ARMINDA SULI, Ph.D.
Associate Professor
Cell Biology and Physiology
Brigham Young University
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EDUCATION

2001-2007 **PhD, Neurobiology and Anatomy**
University of Utah, Salt Lake City, UT

1996-1999 **BS, Microbiology, Minor in Chemistry**
Brigham Young University, Provo, UT

1994-1996 **AS, Natural Science**
Ricks College, Rexburg, ID

PROFESSIONAL AND RESEARCH EXPERIENCE

2020- Present **Associate Professor,** Dept. of Cell Biology and Physiology (Cell)
Brigham Young University, Provo, UT
- Neurocircuitry development of optic tectum (superior colliculus in mammals)
- Role of redox state in optic tectum development
- Using the zebrafish model organism to study spreading depolarizations (migraines)

2013-2020 **Assistant Professor,** Dept. of Cell Biology and Physiology (Cell)
Brigham Young University, Provo, UT
- Neurocircuitry development of optic tectum (superior colliculus in mammals)
- Ribbon synapse formation in mechanosensory hair cells

2008-2013 **Postdoctoral Fellow,** Dept. of Biological Structure
University of Washington, Seattle, WA
Mentor: David Raible, PhD; Ed Rubel, PhD
- Developed a novel behavioral test in zebrafish to assess the functionality of mechanosensory lateral line system, responsible for motion detection in fish and amphibians.
- Studied ribbon synapses in mechanosensory lateral line hair cells.
- Developed a new bipartite gene expression system that uses the tryptophan repressor and its upstream activating sequence (TrpR/tUAS).

2001-2007 **Doctoral Student,** Molecular Biology Program: Dept. of Neurobiology and Anatomy
University of Utah, Salt Lake City, UT
Mentor: Chi-Bin Chien, PhD (deceased)
- Investigated how nervous system and vascular/lymphatic system formation are dependent on each other during embryogenesis.
- Studied dendritic guidance during nervous system development in neurons that innervate the lateral line hair cells.

1999-2001 **Laboratory Technician,** Dept. of Pathology
University of Utah/ARUP Laboratories, Salt Lake City, UT
Mentor: Elaine Lyon, PhD
- Established a novel real-time PCR assay for breast cancer detection by quantifying HER2/*neu* gene amplification.

1997-1999 **Undergraduate Researcher**, Dept. of Microbiology
Brigham Young University, Provo, UT
Mentor: Ronald Leavitt, PhD
- Worked on developing an interfering bacterial agent to fight Colibacillosis in turkeys.

EDUCATIONAL ACTIVITIES

BYU Instructor, Didactic Courses
- Cell 360 Cell Biology (Fall 2024-present)
- Cell 382 Developmental Biology (2014-present)
- Cell 582 Developmental Genetics (2020-present)
- Cell 550R Light Microscopy and Digital Imaging (2017-2018)

BYU Instructor, Mentoring and Service Courses
- Cell 295R Introductory Undergrad Research (2014-present)
- Cell 495R Advanced Undergrad Research (2014-present)
- Cell 692R Grad Current Science Discussions (Fall 2023-present)
- Neuro 449R Neuro Research Experience (2014-present)
- Neuro 455R Neuro Undergrad Seminar (2021-present)
- Neuro 696R Neuro Grad Seminar (2021-present)

BYU Study Abroad Co-Director: "Scientific EXXcellence: The history of women in science"
- Cell 295R Using CRISPR-Cas9 for Gene Editing; Hands-on Experience Lab (2024)
- GWS360R Women Who Made a Difference (2024)
- GWS370 Women in Science (2024)

Course Coordinator
- Zebrafish Development and Genetics Summer Course. Marine Biological Laboratories, Woods Hole, MA. (2011)

Instructor
- Senior Undergraduate Neurobiology Seminar Series. HHMI funded. University of Washington, Seattle, WA. (Winter 2011)
- Biology of Inner Ear Summer Course. Marine Biological Laboratories, Woods Hole, MA. (2010)
- Zebrafish Development and Genetics Summer Course. Marine Biological Laboratories, Woods Hole, MA. (2008, 2005)
- TA for Medical Student Gross Anatomy, University of Utah School of Medicine, Salt Lake City, UT (2005)

Graduate Thesis Chair, BYU
- Kevin Gray (MS, Neuro; 2023-present)
  Thesis: Does redox disruption specifically in the optic tectum of zebrafish larvae lead to autism spectrum disorder phenotype behaviors?
- Suehelen Garcia (PhD, Neuro; 2023-present)
  Thesis: Identifying and characterizing the multisensory integrating neurons in the optic tectum of zebrafish.

- Bailey Calder (PhD, Cell; 2022-present)
  Thesis: The effect of redox disruption on neurogenesis and circuitry development within the optic tectum.
- Annalie Martin (PhD, Cell; 2019-present)
  Thesis: Determining the role of neurexin-3a in the zebrafish optic tectum.

