

ALISON BERNSTEIN, PH.D.

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EDUCATION

PhD: Washington University in St. Louis, St. Louis, MO 2009
Biological and Biomedical Sciences, Molecular Genetics Program

BA: University of Pennsylvania, Philadelphia, PA 2000
Major: Biological Basis of Behavior, Minor: History and Sociology of Science

PROFESSIONAL EXPERIENCE

Assistant Professor 2016-present
Michigan State University
College of Human Medicine
Department of Translational Neuroscience

Geneticist 2016
Carter Consulting, Inc., Atlanta, GA
Centers for Disease Control and Prevention, National Centers on Birth Defects and
Developmental Disabilities

Postdoctoral Fellow

Emory University, Atlanta, GA
Department of Epidemiology November 2014 – July 2016
Mentor: Jennifer Mullé, Ph.D.

Department of Human Genetics January – October 2014
Mentor: Peng Jin, Ph.D.

Department of Neurology, Department of Environmental Health 2009-2013
Mentor: Gary W. Miller, Ph.D.

Graduate Student 2003-2009
Washington University in St. Louis, St. Louis, MO
Molecular Genetics and Genomics Program
Department of Anatomy and Neurobiology
Mentor: Karen L. O'Malley, Ph.D.

ACADEMIC APPOINTMENTS

Assistant Professor 2016-present
Michigan State University
College of Human Medicine
Department of Translational Neuroscience

Training Grant Appointments

Environmental and Integrative Toxicology Training Faculty 2020-present
Integrative Pharmacological Sciences Training Program Faculty 2016-present

PUBLICATIONS

Bibliography on PubMed: <https://bit.ly/2NKxyj2>

Peer-reviewed articles

1. Price, R.A., Li, W.-D., **Bernstein, A.**, Crystal, A., Golding, E.M., Weisberg, S.J., Zuckerman, W.J. (2001) A locus affecting obesity in human chromosome region 10p12. *Diabetologia*, 44: 363-366.
2. **A. I. Bernstein**, S.P. Garrison, G.P. Zambetti and K.L. O'Malley (2011) 6-OHDA generated ROS induces DNA damage and p53- and PUMA-dependent cell. *Molecular Neurodegeneration*, 6(2).
3. **A.I. Bernstein**, K.A. Stout and G.W. Miller (2012) A fluorescent-based assay for live cell, spatially resolved assessment of vesicular monoamine transporter 2-mediated neurotransmitter transport. *Journal of Neuroscience Methods*, 209(2): 357-366.
4. **A.I. Bernstein** and K.L. O'Malley (2013) MPP⁺ induces PUMA- and p53-dependent, but TF3-independent cell death. *Toxicology Letters*, 219 (2): 93-98.
5. Inamdar, A.A, Hossain, M.M., **Bernstein, A.I.**, Miller, G.W., Richardson, J.R., & Bennett, J.W. (2013). Fungal-derived semiochemical 1-octen-3-ol disrupts dopamine packaging and causes neurodegeneration. *Proceedings of the National Academy of Sciences of the United States of America*, 110(48), 19561–6.
6. K.M Lohr*, **A.I. Bernstein***, K.A. Stout, A.R. Dunn, C.R Lazo, S.P. Alter, M. Wang, Y. Li, X. Fan, E.J. Hess, H. Yi, L.M. Vecchio, D.S. Goldstein, T.S. Guillot, A. Salahpour, and G.W. Miller. (2014). Increased vesicular monoamine transporter enhances dopamine release and opposes Parkinson disease-related neurodegeneration in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, 111(27), 9977–82. *co-first authors
7. Martilias S. Farrell, John D. McCorvy, Xi-Ping Huang, Daniel J. Urban¹, Kate L. White, Patrick M. Giguere, Allison K. Doak, **Alison I. Bernstein**, Kristen A. Stout, Su Mi Park, Ramona M. Rodriguiz, Bradley W. Gray, William S. Hyatt, Andrew P. Norwood, Kevin A. Webster, Brenda M. Gannon, Gary W. Miller, Joseph H. Porter, Brian K. Shoichet, William E. Fantegrossi, William C. Wetsel, Bryan L. Roth (2016) In vitro and in vivo characterization of the alkaloid nuciferine. *PLoS ONE*, 11(3), e0150602–27. doi:10.1371/journal.pone.0150602
8. **Alison I. Bernstein**, Yuting Lin, Craig Street, Li Lin, Qing Dai, Li Yu, Han Bao, Marla Gearing, James Lah, Peter Nelson, Chuan He, Allan Levey, Jennifer Mullé, Ranhui Duan, and Peng Jin (2016) 5-hydroxymethylation-associated epigenetic modifiers of Alzheimer's disease modulate Tau-induced neurotoxicity. *Human Molecular Genetics*. doi: 10.1093/hmg/ddw109
9. Lohr, K. M., Chen, M., Hoffman, C. A., McDaniel, M. J., Stout, K. A., Dunn, A. R., Wang, W., **Bernstein, A.I.**, and Miller, G.W. (2016). Vesicular Monoamine Transporter 2 (VMAT2) Level Regulates MPTP Vulnerability and Clearance of Excess Dopamine in Mouse Striatal Terminals. *Toxicological Sciences*, kfw106–10. doi:10.1093/toxsci/kfw106
10. Cliburn R, Dunn A, Stout K, Hoffman C, Lohr K, **Bernstein A.**, Winokur E, Burkett J, Shmitz Y, Caudle W, Miller G (2017) Immunochemical localization of vesicular monoamine transporter 2 (VMAT2) in mouse brain. *Journal of Chemical Neuroanatomy*. doi:10.1016/j.jchemneu.2016.11.003
11. Dunn, A.R., Stout, K.A., Ozawa, M., Lohr, K.M., Hoffman, C.A., **Bernstein, A.I.**, Li, Y., Wang, M., Sgobio, C., Sastry, N., Cai, H., Caudle, M.W., Miller, G.W. (2017) Synaptic vesicle glycoprotein 2C (SV2C) modulates dopamine release and is disrupted in Parkinson disease.

