University
		Current Position: Consultant, Booz-Allen Hamilton
2013	Boris Novakovic, Ph.D.	Melbourne School of Graduate Research, University of Melbourne, Australia
		Current Position: Postdoctoral Fellow, Radboud University Medical Center, Netherlands
2012	Jessica LaRocca, Ph.D.	Pathobiology Graduate Program, Brown University
		<i>Current Position: Mammalian Toxicologist, Human Health Assessment, Dow Agrisciences</i>
2012	Benjamin Moyer, Ph.D.	Pathobiology Graduate Program, Brown University
2018	Sumiya Islam, Ph.D.	University of British Columbia, Vancouver, Canada

Rotation Advisor				
2008	Sara Pacheco	Pathobiology Graduate Program, Brown University		
2009	Ann Saunders	Pathobiology Graduate Program, Brown University		
2011-12	Sondra Downey	Program in Experimental Molecular Medicine, Geisel School of Medicine at Dartmouth		
2013	Anala Gossai	Program in the Quantitative Biomedical Sciences, Geisel School of Medicine at Dartmouth		
2014	Elizabeth Piette	Program in the Quantitative Biomedical Sciences, Geisel School of Medicine at Dartmouth		
2015	Jason Wells	Program in the Quantitative Biomedical Sciences, Geisel School of Medicine at Dartmouth		

# Post-doctoral Fellows/Residents

<u>DATE</u>	NAME OF STUDENT	ROLE	PROGRAM
2009-2011	Carolyn Banister, Ph.D.	Post-doctoral Advisor	NIEHS Training Program in Environmental Pathology, Brown University
			<i>Current Position: Research Associate, University of South Carolina</i>
2010-2011	Michele Avissar- Whiting, Ph.D.	Post-doctoral Advisor	Warren Alpert School of Medicine at Brown University
			Current Position: Managing Editor, American Journal Experts
2012-2014	Allison Appleton, Sc.D.	Post-doctoral Advisor	Training Program in the Quantitative Biomedical Sciences, Geisel School of Medicine
			Current Position: Assistant Professor, Department of Epidemiology, University at Albany School of Public Health

2014-2016	Benjamin Green, Ph.D.	Post-doctora Advisor		Geisel School of Medicine at Dartmouth	
			A	Senior Managed Health Programs Analyst, Blue-Cross Blue Shield of /ermont	
2016-present	Todd Everson, Ph.D.	Post-doctora Advisor		Rollins School of Public Health of Emory University	
			F F	Current Position: Research Assistant Professor, Environmental Health, Rollins School of Public Health, Emory University	
2018-present	Fuying Tian, M.D.	Post-doctora Advisor		Rollins School of Public Health of Emory University	
2018-present	Elizabeth Kennedy, Ph.D.	Post-doctora Advisor		Rollins School of Public Health of Emory University	
Other Postdo	ctoral Mentoring				
<u>DATE</u>	NAME OF S	<u>STUDENT</u>	PROG	RAM/ROLE	
2010-2011	Ayman Sam	nkari, MD	Fellowship in Pediatric		
			Hemato Hospita	ology/Oncology, Rhode Island al	
2015		aabi Quzzi		ship SOC Member	
2015	Caterina Va Ph.D.	cchi-Suzzi,	SUNT	Stonybrook	
				iting Post-doctoral Scientist Advisor	
Faculty Mento	oring				
DATE	MENTEES NAME	SPECIALT	<u>Y</u>	PROGRAM	
2013-2016	Tracy Punshon, PhD, Assistant Professor, Dartmouth College, Department of Biological Sciences	Molecular Epidemiolog ntal Biomar		COBRE for Molecular Epidemiology, Dartmouth	
2014- present	Elizabeth Conradt, PhD, Assistant Professor, University of Utah, Department of Psychology	Behavioral Epigenetics	;	K08DA038959 The Epigenetic Basis for Stress Reactivity: Implications for Drug- exposed Infants	
2015-2017	H. Rob Frost, Ph.D., Research Fellow, Geisel School of	Bioinformat	ics	COBRE in the Quantitative Biomedical Sciences, Dartmouth	
	Medicine			Co-Mentor, K01 Application	

2016- present	Matthew Gribble, Ph.D., Assistant Professor, Environmental Health, Rollins School of Public Health	Environmental Health	Lead Mentor, K01 Application Research Mentoring
2017- present	Michael Corley, Ph.D., Assistant Professor, Cell and Molecular Biology, University of Hawaii	Epigenetics in Diabetes	COBRE Center of Excellence in Diabetes Research, Mentor

