### CURRICULUM VITAE

70 Ship Street Laboratories for Molecular Medicine Brown University Providence, RI 02903

#### EDUCATION AND TRAINING

1995-2000	B.A., Psychology, University of Texas at Austin, Advisor: Dr. Walt Wilcynski
2001-2009	Ph.D., Neuroscience, University of Wisconsin at Madison, Advisor: Dr. Grace Boekhoff-Falk
2009-2014	Postdoctoral Fellow, Developmental Toxicology, University of Wisconsin at Madison, Advisor: Dr. Richard E. Peterson
2014-08/2016	Assistant Scientist, University of Wisconsin at Madison, Mentors: Drs. Richard E. Peterson and Chris Bradfield
09/2016-present	Assistant Professor, Department of Pathology and Laboratory Medicine, Brown University

#### CURRENT GRANT SUPPORT

**1R01ES030109-01A1 (Role: Pl)** 2/01/2020-11/30/2024\*
 6.0 calendar months

 NIH/NIEHS

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Toxicant induced dysregulations of parvalbumin interneuron development and function

The major goals of this project are to: (1) Test the hypothesis that Ahr2 activation disrupts PV interneuron development and function and is sufficient to produce larval hyperactivity as well as impair adult learning and memory, (2) Determine how loss of *sox9b* function affects PV interneuron development and function, (3) Use photoconvertible indicators of neural activity to determine the differential effects of AHR agonist exposure on embryonic and larval brain function. \*Note: this grant started in 02/2020, but was initially scheduled to start in 11/2019. I will be requesting a no cost extension from 11/2024-02/2025.

**Institute at Brown for Environment and Society Seed Funds (Role: PI)** 08/2022-08/2023 Understanding the reciprocal interaction between ovarian and cardiac health following exposure to environmental contaminants that reduce fertility

**OVPR Seed Funds (Role: Co-PI, Dr. Will Fairbrother: PI)** 03/2022-03/2025 Development of a Massively Parallel Reporter Screen in Whole Fish

# OVPR Seed Funds (Role: PI, Dr. Alan Morison Co-PI) 03/2023-03/2026

Identifying non-canonical functions for macrophage in development and disease

# PENDING GRANT SUPPORT

Smith Foundation Odyssey Award (Role: PI) 10/01/2023-9/30/2026 Cardiac Macrophage as Critical Regulators of Cardiac Development & Health

The major goals of this project are to: (1) Identify novel non-canonical functions for macrophage during cardiac development and homeostasis, (2) Determine if developmental myocarditis predisposes the heart to arrythmia and disease, and (3) Test the hypothesis that loss of early embryonic macrophage alters epicardial EMT and contributes to adult heart disease.

#### COMPLETED GRANT SUPPORT

# Ahr2 activation and sox9b function in forebrain and cerebral vascular development

The major goals of this project are to: (1) Test the hypothesis that TCDD exposure disrupts development of the zebrafish brain and cerebral vasculature, (2) Determine in which cell types Ahr2 activation produces brain and cerebral vasculature phenotypes, and (3) Test the hypothesis that downregulation of *sox9b* mediates the TCDD-induced forebrain and cerebral vascular defects.

R00ES023848-05 (Role: Pl)02/01/2017-01/31/20206.0 calendar monthsNIH/NIEHS

Ahr2 activation and sox9b function in forebrain and cerebral vascular development

The major goals of this project are to: (1) Test the hypothesis that TCDD exposure disrupts development of the zebrafish brain and cerebral vasculature, (2) Determine in which cell types Ahr2 activation produces brain and cerebral vasculature phenotypes, and (3) Test the hypothesis that downregulation of *sox9b* mediates the TCDD-induced forebrain and cerebral vascular defects.

 P20GM103652-06 (Role: Project Leader)
 07/20/2018-011/31/2020
 3.0 calendar months

 OSRI COBRE
 OSRI COBRE
 OSRI COBRE

CPVB COBRE: Project 4: sox9b function in cardiomyocyte and great vessel development

The major goals of this project are to: (1) Identify the downstream targets of *sox9b* in the zebrafish heart, (2) Determine how loss of *sox9b* target gene expression disrupts zebrafish great vessel development, and (3) Determine how loss of *sox9* target gene expression affects cardiomyocyte and great vessel development in the mouse.

### MRI-1919870 (Role: Co-Investigator)

NSF: High resolution mass spectrometer (HRMS) with ultra-high-performance liquid chromatograph (UHPLC)

2017

#### ADDITIONAL SUPPORT

Superfund Research Project Seed Funds

# HONORS AND AWARDS

1997-2000	University Honors List, UT-Austin
1998	Psi Chi, The International Honor Society in Psychology
1999	The National Society of Collegiate Scholars
1998-2000	Undergraduate Psychology Honors Program, UT-Austin
1998-2000	University Scholar, UT-Austin
2000	Undergraduate Research Poster Award, UT-Austin
2000	B.A., University and Departmental Honors, UT-Austin
2001-2004	NIH Pre-doctoral Trainee Fellowship (NIGMS T32GM0075707)
2004	Sigma Xi Grants-in-Aid of Research Award
2012	Young Investigator Award, Midwest Regional Chapter of the Society of Toxicology
2013	Procter & Gamble Travel Award
2013	Finalist, "Paper of the Year", Society of Toxicology: Reproductive and Developmental Specialty
	Section
2014	2 <sup>nd</sup> place, Postdoctoral Poster Competition, Society of Toxicology: Neurotoxicology Specialty
	Section
2020	NIEHS Outstanding Environmental Scientist Award
2020	Named the Manning Assistant Professor of Pathology and Laboratory Medicine
2020	Dean's Award for Excellence in Undergraduate Teaching, Advising and Mentoring in Biological
	Sciences

#### IMAGE HONORS AND AWARDS

- 2009 Four confocal micrographs selected for display in the Tandem Press exhibit "Tiny: Art from Microscopes at UW-Madison" at Dane Country Regional Airport
- 2011 Finalist, Cool Science Image Contest
- 2012 Science Image of the Day, www.science360.com

- 2012 Honorable Mention, Cool Science Image Contest
- 2013 Science Image of the Day, www.newsavalanche.com
- 2014 1<sup>st</sup> place, Art of Science Photomicrograph Calendar Contest, Aquaneering
- 2014 Confocal micrograph selected for display and as the featured image in the American Society for Cell Biology and NIGMS sponsored exhibit "Life: Magnified" at Dulles International Airport
- 2014 Image featured on NIH Director's Blog
- 2014 Image Highlight BMC Developmental Biology
- 2014 Cover image, *Toxicological Sciences*
- 2015 3<sup>rd</sup> place, Art of Science Photomicrograph Calendar Contest, Aquaneering
- 2015 Cover image, International Journal of Developmental Biology
- 2015 Winner, Cool Science Image Contest
- 2015 Confocal micrograph selected for permanent display in the Madison Science Museum
- 2016 Confocal micrographs selected of the 2016 NIH Funded Research Image Call
- 2016 2<sup>nd</sup> place, Art of Science Photomicrograph Calendar Contest, Aquaneering

# MENTEE FELLOWSHIPS AND AWARDS

- 2019 Catherine Seitz, Brown University, Undergraduate Teaching and Research Award (UTRA,
- summer) 2020 Lavra Cintrón-Rivera, Brown University, NSF GFRP
- 2020 Dana Biechele-Speziale, Brown University, NSF GFRP (fellowship acquired prior to joining the
- lab) 2020 Rekha Dhillon-Richardson, Brown University, UTRA (summer)
- 2020 Shannon Martin, Brown University, NIH NRSA F31
- 2021 Nicole Burns, Brown University, UTRA (summer)
- 2021 Amelia Pennell, Brown University, UTRA (summer)
- 2021 Manual Camarillo, Brown University, UTRA (summer)
- 2021 Michelle Kossack, Brown University, NIH NRSA F32
- 2022 Chloe Wray, Brown University, UTRA (spring)
- 2022 Amy Gaulke, Brown University, UTRA (summer)
- 2022 Eden Allen, Brown University, UTRA (summer)
- 2022 Kealyn Bowie, Brown University, UTRA (summer)
- 2022 Nina Magid, Brown University, UTRA (summer)

# PEER REVIEWED PUBLICATIONS

- 1. **Plavicki, J.**, Yang, E. and W. Wilczynski. Dominance status predicts response to nonsocial forced movement stress in the green anole lizard (*Anolis carolinensis*). *Physiology & Behavior*, 80(4):547-55. 2004. PMID: 23135548.
- 2. **Plavicki, J.**, Mader, S., Peebles, P., Pueschel, E. and G. Boekhoff-Falk. The homeobox gene *distal-less* is required for neuronal differentiation and neurite outgrowth in the *Drosophila* olfactory system. *Proceedings of the National Academy of Sciences*, 109(5):1578-83. 2012. PMID: 22307614.
- 3. **Plavicki, J.** Hofsteen, P., Peterson, R.E. and Heideman, W. Dioxin inhibits zebrafish epicardium and proepicardium development. *Toxicological Sciences*, 131(2): 558-67. 2013. PMID: 14741240.
- 4. Hofsteen, P., **Plavicki, J.**, Johnson, S., Peterson, R.E. and Heideman, W. *sox9b* is required for epicardium formation and plays a role in TCDD-induced heart malformation in zebrafish. *Molecular Pharmacology*, 84(3): 353-60. 2013. PMID: 23775563.
- Lanham, K., Plavicki, J., Peterson, R.E. and Heideman, W. Cardiomyocyte specific AHR activation phenocopies TCDD induced toxicity in zebrafish. 2014. *Toxicological Sciences*, 141(1): 141-54. 2014. PMID: 25037585.
- Plavicki, J., Hofsteen, P., Yue, M.S., Lanham, K.A., Peterson, R.E. and Heideman, W. Multiple modes of proepicardial cell migration require heartbeat. 2014. *BMC Developmental Biology*. 14(1): 18. PMID: 24885804.

