

CURRICULUM VITAE

BRIAN P. BAGATTO

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EDUCATION

2001 Ph.D. University of North Texas. Area of study: Influence of environment on development and performance in fish larvae.

1997 M.S. Auburn University, Auburn, Alabama. Area of study: The effects of exercise and forced submergence on bimodal gas exchange, ventilatory behavior, and blood acid-base status in freshwater turtles.

1994 B.Sc.H. Queen's University, Kingston, Ontario, Canada. Thesis area of study: The effects of water ion content on the recovery of exhaustively exercised rainbow trout.

ADMINISTRATIVE POSITIONS

2009 - present Academic Coordinator - BS/MD Program. University of Akron.

RESEARCH EXPERIENCE and ACADEMIC POSITIONS

2013 – present Professor. Department of Biology. University of Akron.

2007 - 2013 Associate Professor. Department of Biology, University of Akron.

2001 - 2007 Assistant Professor. Department of Biology, University of Akron.

2000 - August Research Collaboration. University of California Irvine. Studied the inter-clutch variability of cardiovascular dynamics in the American alligator. Collaborators: Dr. Jim Hicks, Dr. Dane Crossley, and Dr. Jordi Altimiras.

1999 - June Research Collaboration. Traveled to the University of Innsbruck, Austria to study the influence of chronic exercise training on the cardiac output of zebrafish larvae. Collaborators: Dr. Bernd Pelster and Dr. Thorsten Schwerte. Funded by Dr. Warren Burggren.

1998 - 2001 Research Assistant. Studying the influence of environment on development in fish larvae. Advisor: Dr. Warren Burggren at UNT.

- 1997 - 1998 Research Assistant. Studied the implications of rearing temperature on the growth and development of zebrafish (*Danio rerio*). Advisor: Dr. Warren Burggren at UNLV.
- 1994 - 1995 Research Assistant. Auburn University. Studied the respiratory partitioning and ventilatory behaviors of two species of Central American turtles. Advisor: Dr. Raymond Henry.
- 1993 - 1994 Research Assistant. Queen's University. Completed thesis as a requirement for B.Sc.H. degree. Thesis Advisor: Dr. Bruce Tufts.
- 1993 Field Technician. Queen's University Biological Station. Studied physiological and behavioral effects of pre-season angling on smallmouth and largemouth bass. Employed by the Ontario Federation of Anglers and Hunters. Principal Investigator: Dr. David Philipp.
- 1992 Research Assistant. Queen's University. Studied the physiology of live well recovery from exhaustive exercise in rainbow trout. Employed by the Ontario Federation of Anglers and Hunters. Principal Investigator: Dr. Bruce Tufts.
- 1991 NSERC Research Assistant. Queen's University. Studied the respiratory physiology of lamprey eels and an air breathing fish, the bowfin. Principal Investigator: Dr. Bruce Tufts.
- 1989 Research Assistant. Dow Chemical. Polyethylene Division. Sarnia, Ontario, Canada. Synthesized inorganic catalysts aiding in the production of polyethylene products. Supervisor: Dr. David Laycock.
- 1988 - 1989 Independent Research. Esso Petroleum. Sarnia, Ontario, Canada. During this time I completed a research project on "the growth and inhibition of kidney stones", that won a silver medal at the Canada Wide Science Fair.

TEACHING EXPERIENCE

- 2001 - present Instructor. UA 3100:473/573 Animal Physiology II (spring since 2006)
 Instructor. UA 3100:363/364 Animal Physiology I lecture and lab (fall since 2001)
 Instructor. UA 3100:673 Integrative Stress Physiology
 Instructor. UA 3100:695 Ecological Developmental Biology
 Instructor. UA 3100:457/557 Herpetology
 Instructor. UA 3100:111/112 Principles of Biology I and II
 Instructor. UA 3100:490/690 Exercise Physiology
 Instructor. UA 3100:202 Anatomy and Physiology II
 Instructor. UA 3100:103 Natural Science: Biology
- 1998 Instructor and Laboratory Coordinator. UNLV BIO 224 - Anatomy and Physiology II.
- 1997 Teaching Assistant. UNLV BIO 350 - Comparative Vertebrate Anatomy.
- 1997 - 1998 Teaching Assistant. UNLV BIO 224 - Anatomy and Physiology II.
- 1996 Teaching Assistant. Auburn University. ZY 561 - Mammalian Physiology II.
- 1995 - 1996 Teaching Assistant. Auburn University. ZY 524 - Animal Physiology.
- 1994 - 1996 Teaching Assistant. Auburn University. ZY 560 - Mammalian Physiology I.