Graduate Thesis Committee Member, BYU

- Carine Belau de Castro Martins (PhD, Cell, 2025-present) PI: Jonathon Hill
- Joseph Bush (PhD, Cell, 2023-present) PI: Jeffrey Barrow
- Jouber Calixto Dos Santos (PhD, Cell, 2023-present) PI: Jonathon Hill
- Seth Hoffman (PhD, Neuro, 2023-present) PI: Jeffrey Edwards
- Michael Von Gunten (PhD, Neuro, 2020-2025) PI: Jeffrey Edwards
- Brandon Davies (PhD, Cell, 2019-2023) PI: Jason Hansen
- Maliha Tasnim (PhD, Cell, 2019-2024) PI: Jonathon Hill
- Teresa Nuffer (PhD, Neuro, 2014-2018) PI: Jeffrey Edwards
- Katrina Hurst (PhD, Neuro, 2013-2017) PI: Jeffrey Edwards
- Doris Clark (PhD, Neuro, 2013-2017) PI: Jeffrey Edwards

Undergraduate Honors Thesis Chair, BYU

- Benjamin Stubblefield (2023)
  Thesis: Adapting the auxin inducible degron (AID) system to Danio rerio.
- Allison Pickens (2023)
  Thesis: Identifying and knocking out deep brain photoreceptors in zebrafish optic tectum.
- Erika Marks (2022)
  Thesis: Mapping auditory and vestibular response neurons in the optic tectum of larval zebrafish.
- Sarah Jarrett (2022)
  Thesis: Identifying and knocking out deep brain photoreceptors in the optic tectum of zebrafish.
- Nora Waltz (2017)
  Thesis: Characterizing and activating tectal neurons to distinguish multisensory neurons in the optic tectum of zebrafish.

Undergraduate Research Students Mentored at BYU

Goodson I, Harmer B, Andersen D, Gunn K, Hummert D, Olson R, Hummel D, Carson L, Dunford L, Hamblin P, Church J, Brown D, Greenwood I, Dietz A, Sauer G, Chounlamountry B, Odom C, Zeyer M, Howell J, Stavridi J, Hamilton A, Christensen E, Li D, Taylor Z, Evans D, Jex K, Tanner S, Lilya S, Dixon S, Pickens A, Stubblefield B, Jarrett S, Marks E, Taylor A, Dunn A, Manner K, Rallison D, Dunn J, Caton S, Graff A, Woodward L, Oldroyd J, Cox S, Keenan C, Young S, Warner B, Waltz N, Nelson N, Malhees Z, Cooper C, Waddel H, Merrill B, Ivey J, Hansen M, Cahoon D, Petersen R, Hoybjerg T, Hellberg B, Armknecht J, Swenson Z.

External Reviewer of Graduate Thesis Defense, University of Gothenburg, Sweden

- Rakesh Kumar Banote (PhD, 2017)
  Thesis: Physiological role of amyloid precursor protein during neural development.
  Inst. Neuroscience and Physiology, Sahlgrenska Academy, University of Gothenburg

SERVICE ACTIVITIES

Brigham Young University

- **Member** of Neuroscience Executive Committee (2024-present)
- **Director** of BYU Confocal Microscopy center (2023-present)
- **Member** of Gerontology Program Committee (2023-present)
- **Chair** of Neuroscience Graduate Committee (2021-present)
- **Chair** of Cell New Faculty Hire Search Committee (2020-2021)

- **Advisor** of BYU Chapter Golden Key Honour Society (2021-2025**)**
- **Member** of Cell Research Committee (2019)
- **Member** of College of Life Sciences Faculty Advising Committee (2017-2019)
- **Member** of BYU Biosafety Committee (2017-2018)
- **Member** of Neuroscience Graduate Committee (2017-2018)
- **Member** of Cell Graduate Committee (2014-2017)
- **Organizer** of Q&A Session with Faculty for Cell Students (Fall 2016)
- **Member and Chair** for Mentoring Environment Grant Review Committee (2014, 2015)
- **Director** of Zebrafish Facility (2013-present)

Community Outreach

- **Grant Reviewer**, NSF Division of Integrative Organismal Systems (2023)
- **Grant Reviewer**, Beckman Young Investigator Awards (2023, 2020)
- **Manuscript Reviewer,** (Nature Communications, Zebrafish, PLOS ONE, iScience)
- **Poster Judge**, (Southwest Developmental Biology Conference 2021, 2024)
- **Grant Reviewer,** Beckman Young Investigator awards (2019)
- **Presenter**, University of Washington Brain Awareness Week Open House, Seattle WA. (2012)
- **Presenter**, Loyal Heights Elementary School Science Fair, Seattle WA. (2012)
- **Grant Reviewer**, University of Washington Center for Ecogenetics and Environmental Health (CEEH) Pilot Committee, Seattle WA. Institute supported by grant UL1RR025014 from the NIH National Center for Research Resources. (2011)
- **Presenter**, Loyal Heights Elementary School Science Fair, Seattle WA. (2009)

