Dr. Julia Ganz
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Department of Integrative Biology
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EDUCATION

2009	**Ph.D.** (**Dr. rer. nat.) in Biology** awarded with distinction (*summa cum laude*) Biotechnology Center Dresden, Dresden University of Technology, Germany Advisor: Prof. Dr. Michael Brand
2004	**Diplom in Biology** Department of Biology, University of Freiburg, Germany Advisor: Prof. Dr. Wolfgang Driever
2001-2004	**Advanced Studies in Biology**, Department of Biology, University of Freiburg, Germany
1999-2001	**Studies in Biology**, Department of Biology, University of Konstanz, Germany

APPOINTMENTS & RESEARCH EXPERIENCE

2016-present	**Assistant Professor**, Department of Integrative Biology, Michigan State University, USA
2021-present	**Affiliate Faculty Member**, Ecology, Evolution, and Behavior Program
2020-present	**Faculty Member**, Cell and Molecular Biology Program
2017-present	**Faculty Member**, Reproductive and Developmental Sciences Program
2016-present	**Faculty Member**, MSU Neuroscience Program
2016-present	**Faculty Member**, MSU Genetics and Genome Sciences Program
2016-present	**Faculty Member**, MSU NSF BEACON Center
2010 2015	**Postdoctoral Research Associate**, Institute of Neuroscience, University of Oregon, USA; Advisor: Prof. Dr. Judith Eisen
2009-2010	**Postdoctoral Fellow**, Biotechnology Center Dresden, Dresden University of Technology, Germany; Advisor: Prof. Dr. Michael Brand
2004-2009	**Ph.D. Student**, Biotechnology Center Dresden, Dresden University of Technology, Germany; Advisor: Prof. Dr. Michael Brand
2003-2004	**Diploma student,** Department of Developmental Biology, University of Freiburg, Germany; Advisor: Prof. Dr. Wolfgang Driever

FUNDING total $2M

External funding

01/2022-12/2026	**NSF CAREER #2143267** - Molecular control of differentiation in the enteric nervous system PI: J.Ganz	$1,724,897
04/2019-03/2021	**2019 AGA-Allergan Foundation Pilot Research Award in Irritable Bowel Syndrome**. PI: J.Ganz	$30,000
03/2018-02/2020	**Research Grant** from the **American Neurogastroenterology and Motility Society.** PI: J.Ganz	$30,000

01/2015-12/2015 **Research Grant** from the **REACHirschsprungs Foundation.**
PI: J.Ganz $30,000

Additional funding

08/2018-07/2019 **Research grant** from BEACON – An NSF Center for the Study of Evolution in Action.
PIs: J. Ganz, I. Braasch, A. Hintze $83,020

Fellowships

06/2013-08/2014 **Postdoctoral Fellowship** (German Research Foundation, DFG) $54,946

06/2011-05/2013 **Postdoctoral Fellowship** (German Academic Exchange Service, DAAD) $89,628

AWARDS

01/2019 **Travel Award** of the International Zebrafish Society (IZFS) to attend the 2019 8th Strategic Conference of Zebrafish Investigators, Pacific Grove, California, USA

04/2018 **SDB Travel Award** of the Society for Developmental Biology (SDB) to attend the 2018 Development of the Enteric Nervous System: Cells, Signals, Genes and Therapy, Boston, Massachusetts, USA

08/2017 **Young Investigator Award** of the American Neurogastroenterology and Motility Society

07/2014 **SDB Travel Award** of the Society for Developmental Biology (SDB) to attend the SDB meeting 2014, Seattle, Washington, USA

03/2012 **Travel Award** of the German Academic Exchange Service (DAAD) to attend the 3rd International Symposium on Development of the Enteric Nervous System: Cells, Signals and Genes 2012, Hong Kong

07/2008 **Travel Award** of the Dresden International Graduate School for Biomedicine and Bioengineering to attend the 8th International Conference on Zebrafish Development and Genetics 2008, Madison, USA

PUBLICATIONS

Citation indices (Google Scholar Citations 01/21/2022): Number of citations: 2160;
h-index: 18; i10-index 20 NCBI My Bibliography