GRANTS, AWARDS AND HONORS

2012 NSF IOS Pre-proposal – Experimental Evolution of Zebrafish in a Novel Environment: Adaptation of Integration – not invited to submit full proposal

2010 RCN UBE – Incubator Proposal – Zebrafish Research Coordination Network \$62,343 – not funded

2009 Faculty Research Award - \$10,000

2008 NIH R15 Grant Award - \$220,500 - CoPI - 07/08 - 06/11
Characterization of Leptin's Effects in Early Developing and Adult Zebrafish
Stoller Funds Award for Animal Physiology Laboratory - \$20,520

2005 NIH R15 Grant Award - \$220,500 - CoPI - 07/05 – 06/08
Role of Cadherins in the Developing Zebrafish CV System
Faculty Research Award - \$4000

2004 ITI Award to implement and evaluate CPS system in introductory Biology - \$5000
Faculty Research Award - \$4000

2003 House Bill Award for upgrading Animal Physiology Laboratory - \$56,332
Faculty Research Summer Award - \$8000

2002 Faculty Research Summer Award - \$8000

2001 NSERC Postdoctoral Fellowship - \$70,000 (declined)
Queen ' s University Postdoctoral Fellowship - \$30,000 (declined)

1998 Graduate Student Association, UNLV - \$250
Graduate School Summer Research Award, UNLV - \$3000

1997 Outstanding Graduate Student Award - Department of Zoology, Auburn
Dean ' s Award for Outstanding Teaching Assistant - College of Math and Science
Graduate Dean ' s Award for Excellence - Auburn University Graduate School

1996 Auburn University Graduate Student Research Award - \$600

1991 NSERC Summer Research Award. Queen's University.

PEER-REVIEWED PUBLICATIONS

- 27) Cypher, A.D., J.R. Ickes, and B. Bagatto. 2015. Bisphenol A alters the cardiovascular response to hypoxia in *Danio rerio* embryos. *Comparative Biochemistry and Physiology, Part C* 174/5:39-45.
- 26) Dalman, M.R., Q. Liu, M. King, B. Bagatto, and R. Londraville. 2013. Leptin expression affects metabolic rate in zebrafish embryos (*D. rerio*). *Frontiers in Physiology* 4:160. doi: 10.3389/fphys.2013.00160
- 25) Marks, C., S.M. Lombardo, K.L. Formanik, F.B.-G. Moore, and B. Bagatto. 2012. The influence of ontogenetic dietary fluctuations on zebrafish size and swimming performance. *Frontiers in Aquatic Physiology* 3:310. doi: 10.3389/fphys.2012.00310
- 24) Marks, C., K.P. Kaut, F.B.-G. Moore, B. Bagatto. 2012. Ontogenetic oxygen fluctuations alter zebrafish behavior, physiology, and morphology. *Physiological and Biochemical Zoology* 85(6) doi: 10.1086/666508
- 23) Bagatto, B., D.A. Crossley II, J. Altimiras, R.M. Elsey, and J.W. Hicks. 2012. Physiological variability in yearling alligators: Clutch differences at rest and during activity. *Comparative Biochemistry and Physiology, Part A* 162:44-50.
- 22) Weeks, S.C., T.F. Sanderson, B.F. Wallace, and B. Bagatto. 2011. Behavioral cost of reproduction in a freshwater crustacean (*Eulimnadia texana*). *Ethology* 117:880-886.
- 21) Currie, S., Bagatto, B., et al. 2010. Metabolism, nitrogen excretion and heat shock proteins in the central mudminnow, *Umbra limi*, a facultative air-breathing fish living in a variable environment. *Canadian Journal of Zoology* 88:43-58.
- 20) Bagatto, B. 2009. Guided inquiry lab exercises in development and oxygen consumption using zebrafish. *Zebrafish (special issue)* 6(2):161-169.
- 19) Widmer, S., F.B.-G. Moore, and B. Bagatto. 2006. The effects of chronic developmental hypoxia on swimming performance in zebrafish. *Journal of Fish Biology* 69:1885-1891.
- 18) Bagatto, B., J. Francl, B. Liu, and Q. Liu. 2006. Cadherin2 (N-cadherin) plays an essential role in zebrafish cardiovascular development. *BMC Developmental Biology* 6:23.
- 17) Moore, F.B.-G., M. Hosey, and B. Bagatto. 2006. Cardiovascular system in larval zebrafish responds to developmental hypoxia in a family specific manner. *Frontiers in Zoology* 3:4.
- 16) Bagatto, B and W.W. Burggren. 2006. A three-dimensional functional assessment of heart and vessel development in the larvae of the zebrafish (*Danio rerio*). *Physiological and Biochemical Zoology* 79(1):194-201.
- 15) Marks, C., T.N. West, B. Bagatto, and F.B.-G. Moore. 2005. Developmental environment alters conditional aggression in zebrafish. *Copeia* 2005(4):900-907.
- 14) Bagatto, B. 2005. Ontogeny of cardiovascular control in zebrafish (*Danio rerio*): Effects of developmental environment. *Comparative Physiology and Biochemistry Part A* 141:391-400.
- 13) Crossley, D.A., Bagatto, B., Dzialowski, E.M., and W.W. Burggren. 2003. Maturation of cardiovascular control mechanisms in the embryonic emu (*Dromiceius novaehollandiae*). *Journal of Experimental Biology* 206:2703-2710.
- 12) Bagatto, B., B. Pelster, and W.W. Burggren. 2001. Growth and metabolism of larval zebrafish: Effects of swim training. *Journal of Experimental Biology* 204:4335-4343.

