

# CURRICULUM VITAE

University of Idaho

**NAME:** Barrie D. Robison

**DATE:** August, 2016

**RANK OR TITLE:** Professor

**DEPARTMENT:** Biological Sciences

**OFFICE LOCATION AND ZIP:** LSS 266B, 3051

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**DATE OF FIRST EMPLOYMENT AT UI:** August, 2003

**DATE OF TENURE:** July 1, 2009

**DATE OF PRESENT RANK OR TITLE:** July 1, 2016

## EDUCATION BEYOND HIGH SCHOOL:

### Degrees:

Ph.D., Washington State University, Pullman, WA, 1999, Zoology (Statistics minor)

M.S. University of Idaho, Moscow, ID, 1995, Fisheries Resources,

B.S. University of Victoria, Victoria, B.C., Canada 1993, Biology (with distinction)

## EXPERIENCE:

### Teaching, Extension and Research Appointments:

*July 2016 – Present:* **Professor**, Department of Biological Sciences  
University of Idaho

*July 2009 – Present:* **Associate Professor**, Department of Biological Sciences  
University of Idaho

*August 2003 – June 2009:* **Assistant Professor**, Department of Biological Sciences  
University of Idaho

*December 1999 – July 2003:* **Postdoctoral Research Associate** Department of Biology  
Indiana University (Advisor: Dr. Michael Lynch)

*June 1996 - December 1999:* **Research Assistant** Department of Zoology  
Washington State University

*August 1993 - August 1995:* **Research Assistant** Aquaculture Research Institute  
University of Idaho.

### Academic Administrative Appointments:

*March 2014 – Present:* **Associate Director**, Institute for Bioinformatics and  
Evolutionary Studies (IBEST), University of Idaho

## TEACHING ACCOMPLISHMENTS:

**Areas of Specialization:**

Biology, Genetics and Genomics, Evolutionary Biology, Animal Behavior, Ichthyology, Mathematical Biology, Video Games and Education

**Courses Taught:**

Genetics (Biol 210, 4cr.): Fall semesters 2003-2011

Genetics (Biol 310, 4cr): Fall semesters 2013

Genetics (Biol 310, 3cr): Fall 2014-2016

Genetics Laboratory (Biol 315, 1cr): Fall 2014-2016

Genomics (Biol 444, 3cr.): Fall semesters 2004, 05, 06, 07, 09, 11; Spring 2014, 16

ST: Video Games and Evolution (Biol 404, 3cr.): Spring 2015,16

Seminar in Mathematical Biology (Math 494): Spring semesters 2011-2016

Readings in Ecological and Evolutionary Genetics (Biol 525, 1cr.): Fall 2005, 06, Spring 2006.

Topics in Fish Biology (Biol 504, 1cr.): Spring 2006, Fall 2007.

Directed Research (Biol 495-7, 1-3 cr.): 21 students total.

**Students Advised:**

Undergraduate Students: approximately 15 per year

Graduate Students:

As Major Professor:

Mary Oswald (Ph.D. 2004 - 2010)

Matt Settles (Ph.D. 2006 - 2012)

Maia Benner (Ph.D. 2008 - 2013)

Matt Singer (Ph.D. 2010 – present)

Ben Wiedeback (M.S. 2010 – 2013)

Nikolai Levy (M.S. 2015 – present)

David Streett (M.S. 2015 – present)

Served on graduate committee:

Josh Boyce (Ph.D. – Biological Sciences)

Stacey Dunn (Ph.D. – Biological Sciences)

Brian Leth (Ph.D. – Fisheries)

Shawn Narum (Ph.D. 2006 – Fisheries)

Erin Clancey (Ph.D. 2012 – Biological Sciences)

Sharon Villagecenter (M.S. 2008 – Biol, WSU)

Kyle Martin (M.S. 2007 – Biology, WSU)

Tshering Sherpa (M.S. – Neuroscience)

Sam Hunter (Ph.D. – BCB)

Sanquin Chang (Ph.D. – BCB)

Kalyan Chapalamadugu (Ph.D. – AVS)

Kayla Hardwick (Ph.D. – Biological Sciences)

Kara Thornton (Ph.D. – AVS)

Susov Dikhal (Ph.D. - Neuroscience)

Ilya Zhybanikov (Ph.D. - BCB)

Josh Sukeena (Ph.D. – Neuroscience)

Nicholas Wood (M.S. – Integrated Architecture and Design)