Proceedings of the National Academy of Sciences of the United States of America. doi:10.1073/pnas.1616892114

12. McGee D, Smith A, Poncil S, Patterson A, **Bernstein AI**, Racicot K (2018) Cervical HSV-2 infection causes cervical remodeling and increases risk for ascending infection and preterm birth. *PloS One*. 12(11), e0188645. doi:10.1371/journal.pone.0188645
13. Kochmanski J, VanOeveren SE, Patterson JR, **Bernstein AI** (2019) Developmental Dieldrin Exposure Alters DNA Methylation at Genes Related to Dopaminergic Neuron Development and Parkinson's Disease in Mouse Midbrain. *Toxicological Sciences*. 169(2): 593-607. doi:10.1093/toxsci/kfz069
14. Kochmanski J, Savonen C, **Bernstein AI** (2019) A Novel Application of Mixed Effects Models for Reconciling Base-Pair Resolution 5-methylcytosine and 5-hydroxymethylcytosine Data in Neuroepigenetics. *Frontiers in Genetics*. doi: 10.3389/fgene.2019.00801
15. Gezer AO, Kochmanski J, VanOeveren SE, Cole-Strauss A, Kemp CJ, Patterson JR, Miller KM, Kuhn NC, Herman DE, McIntire A, Lipton JW, Luk KC, Fleming SM, Sortwell CE, **Bernstein AI**. (2020) Developmental exposure to the organochlorine pesticide dieldrin causes male-specific exacerbation of α -synuclein-preformed fibril-induced toxicity and motor deficits. *Neurobiol Dis*.141:104947. doi: 10.1016/j.nbd.2020.104947.
16. Kochmanski J, Kuhn NA, and **Bernstein AI**. (2021) Parkinson's Disease-Associated, Sex-specific Changes in DNA Methylation at *PARK7* (DJ-1), *ATXN1*, *SLC17A6*, *NR4A2*, and *PTPRN2* in Cortical Neurons. *BioRxiv* [Preprint] September 9, 2021. doi: 10.1101/2021.09.08.459434. (Under review at Nature Partner Journals: Parkinson's disease.)