SCHOLARSHIP ACTIVITIES

FUNDING

- NINDS, “Determining how redox changes affect optic tectum circuitry, development, and behavior.” Arminda Suli (PI) 1R15NS131998-01A1 (2024-2027) $454,500
- Brain Research Foundation, “The Role of Chloride Loading in Seizure Termination” Ryley Parrish (PI); Suli: Help with study conception, overseeing and providing expertise with zebrafish work. (2024-2026) $100,000
- BYU, Gerontology Program, “Identifying and characterizing the visual-vestibular integrating neurons in the optic tectum of zebrafish.” Arminda Suli (PI) (2024) $10,000
- BYU, Gerontology Program, “Discovering new proteins associated with ribbon synapses.” Arminda Suli (PI) (2021) $8,000
- NICHD “Identifying and characterizing multisensory neurons in the optic tectum of zebrafish larvae.” Arminda Suli (PI) 1R15HD095737-01A (2019-2022) $449,997
- BYU, Gerontology Program, “The role of neurexins and neuroligins in the formation of synapses in mechanosensory hair cells.” Arminda Suli (PI) (2017, 2018) $10,000/year
- BYU, Tech Transfer Office, “Leveraging three anti-influenza drug patent applications by development of a zebrafish larvae virus-injection assay.” David Busath (PI), Arminda Suli (Co-PI) (2017, 2018) $15,000/year
- BYU, College of Life Sciences, Myriad Award of Excellence in Learning Leadership. Arminda Suli (PI) (2017) $10,000
- BYU, College of Life Sciences, New Faculty Start-Up Grant. Arminda Suli (PI) (2013-2016) $20,000/year
- Otolaryngology Research Training Grant. University of Washington, WA Arminda Suli (Postdoc) T32 DC000018-28 (2011-2012)
- Hearing and Balance Science Research Grant. Hearing Health Foundation New York, NY Arminda Suli (Postdoc) (2009-2011) $25,000/year

Graduate Student Funding, BYU

- Bailey Calder, NSF GRFP 2023350047 (2023-2026) $37,000/year
- Annalie Martin, BYU High Impact Research Fellowship (2016-2019) $30,000/year

Undergraduate Student Funding, BYU College of Life Sciences Research Awards (CURA)

- 2025 Dunford L, "Redox Stress of ASD Within the Optic Tectum"
- 2025 Church J "Exploring the Impact of keap1b Knockout Within the Zebrafish Optic Tectum"
- 2025 Greenwood I "Characterizing impact of neurexin3a knockout on zebrafish optic tectum"
- 2025 Brown D, "Identifying the location and morphology of neurexin 3a-expressing neurons in the Optic Tectum"
- 2024 Li D, "Adapting the AID protein degradation system to zebrafish."
- 2024 Christensen E, "Identifying the effect of deep brain photoreceptors in zebrafish optic tectum."
- 2024 Hamilton A, "Identifying and characterizing multisensory integrating neurons in zebrafish optic tectum."
- 2023 Taylor Z, "Identifying an Nrxn3a promoter."
- 2023 Evans D, "Identifying an Optic Tectum specific promoter."
- 2022 Dixon S, "Determining valproic acid affects cell proliferation in the optic tectum."
- 2022 Stubblefield B, "Identifying Ribeye interacting proteins via yeast two hybrid screen."
- 2022 Pickens A, "Determining if deep brain photoreceptors are part of the optic tectum."
- 2022 Lilya S, "Determining if valproic acid effects in the optic tectum are associated with oxidative stress."
- 2021 Marks, E. "Identifying Ribeye interacting proteins via yeast two hybrid screen."
- 2021 Babbitt (Dunn) AR, "Effect of Light and Dark Rearing on the Zebrafish Optic Tectum."
- 2020 Babbitt (Dunn) AR, "Identification and characterization of the neuronal populations in the optic tectum of zebrafish by their molecular signature."
- 2020 Rallison, D. "Adapting the Auxin-AID system in zebrafish."
- 2019 Caton, S.A. "Determining multisensory integrating neurons in optic tectum of zebrafish."
- 2019 Dunn, J.D. "Determining multisensory integrating neurons in optic tectum of zebrafish."
- 2017 Keenan C. "Tracking the development of zebrafish tectal neurons."
- 2016 Ivey J. "Inducible and reversible system for protein degradation in zebrafish."
- 2016 Cooper C., Warner B. "RibeyeA protein in zebrafish and the auditory system."
- 2016 Waddel H. "Transcription factor interactions in developing hair cells."
- 2015 Waddel H. "Sensory integration in zebrafish larvae."

AWARDS

- Skaggs Mentoring Fellowship, BYU, Provo, UT (2025) $10,000
- Teaching Apprenticeship. HHMI Future Faculty Fellows Program (Competitive Selection), University of Washington, WA (2009)
- 1st place in postdoctoral poster presentation. Northwest Society for Developmental Biology Regional Meeting. Friday Harbor Laboratory, San Juan Island, WA (2009)
- Graduate Research Travel Award, University of Utah, Salt Lake City, UT (2003)
- Academic Scholarship, Brigham Young University, Provo, UT (1996-1999)
- Golden Key National Honour Society
- Phi Theta Kappa National Honor Society
- Presidential Scholarship, Ricks College, Rexburg, ID (1994-1996)

Graduate student awards

- Bailey Calder: Young Investigator Award, Society for Redox Biology and Medicine Conference (2025)
- Kevin Gray: **2nd place** poster presentation, BYU Neuro Grad Student Symposium (2025)
- Sueheln Garcia: **2nd place** poster presentation, BYU Gerontology Conference (2025)
- Kevin Gray: **1st place** 3M thesis BYU Neuro Grad Program, and **2nd Place** 3M thesis College of Life Science Competition (2024)