° Shared first authorship * Corresponding/senior author

#undergraduate advisee, †graduate student advisee $research technician advisee @postdoc advisee

1. Davidson, A. E.@, Straquadine, N. R. W.#, Cook, S. A.#, Liu, C. G.#, **Ganz, J.*** (2021). A rapid F0 CRISPR screen in zebrafish to identify regulators of neuronal development in the enteric nervous system. *bioRxiv*, 2021.2007.2017.452230.
2. **Ganz J.***, Revealing the complexity of the gut's brain. *Nat Neurosci*. 2021 Jan;24(1):1-2.
3. **Ganz, J.°**, Melancon, E.°, Wilson, C., Amores, A., Batzel, P., Strader, M., Braasch, I., Diba, P.#, Kuhlman, JA., Postlethwait, JH., and Eisen, JS. (2019). Epigenetic factors coordinate intestinal development. *Dev Biol*. Aug 5. pii: S0012-1606(19)30224-6.
4. Kaslin, J., and **Ganz, J.*** (2019). Chapter 18 - Zebrafish Nervous Systems, in The Zebrafish in Biomedical Research, S.C. Cartner, et al., Editors. 2020, Academic Press. p. 181-189.
5. Spiewak JE., Bain EJ., Liu J., Kou K., Sturiale SL., Patterson LB., Diba P.#, Eisen JS., Braasch I., **Ganz J.**, Parichy DM. (2018). Evolution of Endothelin signaling and diversification of adult pigment pattern in Danio fishes. *PLoS Genet*. Sep 18;14(9):e1007538.
Recommended by Faculty 1000

6. Troll, JV., Hamilton, KM., Abel, ML., **Ganz J.**, Bates, JM., Stephens, WZ., Melancon, E., Van der Vaart, M., Meijer, A., Distel, M., Eisen, JS., Guillemin, K. (2018). Microbiota promote secretory cell determination in the intestinal epithelium by modulating host Notch signaling, *Development*. 145(4). pii: dev155317
7. **Ganz, J.**°, Baker, RP.°, Hamilton, MK., Melancon, E., Diba, P.#, Eisen, JS., Parthasarathy, R. (2018). Image velocimetry and spectral analysis enable quantitative characterization of larval zebrafish gut motility. *Neurogastroenterology and Motility* Sep;30(9):e13351
8. Kulkarni S., **Ganz J.**, Bayrer J., Becker L., Bogunovic M., and Rao M. (2018). Advances in Enteric Neurobiology: The "Brain" in the Gut in Health and Disease, *J Neurosci.* Oct 31;38(44):9346-9354.
9. **Ganz, J.*** (2018). Gut feelings: Studying enteric nervous system development, function and disease in the zebrafish model system. *Developmental Dynamics*. Feb;247(2):268-278
10. Kaslin, J., Kroehne, V., **Ganz, J.**, Hans, S., and Brand, M. (2017). Distinct roles of neuroepithelial-like and radial glia-like progenitor cells in cerebellar regeneration. *Development*, 144(8):1462-1471.
11. Rolig, AS., Mittge, EK., **Ganz, J.**, Troll, JV., Melancon, E., Wiles, TJ., Alligood, K., Eisen, JS., and Guillemin, K. (2017). The enteric nervous system promotes intestinal health by constraining microbiota composition, *PLoS Biology* e2000689.
12. Taylor, CR.#, Montagne, WM.#, Eisen, JS., and **Ganz, J.*** (2016). Combinatorial gene expression patterns delineate distinct progenitor populations in the zebrafish enteric nervous system, *Developmental Dynamics* 245(11):1081-1096.
13. **Ganz, J.**, Melancon, E., and Eisen, JS. (2016). Zebrafish as a model for understanding enteric nervous system interactions in the developing intestinal tract, *Methods in Cell Biology* 134:139-64.
14. Wiles, TJ., Jemielita, M., Baker, RP., Schlomann, BH., Logan, SL., **Ganz, J.**, Melancon, E., Eisen, JS., Guillemin, K., and Parthasarathy, R. (2016). Host Gut Motility Promotes Competitive Exclusion within a Model Intestinal Microbiota, *PLoS Biology* 14(7):e1002517.
15. **Ganz, J.***, and Brand, M*. (2016). Adult neurogenesis in fish, *Cold Spring Harbor Perspectives in Biology* 8(7). Pii: a019018 doi:10.1101/cshperspect.a019018.
16. **Ganz, J.***, Kroehne, V., Freudenreich, D., Machate, A., Geffarth, M., Braasch, I., Kaslin, J., and Brand, M*. (2014). Subdivisions of the adult zebrafish pallium based on molecular marker analysis. *F1000Research* 3, 308.
17. de Oliveira-Carlos, V., **Ganz, J.**, Hans, S., Kaslin, J., and Brand, M. (2013). Notch receptor expression in neurogenic regions of the adult zebrafish brain. *PLoS One* 8, e73384.
18. Simonson, LW., **Ganz, J.**, Melancon, E., and Eisen, JS. (2013). Characterization of enteric neurons in wild-type and mutant zebrafish using semi-automated cell counting and co-expression analysis. *Zebrafish* 10, 147-53.
19. **Ganz, J.**, Kaslin, J., Freudenreich, D., Machate, A., Geffarth, M., and Brand, M. (2012). Subdivisions of the adult zebrafish subpallium by molecular marker analysis. *Journal of Comparative Neurology* 520, 633-55.
20. **Ganz, J.**, Kaslin, J., Hochmann S., Freudenreich D., and Brand M. (2010). Heterogeneity and Fgf dependence of neural progenitor cells in the adult zebrafish telencephalon. *Glia* 58, 1345-63.
21. Kaslin, J., **Ganz, J.**, Geffarth, M., Grandel, H., Hans, S., and Brand, M. (2009). Stem cells in the adult zebrafish cerebellum: initiation and maintenance of a novel stem cell niche. *Journal of Neuroscience* 29, 6142-53.
22. Kaslin, J., **Ganz, J.**, and Brand, M. (2008). Proliferation, neurogenesis and regeneration in the non-mammalian vertebrate brain. *Philosophical Transactions of the Royal Society London Series B: Biological Sciences* 363, 101-22.