**Courses Developed:**

Biology 310: Genetics

Biology 444: Genomics

Math 494: Seminar in Mathematical Biology

Biology 404: ST: Video Games and Evolution

Biology 525: Readings in Ecological and Evolutionary Genetics (with S. Nuismer)

Biology 504: Topics in Fish Biology

**Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:**

**Guest Lectures in:** BIOL 478 Animal Behavior (3)  
 BIOL 552 Professional Development (12)  
 CORS 223 Evolution of Evolution (2)  
 BIOL 514 (WSU) Fish Genetics (1)  
 BIOL 115 Organisms and Environments (3)  
 BIOL 114 Cells and the Evolution of Life (3)

**SCHOLARSHIP ACCOMPLISHMENTS:****Publications, Exhibitions, Performances, Recitals:****Summary Statistics:**

Published Products:	51
Total Citations:	1532
H Index (Google Scholar):	20

**Peer Reviewed/Evaluated:**

- Terence Soule, Barrie D Robison, Robert B Heckendorn. 2016. Co-evolution of Sensor Morphology and Behavior. Proceedings of the 2016 on Genetic and Evolutionary Computation Conference Companion. Pages 135-136.
- BD Robison, T Soule, N Wood, D Streett, and C Mirabzadeh. 2016. Implementing models of evolution in video games. Proceedings of the Games Learning Society.
- Alida T Gerritsen, Daniel D New, Barrie D Robison, Arash Rashed, Paul Hohenlohe, Larry Forney, Mahnaz Rashidi, Cathy M Wilson, Matthew L Settles. 2016. Full mitochondrial genome sequence of the sugar beet wireworm *Limonius californicus* (Coleoptera: Elateridae), a common agricultural pest. Genome announcements 4(1): e01628-15
- Matthew L Singer, Kris Oreschak, Zachariah Rhinehart, Barrie D Robison. 2016 (in press). Anxiolytic effects of fluoxetine and nicotine exposure on exploratory behavior in zebrafish. PeerJ.
- KC Chapalamadugu, BM Murdoch, BD Robison, RA Hill, GK Murdoch. 2015. *Oncorhynchus mykiss pax7* sequence variations with comparative analyses against other teleost species SpringerPlus. 4 (1): 1-11.

- Tshering Sherpa, Tyler Lankford, Tim E McGinn, Samuel S Hunter, Ruth A Frey, Chi Sun, Mariel Ryan, Barrie D Robison, Deborah L Stenkamp. 2014. Retinal regeneration is facilitated by the presence of surviving neurons. *Developmental neurobiology*. 74: 851-876.
- Kalyan C Chapalamadugu, Catherine A VandeVoort, Matthew L Settles, Barrie D Robison, Gordon K Murdoch. 2014. Maternal bisphenol a exposure impacts the fetal heart transcriptome. *PLoSOne*.
- Benner, M.J., M.L. Settles, G.K. Murdoch, R.L. Hardy, and B.D. Robison. 2013. Sex-specific transcriptional responses of the zebrafish (*Danio rerio*) brain selenoproteome to acute sodium selenite supplementation. *Physiological Genomics*. 45. 653-666.
- Oswald, M.E., M.L. Singer, and B.D. Robison. 2013. The quantitative genetic architecture of the bold shy continuum in zebrafish. *PLoS ONE* 8(7): e68828.
- Drew, R.E., Settles, M.L, Churchill, E.J., Williams, S., Balli, S., and Robison, B.D. 2012. Brain transcriptome variation among behaviorally distinct strains of zebrafish. *BMC Genomics* 13(1) 323.
- Settles, M.L., Coram, T. Soule, T. and Robison B.D. 2012. An improved algorithm for the detection of genomic variation using short oligonucleotide arrays. *Mol. Ecol. Res.*
- Oswald, M.E., Drew, R.E., Racine, M., Murdoch, G., and Robison B.D. 2012. Is variation along the bold shy continuum associated with variation in the stress axis in zebrafish? *Physiological and Biochemical Zoology*, 85(6) 718 – 728.
- T Sherpa, SS Hunter, RA Frey, BD Robison, DL Stenkamp. 2011. Retinal proliferation response in the buphthalmic zebrafish, bugeye. *Experimental Eye Research*
- Kanuga, MK, Benner, MJ, Doble, JA, WilsonLeedy JG, Robison BD, Ingermann RL. 2011. Effect of aging on male reproduction in zebrafish (*Danio rerio*) *J. Exp. Zool* 313A
- M.J. Benner, R.E. Drew, R.H. Hardy, and B.D. Robison. 2010. Zebrafish (*Danio rerio*) vary by strain and sex in their behavioral and transcriptional responses to selenium supplementation. *Comp Bioch Physiol Part A*. 157(4): 310-318
- K. C. Chapalamadugu, B. D. Robison, R. E. Drew, M. S. Powell, R. A. Hill, J. J. Amberg, K. J. Rodnick, R. W. Hardy, M. L. Hill and G. K. Murdoch. 2009. Dietary carbohydrate level affects transcription factor expression that regulates skeletal muscle myogenesis in rainbow trout. *Comp. Biochem. Physiol. Part B* 153:66-72.
- R.E. Drew, K.J. Rodnick, M. Settles, J. Wacyk, E. Churchill, M. S. Powell, R. W. Hardy, G. K. Murdoch, R. A. Hill and B.D. Robison. 2008. Effect of starvation on the transcriptomes of the brain and liver in adult female zebrafish (*Danio rerio*). *Physiological Genomics*, 35: 283-295.
- Oswald M.E. and B.D. Robison. 2008. Strain specific alteration of zebrafish feeding behavior in response to aversive stimuli. *Canadian Journal of Zoology*. 86: 1085-1094.
- Robison, B.D., R.E. Drew, G.K. Murdoch, M. Powell, K.J. Rodnick, M. Settles, D. Stone, E. Churchill, R.A. Hill, M.R. Papanasi, S.S. Lewis, and R.W. Hardy. 2008. Sexual dimorphism in hepatic gene expression and the response to dietary carbohydrate manipulation in the zebrafish (*Danio rerio*). *Comparative Biochemistry and Physiology, Part D*. 3: 141–154.