- Plavicki, J., Baker, T.R., Burns, F., Xiong, K.M., Gooding, A.J., Hofsteen, P., Peterson, R.E. and Heideman, W. Characterization of a *sox9b* transgenic reporter line: a tool for studying development and toxicology. 2014. *International Journal of Developmental Biology* 58(9):693-9. PMID: 25896205.
- Plavicki, J., Squirrell, J., Eliceiri, K. and G. Boekhoff-Falk. Expression of the *Drosophila* homeobox gene *Distal-less Dll*) supports an ancestral role in neural development. 2016. *Developmental Dynamics*. 245(1):87-95. PMID:26472170.
- Yue, M.S., Plavicki, J.S., Li, X.Y., Peterson, R.E. and W. Heideman. A co-culture assay of embryonic zebrafish hearts to assess migration of epicardial cells in vitro. 2015. *BMC Developmental Biology* 15(1):50. PMID: 26715205.
- R.A. Umans, H. E. Henson, C. Parupalli, B. Ju, J. L. Peters, F. Mu, J.S. <u>Plavicki</u>, and M. R. Taylor. CNS angiogenesis and barriergenesis occur simultaneously. 2017. *Developmental Biology*,15;425(2):101-108. PMID: 28365243.
- 11. Gawdzik, J.C., Yue, M.S., Martin, N.R., Elemans, L.M.H, Lanham, K.A., Heideman, W., Rezendes, R., Baker, T.R., Taylor M.R., and **J.S. Plavicki**. *sox9b* is required in cardiomyocytes for cardiac morphogenesis and function. 2018. *Scientific Reports*, 17;8(1):13906. PMID: 3022470.
- 12. Yue, M.S., Martin, S.E., Martin, N.R, Taylor, M.R, and **J.S. Plavicki**. Dioxin exposure disrupts development of the visceral and ocular vasculature. 2021. Aquatic Toxicology. May;234:105786. PMID: 33735685.
- 13. Kossack, M.E., Manz, K.E., Martin N.R., Pennell K.D., and **J.S.Plavicki**. Environmentally relevant uptake, elimination, and metabolic changes following early embryonic exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin in zebrafish. 2022. *In press at Chemosphere*.
- 14. Martin, N.R.C, Patal, R., Kossack, M.E., Tian, L., Camarillo, M.A., Cintrón-Rivera, L.G., Yue. M.S., Gawdzik. J. C., Nwagugo, F., Elemans, L.M.H., and J.S. Plavicki, Proper modulation of AHR signaling is necessary for establishing neural connectivity and oligodendrocyte precursor cell development in the embryonic zebrafish brain. 2022. Status: In revision at *Frontiers in Molecular Neuroscience*.

#### **REVIEWS AND COMMENTARIES**

- 1. Marler, C.A., Oyegbile, T.O., **Plavicki, J.S.** and B.C. Trainor. Response to Wingfield's commentary on "A continuing saga: The role of testosterone in aggression". 2005. Hormones and Behavior, 48(3):256-258.
- 2. Hofsteen, P., **Plavicki, J.S.**, Peterson, R.E. and Heideman, W. The epicardium as a toxicological sensor. 2013. Journal of Developmental Biology. 1(2):112-125. PMID: 24885804.
- Martin, N.R., and J.S. Plavicki, Advancing zebrafish as a model for studying developmental neurotoxicology, *invited editorial*, 2020. Journal of Neuroscience Research, 98(6):981-983.PMID: 32227499

#### MANUSCRIPTS UNDER REVIEW OR REVISION

- 1. Paquette, S.E\*., Martin, N.R.C\*., Rodd, A.L., Camarillo, M., Allen, E., Manz, K.E., Pennell, K., and **J.S. Plavicki**, Dysregulation of neural activity and microglia function following exposure to the global environmental contaminant perfluorooctane sulfonate. *Under review at Environmental Health Perspectives* (Impact factor: 11.035).
- 2. Cintrón-Rivera, L.G. Patal, R., Burns, N., and **J.S. Plavicki**, Developmental exposure to TCDD disrupts development of the zebrafish inner ear. *Under review at Aquatic Toxicology*. (Impact factor: 5.2).
- 3. Kossack, M.E. Bowie, K., Tian, L., and **J.S. Plavicki**. More than germ cells: vascular development in the early zebrafish (*Danio rerio*) gonad. *In revision at Biology of Reproduction.*

#### MANUSCRIPTS IN PREPARATION

- Biechele-Speziale, D., Camarillo, M.A., Martin, Biechele-Speziale J., Lein P.J. and J.S. Plavicki. Assessing CaMPARI as new approach methodology for evaluating neurotoxicity, Goal submission date: 4/2023. With co-authors for review. To be submitted to *NeuroToxicology* (Impact factor: 4.39).
- Yue, M.S., Kossack, M.E., Rodd, A.L., Olsen, C.A., Taylor, M.R, and J.S. Plavicki. Dioxin exposure disrupts development of critical barriers in the CNS. Goal submission date: 4/2023. To be submitted to *Fluid and Barriers of the CNS*. Data collection is complete and the manuscript is being revised. (Impact factor: 7.66).
- Kossack, M.E. Bowie, K., Tian, L., and J.S. Plavicki. Sub-lethal dioxin exposure induces cardiac pathology and dysfunction. Goal submission date: 12/22. Journal selection will be based on the outcome of the remaining experiments. Functional data (echocardiogram and EKGs at 3,6,9, & 12 months) is complete. Histological and gene expression experiments are in progress). To be submitted to *Environmental Pollution* (Impact factor: 9.96)
- 4. Cintrón-Rivera, L.G. Patal, R., Burns, N., and <u>J.S. Plavicki</u>. Dioxin induced craniofacial malformations are the result of impaired neural crest development, **Goal submission date**: 4/23. To be submitted to *Environmental Pollution*. (Impact factor: 9.96). Data collection is close to complete.
- Paquette, S.E., Gaulke, A., Choi, B., and J.S. Plavicki. Loss of embryonic tissue resident macrophage predisposes the heart to arrythmia and disease. Goal submission date: 5/23. Journal selection will be based on the outcome of the remaining experiments. Tentatively aiming for *Nature Communications* (Impact factor: 17.67).

# RESEARCH ABSTRACTS

- 1. <u>Yang, E.</u>, **Plavicki, J.**, and W. Wilczynski. Changes in cytochrome oxidase activity as a function of social status and stress in the lizard, *Anolis carolinensis*. Society for Neuroscience Conference, Poster presentation, 2000.
- Plavicki, J.S., J.M. Squirrell, J.G. White, and G. Boekhoff-Falk. *distal-less (dll)* expression in the embryonic larval and adult nervous systems of *Drosophila melanogaster*. Cold Spring Harbor Neurobiology of *Drosophila* Conference, Poster presentation, 2001.
- 3. <u>Plavicki, J.S.</u>, J.M. Squirrel, J.G. White, G. Boekhoff-Falk. *distal-less (dll)* and the developing nervous system. 9<sup>th</sup> European Symposium on *Drosophila* Neurobiology, Poster presentation, 2002.
- 4. <u>Marler, C.A.</u>, **Plavicki, J.S.**, Frazier, C., Trainor, B. and C, Cravens. Paternal retrieving increases aggression, vasopressin and c-fos in the bed nucleus of the stria terminalis of the biparental California mouse. International Conference of Zoology, Poster presentation, 2004.
- Plavicki, J.S. and C.A. Marler. Paternal pup retrieval influences juvenile c-fos activity and steroid levels in the bipaternal California mouse (Peromyscus californicus), Society for Neuroscience Conference, Poster presentation, 2004.
- Plavicki, J.S., Mader, S. and G. Boekhoff-Falk. *distal-less (dll)* expression and function in the development of the larval *Drosophila* olfactory system, European Symposium on *Drosophila* Neurobiology, Poster presentation, 2006.
- Plavicki, J.S., Hofsteen, P., Peterson, R.E. and W. Heideman. 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD) inhibits epicardial development in the embryonic zebrafish heart. Society of Toxicology, Poster presentation, 2011.
- 8. Plavicki, J.S., Hofsteen, P., Peterson, R.E. and W. Heideman. Embryonic exposure to 2,3,7,8-

tetrachlorodibenzo-*p*-dioxin (TCDD) inhibits proepicardial organ (PEO) formation and epicardial development. 7<sup>th</sup> European Zebrafish Meeting, Poster presentation, 2011.