- Suehelen Garcia: **2nd place** oral presentation, BYU Neuro Grad Student Retreat (2024)
- Kevin Gray: **1st place** poster presentation, BYU Neuro Grad Student Retreat (2024)
- Bailey Calder: **1st place** oral presentation, BYU Cell Grad Student Retreat (2024)
- Annalie Martin: **3rd place** oral presentation, BYU Cell Grad Student Retreat (2024)
- Bailey Calder: **2nd place** oral presentation, BYU Cell Grad Student Retreat (2023)
- Annalie Martin: **1st place** oral presentation, BYU Cell Grad Student Retreat (2023)
- Annalie Martin: **3rd place** oral presentation, BYU Cell Grad Student Retreat (2022)
- Bailey Calder: **1st place** poster presentation, BYU Cell Grad Student Retreat (2022)
- Annalie Martin: **1st place** oral presentation, BYU Cell Grad Student Retreat (2021)

Undergraduate student awards

- Emalie Christensen: **2nd place** poster presentation, Southwestern Society for Developmental Biology Conference, Aurora, CO (2024)
- Adeline Hamilton: **1st place** Neuro poster presentation, BYU College of Life Sciences (2024)
- Colby Odom & Griffin Sauer: **2nd place** Neuro poster presentation, BYU College of Life Sciences (2024)
- Allison Pickens: 1**st place** poster presentation, Southwestern Society for Developmental Biology Conference, Austin Texas (2022)
- Erika Marks: **2nd place** Neuro poster presentation, BYU College of Life Sciences (2021)

COLLABORATORS

- Jason Hansen (BYU, Cell Dept.) "How redox changes affect neurodevelopment in the optic tectum"
- Ryley Parrish (BYU, Cell Dept.) "Using zebrafish to study spreading depolarizations (SDs) (migraines)"

PROVISIONAL PATENT

- Drug screening platform for migraines using zebrafish as a model organism (application # 63/828,626) Inventors: Ryley Parrish, Arminda Suli

PROFESIONAL MEMBERSHIPS

Society for Neuroscience Society for Developmental Biology International Zebrafish Society

TALKS

Valproic acid, an antiepileptic drug associated with autism spectrum disorder following fetal exposure, affects neurogenesis and neuronal specification within the optic tectum of zebrafish embryos. Regional Meeting of Southwest Society for Developmental Biology. (2024) Aurora, CO *(Invited talk)*

Valproic acid, an antiepileptic drug associated with autism spectrum disorder following fetal exposure, affects neurogenesis and neuronal specification within the optic tectum of zebrafish embryos. 10th Strategic Conference of Zebrafish Investigators. (2024) Monterey CA *(Selected talk)*

Fishing for Neurocircuitry (2022) Brigham Young University-Idaho, Rexburg ID (*Invited talk)*

One fish, two fish, transgenic fish, green fish: Using zebrafish to study multisensory neurocircuitry development. (2017) Utah Valley University, Orem UT (*Invited talk)*

One fish, two fish, transgenic fish, green fish: Using zebrafish to study multisensory neurocircuitry development. (2017) Inst. Neuroscience and Physiology, Sahlgrenska Academy, University of Gothenburg, (*Invited talk)*

Spotty hearing: Understanding ribbon synapse localization at mechanosensory hair cell synapses. Southwest Regional Meeting of the Society for Developmental Biology. (2016) SLC, UT *(Invited talk)*

Ribbon localization at mechanosensory hair cell synapses. LDS Life Sciences Symposium. (2016) Lehi, UT, *(Invited talk)*

PUBLICATIONS

(* Undergraduate students; § Graduate students; †Authors contributed equally to the work)

Withers PC*, Jones A*, Afran-Okese KB§, Calder B§, Morrill HJ*, Shafer T*L, Nevers DS*, Norby J*, Acosta R*, Bikman BT, Suli A, Parrish RR. Pharmacological inhibition of all known major inward cationic currents does not block the induction of spreading depolarizations. Frontiers Cellular Neuroscience, Volume 19-2025, doi: 10.3389/fncel.2025.1668329
Journal IF: 4; Cited 0
My contribution: Helped with study conception, oversaw provision of zebrafish adults, provided technical expertise in working with the model organism, edited manuscript.

Searle P§, Shiozawa DK, Evans PR, Suli A, Stark M, Hill JT, Belk MC. Heterochronic shift in gene expression leads to developmental divergence in two polyploid species. (2024) iScience, Mar 25; 27(4):109566.
Journal IF: 4.1; Cited: 0
My contribution: Helped with study conception and direction, provided technical expertise with morphological staining, discussed the project often with Peter Searle, the graduate student carrying the study out.

Dixon SC*†, Calder BJ§†, Lilya SM*, Davies BM§, Martin A§, Peterson M, Hansen JM, Suli A. Valproic acid affects neurogenesis during early optic tectum development of zebrafish. (2023) Biol Open. Jan 15;12(1). doi: 10.1242/bio.059567.
(†Authors contributed equally to the work)
Journal If: 1.7; Cited: 4 (excluding self-citations)
My contribution: Conceived and directed the study, provided technical expertise, edited the manuscript.