# PROFESSIONAL SERVICE ACTIVITIES

Grant Peer Review Committees:			
DATES	COMMITTEE	ROLE	<b>INSTITUTION</b>
2006-2010	Epidemiology Review Panel	Grant Study Section Member	Flight Attendants Medical Research Institute
2010	Young Investigator Travel Award Selection Panel	Panel Member	International Bladder Cancer Consortium
2011	Special Emphasis Panel, Epigenomics of Neurodevelopment	Study Section Member	NIH/NIMH
2012	Special Emphasis Panel: Translational Research in Pediatric and Obstetric Pharmacology RFA	Study Section Member	NIH/NICHD
2013	NIH Director's Transformative Research Initiative	Mail Reviewer	NIH/CSR
2013	Special Emphasis Panel: Member Conflict Obesity, Asthma, and Reproductive Epidemiology	Study Section Member	NIH/CSR
2014	Asthma, Allergy, Autoimmune and Sinusitis Panel	Study Section Member	Flight Attendants Medical Research Institute
2014	Special Emphasis Panel: Basic and Applied Biomedical Research on Minority Health and Health Disparities	Study Section Member	NIH/NIMHD

2014-2016	Special Emphasis Panel: Mechanistic Insights in Birth Cohorts	Ad hoc Member	NIH/CSR
2014	Kidney, Nephrology, Obesity and Diabetes Epidemiology Study Section	Ad Hoc Member	NIH/CSR
2015	Infectious, Reproductive, Asthma and Pulmonary Conditions Study Section	Ad Hoc Member	NIH/CSR
2015	NIAAA P60 Reverse Site Visit Committee	Ad Hoc Member	NIH/NIAAA
June 2016	NIEHS Outstanding New Investigator in the Environmental Health Sciences (ONES) Study Section	Ad Hoc Member	NIH/NIEHS
July 2016	U24 Applications, Molecular Transducers of Physical Activity Genomics, Epigenomics, and Transcriptomics Chemical Analysis Sites	Ad Hoc Member	NIH/CSR
Oct 2016-2020	Infectious, Reproductive, Asthma and Pulmonary Conditions (IRAP)	Standing Member	NIH/CSR
Feb 2018	ECHO Opportunities and Infrastructure Pilot Awards	Ad Hoc Member	NIH/ECHO
March 2018	PAR Panel: Social Epigenomics Research Focused on Minority Health and Health Disparities	Ad Hoc Member	NIH/CSR
November 2018	RIVER Program Review Panel	Ad Hoc Member	NIH/NIEHS

#### National Committees/Workgroups:

National Committees/Workgroups:				
DATES	<u>COMMITTEE</u>	ROLE	INSTITUTION	
2011-present	Maternal Exposures Working Group	Working Group Member & Epigenetics Project Leader	Pediatric HIV/AIDS Cohort Study – Tulane & Harvard Universities	
2014-2017	NIEHS/EPA Children's Environmental Health Centers Epigenetics Working Group	Member	NIH/NIEHS, US EPA	
2017-present	NIEHS/EPA Children's Environmental Health Centers Epigenetics Working Group	Chair	NIH/NIEHS, US EPA	
2016-present	NIH ECHO Steering Committee	Member	NIH	
2016-present	NIH ECHO Publications Committee	Associate Chair	NIH	
2016-present	NIH ECHO Biospecimens Working Group	Member	NIH	
2016-present	NIH ECHO Perinatal, Prenatal, Postnatal Working Group	Member	NIH	
2017-present	NIH ECHO Genetics and Epigenetics Working Group	Member, Epigenetics Lead	NIH	
2018	NIH ECHO Genetics and Epigenetics Workshop	Invited Attendee	NIH	
2018	NIH ECHO Conflict of Interest Task Force	Chair	NIH	
Advisory Committees	:			
DATES	<u>COMMITTEE</u>	ROLE	<b>INSTITUTION</b>	
2016-present	Environmental Health Disparities Research Center (MADRES) External Advisory Committee	Chair	University of Southern California	
2016-present	COBRE Center for Molecular Epidemiology External Advisory Committee	Member	Geisel School of Medicine at Dartmouth	

2017-present	Columbia University NIEHS P30 Center External Advisory Committee	Member	Columbia University
2018-present	University of Kentucky Superfund Research Program External Advisory Committee	Member	University of Kentucky
Conference Committe	es:		
DATES	COMMITTEE	ROLE	INSTITUTION
2009	Epigenetics and Toxicology Session	Co-Chair	Superfund Research Program Annual Meeting, New York, NY
2013	Symposium: Prenatal Environment, Epigenetic Mechanisms and the Developmental Origins of Health and Disease	Chair	International Society for Environmental Epidemiology Annual Meeting
2013	Educational Session: New Approaches in Molecular Epidemiology	Chair	American Association for Research on Cancer Annual Meeting
2015	Symposium: Research Considerations in Epigenetic Epidemiology Studies	Session Chair	Society for Epidemiologic Research Annual Meeting
2015	NIEHS/EPA Children's Environmental Health Centers, Pediatric Environmental Health Specialty Units Joint Meeting Planning Committee	Member	NIH/NIEHS, US EPA
2016	Central and Eastern European Conference on Health and the Environment	Session Chair	University of Kentucky SRP and Institute of Environmental Medicine, Czech Republic
2016	International Society for Environmental Epidemiology Annual Meeting	Poster Judge	International Society for Environmental Epidemiology, Rome, Italy