Reviews

1. Alter S.P., Lenzi G.M., **Bernstein A.I.**, Miller G.W. (2013) Vesicular Integrity in PD, *Current Neurology and Neuroscience Reports*, 13(7): 362. doi: 10.1007/s11910-013-0362-3
2. **Bernstein, A.I.**, Stout, K.A., and Miller, G.W. (2014) The vesicular monoamine transporter 2: an underexplored pharmacological target. *Neurochemistry International*. 73: 89-97. doi:10.1016/j.neuint.2013.12.003
3. Y. Cheng*, **A. Bernstein***, D. Chen, and P. Jin. (2014). 5-Hydroxymethylcytosine: A new player in brain disorders? *Experimental Neurology*. 268: 3-9. doi:10.1016/j.expneurol.2014.05.008 ***co-first authors**
4. Kochmanski, J. and **Bernstein, A.I.** (2020) The Impact of Environmental Health Factors on 5-Hydroxymethylcytosine in the Brain. *Current Environmental Health Reports*. doi: 10.1007/s40572-020-00268-3

Book chapters

1. **A.I. Bernstein** and K.L. O'Malley. (2009) Protein oxidation triggers the unfolded protein response and neuronal injury in chemically induced Parkinson disease. In: Sigrid Veasey, ed. *Oxidative Neural Injury*. pp. 179-192
2. **A.I. Bernstein** and Peng Jin (2015). High-throughput sequencing-based mapping of cytosine modifications. In: George Zheng, ed. *Epigenetic Technological Applications*. Pp. 39-53. Academic Press.
3. J. Kochmanski and **A.I. Bernstein** (2022) Best practices for epigenome-wide DNA modifications data collection and analysis. In: D. Dluzen and M. Schmidt, ed. *Rigor and Reproducibility in Genetics and Genomics*. Elsevier. (In press)

Commentaries

1. **A.I. Bernstein** and Gary W. Miller. (2010) Oxidative Signaling in Experimental Autoimmune Encephalomyelitis. *Toxicological Sciences*, 114 (2): 159, 161.

INVITED PRESENTATIONS

Research-based presentations

1. *Selected presentation*: Development of a real time, spatially resolved fluorescent assay for vesicular packaging of monoamines. Southeast Society of Toxicology Meeting 2011, Atlanta, GA.
2. *Invited seminar*: Vesicular Integrity in Parkinson's disease. November 24, 2014. Van Andel Research Institute, Grand Rapids, MI.
3. *Invited seminar*: "Epigenetics in Parkinson's disease, MSU Department of Pharmacology and Toxicology Seminar Series, March 22, 2017.
4. *Invited seminar*: Bernstein, A.I. *Epigenetics in Parkinson's disease*. University of Michigan Udall Center of Excellence for Parkinson's Disease Research Symposium, September 22, 2018.
5. *Invited seminar*: Epigenetics and environmental risk factors for Parkinson's disease. Thomas Jefferson University (May 15, 2020) *to be rescheduled due to COVID*
6. *Webinar*: The environment and Parkinson disease. Cure Parkinson Trust, Rallying to the Challenge. September 24, 2020.
7. *Invited seminar*: Epigenetics and Environmental Exposures in Parkinson's disease. Boston University, January 28, 2021.
8. *Invited seminar*: Epigenetics and Environmental Exposures in Parkinson's disease. University of Iowa, March 1, 2022.
9. *Invited seminar*: Epigenetics and Environmental Exposures in Parkinson's disease, Boise State University, TBD Spring 2022.

Science communication and outreach presentations

1. *Panelist*: Michigan State University Extension Fall Conference GMO Workshop, October 15, 2018
2. *Panelist*: *Our Table: The Science Behind GMOs*, Michigan State University, October 25, 2018
3. *Panelist*: *Navigating the Risk Landscape: facilitating critical thought in an information rich world*. Society for Risk Analysis Annual Meeting 2018, December 5, 2018
4. *Panelist*: *Creative SciComm*, ComSciCon Michigan 2019, August 16-17, 2019.
5. *Speaker*: Society of Risk Analysis Webinar, "Risk communication: Navigating the social media landscape", December 4, 2019
6. *Session co-chair and speaker*: Session title: Communicating Risk in a (Mis)information-Rich World. Society of Toxicology Annual Meeting 2020, March 17, 2020 (rescheduled as webinar, June 4, 2020)
7. *Webinar*: Communicating Risk in a (Mis)information-Rich World. Environmental Protection Agency, Social-Environmental Science Exchange, August 29, 2020.
8. *Guest lecturer*: Communicating Risk in a (Mis)information-Rich World. Environmental Health Issues (ENVR230), University of North Carolina, Gillings School of Global Public Health, October 22, 2020.