- 11) Prassack, S.L., B. Bagatto, and R.P. Henry. 2001. Effects of temperature and aquatic Po₂ on the physiology and behaviour of *Apalone ferox* and *Chrysemys picta*. *Journal of Experimental Biology* 204:2185-2195.
- 10) Bagatto, B., D.A. Crossley, and W.W. Burggren. 2000. Physiological variability in neonatal armadillo quadruplets: within and between litter differences. *Journal of Experimental Biology* 203:1733-40.
- 9) Bagatto, B. and R.P. Henry. 2000. Bimodal respiration in two species of Central American turtles: Effects of forced submergence. *Comparative Biochemistry and Physiology Part A* 126(1):57-63.
- 8) Bagatto, B. and R.P. Henry. 1999. Aquatic gas exchange in the snapping turtle, *Chelydra serpentina*. *Journal of Herpetology* 33(3):490-492.
- 7) Bagatto, B. and R.P. Henry. 1999. Exercise and forced submergence in the pond slider (*Trachemys scripta*) and softshell turtle (*Apalone ferox*): influence on bimodal gas exchange, diving behaviour, and blood acid-base status. *Journal of Experimental Biology* 202(3):267-278.
- 6) Bagatto, B., E.L. Blankenship, and R.P. Henry. 1997. Tricaine methane sulfonate (MS-222) anesthesia in spiny and Florida soft-shell turtles, *Apalone spinifera* and *Apalone ferox*. *Bulletin of the Association of Reptilian and Amphibian Veterinarians* 7(2):9-11.
- 5) Bagatto, B., C. Guyer, B. Hauge, and R.P. Henry. 1997. Bimodal respiration in two species of Central American turtles, *Staurotypus triporcatus* and *Kinosternon leucostomum*. *Copeia* 1997(4):834-839.
- 4) Bagatto, B., E.L. Blankenship, and R.P. Henry. 1997. Implanting an arterial catheter in softshell turtles. *Herpetological Review* 28(4):194-196.
- 3) Tufts, B.L., R.C. Drever, B. Bagatto, and B.C. Cameron. 1994. *In vitro* analysis of volume and pH regulation in the red blood cells of a primitive air-breathing fish, the bowfin, *Amia calva*. *Canadian Journal of Zoology* 72:280-286.
- 2) Ferguson, R.A., N. Sedhev, B. Bagatto, and B.L. Tufts. 1992. *In vitro* interactions between oxygen and carbon dioxide transport in the blood of the sea lamprey, *Petromyzon marinus*. *Journal of Experimental Biology* 173:25-41.
- 1) Tufts, B.L., B. Bagatto, and B. Cameron. 1992. *In vivo* partitioning of carbon dioxide transport between plasma and red blood cells in the sea lamprey, *Petromyzon marinus*. *Journal of Experimental Biology* 169:105-119.