23. Grandel, H., Kaslin, J., **Ganz, J.**, Wenzel, I., and Brand, M. (2006). Neural stem cells and neurogenesis in the adult zebrafish brain: origin, proliferation dynamics, migration and cell fate. *Developmental Biology* 295, 263-77.
24. Ellertsdottir, E., **Ganz, J.**, Dürr, K., Loges, N., Biemar, F., Seifert, F., Ettl, AK., Kramer Zucker, AK., Nitschke, R., and Driever, W. (2006). A mutation in the zebrafish Na,K-ATPase subunit *atp1a1a.1* provides genetic evidence that the sodium potassium pump contributes to left-right asymmetry downstream or in parallel to nodal flow. *Developmental Dynamics* 235, 1794-808.

PRESENTATIONS

Invited Seminars

2022 Department of Biology, Central Michigan University, Michigan, USA (upcoming)

2022 6th International Symposium on "DEVELOPMENT OF THE ENS: THE FIRST 1000 DAYS", Ferrara, Italy (*upcoming*)

2022 School of Biological Sciences, University of Southampton, *Zebrafish as model for studying enteric nervous system development, disease, and function* (*upcoming*)

2021 Cells Webinar | Nervous System Development and Plasticity in Model Organisms VI, *The brain in the gut - enteric nervous system development and function in zebrafish*

2021 Virtual ENS seminars 2021*, Zebrafish as model for studying enteric nervous system development, disease, and function*

2021 Department of Biology Seminar, University of Miami, Miami, USA

2021 2021 ANMS annual meeting, ENS Development in zebrafish, Boston, MA, USA

2020 ANMS Scientific Virtual Symposia: The Microbiome and ENS Development

2020 Monash University, Australian Regenerative Medicine Institute, Monash University, Melbourne, Australia (canceled due to COVID-19)

2018 Mini-symposium: Advances in Enteric Neurobiology: The "Brain" in the Gut in Health and Disease*, Neuroscience 2018*, San Diego, California, USA