- Moretz J.A., E.P. Martins & B.D. Robison. 2007. Behavioral syndromes and the evolution of correlated behavior in zebrafish. *Behavioral Ecology*. 18 (3): 556-562.
- Moretz, J. A., E. P. Martins & B. D. Robison. 2007. The effects of early and adult social environment on boldness and aggression in zebrafish (*Danio rerio*). *Environmental Biology of Fishes*. 80 (1): 91-101.
- Papasani, M., B.D. Robison, R. Hardy, and R.A. Hill. 2006. Early developmental expression of two zebrafish insulin genes. *Physiological Genomics* 27 (1): 79-85.
- Martinez, V., G.H. Thorgaard, B.D. Robison, and M.J. Sillanpaa. 2005. An application of Bayesian QTL mapping to early development in double haploid lines of rainbow trout including environmental effects. *Genetical Research*. 86: 1-13.
- Robison, B.D., and W. Rowland. 2005. A potential model system for studying the genetics of domestication: behavioral variation among wild and domesticated strains of zebra danio (*Danio rerio*). *Can J Fish Aquat Sci*. 62: 2046-2054.
- Coulborne, J.K, B.D. Robison, K. Bogart, M. Lynch. 2004. Five hundred twenty eight microsatellite markers for ecological genomic investigations using *Daphnia*. *Mol. Ecol. Notes*. 4: 485-490.
- Robison, B.D., and G.H. Thorgaard. 2004. The phenotypic relationship of a clonal line to its population of origin: rapid embryonic development in an Alaskan population of rainbow trout. *Trans. Amer. Fish. Soc.* 133: 455-461.
- Nichols, K.M., W.P. Young, R.G. Danzmann, B.D. Robison, C. Rexroad, M. Noakes, R.B. Phillips, P. Bentzen, I. Spies, K. Knudsen, F.W. Allendorf, B.M. Cunningham, J. Brunelli, H. Zhang, S. Ristow, R. Drew, K.H. Brown, P.A. Wheeler, and G.H. Thorgaard. 2003. A consolidated linkage map for rainbow trout. *Animal Genetics* 34: 102-115.
- Thorgaard, G.H., G.S. Bailey, D. Williams, D.R. Buhler, S.L. Kaattari, S.S. Ristow, J.D. Hansen, J.R. Winton, J.L. Bartholomew, J.J. Nagler, P. J. Walsh, M.M. Vijayan, R.H. Devlin, R.W. Hardy, K.E. Overturf, W.P. Young, B.D. Robison, C. Rexroad, and Y. Palti. 2002. Status and opportunities for genomics research with rainbow trout. *Comp. Bioch. Phys* 133: 609-646.
- Brunelli, J., B.D. Robison, and G.H. Thorgaard. 2001. Ancient and recent duplications in rainbow trout Wilm's tumor genes. *Genome* 44: 455-462.
- Robison, B.D., K. Sundin, P. Sikka, P.A. Wheeler, and G.H. Thorgaard. 2001. Composite interval mapping reveals a major locus influencing embryonic development rate in rainbow trout. *J. Hered.* 96: 16-22.
- Zhang, H., B.D. Robison, G.H. Thorgaard, and S. Ristow. 2000. Cloning, mapping and genomic organization of a fish C-type lectin gene from homozygous clones of rainbow trout. *Biochemica et Biophysica Acta* 1494:14-22.
- Robison, B.D., P.A. Wheeler, and G.H. Thorgaard. 1999. Variation in development rate among clonal lines of rainbow trout. *Aquaculture* 173: 131-141.
- Ristow, S.S., L.D. Grabowski, C. Ostberg, B.D. Robison, and G.H. Thorgaard. 1998. Development of long term cell lines from homozygous clones of rainbow trout. *J Aquat. Anim. Health* 10: 75-82.