9. *Speaker*: Jamming The Curve – COVID-19 Game Jam. LabX, presented by the National Academy of Sciences.
10. *Panelist*: The Truth is Out There: How to Connect with Correct Information. National Environmental Health Association Annual Education Conference Virtual Series, April 20, 2021.
11. *Instructor*: Social Media, Storytelling, and Partnerships: How to Combat Misinformation with Science. Short course at The Society of Environmental Toxicology and Chemistry North America Annual Meeting, October 13, 2021.
12. *Panelist and chair*: Communication and Collaboration in the Time of COVID: Lessons Learned. Roundtable session. Society of Risk Analysis Annual Meeting, December 2021.

POSTER PRESENTATIONS AND PUBLISHED ABSTRACTS (AS PI)

1. S. VanOeveren, B.K. Johnson, **A.I. Bernstein**. Parkinson's disease associated alterations in the DNA modifications 5-methylcytosine and 5-hydroxymethylcytosine. Society for Neuroscience Annual Meeting, 2017, Washington DC.
2. C. Savonen, S. VanOeveren, B.K. Johnson, A. Krishnan and **A.I. Bernstein**. Differentially methylated gene networks in Parkinson's disease. 26th Conference on Intelligent Systems for Molecular Biology, 2018, Chicago, IL.
3. A. Yannakopoulos, **A.I. Bernstein**, A. Krishnan. Weak Semi-Supervised Machine Learning on Genomics Data. 26th Conference on Intelligent Systems for Molecular Biology, 2018, Chicago, IL.
4. J. Kochmanski, S. VanOeveren, and **A.I. Bernstein**. Low-dose Developmental Dieldrin Exposure Alters Epigenome-wide DNA methylation in Mouse Midbrain. Society for Neuroscience Annual Meeting 2018, San Diego, CA.
5. J. Kochmanski, S.E. VanOeveren, and **A.I. Bernstein**. Low-dose Developmental Dieldrin Exposure Alters DNA Methylation at Genes Related to Parkinson's Disease in Mouse Midbrain. Society of Toxicology Annual Meeting 2019, Baltimore, MD.
6. A.O. Gezer, S.E. VanOeveren, J. Kochmanski and **A.I. Bernstein**. Effect of Low-dose Developmental Dieldrin Exposure on Neuroinflammation and α -synuclein Aggregation in the Mouse Nigrostriatal Pathway. Society of Toxicology Annual Meeting 2019, Baltimore, MD.
7. Anna Yannakopoulos, **Alison Bernstein**, Irving Vega, and Arjun Krishnan. Predicting ALZ-associated protein biomarkers from multiple evidence sources. RECOMB 2019. Washington DC.
8. Joseph Kochmanski, Aysegul Gezer, Sarah E. VanOeveren, Christopher J. Kemp, Joseph R. Patterson, Kelvin C. Luk, Caryl E. Sortwell, **Alison I. Bernstein**. Modeling Parkinson's Disease Risk Factors Using an Environmental Exposure Paradigm. Gordon Research Conference: Parkinson's Disease, 2019, Sunday River, ME.
9. Joseph Kochmanski, Sarah E. VanOeveren, Candace Savonen, Marla Gearing, **Alison I. Bernstein**. Parkinson's Disease Alters Genome-wide DNA Methylation and DNA Hydroxymethylation in Human Brain. Society for Neuroscience Annual Meeting 2019, Chicago, IL.
10. A.O. Gezer, J. Kochmanski, S.E. VanOeveren, C.J. Kemp, J. Patterson, A. Strauss, S.M. Fleming, K.C. Luck, C.E. Sortwell, **A.I. Bernstein**. Developmental dieldrin exposure induces neuroinflammation and male-specific increased susceptibility to α -synuclein pre-formed fibrils. Society for Neuroscience Annual Meeting 2019, Chicago, IL.