BOOK CHAPTERS AND TEXT CONTRIBUTIONS

- 14) Burggren, W.W., B. Bagatto, J. Brewster, and L. Hester. 2014. Study Guide to accompany *Biological Science*, by Scott Freeman. Pearson, Boston. 5th Ed.
- 13) Bagatto, B. and K. Hunt. 2014. Instructor's Guide to *Biological Science*, By Scott Freeman. Pearson, Boston. 5th Ed.
- 12) Online Content and Test Bank author for Hill, Wyse & Anderson, *Animal Physiology*, 3rd ed. 2012. Sinauer and Associates.
- 11) Burggren, W.W., B. Bagatto, J. Brewster, and L. Hester. 2011. Study Guide to accompany *Biological Science*, by Scott Freeman. Pearson, Boston. 4th Ed.

- 10) Bagatto, B. and K, Hunt. 2011. Instructor's Guide to *Biological Science*, By Scott Freeman. Pearson, Boston. 4th Ed.
- 9) Pelster, B. and Bagatto, B. 2010. Respiration. In *Zebrafish*. S. Perry, M. Ekker, A.P. Farrell, and C.J. Brauner, eds., Fish Physiology Volume 29, Elsevier, London. pp. 290-305.
- 8) Burggren, W.W. and Bagatto, B. 2008. Cardiovascular Anatomy and Physiology. In *Fish Larval Physiology*. RN Finn and BG Kapoor, eds., Science Publishers Inc., NH, pp. 119-161.
- 7) Burggren, W.W., B. Bagatto, J. Brewster, and L. Hester. 2008. Study Guide to accompany *Biological Science*, by Scott Freeman. Pearson, Boston. 3rd Ed.
- 6) Rouse, S. and B. Bagatto. 2005. Instructor's Guide to *Biological Science*, By Scott Freeman. Pearson, Boston 3rd Ed.
- 5) Editor/Contributor of Chapter 49 "Circulation and Respiration" in *Biology* by Raven, Johnson, Lobos, and Singer, McGraw-Hill, NY. 8th Ed.
- 4) Contributor to Nickla, H. and Perkins, M. 2005. Test Bank for Assessment in *Biological Science*, by Scott Freeman. Prentice Hall, NJ. 2nd Ed.
- 3) Burggren, W.W., B. Bagatto, J. Brewster, and L. Hester. 2005. Study Guide to accompany *Biological Science*, by Scott Freeman. Prentice Hall, NJ. 2nd Ed.
- 2) Rouse, S. and B. Bagatto. 2005. Instructor's Guide to *Biological Science*, By Scott Freeman. Prentice Hall, NJ. 2nd Ed.
- 1) Burggren, W.W., B. Bagatto, J. Brewster, and L. Hester. 2002. Study Guide to accompany *Biological Science*, by Scott Freeman. Prentice Hall, NJ.

MANUSCRIPTS NEARING SUBMISSION

- Marks, C., B. Bagatto, A. Michelson, and F.B.-G. Moore. A quantitative genetic analysis of canalization: The evolutionary synthesis revisited. Preparing for submission to *PLoS ONE*.
- Marks, C. F.B.-G. Moore, and B. Bagatto. Ontogenetic programming in body shape of zebrafish: The role of changing oxygen during development in shaping the P matrix. Preparing for submission to *Evolution*.
- Steuber, J.G., F.B-G Moore, R. Truman, and B. Bagatto. The cost of an emerging disease: *Mycobacterium leprae* infection alters metabolic rate of the nine-banded armadillo (*Dasypus novemcinctus*). Preparing for submission to *Journal of Experimental Zoology*.
- Lengyel, M.S., M.A. Spencer, G. Riggs, F.B.-G. Moore, and B. Bagatto. Pregnancy, metabolic rate, and the sibling effect in the nine-banded armadillo, *Dasypus novemcinctus*. Preparing for submission to *Frontiers in Zoology*.
- Spencer, M.A., M.S. Lengyel, C. Marks, and B. Bagatto. Physiological variability in neonatal nine-banded armadillos: Responses to simulated burrow conditions. Preparing for submission to *Comparative Biochemistry and Physiology*.

