

John Eme

Curriculum Vitae (August 14th, 2013)

Postdoctoral Fellow

McMaster University
Department of Biology
1280 Main Street West
Hamilton, Ontario, Canada, L8S 4K1

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Website: <http://www.biol.unt.edu/~jme0150>

EDUCATION

University of California, Irvine

Doctor of Philosophy, June 2010

Dissertation: The role of pulmonary bypass cardiac shunt and cardiovascular plasticity in the American alligator (*Alligator mississippiensis*).

University of West Florida

Master of Science, July 2005

Thesis: Metabolic responses and dynamic temperature tolerance of selected fishes from the Wakatobi Marine National Park, Indonesia

University of Illinois at Urbana-Champaign

Bachelor of Science, January 2000

RESEARCH

I am interested in the cardiopulmonary system, energetics, thermal tolerance, development, and ecology of lower vertebrates (fish and reptiles) and their adaptations to environmental factors, particularly ambient oxygen level and temperature. In Sulawesi, Indonesia, I have examined fish biology in the context of global climate change, and my most recent research concerned intertidal fishes that inhabit hyperthermic waters in Indonesia. My reptile research has focused on the development, regulation, evolution and adaptive significance of reptilian cardiovascular systems, and I have studied embryonic, juvenile, and large reptiles including alligators, turtles, and snakes. Currently, I am a post-doc at McMaster University where I work on project examining the development of Whitefish embryos in response to variable thermal regimes.

PEER-REVIEWED PUBLICATIONS (undergraduates are underlined)

19. Hendy IW, **Eme J**, Dabruzzi TF, Nembhard RV, Cragg SM, Bennett WA (2013) Dartfish use teredinid tunnels in fallen mangrove wood as a low-tide refuge. *Marine Ecology Progress Series*, **486**, 223-236
18. **Eme J**, Rhen T, Tate KB, Gruchalla K, Kohl ZF, Slay CE, Crossley II DA (2013) Plasticity of cardiovascular function in snapping turtle embryos (*Chelydra serpentina*): Chronic hypoxia alters autonomic regulation and gene expression. *American Journal of Physiology: Regulatory, Integrative and Comparative Physiology*, **304**, R966-R979
17. **Eme J**, Elsey RM, Crossley II DA (2013) Development of sympathetic cardiovascular control in embryonic, hatchling, and yearling female American alligator (*Alligator mississippiensis*). *Comparative Biochemistry and Physiology A*, **165**, 272-280
16. Marks C, **Eme J**, Elsey RM, Crossley II DA (2013) Chronic hypoxic incubation blunts thermally-dependent cholinergic tone on the cardiovascular system in embryonic American alligator (*Alligator mississippiensis*). *Journal of Comparative Physiology B*, **in press**, DOI: 10.1007/s00360-013-0755-2
15. Tate KB, **Eme J**, Swart J, Conlon JM, Crossley II DA (2012) Effects of dehydration on cardiovascular development in the embryonic American alligator (*Alligator mississippiensis*). *Comparative Biochemistry and Physiology A*, **162**, 252-258
14. Grim JM, **Eme J**, Rohrer JS, Ferer E, Wilkes AA, Wilborn R, Radzik K, Croker RL, O'Farrell AJ, Pomory CM and Bennett WA (2011) Loss of structural complexity in staghorn coral rubble habitats influences the density of damselfish in Dry Tortugas National Park, Florida, USA. *Gulf of Mexico Science*, **29**, 113-118
13. **Eme J**, Altimiras J, Hicks JW, Crossley II DA (2011) Hypoxic Alligator Embryos: Chronic hypoxia, catecholamine levels and autonomic responses of *in ovo* alligators. *Comparative Biochemistry and Physiology A*, **160**, 412-420
12. Dabruzzi TF, Wygoda ML, Wright JE, **Eme J**, Bennett WA (2011) Direct evidence of cutaneous resistance to evaporative water loss in amphibious mudskipper (Family Gobiidae) and rockskipper (Family Blennidae) fishes from Pulau Hoga, Southeast Sulawesi, Indonesia. *Journal of Experimental Marine Biology and Ecology*, **406**, 125-129
11. **Eme J**, Hicks JW, Crossley II DA (2011) Chronic hypoxic incubation blunts a cardiovascular reflex loop in embryonic American alligator (*Alligator mississippiensis*). *Journal of Comparative Physiology B*, **181**, 981-990