#### **Invited Book Chapters:**

- Pham M, Raymond J, Hester J, Kyzar E, Gaikwad S, Robison BD, et. al. 2012. Assessing social behavior phenotypes in adult zebrafish: shoaling, social

- preference, and mirror biting tests. *Zebrafish protocols for neurobehavioral research*: Humana Press. pp. 231-246.
- Robison BD, Benner MJ, Singer ML, Oswald ME. 2012. A High-Throughput and Inexpensive Assay for Anxiety-Related Behaviors in the Zebrafish, Based on Place Preference and Latency to Feed. *Zebrafish Protocols for Neurobehavioral Research*: Humana Press. pp. 203-215.
- Robison, B.D and G.H. Thorgaard. 2012. Clonal lines of fishes in a post genomic era Invited Chapter In: M. Rise, editor. *Aquaculture Biotechnology*
- Robison, B.D. 2009. The role of model organisms in aquaculture: transient and permanent advantages. Invited Chapter In: K. Overturf editor. *Molecular approaches in aquaculture*. Blackwell Publishing.
- Thorgaard, G.H. B.D. Robison, P.A. Wheeler and W.P. Young, 2007. Possible approaches for genetic analysis of temperature adaptations in redband trout. Pages 19-24 *Invited Chapter In*: R. K. Schroeder and J.D. Hall, editors. *Redband trout: resilience and challenge in a changing landscape*. Oregon Chapter, American Fisheries Society, Corvallis.
- Trevarrow, B, and B.D. Robison. 2004. Genetic backgrounds, standard lines, and their husbandry. *Invited Chapter In: Methods in Cell Biology: The Zebrafish: Cellular and Developmental Biology, Genetics, Genomics and Informatics*. 599 - 615
- Thorgaard, G.H., P.A. Wheeler, W.P. Young, B.D. Robison and S.S. Ristow, 2003. Genetic analysis of complex traits using clonal rainbow trout lines. *In: Aquatic Genomics: Steps Toward a Great Future*. N. Shimizu, T. Aoki, I. Hirono and F. Takashima, eds. Springer, Tokyo, pp. 395-398.
- Hand, C. M., B.D. Robison, J. Fargo, G.W. Workman, and M. Stocker. 1994. R/V *W.E. Ricker* Assemblage survey of Hecate Strait, May 17-June 3, 1993. *Can. Data Rep. Fish. Aquat. Sci.* 925: 197p.

### **Professional Meeting Papers, Workshops, Showings, Recitals:**

- Selected Presentation*: “Implementing evolution in video games.” Games Learning Society. Madison, WI, August 2016.
- Robison B.D. and Soule, T.* “Implementing models of biological evolution in video games.” Society for the Study of Evolution, Austin, TX. June 2016.
- Invited Presentation*: “Big Data”. Spokane Agricultural Exposition, Panel on Big Data in Agriculture. Feb 2015.
- Invited Seminar*. “OMICS: When “Knowing Everything” has two edges.” NIH, NIGMS Fifth Biennial National IDeA Symposium of Biomedical Research Excellence (NISBRE). Washington DC, June 2014.
- Invited Seminar*. “Comparative genomics of tameness behavior in the zebrafish”. University of South Carolina Dept of Biology. Nov 2013
- Invited Oral Presentation*. “Genotype specific behavioral and transcriptomic responses to Selenium supplementation in a zebrafish model”. *Zebrafish in Personalized/Precision Medicine*. Toronto, ON. Oct 2013.
- Robison, B.D., M Singer, and R. Gomulkiewicz “Function valued trait analysis of domestication selection. “ Society for the Study of Evolution. Snowbird, UT. June 2013