PRESENTED PAPERS

- Cypher, A., Ickes, J., and Bagatto, B. Bisphenol A exposure compromises the cardiovascular response to hypoxia in *Danio rerio*. SICB – West Palm Beach, January 2015.
- Bagatto, B. The nine-banded armadillo: An intriguing model for studying metabolism, maternal effects, and emerging diseases. Poster – Canadian Society of Zoologists, May 2013.
- Marks, C., Moore, F.B.-G, Kaut, K.P., and Bagatto, B. 2012. Behavioral, physiological and morphological outcomes under dynamic oxygen environments in zebrafish. Poster – EB San Diego, April 2012.
- Spencer, M.A., Lengyel, M.S., Knight, F., and Bagatto B. 2011. Physiological variability in neonatal nine-banded armadillo clonal siblings: Responses to simulated burrow conditions during development. SICB - Salt Lake City, January 2011.
- Lengyel, M.S., Spencer, M.A., Riggs, G., Becket, A., Moore, F.B.-G., and Bagatto, B. 2011. Metabolic cost of pregnancy and lactation in the nine-banded armadillo. SICB - Salt Lake City, January 2011.
- Matozel, M., Marks, C., Moore, F.B.-G., and Bagatto, B. 2009. Effects of hypoxia on the development of the digestive system and metabolism of the zebrafish. SICB - Boston, January 2009.
- Marks, C., Michelson, A.V., Bagatto, B., and Moore, F.B.-G. 2009. GxExE Whiz!: The influence of genotype and multiple environments on the developing zebrafish cardiovascular system. SICB - Boston, January 2009.
- Marks, C., Learner, A.D., Wright, P.A., Currie, S., and Bagatto, B. 2008. Metabolism in the Mudminnow (*Umbra limi*): Effects of temperature, hypoxia and ammonia. Poster Presentation SICB– San Antonio, January 2008.
- Steuber, J. Bagatto, B, Truman, R.W., and Moore, F.B.-G. 2008. The emergence of an old disease: the cost of leprosy infection in nine-banded armadillos. Oral Presentation SICB – San Antonio, January 2008.
- Bagatto, B. Hissett, E., Francl, J., and Liu, Q. 2007. The role of cadherin2 in zebrafish cardiovascular development and cardiac regeneration. Poster Presentation SEB – Glasgow, April 1, 2007.
- Bagatto, B, Hissett, E., and Liu, Q. 2007. Cadherin2: Roles in cardiovascular development and cardiac regeneration. Poster Presentation SICB – Phoenix, January 5, 2007.
- Ayers, M., Moore, F.B.-G., and Bagatto, B. 2006. Searching for critical windows in Development: Effects of chronic hypoxia on zebrafish. Poster Presentation SICB – Orlando, January 5, 2006.
- Bagatto, B. 2005. Ontogeny of cardiovascular control in zebrafish: Plasticity due to environment. Oral Presentation CSZ – Kingston, May 12, 2005.
- Marks, C., B. Bagatto and F.B.-G. Moore. 2005. Developmental environment alters conditional aggression in zebrafish. Poster Presentation SICB – San Diego, January 7, 2005.
- Francl, J., Q. Liu, and B. Bagatto. 2005. Cadherin-2 expression in regenerating cardiac tissue of zebrafish. Poster Presentation SICB – San Diego, January 6, 2005.
- Francl, J., F. Allen, B. Bagatto, and M.C. Oberst. 2005. The Muehlstein Academy: Using a tiered approach in the research experience. Poster Presentation SICB – San Diego, January 5, 2005.
- Widmer, S., P. Moore and B. Bagatto. 2005. The effects of chronic hypoxia on the aerobic characteristics of zebrafish muscle. Poster Presentation SICB – San Diego, January 5, 2005.