Martin A§, Babbitt A*, Pickens A*, Pickett B, Hill JT, Suli A. Single-Cell RNA Sequencing Characterizes the Molecular Heterogeneity of the Larval Zebrafish Optic Tectum. (2022) Frontiers in Molecular Neuroscience. Feb 10:15:818007. doi: 10.3389/fnmol.2022.818007. eCollection 2022.
Journal IF: 3.8; Cited: 5 (excluding self-citations); Downloads: 2.9K
My contribution: Conceived and directed the study, provided technical expertise, edited the manuscript.

Taylor A*, Warner M*, Mendoza C§, Memmott C*, LeCheminant T*, Bailey S*, Christensen C*, Keller J*, Suli A, Mizrachi D. Chimeric Claudins: A New Tool to Study Tight Junction Structure and Function. Int J Mol Sci. 2021 May 6;22(9):4947
Journal IF: 4.9; Cited: 4 (excluding self-citations)
My contribution: Provided technical expertise and oversaw the zebrafish work.

Warner BK*, Alder JK, Suli A. Genome Editing in Zebrafish using CRISPR/Cas9: Applications for Developmental Toxicology. In: Hansen J., Winn L. (eds) (2019) Developmental Toxicology. Methods in Molecular Biology, vol 1965. Humana, New York, NY
Journal IF: 4.2 (according to research.com); Cited: 2 (excluding self-citations)
My contribution: Helped with study conception, carried out some experiments and provided expertise with others, co-wrote the manuscript.

Sheffield ID*, McGee MA*, Glenn SJ*, Baek DY*, Coleman JM*, Dorius BK, * Williams C, * Rose BJ§, Sanchez AE§, Goodman ME, Daines JM*, Eggett DL, Sheffield VC, Suli A, Kooyman DL. (2018) Osteoarthritis-Like Changes in Bardet-Biedl Syndrome Mutant Ciliopathy Mice (Bbs1 $^{M390R/M390R}$): Evidence for a Role of Primary Cilia in Cartilage Homeostasis and Regulation. Frontiers in Physiology 9:708.
Journal IF: 3.4; Cited: 15 (excluding self-citations)
My contribution: Provided technical expertise and oversaw the zebrafish work.

Ringer KP[§], Roth MG*, Garey MS*, Piorczynski TB[§], Suli A, Hansen JM, Alder JK. (2018) Comparative analysis of lipid-mediated CRISPR-Cas9 genome editing techniques. Cell Biology International. 42(7):849-858.
Journal IF: 3.1; Cited: 1 (excluding self-citations)
My contribution: Provided technical expertise (helped with the CRISPR-Cas9 technique), edited the manuscript.

Suli A, Pujol R, Cunningham DE, Hailey D, Prendergast A, Rubel EW, Raible DW. (2016) Innervation regulates synaptic ribbons in lateral line mechanosensory hair cells. Journal of Cell Science. 129 (11):2250-60. (*corresponding author*)
Journal IF: 3.6; Cited: 18 (excluding self-citations)
My contribution: Study conception, carried out experiments, wrote the manuscript.

Yoshimatsu T, D'Orazi F, Gamlin C, Suzuki S, Suli A, Kimelman D, Raible DW, Wong RO. (2016) Presynaptic partner selection during retinal circuit reassembly varies with timing of neuronal regeneration in vivo. Nature communications. 7:10590.
Journal IF: 15.7; Cited: 44 (excluding self-citations)
My contribution: Provided reagents: gene expression constructs.

Suli A, Guler AD, Raible DW, Kimelman D. (2014) Targeted gene expression system using the tryptohpan repressor in zebrafish shows no silencing in subsequent generations. Development 141,1-8.
Journal IF: 3.6; Cited: 17 (excluding self-citations)
My contribution: Helped with study conception, carried out experiments, wrote the manuscript.

Publications prior to starting at BYU

McGraw HF, Snelson CD, Prendergast A, Suli A and Raible DW. (2012) Postembryonic neuronal addition in zebrafish dorsal root ganglia is regulated by Notch signaling. Neural development. 7:23.

Suli A, Watson GM, Rubel EW, Raible DW. (2012) Rheotaxis in larval zebrafish is mediated by lateral line mechanosensory hair cells. PloS ONE. 7 (2):e29727

Lim AH[†], Suli A[†], Yaniv K, Weinstein B, Li DY, Chien CB. (2011) Motorneurons are essential for vascular pathfinding. Development. 138 (17):3847-57.
([†]Authors contributed equally to the work)

Willardsen MI, Suli A, Pan Y, Marsh-Armstrong N, Chien CB, El-Hodiri H, Brown NL, Moore KB, Vetter ML. (2009) Temporal regulation of Ath5 gene expression during eye development. Developmental Biology. 326 (2):471-81.

Navankasattusas S, Whitehead KJ, Suli A, Sorensen LK, Lim AH, Zhao J, Park KW, Wythe JD, Thomas KR, Chien CB, Li DY. (2008) The Netrin Receptor, UNC5B, Promotes Angiogenesis in Specific Vascular Beds. Development. 135 (4): 659-667.