- Invited Oral Presentation.* “Neurogenomic analyses of behavioral adaptation to captivity in the zebrafish.” Society for the Study of Neuroscience Satellite session. Oct 2012.
- Invited Seminar:* “What constrains parallel evolution of behavior during adaptation to captivity?” Kansas State Department of Biology. 2012.
- Invited Seminar:* “Behavioral genomics in wild and domesticated zebrafish.” Gonzaga University, April 2012
- Invited Oral Presentation.* “Sexual dimorphism in the response of the hepatic transcriptome to dietary manipulation of carbohydrate in zebrafish (*Danio rerio*).” World Aquaculture Society, San Diego CA. 2010.
- Robison, B.D. Genomic analysis of behavioral adaptation to captivity in the zebrafish. American Fisheries Society, Nashville TN, Aug 2009.
- Robison, B.D. Genomic analysis of behavioral adaptation to captivity in the zebrafish. 8<sup>th</sup> International Congress on the Biology of Fishes, Portland. OR. July 2008.
- Robison B.D. RE Drew, ML Settles, E Churchill, JA Moretz & EP Martins. Functional genomics of behavioral variation in the zebrafish: no evidence for parallel evolution of the transcriptome during adaptation to captivity. *Society for Integrative and Comparative Biology*, January 2007
- Invited Seminar:* Genetic analysis of the evolution of anxiety and aggression related behaviors during adaptation to captivity in the zebrafish. *University of Oregon*, April 2007.
- Robison, B.D. RE Drew, ML Settles, E Churchill, JA Moretz & EP Martins. Variation in behavior and global patterns of gene expression among wild and domesticated zebrafish: Implications for teleost aquaculture. *International Congress on Genetics in Aquaculture* in Montpellier, France. June 2006
- Robison, B.D. Functional genomic analysis of behavioral adaptation to captivity in the zebrafish. *Evolutionary Biologists of the Pacific Northwest*, April, 2006.
- Robison, B.D. Genetic variation in fearfulness among wild and domesticated zebrafish strains. *Animal Behavior Society Annual Meeting*, Snowbird, UT, August 2005.
- Robison, B.D. The *Daphnia* genetic map. *Daphnia Genomics Consortium Annual Meeting*, Manchester, NH. September 2003.
- Robison, B.D. Zebrafish as a model system in conservation genetics: variation among domesticated and wild strains. *Society for the Study of Evolution Annual Meeting*, Chico, CA. July 2003.
- Invited Seminar:* Zebrafish as a model system for fish conservation genetics. *University of New Mexico*, April 2003.
- Robison, B.D. Constructing a genetic linkage map for *Daphnia pulex* using microsatellites: implications for finding ecologically relevant genes. *Daphnia Genomics Consortium Annual Meeting*, Bloomington, IN. October 2002.
- Robison, B.D., M. Walden, W. Rowland, and M. Lynch. Zebrafish as a model system for studying the genetic architecture of behavior. *Society for the Study of Evolution Annual Meeting*, Champaign, IL. July 2002.
- Robison, B.D., M. Walden, W. Rowland, and M. Lynch. Behavioral and morphological divergence among wild and domesticated strains of zebrafish. 5<sup>th</sup> International Conference on Zebrafish Development and Genetics, Madison, WI, June 2002.
- Invited Panel Member:* Zebrafish Wild-Type Strains. 5<sup>th</sup> International Conference on