- Barnard, E. and B. Bagatto. 2003. Effects of maternal diet on reproductive strategies and embryo development in the zebrafish, *Danio rerio*. Poster Presentation SICB - Toronto. January 6, 2003.
- Bagatto, B. and W.W. Burggren. 2002. The dynamics of developing cardiac control in zebrafish larvae, *Danio rerio*. Oral presentation given at the International Roundtable on Developmental Physiology, June 2-6, 2002, in Glen Rose, TX.
- Bagatto, B. And W.W. Burggren. 2001. Chronic training influences on performance in zebrafish larvae, *Danio rerio*. *Amer. Zool.* 41:1383-4. Poster Presentation SICB - Anaheim. January 5, 2002.
- Bagatto, B., L. Woloszyn, and W.W. Burggren. 2000. 3-D visual assessment of cardiovascular function in zebrafish larvae. *Amer. Zool.* 40:933. Poster Presentation SICB - Chicago. January 5, 2001.
- Crossley, D., Bagatto, B., Hicks, J., and J. Altimiras. 2000. Changes in cardiovascular control mechanisms during the embryonic development of the American alligator, *Alligator mississippiensis*. *Amer. Zool.* 40:985. Poster Presentation SICB - Chicago. January 5, 2001.
- Bagatto, B., T. Schwerte, B. Pelster, and W.W. Burggren. 1999. Chronic training influences on the cardiovascular system of the larval zebrafish, *Danio rerio*. *Amer. Zool.* 39:69A. Poster Presentation SICB - Atlanta. January 6, 2000.
- Bagatto, B., B. Pelster, and W.W. Burggren. 1999. Chronic training influences on metabolism and the cardiovascular system of larval zebrafish, *Danio rerio*. *Comp. Physiol. Biochem.* 124A:S48. Invited Oral Presentation ICCPB - Calgary. August 26, 1999.
- Isabekova, S.B., B. Bagatto, D. Crossley, and W.W. Burggren. 1999. The character of zebrafish (*Brachydanio rerio*) development reared under different temperatures. *Fullbright Alumni Conference 2000:100-110*, Almaty, May 4-5, 1999.
- Bagatto, B., D.A. Crossley, and W.W. Burggren. 1998. Armadillo quadruplets: A novel system for addressing physiological variability. *Amer. Zool.* 38:192A. Oral Presentation SICB. - Denver. January 10, 1999.
- Bagatto, B. and R.P. Henry. 1998. Exercise and forced submergence in the pond slider (*Trachemys scripta*) and softshell turtle (*Apalone ferox*): Influence on bimodal breathing, diving behavior, and blood acid-base status. *FASEB Journal* 12:A420. Poster Presentation EB 98 - San Francisco. April 20, 1998.
- Crossley, D.A., B. Bagatto, and W.W. Burggren. 1997. Chronic exposure to low water content alters cardiovascular function in embryos of the African brown housesnake. *Amer. Zool.* 37:155A.
- Bagatto, B., S.B. Isabekova, and W.W. Burggren. 1997. Rearing temperature influence on growth and oxygen consumption of developing zebrafish (*Danio rerio*). *Amer. Zool.* 37:141A. Poster Presentation SICB. - Boston. January 5, 1998.
- Bagatto, B., B. Hauge, and R.P. Henry. 1995. Bimodal respiration and forced submergence in two species of Central American turtles. *Amer. Zool.* 35:34A. Poster Presentation ASZ - Washington D.C. December 27, 1995.
- Bagatto, B., B. Hauge, and R.P. Henry. 1995. Bimodal respiration in two species of Central American turtles. *FASEB Journal* 9:A641. Poster Presentation EB 95 - Atlanta. April 12, 1995.