2018 MSU Neuroscience Program Retreat, Michigan State University, East Lansing, USA

2017 MSU Reproductive Developmental Sciences Program, Michigan State University, East Lansing, USA

2016 Department of Biological Sciences seminar, Western Michigan University, Kalamazoo, USA

2016 MSU Neuroscience Program Retreat, Michigan State University, East Lansing, USA

2016 MSU gut group, Michigan State University, East Lansing, USA

2016 MSU Neuroscience Seminar, Michigan State University, East Lansing, USA

2015 Department of Zoology, Michigan State University, East Lansing, USA

2009 Friedrich-Miescher-Institute, Basel, Switzerland

2009 University of Basel, Biocenter, Basel, Switzerland

2009 University of Washington, Seattle, Washington, USA

2009 Fred Hutchinson Cancer Research Center, Basic Science Division, Seattle, Washington, USA

2009 University of Oregon, Institute of Neuroscience, Eugene, Oregon, USA

Contributed Presentations (Talks)

2021 A rapid F0 CRISPR screen in zebrafish to identify regulators of neuronal development in the enteric nervous system. *Developmental Disorders: From Mechanism to Treatment*, virtual

2020 A rapid CRISPR/Cas9 genome editing screen to identify new regulators of neuronal differentiation and specification in the enteric nervous system. *DDW2020*, Chicago, Illinois, USA (canceled due to COVID-19)

2019 Epigenetic factors in enteric nervous system development and disease. *8th Strategic Conference of Zebrafish Investigators 2019,* Pacific Grove, California, USA

2018 Epigenetic factors in enteric nervous system development. *13th International Conference on Zebrafish Development and Genetics*, Madison, Wisconsin, USA

2018 Epigenetic factors in enteric nervous system development. *Development of the Enteric Nervous System:Cells, Signals, Genes and Therapy*, Boston, Massachusetts, USA

2017 Image velocimetry and spectral analysis enable quantitative characterization of larval zebrafish gut motility. *ANMS Young Investigator Forum and the ANMS Postgraduate Clinical Course*, New York, New York, USA

2014 Genetic Influences on Zebrafish Enteric Nervous System Development. *Northwest Regional Society for Developmental Biology Conference*, Friday Harbor, Washington, USA

2012 Genetic and Microbial Influences on the Development of the Zebrafish Enteric Nervous System. *3rd Symposium on Development of the Enteric Nervous System*, Hong Kong

2010 Heterogeneity and Fgf dependence of neural progenitor cells in the adult zebrafish telencephalon. *9th International Conference on Zebrafish Development and Genetics*, Madison, Wisconsin, USA

Contributed Presentations (Posters)

2020 A rapid CRISPR/Cas9 genome editing screen to identify new regulators of neuronal differentiation and specification in the enteric nervous system. *FNM2020*, Adelaide, Australia (canceled due to COVID-19)

2019 Epigenetic factors in enteric nervous system development. *2019 ANMS meeting*, Chicago, Illinois, USA

2018 Epigenetic factors in enteric nervous system development. *SDB 77th Annual Meeting*, Portland, Oregon, USA

2016 Regulation of enteric nervous system development and function in zebrafish. The Michigan Chapter of the Society for Neuroscience meeting, East Lansing, Michigan, USA.

2015 Zebrafish enteric mutant *b1074* displays Hirschsprung disease-like characteristics. 4th International Symposium "Development of the enteric nervous system: cells, signals, genes and therapy", Rotterdam, Netherlands

2014 Genetic Influences on Zebrafish Enteric Nervous System Development. *SDB 73rd Annual Meeting*, Seattle, Washington, USA

2014 Genetic Influences on Zebrafish Enteric Nervous System Development. *11th International Conference on Zebrafish Development and Genetics*, Madison, Wisconsin, USA

2013 Genetic Influences on Zebrafish Enteric Nervous System Development. *8th European Zebrafish Meeting*, Barcelona, Spain

2009 The neurogenic niches in the adult zebrafish telencephalon: proliferation characteristics, cellular and molecular composition. *CRTD Summer Conference*, Dresden, Germany

2009 Cellular characteristics of neural progenitor cells in the adult zebrafish telencephalon. *Biotechnology Day*, Dresden, Germany