Suli A, Mortimer N, Shepherd I, Chien CB. (2006) Netrin/DCC signaling controls contralateral dendrites of octavolateralis efferent neurons. The Journal of Neuroscience. 26(51): 13328-37

Wilson BD†, Ii M†, Park KW†, Suli A†, Sorensen LK, Larrieu-Lahargue F, Urness LD, Suh W, Asai J, Kock GA, Thorne T, Silver M, Thomas KR, Chien CB, Losordo DW, Li DY. (2006) Netrins promote developmental and therapeutic angiogenesis. Science. 313 (5787): 640-4.
(†Authors contributed equally to the work)

Millson A, Suli A, Hartung L, Kunitake S, Bennett A, Nordberg MC, Hanna W, Wittwer CT, Seth A, Lyon E. (2003) Comparison of two quantitative polymerase chain reaction methods for detecting HER2/neu amplification. Journal of Molecular Diagnostics. 5(3):184-90.

Lyon E, Millson A, Suli A. HER2/neu gene amplification quantified by PCR and melting peak analysis using a single base alteration competitor as an interval standard. In Meuer, Wittwer, and Nakagawara: "Rapid Cycle Real Time PCR-Methods and Application". (2001) Springer-Verlag, Heidelberg, Germany.

PRESENTATIONS AT CONFERENCES SINCE STARTING AT BYU

(* Undergraduate students; § Graduate students; †Authors contributed equally to the work)

Calder B§, Howell J*, Zeyer M*, Dixon S*, Wheeler LE*, Martin A§, Davies B§, Hansen J, Suli A. Redox Disruption as a Driver of Autism-Like Behavior in Zebrafish. Society for Redox Biology and Medicine 32nd Annual Conference. (2025) Washington DC (*Talk*)

Calder B§, Howell J*, Zeyer M*, Dixon S*, Martin A§, Davies B§, Hansen J, Suli A. Valproic acid disrupts redox homeostasis and alters cellular composition in the optic tectum of larval zebrafish. 19th International zebrafish conference. (2025) Madison WI (*Talk*)

Garcia SA§, Hamilton A*, Carson L*, Jex K*, Marks EC*, Yorgason JT, Neilsen TB, Suli A. Fishing for Neurocircuitry: Identifying multisensory integrating neurons in the optic tectum of zebrafish.19th International zebrafish conference. (2025) Madison WI (*Poster presentation*)

Gray K§, Calder B§, Church J*, Hamblin P*, Zeyer M*, Hansen J, Suli A. Exploring the impact of redox perturbations on optic tectum development and behavior. 19th International zebrafish conference. (2025) Madison WI (*Poster presentation*)

Martin A§, Dietz A*, Suli A. Triple Fin-esse! A novel tripartite system confers an enhance ability to restrict exogenous gene expression in zebrafish. 19th International zebrafish conference. (2025) Madison WI (*Poster presentation*)

Garcia SA§†, Hamilton A*†, Jex K*, Marks EC*, Yorgason JT, Neilsen TB, Suli A. Fishing for neurocircuitry: Identifying multisensory integrating neurons in the optic tectum of zebrafish. Snowbird Neuroscience Symposium (2024) Snowbird, UT (*Poster presentation)*

Gray KJ§, Calder BJ§, Dixon SC*, Church J*, Howell J*, Zeyer M*, Hansen JM, Suli A. Exploring the impact of redox perturbations on optic tectum development and behavior. Snowbird Neuroscience Symposium, (2024) Snowbird, UT (*Poster presentation)*

Martin A§, Dietz A*, Suli A. A novel gene expression system Gal4ADλFi/TrpRλM/tUAS confers ability to restrict exogenous gene expression to specific populations in overlapping-expression areas of any two different promoters. Snowbird Neuroscience Symposium, (2024) Snowbird, UT (*Poster presentation)*

Calder BJ§, Zeyer M*, Howell J*, Martin A§, Dixon SC*, Lilya S*, Davies, B§, Hansen J, Suli A. Valproic Acid Treatment Alters Cellular Composition within the Optic Tectum of Larval Zebrafish. Society for Developmental Biology 83rd Annual Meeting. (2024) Atlanta, GA (*Poster presentation)*

Garcia SA§†, Hamilton A*†, Jex K*, Marks EC*, Yorgason JT, Neilsen TB, Suli A. Identifying and characterizing multisensory integrating neurons in the zebrafish optic tectum. Society for Developmental Biology 83rd Annual Meeting. (2024) Atlanta, GA (*Poster presentation)*

Martin A§, Dietz A*, Suli A. A novel gene expression system Gal4ADλFi/TrpRλM/tUAS confers ability to restrict exogenous gene expression to specific populations in overlapping-expression areas of any two different promoters. Society for Developmental Biology 83rd Annual Meeting. (2024) Atlanta, GA (*Talk*)

Calder BJ[§], Howell J*, Zeyer M*, Martin A[§], Dixon SC*, Lilya S*, Hansen J, Suli A. Valproic acid alters larval behavior and neuronal composition within the optic tectum of zebrafish. Regional Meeting of Southwest Society for Developmental Biology. (2024) Aurora, CO (*Poster presentation)*