## Institutional Committees:

DATES		ROLE	INSTITUTION
2007-2009	Search Committee, Assistant/Associate Professor	Member	Brown University
2008-2009	Pathobiology Seminar Series	Chair	Brown University
2008-2010	Admissions Committee, Pathobiology Graduate Program	Chair and Member	Brown University
2009-2011	Search Committee, Staff Neonatologist/Open Rank	Member	Brown University/Women and Infants Hospital
2010-2011	Search Committee, Senior-rank Professor in Molecular Epidemiology	Member	Brown University
2011	Shared Resources Review	Member	Dartmouth Norris Cotton Cancer Center
2011-201	Dartmouth Children's Environmental Health and Disease Prevention Center	Member	Geisel School of Medicine at Dartmouth
2011-2016	Internal Advising Committee, COBRE for Molecular Epidemiology	Member	Geisel School of Medicine at Dartmouth
2012-2015	Integrative Biology Committee	Member	Geisel School of Medicine at Dartmouth
2013-2016	Graduate Education Committee - PEMM	Member	Geisel School of Medicine at Dartmouth
2013-2016	Cancer Center Research Committee	Member/Program Director	Norris Cotton Cancer Center
2014-2016	Faculty Council	Pharmacology/Toxicology Representative	Geisel School of Medicine at Dartmouth
2014-2015	Synergy Research Design and Epidemiology Core Steering Committee	Member	Geisel School of Medicine at Dartmouth

2015	Integrated Biology Symposium	Chair, 8 <sup>th</sup> Annual Symposium	Geisel School of Medicine at Dartmouth
2015	Search Committee for Assistant Professor in Epidemiology	Member	Geisel School of Medicine at Dartmouth
2015	QBS PhD Program Admissions Committee	Member	Geisel School of Medicine at Dartmouth
2015	Norris Cotton Cancer Center Space Utilization Committee	Member	Norris Cotton Comprehensive Cancer Center
2015-present	QBS PhD Program Steering Committee	Member	Geisel School of Medicine at Dartmouth
2016-2018	Research Administration Task Force, Faculty Advisory Group	Member	Emory University
2017-2018	Strategic Advisory Board	Member	Emory University

# EDITORIAL BOARDS

<u>DATES</u>	JOURNAL	ROLE
2008-present	Environmental Toxicology	Editorial Board Member
2011-2013	Frontiers in Toxicogenomics	Associate Editor
2011-2014	PLoS One	Associate Editor
2014	PLoS Genetics	Guest Associate Editor
2014-15	Child Development	Guest Associate Editor
2015-2017	Clinical Epigenetics	Section Editor, <i>Nutritional and</i> Environmental Epigenetics
2015-present	Environmental Epigenetics	Editorial Review Board
2015	Child Development	Guest Editor, Special Issue on Behavioral Epigenetics

# JOURNAL REFEREE ACTIVITY

<u>DATES</u>	JOURNAL NAME
2007-present	The American Journal of Obstetrics and Gynecology BMC Cancer BMC Medical Genomics

**Biological Psychiatry** British Journal of Cancer Cancer Cancer Epidemiology, Biomarkers, and Prevention Cancer Research Carcinogenesis Clinical Cancer Research **Clinical Epigenetics** Environmental Health Perspectives Environmental Toxicology Epigenetics Epigenomics European Journal of Cancer FASEB Journal Genome Biology Human Molecular Genetics Human Reproduction International Journal of Cancer JAMA Psychiatry JAMA Pediatrics Journal of Clinical Endocrinology and Metabolism Journal of Occupational and Environmental Medicine Lancet Oncology Molecular Carcinogenesis New England Journal of Medicine Neurotoxicology Research Nucleic Acids Research Placenta PLoS Genetics PLoS One Psychoneuroendocrinology Reproduction, Fertility, and Development Reproductive Toxicology

#### AWARDS AND HONORS

DATES	AWARD AND INSTITUTION
2000	American Institute of Chemists Award, Lafayette College Department of Chemistry
2000	Phi Lambda Upsilon, Honors Society in Chemistry, Lafayette College
2000-2004	Pre-doctoral Training Fellowship in Radiobiology, National Institute of Environmental Health Sciences, Harvard School of Public Health
2002	Pathobiology of Cancer Fellowship, American Association for Cancer Research
2004	AACR-AFLAC Scholar in Training Award, American Association for Cancer Research
2005	AACR-AstraZeneca Scholar in Training Award, American Association for Cancer Research

2010	Featured in Science Magazine's ScienceCareers website to coincide with their special issue on Epigenetics, Oct 29, 2010, 10.1126/science.caredit.a1000105
2011	National Institute of Mental Health, Biobehavioral Research Award for Innovative New Scientists (BRAINS)

2013 Dartmouth-Hitchcock Norris Cotton Cancer Center Award for Excellence 2012

# MEMBERSHIPS, OFFICE AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES

DATES	SOCIETY	<u>ROLE</u>
2004-present	American Association for Cancer Research	Member
2011-present	Society of Toxicology	Member
2011-present	American Association for the Advancement of Science	Member
2014-present	International Society for Environmental Epidemiology	Member
2014-present	International Society for Children's Health and the Environment	Member