- Hofsteen, P., Plavicki, J., Peterson, R.E. and W. Heideman. Exposure to 2,3,7,8-tetrachlorodibenzo-pdioxin blocks proepicardium development in the zebrafish embryo. Society of Toxicology, Poster presentation, 2012.
- 10. <u>Plavicki, J.S.</u>, Hofsteen, P., Peterson, R.E. and W. Heideman. Embryonic exposure to 2,3,7,8tetrachlorodibenzo-*p*-dioxin inhibits epicardial development in the zebrafish heart. Society of Toxicology, Poster presentation, 2012.
- 11. <u>Hofsteen, P</u>., **Plavicki, J.,** Peterson, R.E. and W. Heideman. Dioxin impairs epicardium development in zebrafish and mouse. Weinstein Cardiovascular Development Conference. Poster presentation, 2012.
- 12. **Plavicki, J.S.**, Hofsteen, P., Peterson, R.E. and W. Heideman. 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin exposure prevents epicardium formation in zebrafish, Weinstein Cardiovascular Development Conference. Poster presentation, 2012.
- 13. <u>Plavicki, J.S.</u>, Hofsteen, P., Peterson, R.E. and W. Heideman. Embryonic exposure to 2,3,7,8tetrachlorodibenzo-*p*-dioxin inhibits epicardial development in the zebrafish heart. Midwest Regional Chapter of Society of Toxicology Spring Meeting, Poster presentation, 2012.
- 14. <u>Plavicki, J.S.</u>, Hofsteen, P., Peterson, R.E. and W. Heideman. Myocardial function is necessary for larval epicardial development. 10<sup>th</sup> International Conference on Zebrafish Development and Genetics, Poster presentation, 2012.
- 15. <u>Plavicki, J.S.</u>, Peterson, R.E. and W. Heideman. Dioxin induced AHR activation disrupts development of the brain and cerebral vasculature in zebrafish, Pharmaceutical Sciences Seminar Series, University of Wisconsin at Madison, March 2013.
- 16. <u>Yue, M.S.</u>, **Plavicki, J.S.**, Kim, K.S., Hofsteen, P., Peterson, R.E. and W. Heideman. Investigating Propepicardial, Epicardial, and Myocardial Cells as Targets of TCDD Cardiotoxicity in Zebrafish Embryos. Society of Toxicology, Poster presentation, 2014.
- 17. Lanham, K.A., Plavicki, J.S. Peterson, R.E. and W. Heideman. Cardiac myocyte specific Ahr activation phenocopies embryonic dioxin exposure in zebrafish. Society of Toxicology, Poster presentation, 2014.
- Plavicki, J.S., Baker, T., Miller, K., Christensen, E., Peterson, R.E. and W. Heideman. Early Embryonic 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Exposure Disrupts Forebrain and Cerebral Vascular Development in Zebrafish. Society of Toxicology, Poster presentation, 2014.
- 19. <u>Yue, M.S.</u>, **Plavicki, J.S.**, Peterson, R.E. and W. Heideman. Investigating Propepicardial, Epicardial, and Myocardial Cells as Targets of TCDD Cardiotoxicity in Zebrafish Embryos.11<sup>th</sup> International Conference on Zebrafish Development and Genetics, Poster presentation, 2014.
- 20. <u>Gawdzik J.C.</u>, Burns, F., Russell, M., **Plavicki, J.S.**, Peterson, R.E. and W. Heideman. Altered *sox9b* Expression in TCDD Mediated Embryonic Cardiotoxicity.11<sup>th</sup> International Conference on Zebrafish Development and Genetics, Poster presentation, 2014.
- <u>Gawdzik, J.C.</u>, Plavicki, J.S., Lanham, K.A. Russell, M., Heideman, W. and R.E. Peterson. A Dominant-Negative Sox9b Partially Phenocopies TCDD Induced Cardiac Toxicity in Larval Zebrafish. Society of Toxicology, Poster presentation, 2015.
- 22. <u>Plavicki, J.S.</u>, Yue, M.S., Baker, T.R., Taylor, M.R. and R.E. Peterson. Aryl Hydrocarbon Receptor Activation Disrupts Central Nervous System (CNS) Angiogenesis and Blood Brain Barrier (BBB) development, Vascular Biology, Poster presentation, 2015.

- Plavicki, J.S., Yue, M.S., Baker, T.R., Taylor, M.R. and R.E. Peterson. 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) Exposure Disrupts Central Nervous System (CNS) Angiogenesis and Blood Brain Barrier (BBB) Development. Society of Toxicology, Poster presentation, 2016.
- 24. <u>Yue, M.S.</u> Taylor, M.R., Peterson, R.E., **J.S. Plavicki.** Exposure to 2,3,7,8-Tetrachlorodibenzopdioxin (TCDD) Affects Vascular Development in the Zebrafish Eye, Gut, and Trunk. Society of Toxicology, Poster presentation, 2016.
- 25. <u>Gawdzik, J.C.</u>, Taylor, M.R., Peterson, R.E., **J.S. Plavicki.** Assessing the Role of the Transcription Factor *sox9b* in TCDD-Induced Cerebrovascular Malformations. Society of Toxicology, Poster presentation, 2016.
- 26. <u>Plavicki J.S.</u>, Yue M.S., Baker T.R., Taylor M.R., and Peterson R.E. Activation of the Aryl Hydrocarbon Receptor Disrupts Central Nervous System (CNS) Angiogenesis and Blood Brain Barrier (BBB) Development", Barriers of the CNS Gordon Seminar and Conference, Poster presentation, 2016.
- 27. Yue M.S., Baker T.R., Taylor M.R., and <u>J.S. Plavicki</u>, Dioxin Disrupts Central Nervous System (CNS) Angiogenesis and Blood Brain Barrier (BBB) Development. AHR Symposium, Poster presentation, 2016.
- Yue, M.S., Olsen, C.A., Taylor, M.R., and <u>J.S. Plavicki</u>, 2, 3, 7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) Exposure Disrupts Central Nervous System Pericyte Development and Choroid Plexus Formation, Society of Toxicology, Poster presentation, 2017.
- 29. Martin, N.R., Gawdzik, J.C., and <u>J.S. Plavicki</u>, The High Mobility Group Transcription factor *sox9b* is Necessary for Great Vessel Development, Cellular and Molecular Mechanisms of Toxicology, Gordon Research Conference, Poster presentation, 2017.
- 30. <u>Martin, N.R.</u> and **J.S. Plavicki**, The Role of *sox9b* in Early Organogenesis in *Danio rerio*, Pathobiology Program Annual Retreat, Brown University, Poster presentation, 2017.
- 31. <u>Martin, N.R.</u> and **J.S. Plavicki**, The Role of *sox9b* in Early Organogenesis in *Danio rerio*, Pathobiology Program Annual Retreat, Northeast Regional SOT, Poster presentation, 2017.
- 32. <u>Martin, N.R.</u>, Minaya, M., and **J.S. Plavicki**, Effects of Perfluorinated Compounds on Zebrafish Organogenesis, NIEHS Superfund Research Program 30<sup>th</sup> Annual Meeting, Poster presentation, 2017.
- <u>Rodd, A.L.</u> and J.S. Plavicki, Early Life Toxicant Exposure and Development of the Neurovasculature in Zebrafish, Northeast Regional Superfund Research Annual Meeting, Woods Hole, MA, Poster presentation, 2018.
- 34. <u>Martin, N.R.</u> and **J.S. Plavicki**, Understanding the Effects of Aryl Hydrocarbon Receptor Activation on Neuronal Development and Function, poster presentation, 13<sup>th</sup> Annual International Zebrafish Meeting, Madison, WI, 06/20/18-06/24/18.
- 35. <u>Rodd, A.L.</u> and **J.S. Plavicki**, Early Life Toxicant Exposure and Development of the Neurovasculature in Zebrafish, Gordon Research Conference and Seminar: Barriers of the CNS, Poster presentation, New London, NH, 2018.
- 36. <u>Seitz, C.</u>, Koch, R., Gawdzik, J.C., and **J.S. Plavicki**, The High Mobility Group Transcription Factor Sox9b is Necessary for Great Vessel Development, Poster presentation, UTRA Symposium, Brown University, Providence, RI, 08/02/18.
- 37. <u>Martin, N.R.</u> and **J.S. Plavicki**, Understanding the Effects of Aryl Hydrocarbon Receptor Activation on Neuronal Development and Function, Poster presentation, Pathobiology Retreat, Providence, RI, 08/28/18.
- 38. <u>Martin, S.E.</u> and **J.S. Plavicki**, Intersecting Paths: An exploration into macrophage involvement in proepicardial development in zebrafish, Poster presentation, Pathobiology Retreat, Providence, RI, 08/28/18.