INVITED SYMPOSIUM AND SEMINAR PRESENTATIONS

- Bagatto, B. The nine-banded armadillo: An intriguing model for studying metabolism, maternal effects, and emerging diseases. University of Guelph – January 29, 2013.
- Bagatto, B. From armadillos to zebrafish: Questions in comparative physiology. University of the Ozarks – March 16, 2009.
- Bagatto, B. Chronic hypoxia in zebrafish: An integrative approach to studying plasticity. Wright State University – March 9, 2009.
- Bagatto, B. Chronic hypoxia in zebrafish: An integrative approach to studying plasticity. University of North Dakota – April 25, 2008.
- Bagatto, B. Cardiovascular system in zebrafish: Plasticity due to environment. Northeast Medical University – September 12, 2007.
- Bagatto, B. Chronic hypoxia in zebrafish: An integrative approach to studying plasticity. University of Winnipeg – December 15, 2006.
- Bagatto, B and Moore F.B.-G. Chronic hypoxia in zebrafish: an integrative approach to studying plasticity. SEB Canterbury, Graham Shelton Memorial Symposium. April 3, 2006.
- Bagatto, B. Development and the cardiovascular system. The Muehlstein Academy – March 3, 2004.
- Bagatto, B. Ontogeny of cardiovascular regulation in the zebrafish (*Danio rerio*): plasticity during environmental changes. SICB Symposium on Development, New Orleans 2004:367.
- Bagatto, B. Symposium - Studying change in vertebrate development by utilizing experimental evolution. ICCBP - Mt. Bueller, Australia. February 5, 2003.
- Bagatto, B. and W.W. Burggren. Symposium - The ontogeny of cardiac control in zebrafish larvae, *Danio rerio*. ICCBP - Mt. Bueller, Australia. February 7, 2003.
- Bagatto, B. 2002. Seminar - Physiological variability in developing systems: From alligators to zebrafish. Wright State University - May 15, 2002.
- Bagatto, B. and W.W. Burggren. 2002. Symposium - The ontogeny of cardiac control in zebrafish larvae, *Danio rerio*. Experimental Biology meeting, April 20-24, 2002, in New Orleans, LA.
- Bagatto, B., B. Pelster, and W.W. Burggren. 1999. Chronic training influences on metabolism and the cardiovascular system of larval zebrafish, *Danio rerio*. *Comp. Physiol. Biochem.* 124A:S48. Invited Oral Presentation ICCPB - Calgary. August 26, 1999.
- Bagatto, B. 1999. Seminar - Chronic training influences on the cardiovascular system of larval zebrafish, *Danio rerio*. University of Innsbruck - June 15, 1999.

SERVICE

Grant Reviewing

NIH Development 1 Review Panel Member - February 16, 2006
NIH Development 2 Ad Hoc Reviewer (1 grant) – March 17, 2006
NIH Development R-15 Review Panel Member - October 23, 2009

Manuscript Reviewing - I am a regular reviewer for the following journals:

Journal of Experimental Biology	Journal of Zoology
Fish Physiology and Biochemistry	Physiological and Biochemical Zoology
Comparative Biochemistry and Physiology	Environmental Contamination and Toxicology
Integrative and Comparative Biology	Frontiers in Aquatic Physiology – review editor

Committees at The University of Akron and NEOMED

DEPARTMENT COMMITTEES

Current - *Research Committee* (2015-); *Undergraduate Committee* (2015-)
Student Success Committee (2011 – 2015)
Bath Nature Preserve Committee (2002 – 2010)
Graduate Committee (2007 – 2011)
Recruitment Committee (2002 – 2007)
PhD Committee (2001 – 2007)
Seminar Committee – chair of seminar committee for 2 separate academic years
Search Committees – on the committee for 5 separate searches

UNIVERSITY/COLLEGE COMMITTEES

IACUC Committee – Approve all animal protocols at the University of Akron (2001 – 2013)
Computing and Communications Technology Committee (2010 – 2013)
Faculty Senate (2007 – 2010)
Buchtel College Council (2005 – 2009) (Secretary)
Graduate Council (2004 – 2007): *Student Policy Committee* - Chair (2005-2007)

UNIVERSITY AND NEOMED COMMITTEES

UA *BS/MD Advisory Committee* – Chair (2009 – present)
UA *BS/MD Student Selection Subcommittee* (2009 – present)
NEOMED *Committee on Academic and Professional Progress* (2009 – present)