11. Joseph Kochmanski, Aysegul O. Gezer, Sarah E. VanOeveren, Allyson Cole-Strauss, Christopher J. Kemp, Joseph R. Patterson, Kathryn M. Miller, Danielle E. Herman, Alyssa McIntire, Jack W. Lipton, Sheila Fleming, Kelvin C. Luk, Caryl E. Sortwell, **Alison I. Bernstein**. Sex-specific effects of developmental dieldrin exposure on susceptibility to α -synuclein pre-formed fibrils in mice. Society of Toxicology Annual Meeting 2020, Anaheim, CA (canceled due to COVID).
12. **A Bernstein**, A Gezer, J Kochmanski, S VanOeveren, A Cole-Strauss, C Kemp, J Patterson, K Miller, N Kuhn, D Herman, A McIntire, J Lipton, K Luk, S Fleming, C Sortwell. Male-specific exacerbation of susceptibility to α -synuclein pre-formed fibrils by developmental dieldrin exposure in mice. Movement Disorders, 35. Movement Disorders Virtual Congress 2020.
13. **Alison I. Bernstein**, Nathan C. Kuhn, Joseph Kochmanski. Parkinson's Disease Alters Genome-wide DNA Methylation and DNA Hydroxymethylation in Human Brain. AD/PD 2021, Virtual.

CURRENT FUNDING

- | | |
|---|----------------------------|
| NIH F32 ES031426 (Mentor; Kochmanski, PI) | January 2020-December 2021 |
| Ruth L. Kirschstein Postdoctoral Individual National Research Service Award | |
| Developmental Pesticide Exposure and Epigenetic Aging in the Brain n | |
| NIH R01 ES031237 (PI) | January 2021-December 2025 |
| Outstanding New Environmental Scientist Award | |
| Dieldrin-induced differential gene methylation and parkinsonian toxicity | |
| NIH R56 NS110750 (Co-I; Sortwell, PI) | April 2021-March 2026 |
| DBS effects on neuroinflammation and neurodegeneration induced by alpha-synuclein inclusions | |
| MJFF-021161 (Co-I; Sortwell, McKeigan, PIs) | December 2021-May 2023 |
| Further Investigation of the Neuroprotective Potential and Mechanism of the Rho Kinase Inhibitor KL-00974 | |

COMPLETED FUNDING

- | | |
|---|------------------------------|
| Michigan State University Discretionary Funding Initiative | December 2019-June 2021 |
| Dieldrin-induced differential gene methylation and parkinsonian toxicity | |
| 2019 Jean P. Schultz Biomedical Research Endowment Award | July 2019-July 2020 |
| DNA methylation in human Parkinson's disease by whole-genome bisulfite sequencing | |
| NIH R21 ES029205 (PI) | April 2018-March 2020 |
| Dieldrin exposure and synucleinopathy | |
| Impact Score: 16, Percentile: 1% | |
| NIH K99/R00 ES024570 (PI) | September 2014-December 2019 |
| Epigenetic effects of adult and developmental exposure to parkinsonian toxicants | |
| U54 MD011227 (Consultant; Furr-Holden, PI) | August 2018-February 2019 |
| The Flint Center for Health Equity Solutions | |
| Thorek Foundation (Co-I; Vega, Lipton PIs) | March 2019-February 2018 |
| A High Throughput Process to Study Interacting Genetic Risk Factors in Disease | |

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

- Society for Neuroscience (Current)
- Association for Women in Science (Current)
 - **MSU-CHM Institutional Representative** to the AWIS-West Michigan Consortium
 - **Treasurer** of the AWIS-West Michigan Consortium (2018-2020)
- Society of Toxicology (Current)
 - **Secretary/Treasurer**, Neurotoxicology Specialty Section (2020-2022)
- American Association for the Advancement of Science (Current)
- Society of Risk Analysis (Current)
- International Society for Computation Biology (2016-2017)

EDUCATIONAL ACTIVITIES

Specialized Intersession (HM 553) Spring 2017-present

Molecular Neuropathology of Neurodegenerative Diseases

Course director for Week 3: Synucleinopathies

Early Clinical Experience, Shared Discovery Curriculum, MSU CHM (HM 552)

ECE Neuro Labs: Spinal Cord Pathways Fall 2016
ECE Neuro Labs: Spinal Cord Pathways Fall 2017
ECE Neuro Labs: Basal Ganglia Fall 2017
ECE Neuro Labs: Spinal Cord Pathways Fall 2018
ECE Neuro Labs: Basal Ganglia Fall 2018
ECE Neuro Labs: Midbrain Fall 2019