- 39. <u>Rodd, A.L.</u> and **J.S. Plavicki**, Effect of Perfluoroalkyl Substances on the Development of Zebrafish Vasculature and Pericytes, Poster presentation, Vascular Biology 2018, Newport, RI, 10/14/18-10/18/18.
- 40. <u>Rodd, A.L.</u> and **J.S. Plavicki**, Effect of Perfluoroalkyl Substances on the Development of Zebrafish Vasculature and Pericytes, Poster presentation, Northeast Regional Society of Toxicology Meeting, Shrewsbury, MA, 2018.
- 41. <u>Martin, S.E.</u>, Rodd, A.L., and **J.S. Plavicki**, Microglial and Macrophage Development is Disrupted by Exposure to Perfluoroalkyl Substances, NIEHS Superfund Research Program 31<sup>st</sup> Annual Meeting, Poster presentation, Sacramento, CA, 11/28/18-11/30/18.
- 42. <u>Martin, N.R.</u> and **J.S. Plavicki,** 2,3,7,8 Tetrachlorodibenzo-[p]-Dioxin Exposure and Genetic Manipulation of the Aryl Hydrocarbon Receptor Disrupts Forebrain Development and Axonal Targeting, Poster presentation, 58<sup>th</sup> Annual Society for Toxicology Meeting, 03/10/19-03/14/19.
- 43. <u>Martin, S.E.</u> and **J.S. Plavicki**, Perfluorooctane Sulfonate (PFOS) Exacerbates Microglial Responses to Brain Injury in Exposed Zebrafish Embryos, Poster presentation, 58<sup>th</sup> Annual Society for Toxicology Meeting, 03/10/19-03/14/19.
- Rodd, A.L. and J.S. Plavicki, Effect of Perfluoroalkyl Substances on the Development of Zebrafish Vasculature and Pericytes, poster presentation, Northeast Regional Superfund Research Program Annual Meeting, Boston, MA, 2019.
- 45. <u>Martin, S.E.</u>, Rodd, A.L., and **J.S. Plavicki**, Microglial and Macrophage Development is Disrupted by Exposure to Perfluoroalkyl Substances, Northeast Regional Superfund Research Program Annual Meeting, Boston, MA, 2019.
- 46. <u>Martin, S.E.</u> and **J.S. Plavicki**, The high mobility group transcription factor sox9b is necessary for great vessel development, Northeast Regional Society for Developmental Biology Meeting, Woods Hole, MA, 2019.
- 47. <u>Rodd, A.L.</u> and **J.S. Plavicki**, Effect of Perfluoroalkyl Substances on the Development of Zebrafish Vasculature and Pericytes, Poster presentation, Northeast Regional Society for Developmental Biology Meeting, Woods Hole, MA, 2019.
- Rodd, A.L. and J.S. Plavicki, Effect of Perfluoroalkyl Substances on the Development of Zebrafish Vasculature and Pericytes, poster presentation, Society for Developmental Biology Meeting, Boston, MA, 2019.
- 49. <u>Cintrón-Rivera L</u>, Seitz,C. Martin N.R., and **J.S. Plavicki**. The high mobility group transcription factor Sox9b is necessary for great vessel and neurovascular development. Samuel M. Nabrit Conference for Early Career Scholars, Providence, RI, 6/7/19.
- 50. <u>Martin, S.E.</u> and **J.S. Plavicki**, Perfluorooctane Sulfonate (PFOS) Exacerbates Microglial Responses to Brain Injury in Exposed Zebrafish Embryos, Gordon Research Conference: Cellular and Molecular Mechanisms of Toxicity, Andover, New Hampshire, 08/11/19-08/16/19.
- 51. <u>Martin, N.R.</u>, and **J.S. Plavicki**, 2,3,7,8 Tetrachlorodibenzo-[p]-Dioxin Exposure and Genetic Manipulation of the Aryl Hydrocarbon Receptor Disrupts Forebrain Development and Axonal Targeting, Poster presentation, Pathobiology Retreat, Providence, RI, 08/28/19.
- 52. <u>Martin, S.E.</u> and **J.S. Plavicki**, The role of embryonic macrophages in early cardiac development, Poster presentation, Pathobiology Retreat, Providence, RI, 08/28/19.

- 53. <u>Cintrón-Rivera L</u>, Seitz,C., Martin N.R., and **J.S. Plavicki**, The high mobility group transcription factor sox9b is necessary for great vessel and neurovascular development, Poster presentation, Pathobiology Retreat, Providence, RI, 08/28/19.
- Martin, S.M., Martin, N.R., and J.S. Plavicki, Perfluorooctane Sulfonate (PFOS) Exacerbates Microglial Responses to Brain Injury in Exposed Zebrafish Embryos, Poster Presentation, Northeast Regional Society of Toxicology Meeting, Cambridge, MA, 10/25/19.
- 55. <u>Martin, N.R.</u> and **J.S. Plavicki**, 2,3,7,8 Tetrachlorodibenzo-[p]-Dioxin Induced Activation of the Aryl Hydrocarbon Receptor Disrupts Brain Development and Oligodendrocyte Precursor Development, Poster Presentation, Northeast Regional Society of Toxicology Meeting, Cambridge, MA, 10/25/19.
- 56. Rodd, A.L. and **J.S. Plavicki**, Characterizing the effects of per- and polyfluoroalkyl substances (PFAS) exposure on microglia development using the zebrafish model, Poster Presentation, NIEHS Superfund Research Program 32<sup>nd</sup> Annual Meeting, Seattle, WA, 11/17/19-11/20/19.
- 57. <u>Rodd, A.L.</u> Martin, N.M., and **J.S. Plavicki.** Dysregulation of embryonic microglia population size, morphology, and activity due to perfluoroalkyl substance exposure, Northeast Regional Society for Developmental Biology Meeting, Woods Hole, MA, 04/3/20-04/05/20. Conference cancelled.
- 58. <u>Martin, S.M</u>. and **J.S. Plavicki.** Optogenetic manipulation of macrophage electrical excitability modulates cardiac rhythm in developing zebrafish, Northeast Regional Society for Developmental Biology Meeting, Woods Hole, MA, 04/3/20-04/05/20, Conference cancelled.
- 59. <u>Rodd, A.L</u>, Martin, N.M., and **J.S. Plavicki.** Dysregulation of embryonic microglia population size, morphology, and activity due to perfluoroalkyl substance exposure, The North Atlantic Chapter of the Society of Environmental Toxicology and Chemistry (NAC-SETAC), Groton, CT, 04/13/20-04/14/20, Conference cancelled.
- 60. <u>Cintrón-Rivera L</u>, Seitz,C., and **J.S. Plavicki**, Elucidating novel roles for the transcription factor Sox9b in cardiovascular development, Weinstein Cardiovascular Development and Regeneration Conference, Montreal, CA, 05/13/20-05/16/20, Conference cancelled.
- 61. <u>Martin, S.M</u>. and **J.S. Plavicki.** Optogenetic manipulation of macrophage electrical excitability modulates cardiac rhythm in developing zebrafish, Weinstein Cardiovascular Development and Regeneration Conference, Montreal, CA, 05/13/20-05/16/20, Conference cancelled.
- 62. <u>Martin SE</u>, Plavicki JS. Optogenetic Manipulation of Macrophage Electrical Excitability Modulates Cardiac Rhythm in Developing Zebrafish. AHA Basic Cardiovascular Scientific Sessions (BCVS), Virtual conference, July 27-30, 2020.
- 63. <u>Cintrón-Rivera L</u>, Seitz,C., and **J.S. Plavicki**, Elucidating novel roles for the transcription factor Sox9b in cardiovascular development, IDeA Program Meeting, 09/22/2020.
- 64. <u>Martin, S.M</u>. and **J.S. Plavicki.** Optogenetic manipulation of macrophage electrical excitability modulates cardiac rhythm in developing zebrafish, IDeA Program Meeting, 09/22/2020.
- 65. Martin SE, Martin, N.R.C. Dhillon-Richardson, R. and **J.S. Plavicki**. Perfluorooctane Sulfonate (PFOS) Exposure Causes Neuronal Hyperexcitability and Microglial Hyperresponsiveness to Injury in Embryonic Zebrafish. Annual Superfund Conference, Virtual Conference, December 14-16, 2020.
- 66. <u>Anderson, K.</u>, Martin, N.R., Patal, R., Kossack, M.E., and J.S. Plavicki. Identification of novel neurodevelopmental phenotypes associated with TCDD-exposure and *ahr2* loss of function in zebrafish. 61<sup>st</sup> Society of Toxicology Annual Meeting, March 27-31, 2022.