- Zebrafish Development and Genetics, Madison, WI. June 2002.
- Robison, B.D. Effective population size and the salmonid germplasm repository. *WSU-UI Salmon Recovery Symposium*, Moscow, ID, April 2002.
- Robison, B.D. Analyzing the genetics of local adaptation in salmonids; an approach using clonal lines. *Society for the Study of Evolution Annual Meeting*, Bloomington, IN. June 2000.
- Robison, B.D., K. Sundin, P. Sikka, P.A. Wheeler, and G.H. Thorgaard. Composite interval mapping reveals a major locus influencing embryonic development rate in rainbow trout. *International Plant and Animal Genome Conference*, San Diego, CA. January 2000.
- Robison, B.D., P.A. Wheeler, and G.H. Thorgaard. Applying the concept of the reaction norm to salmonid genetics; embryonic development rate as an example. *Coastwide Salmonid Genetics Symposium*, Missoula, Montana. June 1999.
- Robison, B.D., P.A. Wheeler, and G.H. Thorgaard. Genetic analysis of the developmental rate reaction norm in rainbow trout; implications for aquaculture of the species. *International Plant and Animal Genome Conference*, San Diego, CA. January 1999.
- Robison, B.D., P.A. Wheeler, and G.H. Thorgaard. 1997. Variation in development rate among clonal lines of rainbow trout. *International Symposium on Genetics in Aquaculture*, Stirling, Scotland. June 1997.
- Thorgaard G.H., and B. D. Robison. 1996. Genetic analysis of complex traits, including temperature adaptations for inland rainbow trout. *American Fisheries Society, Inland Rainbow Trout Workshop*, Oregon. October 1996.
- Robison, B.D. 1996. Genetic relationship between sympatric anadromous and resident forms of *Oncorhynchus nerka* determined through PCR RFLP analysis of mtDNA. *Idaho Academy of Sciences Annual meeting*, Moscow Idaho, April 1996.
- Powell, M.S., R.N. Williams, B.D. Robison, J.C. Faler, A.L. Setter, and E.L. Brannon. 1996. Using mitochondrial RFLP analysis to describe phylogeographic patterns among endangered sockeye salmon (*Oncorhynchus nerka*) populations. *Ecological Society of America*, Annual meeting, Providence Rhode Island. August, 1996.

### Grants and Contracts Awarded:

#### As PI or Co-PI ( \$1,477, 923 Total Spending Authority):

- \$99,328**     *NSF BEACON* – T. Soule (PI), B.D. Robison, C Jack, M. Friesen. Teaching evolution through game based simulation. May 2016 – Aug 2107.
- \$65,000**     *Vandal Ideas Program* – B.D. Robison (PI), T. Soule, C. Hall, D. Bukvich, R. Caisely, D. Bennett, J. Nicotra, D. Kelly-Riley, G. Tanner, B. Clevely, R. Bird. Polymorphic Games – an interdisciplinary game design studio. July 2016 – August 2017.
- \$14,966**     *IBEST Technology Access Grant* – B.D. Robison (PI), Paul Hohenlohe, Matt Settles. Draft Genome Sequence of the Wirewom. Jan 2015-Jan 2016.



- \$102,000** *NSF BEACON* – P. Fuerst (PI), D. Stenkamp (CoPI), and B.D. Robison (CoPI). Genome duplication as a source of variability in the evolution of the fish visual system. Aug 2014 – Aug 2105.
- \$500,000** *NSF DMS-1029485* – B.D. Robison (PI) and E. Top, E. Rosenblum, S. Krone, P. Joyce (Co PIs). Collaborative Research: UBM - Institutional: UI-WSU Program in Undergraduate Mathematics and Biology. Sep 1 2010 – Sep 1 2016 (in no cost extension).
- \$40,000** *NIH COBRE - IBEST Pilot Grant* - B.D. Robison (PI) and G.K. Murdoch (Co-PI). *Selenium homeostasis and anxiety: the role of the genotype*. June 1, 2009 – June 1, 2010.
- \$426,888** *NSF IOS-0818904* - B.D. Robison (PI) and R.E. Drew (Co-PI). *Genetic analysis of behavioral variation among wild and domesticated strains of zebrafish*. July 1, 2008 – July 1, 2014.
- \$39,740** *NIH COBRE - IBEST Pilot Grant* - B.D. Robison (PI) and G.K. Murdoch (Co-PI). *Selenium homeostasis and anxiety: the role of the genotype*. June 1, 2008 – June 1, 2009.
- \$6,813** *NSF IOS-0808551* - B.D. Robison (PI) and M.E. Oswald (Co-PI). *DISSERTATION RESEARCH: Behavioral adaptation to captivity in the zebrafish, Danio rerio*. May 15, 2008 – August 1, 2009.
- \$35,000** *USDA WSU/UI Aquaculture Initiative* - B.D. Robison (PI) and G.H. Thorgaard (Co-PI). *QTL mapping of candidate loci controlling accelerated growth in rainbow trout*. Sep 2006-Sep 2008.
- \$28,000** *Subcontract from Indiana University* (via E. Martins) - *Genetic basis of behavioral evolution in the zebrafish*. Apr 2006 – Apr 2007. Subcontract derived in part from: NSF, COLLABORATIVE RESEARCH: Genetic basis of behavioral evolution in the zebrafish. \$25,000. E. Martins (PI) and B.D. Robison (Co-PI). Apr 2006 – Apr 2007
- \$325,064** *NSF-EPSCoR Idaho RII* - R. Hardy (Team Leader), B.D. Robison (Co-PI), G.K. Murdoch (Co-PI), M.S. Powell (Co-PI), K. Rodnick (Co-PI), R.A. Hill (Co-PI). *Comparative genomics: physiology of zebrafish and trout*. Jun 2005 – Jun 2008. Note that this amount is the total awarded to B.D. Robison (out of a total team budget of \$1.6 million).
- \$35,000** *USDA WSU/UI Aquaculture Initiative* - B.D. Robison (PI) and G.H. Thorgaard (Co-PI). *Genomic analysis of accelerated growth in rainbow trout*. Sep 2004 – Sep 2005
- \$10,000** *University of Idaho Seed Grant* – B.D. Robison (PI). July 2004 – June 2005
- \$7,418** *BRIN Research Enhancement Grant* – B.D. Robison (PI). June 2004.
- \$24,000** *NSF-EPSCOR Idaho Start-up Augmentation Grant* - B.D. Robison (PI). August 2003