2008 Characterization of stem cells in the adult zebrafish brain. *2nd International Congress on Stem cells and Tissue formation*, Dresden, Germany

2008 Characterization of stem cells in the adult zebrafish brain. *8th International Conference on Zebrafish Development and Genetics*, Madison, USA

2007 Characterization of stem cells in the adult zebrafish brain. *5th European Zebrafish Genetics and Development Meeting,* Amsterdam, Netherlands

2006 Characterization of stem cells in the adult zebrafish brain. *7th International Conference on Zebrafish Development and Genetics,* Madison, USA

2006 Adult neurogenesis in the zebrafish brain. *International conference: Embryonic and somatic stem cells - regenerative systems for cell and tissue repair*, Dresden, Germany

2006 Adult neurogenesis in the zebrafish brain. *3rd International meeting stem cell network North Rhine Westphalia Program*, Münster, Germany

2005 Adult neurogenesis in the zebrafish brain. *4th European Zebrafish Genetics and Development*, Dresden, Germany

2005 Adult neurogenesis in the zebrafish brain. *International Predoc Symposium "Biology at Work"*, EMBL Heidelberg, Germany

TEACHING

Classes

2018-present **Co-instructor** of *Molecular and Developmental Neurobiology* (NEU 804, since 2019: NEU 801)

2017-present **Co-instructor** of *Developmental Biology* with lab (IBIO 320)

2017-2018 **Co-instructor** of *Cell and Molecular Biology* (BS 161)

Guest lectures

2019 **Guest panelist** in *Animal Biodiversity* (IBIO200)

2019 **Guest lecture** in *Introduction in Animal Welfare Assessment* (ANS 200E)

2018 **Guest panelist** in *Professional Development* (IBIO 801)

2017 **Guest lecture** in Introduction to Neuroscience II (NEU 302)

2013- 2015 **Guest Lecturer** in *Advanced Systems Neuroscience* (BI 561) for graduate students

2014 **Guest Lecturer** in the Summer Program for Undergraduate Research Faculty Research Seminar

2013 **Guest Lecturer** in *Developmental Neurobiology* (BI 466/566) for Biology students, University of Oregon

2012 **Guest Lecturer and Lab Instructor** in *Vertebrate Evolution and Development* (BI 355) for Biology students, University of Oregon

2009 **Guest Lecturer and Lab Instructor** in *Molecular Developmental Biology of Vertebrates* for Biology students, Biotechnology Center, Dresden University of Technology, Dresden, Germany

MENTORING

Postdocs

2017-present Ann Davidson, Ph.D.

Ph.D. students

2019-present Ashoka Bandla (Ph.D. candidate, Integrative Biology, MSU)

2021-present Brooke Jeffrey (Ph.D. candidate, Integrative Biology, MSU)

Graduate rotation students

2020 Marlene Masino (rotation student, Neuroscience Program, MSU)

2019 Emmaline Kepp (rotation student, Genetics Program, MSU)

2018 Hannah Rudolph (rotation student, Neuroscience Program, MSU

2017 Ashoka Bandla (visiting student, Texas A&M University)

2017 Wilmarie Morales-Soto (rotation student, Neuroscience Program, MSU)

2017 Robert Vanderkamp (rotation student, Genetics Program, MSU)

Member of graduate committees

2021-present Marlene Masino (Ph.D. candidate, Neuroscience Program, MSU)
2021-present Brooke Jeffrey (Ph.D. candidate, Dept of Integrative Biology, MSU)
2019-present Ashoka Bandla (Ph.D. candidate, Dept of Integrative Biology, MSU)
2018-present Tayler Murphy (Ph.D. candidate, Genetics and Genome Sciences Graduate Program, MSU)
2019-2020 Brielle Dominguez (Ph.D. candidate, Dept of Integrative Biology, MSU)
2018-2021 Anna Yannakopoulos (Ph.D. candidate, Computational Math, Science, & Engineering graduate program, MSU)
2018-2021 Krishna Yelleswarapu (D.O./Ph.D. candidate, Neuroscience Program, MSU)
2017-2021 Savvas Constantinou (Ph.D. candidate, Dept of Integrative Biology, MSU)