Middle Clinical Experience, Shared Discovery Curriculum, MSU CHM (HM 555)

Large group activity, Gait Disturbance (November 29, 2017) Fall 2017
Large group activity, Movement Disorders (December 6, 2017) Fall 2017
Large group activity, Hemiplegia (November 28, 2018) Fall 2018

Course lectures

Genomics and proteomics of Complex Genetic Systems (BMB 961) Fall 2020
Lecture: DNA Methylation
Guest lecturer: Environmental Health Issues (ENVR230) October 22, 2020
University of North Carolina, Gillings School of Global Public Health
Lecture: Communicating Risk in a (Mis)information-Rich World

PhD Committee Chair

Sierra Boyd: MSU Pharm/Tox Spring 2020-present
Aysegul Gezer, DO, PhD: MSU Cell and Molecular Biology Summer 2018-Spring 2020
Degree awarded

PhD Committee Member

Katie Miller, PhD: MSU Neuroscience Summer 2018- Fall 2020
Degree awarded
Reid Blanchett, MSU Genetics Fall 2018-Spring 2020
Anna Stoll, MSU Pharmacology and Toxicology Spring 2019-present
Kevin Chen, MSU Chemical Engineering Fall 2019-present
Adam Schuller, Boise State Biomolecular Sciences Program Summer 2021-present

External committee member

Master's Committee

Chair, Candace Savonen, MSU NSP

Summer 2017-Spring 2018

Postdoctoral trainees

Joseph Kochmanski, PhD: Postdoctoral Fellow

Spring 2018-present

Rotation students

Kaitlyn Gordon: Neuroscience rotation student

Summer 2020

Sierra Boyd: Pharmacology and Toxicology graduate student

Spring 2020-present

Jake Reske: Cell and Molecular Biology rotation student

Fall 2017

Amber Garrison: Neuroscience rotation student

Summer 2017

Anna Stoll: Pharmacology and Toxicology rotation student

Spring 2017

Other Students

Calvin Hesse: GVSU undergraduate student

Spring 2018

Ruby Phung: GVSU master's student

Summer 2017

Trainee Awards

NIH F32 ES031426 (Mentor; Kochmanski, PI)

January 2020-December 2021

Ruth L. Kirschstein Postdoctoral Individual National Research Service Award

Developmental Pesticide Exposure and Epigenetic Aging in the Brain

Training Grant Roles

Training faculty in the "Multidisciplinary Training in Environmental Toxicology"

NIHES (NIH) T32 ES007255 (PI: LaPres)

Training Faculty in the "Integrative Pharmacological Sciences Training Program"

NIHMS (NIH) T32 GM092715 (Neubig-PI)

Training Faculty

MSU Environmental and Integrative Toxicological Sciences Program

MSU Neuroscience Program

MSU Cell and Molecular Biology Program

MSU Pharmacology and Toxicology Program

MSU Institute for Integrative Toxicology Program

Individual Development Plan Committee

IDP Liaison for TransNeuro trainees

COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICE

College Level Service

- Elected as TSMM Representative to College Advisory Council 2018-2020, 2020-2022
 - **Chair** 2020-2021
- Member of Student Grievance/Complaint Hearing Panel January 2020-present
- Member of Neuroscience Program Graduate Advisory Committee 2018-2019
- Member of Department Chair Five Year Review Committee 2018
- Member of CHM Student Competency Committee 2017-2020

Department Level Service

- Member, TN faculty search committee 2021-present
- Individual Development Plan Committee 2019-present
- **Chair**, Bioinformatics Faculty Search Committee 2018
- Member, Global Impact Initiative (GII) Faculty Search Committee 2018-2019
- **Chair**, Brain Awareness Week Neuroscience Fair Planning Committee 2018-present
- **Co-Chair**, Brain Awareness Week Neuroscience Fair Planning Committee 2017
- Member, TN Staff Evaluations Committee 2017
- Member, TN Staff Appreciation Day Planning Committee 2017

External Committee Service

- MSU Representative to the VARI Bioinformatics Core Advisory Group 2016-2017
- MSU Representative to the VARI Genomics Core Advisory group 2016-present