- 67. Kossack, M.E., Hall, S., Tian, L., Odour, C., Bailey, J. and <u>J.S. Plavicki</u>. Juvenile exposure to 2,3,7,8tetrachlorodibenzo-p-dioxin (TCDD) disrupts adult zebrafish (Danio rerio) heart health. 61<sup>st</sup> Society of Toxicology Annual Meeting, March 27-31, 2022.
- Kossack, M.E., Hall, S., Tian, L., Odour, C., Bailey, J. and J.S. Plavicki. Identifying the cellular and molecular targets of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) induced infertility in female zebrafish (Danio rerio). 61<sup>st</sup> Society of Toxicology Annual Meeting, March 27-31, 2022.
- 69. <u>Paquette, S.M</u>. and **J.S. Plavicki.** Loss of embryonic macrophage disrupt adult cardiac health, IDeA Program Meeting, 06/10//2022.
- 70. <u>Kossack, M.E</u>., Tian, L., Bowie, K., and **J.S. Plavicki**. Sex specific effects of 2,3,7,8-tetrachlorodibenzo-pdioxin (TCDD) on Heart Function Reveal and Role of Ovarian Health in Cardiovascular Outcomes. Poster presentation at the Gordon Research Conference on Environmental Endocrine Disruptors. June 2022.
- 71. <u>Cintrón-Rivera, L.G.</u> and J.S. Plavicki, Determining the molecular mechanisms mediating PNS and craniofacial malformations induced by the environmental pollutant 2,3,7,8-tetrachlorodibenzo-p-dioxin (dioxin, TCDD), Zebrafish Disease Models Meeting, September 5-8, 2022.
- 72. <u>Paquette, S.E.</u> and **J.S. Plavicki**, Embryonic macrophage loss results in cardiac dysfunction & disrupts adult heart health, Zebrafish Infection and Immunity UK 2022, September 9-10, 2022.

#### INVITED TALKS

- 1. <u>Plavicki, J.S.</u> and G. Boekhoff-Falk, *distal-less* (*dll*) and the developing nervous system. Zoologische Kolloquium Vorträge am Biozentrum der Universität-Basel, Basel, Switzerland, Seminar presentation, 2002.
- 2. <u>Boekhoff-Falk, G.</u> and **J.S. Plavicki**, *distal-less* (*dll*) regulates *Drosophila* olfactory system development. 50<sup>th</sup> Annual *Drosophila* Research Conference, Platform Presentation, 2009.
- 3. **Plavicki, J.S**., Hofsteen, P., Lanham, K., Heideman, W. and <u>R.E. Peterson</u>, Dioxin prevents formation of an essential layer of the vertebrate heart, 46<sup>th</sup> Annual Conference on Gene Families and Isozymes, Platform Presentation, 2012.\_
- 4. <u>Hofsteen, P.</u>, **Plavicki, J.S.**, Peterson, R.E. and W. Heideman, The Epicardium as a Sensor in Determining AHR-mediated Heart Malformation, Weinstein Cardiovascular Development Conference, Platform Presentation, 2013.
- 5. <u>Plavicki, J.S.</u>, Hofsteen, P., Lanham, K., Peterson, R.E. and W. Heideman, Understanding dioxin-induced toxicity: the role of the epicardium, Midwest Regional Society of Toxicology Conference, Platform Presentation, May 2013.
- Lanham, K.A., Plavicki, J.S., Heideman, W., and R.E. Peterson. TCDD-induced embryo toxicity is phenocopied by constitutive AHR activation in the myocardium, 47<sup>th</sup> Annual Conference on Gene Families and Isozymes, Platform Presentation, 2013.\_
- Plavicki, J.S., Yue, M.S., Baker, T.R., Taylor, M.R. and R.E. Peterson, Aryl Hydrocarbon Receptor Activation Disrupts Central Nervous System (CNS) Angiogenesis and Blood Brain Barrier (BBB) Development, Vascular Biology Meeting, Platform Presentation, 2015.
- 8. **Plavicki, J.S.**, Zebrafish as a Developmental Toxicology Model, Brown Superfund Research Program Annual Retreat, Brown University, Seminar presentation, 2016.
- 9. <u>Plavicki, J.S.</u>, *Aryl Hydrocarbon Receptor* Activation Disrupts Neurovascular and Blood Brain Barrier Development, Pathology Academic Grand Rounds, Rhode Island Hospital, Seminar presentation, 2016.

- 10. <u>Plavicki, J.S.</u>, *Aryl Hydrocarbon Receptor* Activation Disrupts Neurovascular Development, Pediatric Research Colloquium, Women and Infants Hospital, Seminar presentation, 2016.
- 11. <u>Plavicki, J.S.</u>, *Aryl hydrocarbon Receptor Activation* Disrupts Neurovascular Development, Cardiopulmonary Vascular Biology COBRE Bi-weekly Seminar Series, Providence VA Hospital, Seminar presentation, 2016.
- 12. <u>Plavicki, J.S.</u>, *Aryl hydrocarbon Receptor Activation* Disrupts Neurovascular Development, Center to Advance Predictive Biology Group Meeting, Seminar presentation, 2016.
- 13. <u>Plavicki, J.S.</u>, Understanding the Effects of *Aryl Hydrocarbon Receptor* Activation on Brain Health, Pathobiology Seminar Series, Brown University, Seminar presentation, 2017.
- 14. <u>Plavicki, J.S.</u>, *Aryl Hydrocarbon Receptor* Activation Disrupts Neurovascular and Blood Brain Barrier Development, Connecticut Valley Zebrafish Meeting, Yale University, Platform presentation, 2017.
- 15. <u>Plavicki J.S</u>, *Aryl Hydrocarbon Receptor Activation* and *sox9b* Function in Neurovascular Development, BIBS Faculty Lunch talk, 2017.
- 16. **Plavicki, J.S.,** Effects of Perfluorinated Compounds on Organogenesis, Brown Superfund Research Program Annual Retreat, Brown University, Seminar presentation, 2017.
- 17. <u>Plavicki, J.S.</u>, The High Mobility Group Transcription factor *sox9b* is Necessary for Cardiac Development and Function, Pediatric Research Colloquium, Women and Infants Hospital, Seminar presentation, 2017.
- Martin, N.R. and <u>J.S. Plavicki</u>, Using zebrafish as a model to understand toxicant induced disruption of interneuron development, WHOI Tox Roundtable, Woods Hole Oceanographic Institute, Woods Hole, MA, Seminar presentation, 2018.
- Martin, N.R. and J.S. Plavicki, Understanding the Effects of Aryl Hydrocarbon Receptor Activation on Neuronal Development and Function, Platform presentation in Gene-Environment Interactions Workshop, 13<sup>th</sup> Annual International Zebrafish Meeting, Madison, WI, 06/20/18-06/24/18.
- Yue, M.S., Rodd, A.L., and <u>J.S. Plavicki</u>, Zebrafish as model for studying toxicant-induced neurovascular malformations and blood brain barrier dysfunction, 58<sup>th</sup> Annual Society for Toxicology Meeting, Baltimore, MD, Platform presentation, 2019.
- Rodd, A.L., Yue, M.S., and <u>J.S. Plavicki</u>, Environmental contaminant exposure reduces pericyte coverage of the developing cerebral vasculature, 58<sup>th</sup> Annual Society for Toxicology Meeting, Baltimore, MD, Platform presentation, 2019.
- 22. Kurt Pennell, Scott Frickel, and **J.S. Plavicki**, Exploring Human Health and Societal Impacts of Emerging Contaminants through Multidisciplinary Research, Invited commencement forum, Brown University, 2019.
- 23. <u>Plavicki, J.S.</u>, *sox9b* is necessary for great vessel development, RI IDeA Symposium, Brown University, Seminar presentation, 2019.
- 24. **Plavicki, J.S.**, Identifying novel *sox9b* functions in development, Cancer Biology Seminar Series, Brown University, Seminar presentation, 2019.
- 25. <u>Plavicki, J.S.</u>, The dose makes the poisson: using zebrafish to understand developmental toxicity, Richard E. Peterson Symposium, Seminar presentation, University of Wisconsin at Madison, August 2019.
- Plavicki, J.S., The High Mobility Group Transcription Factor Sox9b is Necessary for Neurovascular Development, Invited didactic lecture and research seminar, Suna Kirac Workshop on Neurogenetics, 2019.