Christensen E*, Pickens AG*, Odom C*, Sauer G*, Jarrett S*, Hunt M*, Suli A. Determining if optic tectum of larval zebrafish receive input from deep brain photoreceptors. Regional Meeting of Southwest Society for Developmental Biology. (2024) Aurora, CO (*Poster presentation)*

Li D*, Rallison DS*, Manner WK*, Stubblefield BJ*, Warner BK*, Chounlamountry B*, Greenwood I*, Merrill B*, Ivey J*, Suli A. Adapting the Auxin-Inducible Degron (AID) system to the zebrafish model organism. Regional Meeting of Southwest Society for Developmental Biology. (2024) Aurora, CO (*Poster presentation)*

Garcia SA[§†], Hamilton A*[†], Jex K*, Marks EC*, Yorgason JT, Neilsen TB, Suli A. Fishing for neurocircuitry: Identifying multisensory integrating neurons in the optic tectum of zebrafish. Regional Meeting of Southwest Society for Developmental Biology. (2024) Aurora, CO (*Poster presentation)*

Martin A[§], Dietz A*, Suli A. A novel expression system λFi-Gal4AD/TrpR-λM/tUAS confers the ability to restrict exogenous gene expression to specific populations located in overlapping expression domains of any two different promoters. Regional Meeting of Southwest Society for Developmental Biology. (2024) Aurora, CO (*Poster presentation)*

Calder BJ[§], Dixon SC*, Lilya S*, Howell J*, Zeyer M*, Martin A[§], Hansen J, Suli A. Valproic acid treatment during early zebrafish development delays neurogenesis and impacts neuronal specification within the optic tectum. Society for Developmental Biology, Chicago, IL (2023) (*Poster presentation)*

Garcia SA[§†], Hamilton A*[†], Jex K*, Marks EC*, Yorgason JT, Neilsen TB, Suli A. Fishing for neurocircuitry: Identifying multisensory integrating neurons in the optic tectum of zebrafish. Society for Developmental Biology, Chicago, IL (2023) (*Poster presentation)*

Martin A[§], Suli A. A novel gene expression system Gal4AD-λFi/TrpR-λM/tUAS confers the ability to restrict exogenous gene expression to specific populations located in overlapping-expression areas of any two different promoters. Society for Developmental Biology, Chicago, IL (2023) (*Poster presentation)*

Pickens AG*, Jarrett S*, Hunt M*, Christensen E*, Suli A. Identifying deep brain photoreceptors in the larval zebrafish optic tectum. Society for Developmental Biology, Chicago, IL (2023) (*Poster presentation)*

Dixon SC*[†], Calder BJ*[†], Lilya S*, Davies B[§], Bleak E, Hansen J, Suli A. Valproic acid affects neuronal specification and differentiation during midbrain development of zebrafish embryos. International Zebrafish Conference. Montreal, Quebec, Canada (2022) (*Poster presentation)*

Martin A[§], Babbitt A*, Pickens AG*, Pickett BE, Hill JT, Suli A. A tale of two tecti: characterizing cell types in the optic tectum of larval zebrafish. International Zebrafish Conference. Montreal, Quebec, Canada (2022). *(Flash talk and poster presentation)*

Jex K*, Marks EC*, Hamilton, A*, Garcia SA*, Yorgason JT, Neilsen TB, Suli A. Detecting and characterizing multisensory integrating optic tectum neurons in zebrafish. Southwest Society for Developmental Biology, Austin TX (2022) (*Poster presentation)*

Martin A[§], Babbitt A*, Pickens AG*, Pickett BE, Hill JT, Suli A. Transcriptomic Analysis of the Zebrafish Optic Tectum: A Step Towards Comprehensive Characterization. Southwest Society for Developmental Biology Regional Meeting; Austin TX (2022) (*Talk)*

Pickens AG*, Jarrett S*, Hunt M*, Christensen E*, Suli A. Identifying deep brain photoreceptors in the larval zebrafish optic tectum. Southwest Society for Developmental Biology, Austin TX (2022) (*Poster presentation)*

Stubblefield BJ*, Rallison DS*, Manner WK*, Warner BK*, Merrill B*, Ivey J*, Li D*, Suli A. Adapting the auxin-inducible degron (AID) system to the zebrafish model organism. Southwest Society for Developmental Biology, Austin TX (2022) (*Poster presentation)*

Martin A§, Babbitt A*, Pickens AG*, Pickett BE, Hill JT, Suli A. Transcriptomic Analysis of the Zebrafish Optic Tectum: A Step Towards Comprehensive Characterization (2021) Intermountain Neuroscience Chapter Virtual- Meeting. (*Invited talk)*

Martin A§**,** Babbitt A*, Pickens AG*, Pickett BE, Hill JT, Suli A. Transcriptomic Analysis of the Zebrafish Optic Tectum: A Step Towards Comprehensive Characterization. Society for Developmental Biology Annual Meeting. (2021) (*Virtual poster presentation*)

Martin A§**,** Babbitt A*, Pickens AG*, Pickett BE, Hill JT, Suli A. Transcriptomic Analysis of the Zebrafish Optic Tectum: A Step Towards Comprehensive Characterization. International Zebrafish Society Annual Meeting. (2021) (*Virtual poster presentation)*