Scientific Societies

Society for Integrative and Comparative Biology
Society for Experimental Biology
American Physiological Society
Canadian Society of Zoologists
American Society of Ichthyologists and Herpetologists

Community

2005 – present	Local high school developmental physiology activities
1994 – present	Judge for local and district annual Science Fairs
2008 – present	Akron City Schools Consultant for use of animals in research
2001 – 2007	Director of Akron Regional Science Olympiad
2001 – 2009	Organizer for the Copley-Fairlawn Elementary School Science Fair
2004 and 2005	Muehlstein Academy Lead Research Faculty
2003	Divisional Judge for the International Science and Engineering Fair

Student Mentoring

PhD Students

Alysha Cypher – Effects of developmental stress on adult zebrafish and their progeny
Chris Marks – Completed May 2012. Effects of genetic and developmental environments on zebrafish development

Master's Students

Peter Gates -

Jessica Ickes – Completed August 2015. Effects of methamphetamine on zebrafish development
Dakota Turner - Effects of high blood pressure on zebrafish development
Amber Hurlbut – Completed December 2012. Effects of alcohol exposure on zebrafish development
Casey Fox - Effects of stress on the CV system of *Xenopus* larvae
Megan Spencer - Completed August 2011. Effects of burrow conditions of juvenile armadillos
Megan Lengyel - Completed May 2011. Energetics of pregnant and lactating armadillos
Michelle Matozel - Completed in August 2009. Effects of hypoxia on the digestive system in zfish
Jessica Francl – Completed in May 2005. Cadherins and cardiac regeneration in zebrafish
Misty Ayers – Completed in July 2006. Chronic hypoxia and zebrafish development and fitness
Jarod Steuber – Completed in Dec. 2007. Metabolic consequences of leprosy in armadillos (co-advised)
Erin Barnard – Maternal diet effects of the development of zebrafish (all but thesis)

Undergraduate Honors, McNair, or Tiered Mentoring Students*

Joanna Consiglio (current) – Effects of endocrine disruptors on zebrafish cardiovascular development
Shelby Hoffman (current) – The effect of maternal diet on fat composition of zebrafish eggs
Daniel Redle – The effects of hypoxia on production of insulin-like growth factor
Rachael Rielinger – The effects of temperature on learning and behavior in zebrafish
James Ohliger – Morphological effects of embryonic ethanol exposure in zebrafish
Kelsea Mapes – Effects of ethanol exposure on zebrafish aggression/avoidance
Rebecca Miesle - Effects of ethanol exposure on zebrafish swimming performance
Steve Lombardo* - The effect of diet on zebrafish size and swimming performance
Kristie Formanik* - The effect of diet on zebrafish size and swimming performance
Andrew Young - Effect of early androgen exposure on adult zebrafish
Heather Datsko – Sleep habits and BMI in primary care patients
Stephanie Sparks - Effects of hypoxia on zebrafish cardiac regulation
Ashley Perry - Effects of hypoxia on metabolic rates of zebrafish
Aubrey Learner – Effects of sub-lethal ammonia on zebrafish fitness
Mandy Rowland - Effects of hypoxia on zebrafish behavior
Adam Manko – Effects of chronic hypoxia on the oxygen consumption in the zebrafish
Jaime Emery – Effects of cardio-active and cardio-depressive agents on the zebrafish heart
Steve Widmer – Effects of chronic hypoxia on swimming performance in zebrafish
Michelle Hosey – Family specific cardiac responses to chronic hypoxia in zebrafish
Lisa Pennza – Heat shock protein upregulation during heart regeneration in zebrafish
Abdullahi Ali (McNair) – Isolating strains of *Mycobacterium leprae* (co-advised)
Shatara Agnew (McNair) – Effects of exogenous stress on zebrafish development
Shannon Cunningham – Effects of handling stress on *Bufo marinus*

Biological Problems (1-2 semester undergraduate projects in my lab)

I have generated over 70 credits in Biological Problems Research in which 40 undergraduate students (56 if you include Honors students) have completed projects in my laboratory.

Since beginning at the University of Akron, there are 10 undergraduate authors on my publications.

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