EDITORIAL BOARD APPOINTMENTS AND MANUSCRIPT REVIEW

Member, Neurotoxicology Editorial Board 2020-present

Manuscript reviewer for:

- Neurobiology of Disease
 - Clinical Epigenetics
 - Toxicological Sciences
 - BMC Genomics
 - Physiology and Behavior
 - Frontiers in Neuroscience
 - Frontiers in Neurology
 - Journal of Neuropathology and Experimental Neurology
- See Publons profile for all verified reviews: <http://publons.com/a/1232735/>*

Guest editor, Frontiers in Genetics 2018

Research Topic: Epigenetic Plasticity in Brain Development

Completed Publons Academy Peer Review Course 2017

GRANT REVIEW

Ad hoc reviewer, Medical Research Council, UK Research and Innovation July 2019

Ad hoc reviewer, NIH, Molecular Neurogenetics Study Section June 2020

NIH Early Career Reviewer program

Ad hoc reviewer, NIH F-18 Epidemiology and Population Sciences Fellowships November 2021

OTHER ACTIVITIES AND COMMUNITY OUTREACH

Professional Development

- Integrative Pharmacological Sciences Training Program Mentoring Workshop Fall 2020
- Optimizing Mentoring Relationships in Research February 2020
- Mentee in the MSU-CHM Tenure System Mentor Program 2016-present
- CHM Grant Writing Workshop April 18, 2017
- Communications and Brand Strategy Workshops
Communicating Beyond Journals and Peers January 2017

Improvisation for Scientists to Strengthen Public Communication Skills May 2017

Local outreach

- Volunteered at the AWIS-West Michigan Fall in Love with STEM February 2017, 2018
- Co-chair, MSU Neuroscience Fair Planning Committee March 2017
- Speaker at the VARI Career Panel October 2017
- Organized the Grand Rapids Research Center Science Fair October 2017
- Chair, MSU Neuroscience Fair Planning Committee 2018-2020
- MSU Best Program, “Science Moms” panels and screening March 2018
- Speaker at MSU 2018 Fall Extension conference October 2018
- Panelist at VAI Graduate School Career Day March 2019
- Organized Science Communication Workshop, AWIS-WM April 2019
- Speaker at VARI Career Panel October 2019
- Panel Moderator, Jewish Federation of Grand Rapids November 2021
- “Separating Facts from Fear: The Importance of COVID-19 Vaccination for Children”

National outreach

- Speaker, March for Science Atlanta April 2017
- “Science Moms” screening and panel discussion, CSIS Conference October 2017
- Appeared on NBC/Universal’s Sprout TV to promote STEM education December 2017
- “Science Moms” screening and panel discussion, McGill University March 2018

Print and online media

- Co-founder and author at SciMoms: full list of SciMoms articles available at scimoms.com/author/mommyphd2/
- Founder and author of “[Mommy PhD](#)”
- Interviewed in “Which Michigan school COVID measures work? We asked scientists”, Bridge Michigan, August 30, 2021
- Panelist for Dear Pandemic Facebook Live, May 15, 2021
- Interviewed in “The Manifestation Business Moves Past Positive Thinking and Into Science” by Rose Truesdale, Vice, April 20, 2021
- Featured in “Moms on a Mission” by Eliana Dockterman, Time Magazine, March 29, 2021
- Interviewed for “Busting Vaccine Myths with Science” on the PedsDocTalk podcast, August 26, 2020
- Interviewed for “Toxicology Basics & Healthy Food Choices” on the Get Real Health podcast, April 30, 2020
- Author of “How to Find Reliable Health Information Online”, SEEN Magazine, July 4, 2019
- Interviewed in the Lansing State Journal article, "How to talk to other parents about whether their kids are vaccinated", April 11, 2019
- Interviewed in BBC article, "Kat Von D: The make-up mogul who has reignited 'anti-vax' row", June 15, 2018
- Featured in the Lansing State Journal article, “Michigan State professor takes on pseudoscience with 'Mommy, PhD' blog, March 26, 2018
- Featured in Scientific American blog “How to Find a Woman Scientist” about 500 Women Scientists database of women scientists to build visibility of women in STEM, February 12, 2018