Undergraduate research assistants

2022-present Chloe Ponka (Human Biology, MSU)
2022-present Keyana Blake (Neuroscience Program, MSU)
2021-present Cade Oberlin (Human Biology, MSU)
2019-present Sharon An (2019 Emerging Scholar Program, Integrative Biology, MSU)
2019-present Treasure Irvine (2019 Emerging Scholar Program, Integrative Biology, MSU)
2019-present Christina Liu (2018 Emerging Scholar Program, Integrative Biology, MSU)
2018-present Sara Cook (2018 Emerging Scholar Program, MSU)
2018-2021 Olivia Duru (Neuroscience Program, MSU, now medical school at Ohio State University)
2018-2021 Cameron Bennett (Microbiology and Molecular Genetics, MSU, now Molecular Biology Ph.D. Program, CU Anschutz)
2018-2020 Jon Schafer (Integrative Biology, MSU, now Conservation Technician, Phoenix Zoo)
2018-2020 Fiona Brewer (Neuroscience Program, MSU, now M.S. student at Wayne State)
2018-2019 Taylor Lawrence (Integrative Biology, MSU)
2019 David Wojciechowski (Human Biology, MSU)
2019 Irene Hopping (Integrative Biology, MSU, now Children's Animal Center Intern)
2018 Rachael Teodorescu (Genomics and Molecular Genetics, MSU, now research technician, Byersdorfer lab, University of Pittsburgh)
2018 Halley Taddonio (Michigan State University)
2018 Sarah Minamyer (Integrative Biology, MSU)
2018 Josue Franco (SROP summer student, Northeastern Illinois University, now Ph.D. student at Michigan State University)
2017-2019 Nora Straquadine (Integrative Biology, MSU, now M.S. student at Stony Brook)
2017-2019 Shravani Vatti (Michigan State University, now Post-Bac student at the NIH)
2017-2018 Kennedy Cogswell (Integrative Biology, MSU)
2017-2018 Madison Kraus (Neuroscience Program, MSU, now M.S. at CU Boulder)
2016-2018 Chuhao Nie (Biomedical Laboratory Science and Psychology, MSU, now medical school at the University of New England)
2014-2016 Parham Diba (Biology, University of Oregon, now M.D./Ph.D. student at OHSU)

2012-2016	Charlotte Taylor (Biology, University of Oregon, now Ph.D. student at UCSF)
2011-2012	William Montagne (Biology, University of Oregon)
2007-2008	Julia Ludwig (Biology, Dresden University of Technology)
2006-2007	Sabine Hübner (Biology, Dresden University of Technology)

Technicians

2022-present	Gia Haddock, Fish Facility Manager
2020-2022	Taylor Lawrence, Fish Facility Manager
2019-2020	Chuhao Nie, Technical Aid (now medical school, University New England)
2018-2020	Helen Rueckert, Research Technician (now: Ph.D. student, Duke University)
2018-2020	Theresa Gunn, Fish Facility Manager (now: Fish Facility Manager, Stanford University)
2017-2018	Carrie Kozel, Fish Facility Manager (now: Sea Lamprey Research Program Associate, Great Lake Fishery Commission
2017-2018	Grant Kunzelman, Technical Aid (now: Ph.D. at University of Chicago)
2016-2017	Gabriela Saldana, Fish Facility Manager (now: Research Technician, MSU IQ)

High school interns

2020	Caitlyn Byrne, Rachel Callaghan, Elena Delacruz (DeWitt Highschool)
2019	Nick Wiesner (East Lansing Highschool, now: University of Michigan)
2018-2019	Giovanna Ladislau (DeWitt Highschool, now: Central Michigan University)
2016-2017	Isabel Varghese (Forest Hill Central High School, Grand Rapids, now: Colby College, Maine)