- 27. **Plavicki, J.S.**, Zebrafish as a model for developmental immunotoxicity (DIT), Continuing Education Course, 59<sup>th</sup> Annual Society for Toxicology Meeting, Anaheim, CA, Invited presentation. Note: this conference was cancelled, but a select number of symposia and continuing education course were held as virtual events.
- Martin, S.M., Martin, N.R.C, Rodd, A.L. and <u>J.S. Plavicki.</u> Perfluorooctane Sulfonate (PFOS) Exacerbates Microglial Responses to Brain Injury in Exposed Zebrafish Embryos, Platform presentation, Society of Environmental Toxicology and Chemistry (SETAC) North America 41st Annual Meeting, November 15-19<sup>th</sup>, 2020, Virtual conference.
- Martin, N.R.C., Martin, S.E., and <u>J.S. Plavicki</u>, Early injury on cerebral vasculature: A mechanism of TCDD-induced neurotoxicity, Platform Presentation, 60<sup>th</sup> Annual Society for Toxicology Meeting, March 14-18, 2021, Virtual conference.
- Martin, S.E., Martin, N.R.C., Rodd, A.L., and <u>J.S. Plavicki</u>, Interrogating microglial as a critical mediator of PFOS-induced neurotoxicity, Seminar presentation, University of Massachusetts at Amherst, Department of Environmental Health Science Seminar Series, March 31, 2021.
- Martin, S.E., Martin, N.R.C., Rodd, A.L., and <u>J.S. Plavicki</u>, Interrogating microglial as a critical mediator of PFOS-induced neurotoxicity, Seminar presentation, University of Rhode Island, Biological and Environmental Sciences Colloquium, April 2, 2021.
- 32. Martin, S.E., Martin, N.R.C., Rodd, A.L., and **J.S. Plavicki**. *sox9b* is necessary for the development of the cardiac conduction system. Seminar presentation, Johns Hopkins, Molecular and Comparative Pathobiology Seminar Series, May 14, 2021.
- 33. **J.S. Plavicki.** Commencement remarks for the virtual Undergraduate Program in Biology Spring 2021 Ceremony.
- Martin, S.E., Martin, N.R.C., Rodd, A.L., and <u>J.S. Plavicki</u>.cInterrogating microglia as a critical mediator of PFOS-induced neurotoxicity, Seminar presentation, Research in Environmental Health Sciences Seminar Series hosted by Oregon State Superfund Center, June 4, 2021.
- 35. Martin, S.E., Martin, N.R.C., Rodd, A.L., and <u>J.S. Plavicki</u>. Zebrafish as a model for understanding the interaction between brain and heart health, Platform Presentation, August 18, 2021, Virtual North East Regional IDeA Conference.
- Martin, S.E., Martin, N.R.C., Rodd, A.L., and <u>J.S. Plavicki</u>. Interrogating microglia as a critical mediator of PFOS-induced neurotoxicity, Seminar Presentation, Providence VA Vascular Research Lab seminar series, September 10, 2021.
- Martin, S.E., Martin, N.R.C., Rodd, A.L., and <u>J.S. Plavicki</u>. Interrogating microglia as a critical mediator of PFOS-induced neurotoxicity, Seminar Presentation, Platform Presentation, Society for Environmental Toxicology and Chemistry, November 14-18, 2021.
- Martin, S.E., Martin, N.R.C., Rodd, A.L., and <u>J.S. Plavicki</u>. Interrogating microglia as a critical mediator of PFOS-induced neurotoxicity, Seminar Presentation, Platform Presentation, Society for Environmental Toxicology and Chemistry, November 14-18, 2021.
- 39. J.S. Plavicki, Interrogating microglia as a critical mediator of PFOS-induced neurotoxicity, Invited seminar presentation at North Carolina State University, January 18, 2022.
- 40. **J.S. Plavicki,** Identification of novel functions for *sox9b* in cardiac development, Invited seminar presentation, Multi-COBRE seminar series (virtual), February 8, 2022.
- 41. Martin, N.R.C., Paquetter, S.E., Camarillo, M., Pennell, A., Anderson, K., Manz, K., Pennell, K. and <u>J.S.</u> <u>Plavicki.</u> Snapshots of neural network formation: How the photoconvertible calcium indicator CaMPARI

can be used to identify toxicant-induced changes in neural development and function in larval zebrafish, Platform presentation, 61<sup>st</sup> Annual Society of Toxicology, March 26-31, 2022.

- 42. Paquette, S.,E., Martin, N.R.C., Camarillo, M., Pennell, A., Anderson, K., Manz, K., Pennell, K. and <u>J.S.</u> <u>Plavicki.</u> Zebrafish as model for understanding the cellular targets of PFAS-induced neurotoxicity, Modernizing Neurotoxicology at NIEHS: Technologies to Applications in Environmental Health Sciences Workshop (virtual), April 19-20, 2022.
- 43. Paquette, S.,E., Martin, N.R.C., Camarillo, M., Pennell, A., Anderson, K., Manz, K., Pennell, K. and <u>J.S.</u> <u>Plavicki.</u> Dysregulation of neural activity and microglia function following exposure to the global environmental contaminant perfluorooctane sulfonate (PFOS), Department of Chemistry Seminar Series, University of Rhode Island, November 7<sup>th</sup>, 2022.

# TRAINEE PLATFORM PRESENTATIONS

- <u>Martin, S.M</u>. and J.S. Plavicki, Perfluorooctane Sulfonate (PFOS) Exacerbates Microglial Responses to Brain Injury in Exposed Zebrafish Embryos, Seminar presentation, NIEHS Superfund Research Program 32<sup>nd</sup> Annual Meeting, Seattle, WA, 11/17/19-11/20/19.
- Martin, N.R.C., Martin, S.E., and J.S. Plavicki, The use of genetically-encoded calcium indicators to understand the effects of neurotoxic compounds on neuronal function, Platform Presentation, 60<sup>th</sup> Annual Society for Toxicology Meeting, March 14-18, 2021 Virtual conference.
- 3. <u>Cintrón-Rivera L.G.</u> and **J.S. Plavicki**, Elucidating novel roles for Sox9b in pharyngeal arch artery (PAA) development, Platform presentation, Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), October 19-24, 2020, Virtual Conference.
- 4. <u>Kossack, M.E</u>., Tian, L., Bowie, K., and **J.S. Plavicki**. Sex specific effects of 2,3,7,8-tetrachlorodibenzo-pdioxin (TCDD) on Heart Function Reveal and Role of Ovarian Health in Cardiovascular Outcomes. Platform presentation at the Gordon Research Conference on Environmental Endocrine Disruptors. June 2022.
- 5. <u>Paquette, S.E.</u> and **J.S. Plavicki**, Embryonic macrophage loss results in cardiac dysfunction & disrupts adult heart health, Platform Presentation at the Zebrafish Disease Models Meeting, September 5-8, 2022.
- <u>Cintrón-Rivera, L.G.</u> and J.S. Plavicki, Determining the molecular mechanisms mediating craniofacial malformations induced by the environmental pollutant 2,3,7,8-tetrachlorodibenzo-p-dioxin (dioxin, TCDD), Platform Presentation at the Society for the Advancement of Chicanos and Native Americans (SACNAS) Annual Meeting, October 27-30, 2022.

# TEACHING EXPERIENCE

1995-1998	Lovaas Institute, Applied Behavioral Analysis Therapist
1998-1999	Center for Autism and Related Disorders, Applied Behavioral Analysis Therapist
2001	Pre-College Enrichment Opportunity Program for Learning Excellence (PEOPLE), Summer
	Instructor, Focus: Sensory System Development, UW-Madison
2002	PEOPLE, Summer Instructor, Focus: Animal Behavior, UW-Madison
2003	PEOPLE, Summer Instructor, Focus: Evolution of Sensory Systems, UW-Madison
2004	PEOPLE, Summer Instructor, Focus: Neuroethology, UW-Madison
2013	Molecular and Environmental Toxicology 632 (Ecotoxicology), Guest Lecturer, UW-Madison
2013	Molecular and Environmental Toxicology 625 (Toxicology I), Guest Lecturer, UW- Madison
2014	Molecular and Environmental Toxicology 606 (Colloquium in Environmental Toxicology), Guest
	Lecturer, UW-Madison
2014	Fish Health Selective, Laboratory Instructor, School of Veterinary Medicine, UW-Madison
2017	Redesigning of BIOL 1820 with Kim Boekelheide, Brown University
2017-present	: Health and Human Biology Concentration Advisor
2017	Guest Lecturer, Introduction to Neurogenetics, NEUR 1040, Brown University
2017	Guest Lecturer, Environmental Technologies and Human Health, BIOL 2920D