Grants and competitive stipends to students under my supervision (\$114,174 Total ):

Mary Oswald (Ph.D.):	<b>\$6,831</b>	<i>NSF IOS-0808551</i> - B.D. Robison (PI) and M.E. Oswald (Co-PI). <i>DISSERTATION RESEARCH: Behavioral adaptation to captivity in the zebrafish, Danio rerio.</i> May 15, 2008
	<b>\$25,000</b>	University of Idaho College of Graduate Studies Doctoral Research Fellowship. Aug 2008
	<b>\$400</b>	Travel Award, University of Idaho Graduate & Professional Student Association. Sept 2007
	<b>\$575</b>	UI Student Grant Program (Dissemination Grant). July 2007
Matt Racine (B.S):	<b>\$1,750</b>	UI Dept. of Biological Sciences. Sundquist Undergraduate Research Grant . Jan 2008
	<b>\$850</b>	UI Student Grant Program (Dissemination Grant). Jan 2008
Maia Benner (Ph.D.)	<b>\$1,480</b>	UI Student Grant Program Research Grant. Jan 2007
	<b>\$1,500</b>	UI Department of Biological Sciences Undergraduate Research Grant. January 2007
	<b>\$2,888</b>	University of Idaho Student Grant Program 2009 Analysis of selenoprotein gene expression using Taqman qRTPCR.
	<b>\$38,600</b>	University of Idaho Institute for Bioinformatics and Evolutionary Studies 2011 - 2012 Graduate Student Research Fellowship
	<b>\$30,200</b>	University of Idaho Institute for Bioinformatics and Evolutionary Studies 2012-2013 Graduate Student Research Fellowship
Stephanie Vincent (B.S.):	<b>\$1,000</b>	UI Department of Biological Sciences Undergraduate Research Grant. Jan 2005
Matt Settles (Ph.D.):	<b>\$2,000</b>	USDA – Travel award to attend ISAFG conference, Edinburgh. April 2008.
	<b>\$700</b>	MGED Travel award. August 2006
	<b>\$400</b>	GPSA Travel award. June 2006

**Honors and Awards:**

University of Idaho College of Science Early Career Faculty Award, May 2009.

University of Idaho Alumni Award for Excellence (with Mary Oswald), Nov 2006.

Nomura Foundation Travel Scholarship, International Plant and Animal Genome Conference, San Diego, January 2000.

National Research Council Postdoctoral Research Associateship (\$36,000), NMFS, Seattle WA, April 1999. **Program:** Conservation Biology of Pacific Salmon. (**Offer**

**Declined).**

- Best Student Presentation, Coastwide Salmonid Genetics Symposium, Missoula, Montana, June 1999.
- Guy Brislawn Memorial Scholarship recognizing the outstanding graduate student in the Department of Zoology, Washington State University, 1998.
- North Carolina State University. Scholarship from the Summer Institute in Statistical Genetics, June, 1997.
- Washington State University Graduate School Travel Award, June 1997. For travel to the International Symposium on Genetics in Aquaculture, Stirling, Scotland.