PROFESSIONAL SERVICE and ACTIVITIES

2022	**Member** of the ANMS Scientific Planning Committee for the 2023 ANMS meeting
2021	**Ad-Hoc Reviewer** for Polish National Agency for Academic Exchange
2020-present	**Reviewing Editor** for Frontiers in Neuroscience
2020	**Guest Editor** for Elife
2020	**Ad-Hoc Reviewer** for Natural Sciences and Engineering Research Council of Canada
2019	**Ad-Hoc Reviewer** on study section Development-1, NIH Early Career Reviewer
2019	**Poster Judge** University Undergraduate Research and Arts Forum, Michigan State University, 3rd Annual Research Day Reproductive and Developmental Sciences Program
2018	**External Reviewer** for Ph.D. Thesis Australian Regenerative Medicine Institute (ARMI), Monash University, Melbourne, Australia.
2017	**Ad-Hoc Reviewer** for French National Research Agency (ANR)
2016-present	**Ad hoc Reviewer for 32 papers**, *Journal of Neuroscience Research (1 paper), Neurogastroenterology & Motility (5 papers), Neural Regeneration Research (4 papers), Scientific Reports (1 paper), International Journal of Molecular Sciences (2 papers), Developmental Dynamics (3 papers), Molecular Autism (1 paper), Brain Structure and Function (1 paper), Journal of Morphology (2 papers), Neurotoxicology (1 paper), Journal of Neuroimmunology (1 paper), Developmental Biology (1 paper), Cell Reports (1 paper), Development (2 papers), Elife (1 paper), Nat Neuroscience (1 paper), J Neuroscience (1 paper), Frontier in Cell and Developmental Biology (2 papers), iScience (2 papers), Nature protocols (1 paper), Frontiers in Neuroanatomy (1 paper), Biology Open (1 paper), Current Biology (1 paper).*

2014-2015 **Executive Committee**, Postdoctoral Member of the University of Oregon Institute of Neuroscience

2013-2015 **Founding Co-Chair**, University of Oregon Postdoctoral Fellow Association (UOPA)

2014-2015 **Poster Judge**, Annual Graduate Research Forum, University of Oregon

University Service

2019-present Reproductive and Developmental Sciences Program Seminar Committee

2018-2020 Department of Integrative Biology Seminar Committee (2019/2020: committee chair)

2018 Department of Integrative Biology Chair Review Committee

Workshop and Seminar Participation

2022 Teaching Developmental Biology – Online Forum

2021 Virtual AGA Women's leadership conference

2020 STEM Alliance: Community Discussion for Developing a Plan for Online and Hybrid Labs

2020 Michael Barresi (Smith College), workshop: "Teaching Developmental Biology online"

2019-present Alumni Faculty Success Program, National Center for Faculty Development & Diversity

2019 AGA Women's leadership conference, Rockville, MD

2019 Faculty Success Program, National Center for Faculty Development & Diversity

2019 Write Winning Grant Proposals Workshop, Seminar by John D. Robertson, Grant Writers' Seminars and Workshops

2018 2-day Society of Developmental Biology young faculty Bootcamp

2018 The Iceman's Guide to Competitive Advantage in NIH R01 Grant Writing, offered through Office of the Vice President for Research and Graduate Studies, MSU

2017 Write Winning Grant Proposals Workshop, Seminar by John D. Robertson, Grant Writers' Seminars and Workshops

2017 Participant in "Tips for Successful Team Teaching" sponsored by Teaching Essentials for MSU STEM faculty

2016 Participant in "Effective Teaching and Learning Boot Camp 2016" organized by MSU Academic Advancement Network Teaching Effectiveness workshop

Outreach Activities

2019-present **Fish facility tour** for High school students (DeWitt High school)

2019-present **Brain awareness week** to 4th grade class at Pattengill Biotechnical

2019 **2019 MSU Science-Art Exhibition** with the theme "Life": contributed Image collection "Life In Technicolor" The Art of Fish Development and Evolution

Professional Memberships

2018-present **Member**, American Gastroenterological Association

2018-present **Member**, International Zebrafish Society

2016-present **Member**, American Neurogastroenterology and Motility Society

2011-present **Member**, Society for Developmental Biology (SDB)

2018-2020 **Member**, Society for Neuroscience

2015-2016 **Member**, Pan-American Society for Evolutionary Developmental Biology

2013-2015 **Member**, University of Oregon Women in Graduate Science