2017	Guest Presentation, Living Biology at Brown and Beyond Students, BIOL 0100
2017	Guest Laboratory Instructor, Developmental Biology, BIOL 1310, Brown University
2018	Lead Instructor, Environmental Health and Disease, BIOL 1820, Brown University
2019	Guest Lecturer, Introduction to Neurogenetics, NEUR 1040, Brown University
2019	Instructor, 4 <sup>th</sup> Suna Kirac Workshop on Neurogenetics, Istanbul, Turkey
2019	Guest Lecturer, Living Biology at Brown and Beyond, BIOL 0100
2020	Lead Instructor, Environmental Health and Disease, BIOL 1820, Brown University
2020	Guest Laboratory Instructor, Developmental Biology, BIOL 1310, Brown University (Cancelled
due to COVID-19)	
2020	Guest Lecturer, Developmental Toxicology (graduate student seminar), University of Rhode
Island (Cancelled due to COVID-19)	
2021	Lead Instructor, Environmental Health and Disease, BIOL 1820, Brown University
2021	Guest Lecturer, Clearing the Air: Environmental Studies of Pollution, ENVS 1247
2022	Lead Instructor, Environmental Health and Disease, BIOL 1820, Brown University
2023	Guest Laboratory Instructor, Developmental Biology, BIOL 1310, Brown University

# HIGH SCHOOL AND UNDERGRADUATE MENTORING

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2002-2003	Sara Mader, B.S., Genetics, Honors Thesis, UW-Madison
2004-2005	Jennifer Paige-Robinson, B.A., Psychology, Undergraduate Research Project, UW- Madison
2004-2005	Brett Moore, B.S., Zoology, Honors Thesis, UW-Madison
2005-2006	Holly Spindler, B.S., Biology, Undergraduate Research Project, UW-Madison
2007-2008	Janie Yang, B.S., Biochemistry, Honors Thesis, UW-Madison
2012-2013	Margret Schuda, B.S., Pre-Pharmacy Major, Capstone Project, UW-Madison
2012-2014	Erica Christensen, B.S, Biology, Capstone Project, UW-Madison
2012-2015	Kevin Miller, B.S., Genetics, Undergraduate Research Project, UW-Madison
2014-2016	Julia Gilbertson, Pre-Pharmacy Major, Undergraduate Research Project, UW-Madison
2015-2016	Claire Olsen, Pharm Tox Major, Undergraduate Research Project, UW-Madison
2015-2016	Yang Zhang, Pharm Tox Major, Undergraduate Research Project, UW-Madison
2015-2016	Alyssa Eisold, Pharm Tox Major, Undergraduate Research Project, UW-Madison
2017	Antonia Wray, University of Connecticut, Leadership Alliance Student Researcher
2017-2018	Fabiola Guasp, Visiting student from the University of Puerto Rico
2017-2019	Catherine Seitz, Brown University, UTRA and Senior Thesis
2017-2019	Haley Shiff, Brown University, Capstone Project
2018	Christian Medina, Blackstone Academy, Summer Intern
2018	Cynthia Manengeri, Times2 Academy, Summer Intern
2019	Fatoumata Diallo, Blackstone Academy, Summer Intern
2019-2020	Ryan Millard, Brown University, Undergraduate Researcher
2019-2020	Kevin Ma, Brown University, Undergraduate Researcher
2019-present	Ratna Patel, Brown University, Undergraduate Researcher
2019-2021	Rekha Dhillon-Richardson, Brown University, Undergraduate Researcher
2020	Favour Nwagugo, University of Maryland Baltimore County, Leadership Alliance Student
Researcher	
2021	Favour Nwagugo, University of Maryland Baltimore County, Leadership Alliance Student
Researcher (r	eturned to complete the MD PhD Leadership Alliance experience)
2021-2022	Amelia Pennell, Undergraduate Researcher and UTRA recipient
2021-present	Nicole Burns, Undergraduate PLME Researcher and UTRA
2021-2022	Manuel Camarillo, Undergraduate Researcher and UTRA
2021-2022	Lucy Tian, Undergraduate Researcher
2021-present	Amy Gaulke, Undergraduate Researcher and UTRA
2021-present	Chloe Wray, Undergraduate Researcher, UTRA, Honors Thesis
2021-present	Nina Magid, Undergraduate Researcher, UTRA, Honors Thesis
2021-present	Eden Allen, Undergraduate Researcher and UTRA
2021-present	Kealyn Bowie, Undergraduate Researcher and UTRA

# GRADUATE MENTORING

Peter Hofsteen, Ph.D., Pharmaceutical Sciences, UW-Madison 2011-2013 2012-2016 Joseph Gawdzik, Ph.D. candidate, Pharmaceutical Sciences, UW-Madison 2012-2016 Monica Yue, Ph.D. candidate, Molecular and Environmental Toxicology, UW-Madison Nathan Martin, Ph.D. candidate, Pathobiology Graduate Program, Brown University 2017-2022 09/17-12/17 Maydelis Minaya, Ph.D. candidate, Pathobiology Graduate Program, Brown University (rotation student) 12/17-02/18 Jacqueline Howells, Ph.D. candidate, Pathobiology Graduate Program, Brown University (rotation student) 02/18-present Shannon Martin, Ph.D. candidate, Pathobiology Graduate Program, Brown University 02/19-present Layra Cintrón-Rivera, Ph.D. candidate, Pathobiology Graduate Program, Brown University Payton De La Cruz, Pathobiology Graduate Program, Brown University (rotation student) 12/19-02/20 02/21-05/21 Ashley Sanchez Sevilla Uruchurtu, Pathobiology Graduate Program, Brown University (rotation student) 07/22-present. Dana Biechele-Speziale, Chemistry Graduate Program, Brown University 01/23-present Sophia Chaviari, Biotechnology Masters Program, Brown University

# POST-DOCTORAL MENTORING

02/18-2021 April L. Rodd, Brown University 07/19-present Michelle Kossack, Brown University

# PHD THESIS AND OTHER COMMITTEES

2016-2017	Daniel Spade, Department of Pathology and Laboratory Medicine, K99 Mentoring Committee
2016-2019	Lauren Watts, Pathobiology, Brown University, PhD Committee
2016-2020	Heather Conboy, Molecular Pharmacology and Physiology (MPP), Brown University, PhD
Committee	
2017-2022	Benjamin Korry, Pathobiology, Brown University, PhD Committee
2017-present	Eric Klein, Neuroscience, Brown University, PhD Committee
2017-2022	Sabina Stefan, Biomedical Engineering, Brown University, PhD Committee
2019-2022	Aurora Washington, Biotechnology, Brown University
2019-present	Jang-Hoon Lee, Biomedical Engineering, Brown University
2019-present	Alia Hildayat, MIT/WHOI Joint Program in Oceanography
2019-2021	Milan Prajapati, Brown University, K99 Mentoring Committee
2020-present	Jordan Pitt, MIT/WHOI Joint Program in Oceanography
2020-2022	Megan Miller, MD, Women and Infant's Hospital, SOC Committee
2020-2022*	Dana Biechele-Speziale, Chemistry, Brown University *switched labs and joined my lab in 2022
2021	Rebka Ephrem, Second Reader for Undergraduate Honors Thesis
2021-present	Sanghamitra Sinha, MD, Women and Infant's Hospital, SOC Committee
2021-2022	Shreya Rajachandran, Second Reader for Undergraduate Honors Thesis
2022-present	Rebecca Yunker, Pathobiology, Brown University, PhD Committee
2022	Stephanie Roser, Biomedical Engineering ScM, Thesis Reader, Brown University
2022-present	Rachel Carley, Therapeutics, Brown University, PhD Committee (Chair)
2023	Jared Zheng, Second Reader for Undergraduate Honors Thesis
2023	Zheyun Xu, Biomedical Engineering ScM, Thesis Reader, Brown University

# LEADERSHIP ACTIVITIES

2003-2005	Student Representative, Steering Committee, Neuroscience Training Program, UW-Madison
2006	Student Representative, Carnegie Initiative on the Doctorate, UW-Madison
2016	Chairperson, SOT, Neurotoxicology: Halogenated Hydrocarbons Poster Session
2017	Chairperson, Society of Toxicology, Fetal Basis of Adult Disease Poster Session
2017	Organized and hosted the Connecticut Valley Zebrafish Meeting
2018	Vice-President elect, SOT, Molecular and Systems Biology Specialty Section
2018	Discussion Leader, Barriers of the CNS Gordon Research Conference
2018	Workshop Organizer, 13 <sup>th</sup> Annual International Zebrafish Meeting
2018	AAMC Early Career Women in Science and Medicine Faculty Leadership Conference
2019	Vice-President, SOT, Molecular and Systems Biology Specialty Section

Symposium Chair, 58<sup>th</sup> Annual Society for Toxicology Meeting, Using Zebrafish as a Model to 2019 Understand and Ultimately Prevent Neurotoxicity

2019 Retreat Organizer, Brown Pathobiology Annual Retreat

2020 President, SOT, Molecular and Systems Biology Specialty Section

2020 Symposium Chair, 60th Annual Society for Toxicology Meeting Testing the Waters: How the

Zebrafish, Xenopus, and Medaka Models are Advancing Our Understanding of Reproductive and Developmental Toxicity.