Dunn JD*†, Caton SA*†, Waltz NK*†, Woodward LR*, Suli A. Dissecting optic tectum microcircuitry that responds to saccular activation. Society for Developmental Biology. (2019) Boston, MA. (*Poster presentation)*

Rallison DS*†, Manner WK*†, Dunn AR*†, Young S†*, Ivey J†*, Merrill B†*, Alder JK, Suli A. Using Pin1 and Aux1 channel proteins to adapt the auxin inducible degradation system to all zebrafish tissues. Society for Developmental Biology. (2019) Boston, MA (*Poster presentation)*

Dunn JD*†, Caton SA*†, Waltz NK*†, Woodward LR*†, Suli A. Identifying and characterizing multisensory integrating neurons in the optic tectum of zebrafish. Suli presenter at Zebrafish PI Meeting. (2019) Monterey, CA (*Poster presentation)*

Dunn JD*†, Caton SA*†, Waltz NK*†, Woodward LR*†, Suli A. Identifying and characterizing multisensory integrating neurons in the optic tectum of zebrafish. Utah Fish Conference, (2018) SLC, UT (*Poster presentation)*

Rallison DS*†, Young S*†, Ivey J*†, Warner BK*†, Cox SA*†, Merrill B*†, Manner WK*, Alder JK, Suli A. Using the auxin inducible degradation system to conditionally remove the cytomatrix protein Bassoon at mechanosensory hair cell ribbon synapses. Utah Fish Conference, (2018) SLC, UT (*Poster presentation)*

Dunn JD*†, Caton SA*†, Waltz NK*†, Woodward LR*†, Suli A. Identifying and characterizing multisensory integrating neurons in the optic tectum of zebrafish. Snowbird Neuroscience Symposium, (2018) Snowbird, UT (*Poster presentation)*

Rallison DS*†, Young S*†, Ivey J*†, Warner BK*†, Cox SA*†, Merrill B*†, Manner WK*, Alder JK, Suli A. Using the auxin inducible degradation system to conditionally remove the cytomatrix protein Bassoon at mechanosensory hair cell ribbon synapses. Snowbird Neuroscience Symposium, (2018) Snowbird, UT (*Poster presentation)*

Oldroyd J*, Graff A*, Davis M, Suli A. The role of Neuroligins and Neurexins in mechanosensory hair cell synapse formation. Association for Research in Otolaryngology Conference. (2018) San Diego, CA. (*Poster presentation)*

Warner B*, Cox SA*, Young S*, Ivey JE*, Merrill B*, Alder JK, Suli A. Determining the role of *bassoon* in ribbon development. Association for Research in Otolaryngology Conference. (2018) San Diego, CA. (*Poster presentation)*

Waltz N, Caton S*, Suli A. Multisensory integration in the optic tectum of zebrafish. Workshop on Zebrafish Neural Circuits and Behavior. (2017) Rockville, MD. (*Poster presentation)*

Waltz N*, Mahlees Z*. Ostlund I, Suli A. Multisensory integration in the optic tectum of zebrafish. Society for Developmental Biology. (2017) Minneapolis, MN (*Poster presentation)*

Waltz N*, Mahlees Z*, Ostlund I[§], McLaughlin S, Burgess H, Suli A. Multisensory integration in the optic tectum of zebrafish. College of life sciences poster presentations. (2017) BYU, Provo, UT. (*Poster presentation)*

Glenn SJ*, Williams C*, Daines J*, Jensen A*, Starley J*, Suli A, Kooyman DL. Zebrafish as a structural model for studying osteoarthritis. Osteoarthritis Research Society International. (2017) Las Vegas, NV. (*Poster presentation)*

Keenan C*, Woodward L*, Waltz N*, Ostlund I[§], Burgess H, Suli A. Tracking zebrafish tectal neuron lineage. 2017. College of life sciences poster presentations. (2017) BYU, Provo, UT (*Poster presentation)*

Oldroyd J*, Suli A. Neuroligins and Neurexins in lateral line mechanosensory hair cells. College of life sciences poster presentations. (2017) BYU, Provo, UT (*Poster presentation)*

Warner B*, Harper S*, Alder JK, Suli A. Endogenously tagging RibeyeA protein in zebrafish. College of life sciences poster presentations. (2017) BYU, Provo, UT (*Poster presentation)*

Cooper C*, Warner B*, Alder JK, Suli A. The role of RibeyeA protein and ribbon synapses in the lateral-line system of zebrafish. Utah Conference for Undergraduate Research. (2016) SLC UT. (*Poster presentation)*

Waddel H*, Nelson N*, Suli A. Transcription factor interactions in developing hair cells. Utah Conference for Undergraduate Research. (2016) SLC UT. (*Poster presentation)*

Merrill B*, Ivey J*, Alder JK, Suli A. Auxin-induced protein degradation in zebrafish. Utah Conference for Undergraduate Research. (2016) SLC UT. (*Poster presentation)*

Suli A, Pujol R, Cunningham DE, Haley D, Rubel E, Raible D. Innervation regulates synaptic ribbons in lateral line mechanosensory hair cells, 11th International Conference on Zebrafish Development and Genetics. (2014) Madison, WI (*Poster presentation)*