**SERVICE:****Major Committee Assignments:**

## Department of Biological Sciences:

- Strategic Planning Committee (2013 – 2016)
- Promotion and Tenure (Paul Hohenlohe)
- Promotion and Tenure (Onesmo Balemba)
- Promotion and Tenure (David Tank)
- Third Year Review (C. Parent)
- Chair, Curriculum Committee 2013 - 2014
- Chair, Grad Affairs Committee, 2011-2012
- Curriculum Committee, 2003 – 2011
- Seminar Committee, 2005 – 2010
- Promotion to Full Professor (Jack Sullivan)
- Evolutionary Biologist Search Committee, 2005
- Neuroscientist Search Committee, 2005
- Reproductive Biologist Search Committee, 2006
- Promotion Committee – Jack Sullivan (Full Professor), 2007
- Chair, Neuroscientist Search Committee, 2009

## Interdisciplinary Programs:

- Chair, BCB Curriculum Committee 2013 – present
- BCB Curriculum Committee 2011 – present
- Chair, Search Committee – IBEST CRC Director 2014,2015
- Chair, Search Committee – IBEST GRC Director 2015
- Chair, Search Committee – IBEST Data Scientist 2015
- Search Committee – IBEST Program Manager 2015
- Chair, Graduate Admissions Committee – Program in Neuroscience, 2007 – 2008
- Chair, Curriculum Committee - Program in Neuroscience, 2008 – 2010
- Graduate Recruitment Committee – Bioinformatics and Computational Biology, 2007 – 2011
- IBEST Public Relations Committee, 2008 – present

## University:

- Chair, IACUC Aug 2013 – Aug 2016
- IACUC 2012 – 2016
- Search Committee – Director of Office of Research Assurances – 2015

Search Committee – Attending Veterinarian – 2014  
 Search Committee – IACUC coordinator - 2014  
 Graduate Council, 2006 – 2012  
 Chair, Graduate Faculty Bylaw Task Force (Graduate Council) 2011  
 Director of the UI WSU Undergraduate Program in Biology and  
 Mathematics  
 Faculty Advisor, UI Student Grant Program, 2007 – 2011  
 Faculty Advisor, UI Chapter of Phi Sigma, 2015-present

**Service to Funding Agencies:**

Oak Ridge Associated Universities - Nazarbayev University Grant Review Spring 2015  
 NSF – DEB (Evolutionary Processes DDIG), panelist (Spring 2013)  
 NSF – IOS (Behavioral Systems), panelist (Fall 2008, Spring 2009)  
 NSF – DEB (Evolutionary Genetics), panelist (Fall 2010)  
 Norman Hackerman Advanced Research Program – Panelist 2011  
*Ad hoc* Review of 2 – 4 proposals per year from:  
 United States Department of Agriculture  
 National Science Foundation  
 US Civilian Research Development Foundation  
 National Oceanic and Atmospheric Administration  
 Seagrant

***Ad Hoc* Manuscript Reviews:**

Approximately 8 per year from:

Aging Cell	Animal Behavior
Aquaculture Research	Behavior Genetics
Evolution	J. of Experimental Biology
Laboratory Animal	Zebrafish
Can. J. Fish. Aquatic Sci.	Envl Biology of Fishes
Behavioral Research Methods	American Naturalist
PLoSOne	BMC Genomics

**Professional and Scholarly Organizations:**

Co-organizer, Evolution meeting 2009, Moscow, ID  
 Society for the Study of Evolution, 2000 - present  
 American Fisheries Society, 1994 - 1998  
 American Association for the Advancement of Science 1999 - 2005  
 Animal Behavior Society 2004 – 2011  
 Higher Education Video Game Alliance, 2016

**Outreach Service:**

Mentorship of high school students:  
 Upward Bound: Heather Lunsford (Summer 2006)  
 Helping Orient Indians to Science and Technology (HOIST): Ethan White Temple,  
 Soleda McConville, Janae Crispin (Summer 2008, 2009, 2010).  
 Invited Lecture: Kiwanis Club of Pullman (May 2007).  
 Invited Presentation: Spokane Agriculture Expo (Feb 2015).

**PROFESSIONAL DEVELOPMENT:**

*Workshop - Writing Effectively in the Sciences, May 2007.*

*IACUC 101 and 201 – Two day workshop on Institutional Animal Care and Use Committee Management*

*Leading and Sustaining Your Research Program (5 day workshop) June 2014, 2015*