2021 Past-President, SOT, Molecular and Systems Biology Specialty Section

2021 NeuroToxicology Editorial Board

2022 Vice President Elect, Out Toxicologist and Allies Specialty Section, SOT, Molecular and Systems Biology Specialty Section

# **MENTORSHIP & OUTREACH ACTIVITES**

- 2001 Midvale Elementary Science Outreach Event
- 2003 Wright Middle School Science Outreach Event
- 2003-2004 Shorewood Science Saturday
- **UW Science Expedition** 2002-2004
- 2003-2005 **Brain Awareness Week**
- 2005 Integrated Biological Sciences Summer Research Program volunteer
- 2005 The Wisconsin Alliance for Minority Participation (WiscAMP) mentor
- 2012 UW Undergraduate Science Technology Engineering and Mathematics (STEM) Research Fair
- 2015 Girl Scouts of America Career Panelist
- 2016 Presentation at the UPP Arts Teaching Artist and Educators Workshop
- 2017 Poster Judge, Society of Toxicology, Reproductive and Developmental Toxicology Specialty Section Student and Postdoc Poster Competition
- K99/R00 Career Panel, Brown University 2017
- 2017 Leadership Alliance Mentor
- 2017 Poster Judge for the Pathobiology Annual Retreat
- Brown Biology Open House 2018
- Mentorship Panel, Barriers of the CNS Gordon Research Seminar 2018
- Poster Judge, Barriers of the CNS Gordon Research Seminar 2018
- 2018 Poster Judge, Barriers of the CNS Gordon Research Conference
- 2020 Mentoring Event: Academic Careers, SOT Virtual Event
- 2020 Poster Judge, Neurotoxicology Specialty Section Poster Competition, SOT Annual Meeting
- 2020 Speaker in the Graduate Women in Science and Engineering Coffee Hour (mentoring event)
- Panelist, Oceans and Human Health Virtual Meeting, Woods Hole Oceanographic Institute 2020
- 2021 Elected Institute at Brown for Environment and Society (IBES) fellow
- 2021 Poster Judge, Neurotoxicology Specialty Section Poster Competition, SOT Annual Meeting 2021-present IBES Affiliate Faculty
- 2021 Reproductive and Developmental Toxicology Specialty Section "Paper of the Year" Judge Panelist for the EPA Pride in STEM Career Panel 2022
- 2022 Poster Judge, Pathobiology Retreat
- 2022 Speaker in the Graduate Women in Science and Engineering Coffee Hour (mentoring event)

# SERVICE ACTIVITIES

2016, 2017 Pathobiology Graduate Program Admissions Committee Member

2018 Search Committee Member: Translational Immunology/Vaccinology Job Search

2018 Campus Based Faculty Representative, Pathology Website Design

2018-present Department of Pathology and Laboratory Medicine Works in Progress Organizer

Department of Pathology and Laboratory Medicine Summer Internship Program Mentor 2018

2019-present Co-Director, Department of Pathology and Laboratory Medicine Summer Internship Program 2019-present Search Committee Member: Cancer Biology Job Search

- 2019-present Department of Pathology and Laboratory Medicine Seminar Committee

2019-present Department of Pathology and Laboratory Medicine Diversity and Inclusion Committee (Chair) 2020-present 5<sup>th</sup> floor representative for the Research Restart Committee (formed following initial shutdown) 2020-2021 Faculty mentor, External Postdoctoral Seminar Series (EPSS), Carney Institute for Brain Science 2020-present Pathobiology Steering Committee

2020-present Department of Pathology and Laboratory Medicine Social Media Committee

- 2021 Reviewer for the Carney Graduate Student Award
- 2021 Pathobiology Retreat Flash Talk Judge

2021 Paper of the Year Judge Reproductive and Developmental Toxicology Specialty Section, SOT Annual Meeting

2021-present Pathobiology Seminar Committee (Chair)

2021-present PLM Diversity Representative Brown Council for Diversity in Medicine

2021-2022. Guest editor for Special edition of *Toxics* titled *Developmental Exposure to Environmental Contaminants* 

2022 Leadership Alliance Application Review

2022-present Pilot Project Core Committee for the Phase III Center for Biomedical Research Excellence (COBRE) for CardioPulmonary Vascular Biology (CPVB)

2022-present Steering Committee for the Phase III Center for Biomedical Research Excellence (COBRE) for CardioPulmonary Vascular Biology (CPVB)

2022- present Administrative Committee for the Phase III renewal of the Center for Biomedical Research Excellence (COBRE) for CardioPulmonary Vascular Biology (CPVB)

- 2022 Initiative to Maximize Student Diversity Fellowship reviewer
- 2022 SMART Pipeline Plus Steering Committee, Brown University
- 2023 The Postdoctoral Excellence Awards Review Committee
- 2023 Leadership Alliance Application Review
- 2023 The Postdoctoral Excellence Awards Review Committee

### **GRANT REVIEW**

- 2018 CPVB COBRE Pilot Project review panel
- 2019 CPVB COBRE Pilot Project review panel
- 2020 Reviewer: NIAID Emergency Awards: Rapid Investigation of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and Coronavirus Disease 2019 (COVID-19) (R21/R01 Clinical Trial Not Allowed)
- 2021 Reviewer: French National Research Agency (ANR) 2021 generic call (Agence Nationale De La Recherche, AAP générique 2021)
- 2021 CPVB COBRE Project Leader Grant Review Panel

2021 Reviewer European Science Foundation AXA Fellowships Projects. Call: "Preventing Long-Term Exposure to Harmful Substances and Mitigating its Impacts".

2021 Ad hoc reviewer for NIH study section Systemic Injury by Environmental Exposure (SIEE)

Ad hoc reviewer for NINDS Special Emphasis Panel: The Blood-brain Barrier, Neurovascular Systems and CNS Therapeutics

- Ad hoc reviewer for NIH study section Systemic Injury by Environmental Exposure (SIEE)
- 2022 Innovation Impact Grant program from North Carolina Biotechnology Center
- 2023 INBRE reviewer
- 2023 Ad hoc reviewer for NIH study section Environmental Determinants of Disease (EDD)

# PEER REVIEW

 ♦ eLife ◆ Developmental Biology ◆ Environmental Health Perspectives ◆ Aquatic Toxicology ◆ Toxicological Sciences ◆ Neurotoxicology ◆ Chemosphere ◆ Environmental Science & Technology ◆ PLOS One

# PROFESSIONAL SOCIETIES

Genetics Society of America (2001-present) Society of Toxicology (2012-present) Midwest Regional Chapter-Society of Toxicology (2012-2016) Northeast Regional Chapter-Society of Toxicology (2016-present) North American Vascular Biology Organization (2012-present)

# PROFESSIONAL DEVELOPMENT

2018 Writing Across the Curriculum, Sheridan Center, Brown University

The Writing Across the Curriculum Faculty Seminar provides support for faculty to (re) design, develop, and teach a course that supports writing in their discipline. The program combines a Sheridan seminar on writing pedagogy and course design with a supportive peer community, individual consultation and feedback, and an opportunity to share course and student successes. Seminar size is limited to allow for hands-on opportunities, individual support, and the development of a teaching and learning community. Participants may choose to co-design a course with a graduate or undergraduate student.

2018 AAMC Early Career Women in Science and Medicine Faculty Leadership Conference

2019-2020 Junior Faculty Fellows Teaching Program, Sheridan Center, Brown University

2019 Research Mentor Training through Advanced CTR, Brown University

2020 Undergraduate Research at Scale: What if the treatment is a CURE? Workshop, Brown University

2020 The Science of Effective Mentorship in STEM, workshop, Roundtable, Brown University

2020-2021 Diversity and Inclusion Faculty (DEI) STEMM Workshop Series

2020-2021 Seminar for Transformation around Anti-Racist Teaching (START), Sheridan Center, Brown University series

2021 Society of Toxicology Diversity, Equity, and Inclusion Workshop at the Virtual Annual Meeting 2021 MCBGP Mentor Training

2021 AAAS Transforming Institutions: Systemic Change for DEI in STEMM series

Faculty leader for the NIH "Becoming a Resilient Scientist" pilot program at Brown. The faculty team for this program consists of Dr. Audra Van Wart, myself, and Dr. Jennifer Sanders.

2022 MCBGP Mentor Training (*upcoming*)