10. **Eme J**, Dabruzzi TF, Bennett WA (2011) Thermal responses of juvenile squaretail mullet (*Liza vaigiensis*) and juvenile crescent terapon (*Terapon jarbua*) acclimated at near-lethal temperatures, and the implications for climate change. *Journal of Experimental Marine Biology and Ecology*, **399**, 35-38
9. **Eme J**, Crossley II DA, Hicks JW (2011) Role of the left aortic arch and blood flows in embryonic American alligator (*Alligator mississippiensis*). *Journal of Comparative Physiology B*, **181**, 391-401
8. **Eme J**, Gwaltney J, Owerkowicz T, Blank JM, Hicks JW (2010) Turning Crocodilian hearts into Bird hearts: Growth rates are similar for alligators with and without cardiac shunt. *The Journal of Experimental Biology*, **213**, 2673-2680
7. **Eme J**, Bennett WA (2009) Acute temperature quotient responses of fishes reflect their divergent thermal habitats in the Banda Sea, Sulawesi, Indonesia. *Australian Journal of Zoology*, **57**, 357-362
6. **Eme J**, Gwaltney J, Blank JM, Owerkowicz T, Barron C, Hicks JW (2009) Surgical removal of right-to-left cardiac shunt in the American alligator (*Alligator mississippiensis*) causes ventricular enlargement but does not alter apnoea or metabolism during diving. *The Journal of Experimental Biology*, **212**, 3553-3563
5. **Eme J**, Owerkowicz T, Gwaltney J, Blank JM, Rourke BC, Hicks JW (2009) Exhaustive exercise training enhances aerobic capacity in American alligator (*Alligator mississippiensis*). *Journal of Comparative Physiology B*, **179**, 921-931
4. **Eme J**, Bennett WA (2009) Critical thermal tolerance polygons of tropical marine fish from Sulawesi, Indonesia. *Journal of Thermal Biology*, **34**, 220-225
3. Wilkes AA, Cook MM, DiGirolamo AL, **Eme J**, Grim JM, Hohmann BC, Conner SL, McGill CJ, Pomory CM, Bennett WA (2008) A comparison of damselfish densities on live staghorn coral (*Acropora cervicornis*) and coral rubble in Dry Tortugas National Park, USA. *Southeastern Naturalist*, **7**, 483-492
2. **Eme J** and Bennett WA (2008) Low temperature as a limiting factor for introduction and distribution of Indo-Pacific damselfishes in the eastern United States. *Journal of Thermal Biology*, **33**, 62-66
1. Taylor J, Cook M, Kirkpatrick A, Galleher S, **Eme J**, Bennett WA (2005) Thermal tactics of air-breathing and non air-breathing Gobiids inhabiting mangrove tidepools on Pulau Hoga, Indonesia. *Copeia*, **4**, 885-892

OTHER PUBLICATIONS

- **Eme J** (2011) *Invited book review of Respiratory Physiology of Vertebrates: Life with and without Oxygen*. GE Nilsson (Ed), Cambridge University Press, New York. *The Quarterly Review of Biology*, **86(2)**, 142
- **Eme J** (2011) Lessons from crocodilians on vertebrate cardiac shunting and exercise. In: *Reptiles: Biology, Behavior and Conservation*. KJ Baker (Ed), Nova Science Publishers, Hauppauge, NY, USA. pp. 57-80, ISBN: 978-1-61122-856-4

SELECTED PRESENTATIONS AND PUBLISHED ABSTRACTS (*speaker, undergraduates)

- **Eme J***, Rhen T, Tate KB, Gruchalla K, Slay CE, Kohl ZF, Crossley II DA (2013) Chronic hypoxia (10% O₂) alters cardiovascular regulation and gene expression in Snapping turtle embryos (*Chelydra serpentina*). Experimental Biology. Boston, MA. *FASEB Journal*, Meeting Abstract Supplement **27**, 1149.14
- Felbinger K, Owerkowicz T, **Eme J**, Schriener SE, Hicks JW (2013) Pulmonary bypass shunt reduces oxidative damage in the American alligator. SICB. San Francisco, CA.
- **Eme J**, Tate KB, Slay CE, Kohl ZF, Hicks JW, Crossley II DA (2012) Cardiovascular plasticity during hypoxic development in reptile embryos. Experimental Biology. San Diego, CA. *FASEB Journal*, Meeting Abstract Supplement **26**, 886.4
- Crossley II DA, Tate KB, Elfwing M, **Eme J** (2012) Chronic developmental hypoxia alters the cardiovascular regulatory phenotype of embryonic Common snapping turtles. Experimental Biology. San Diego, CA. *FASEB Journal*, Meeting Abstract Supplement **26**, 1071.11
- Owerkowicz T, Yang J, Blank JM, **Eme J**, Hicks JW (2012) Femoral growth plate is sensitive to loss of cardiac shunt in the American alligator. Experimental Biology. San Diego, CA. *FASEB Journal*, Meeting Abstract Supplement **26**, 908.3
- **Eme J***, Tate KB, Slay CE, Kohl ZF, Hicks JW, Crossley II DA (2012) Cardiovascular plasticity during hypoxic development in reptile embryos. SICB. Charleston, SC. *Integr Comp Biol* **52(suppl 1)**, 54
- Owerkowicz T, Campbell C, **Eme J**, Blank JM, Hicks JW (2012) Cardiac hypertrophy in response to pressure overload and exercise training in the American alligator. SICB. Charleston, SC. *Integr Comp Biol* **52(suppl 1)**, 132
- Owerkowicz T, Yang J, Blank JM, **Eme J**, Hicks JW (2012) Alligator growth plate thickness as an indicator of longitudinal growth rate and circulatory pattern. SICB. Charleston, SC. *Integr Comp Biol* **52(suppl 1)**, 132
- Owerkowicz T, Yang J, Blank JM, **Eme J**, Hicks JW (2011) Microstructure of the femoral growth plate in the American alligator: effects of growth rate, locomotor activity and circulatory pattern. Society of Vertebrate Paleontology. Las Vegas, NV.
- Campbell C, Owerkowicz T, **Eme J**, Blank JM, Hicks JW (2011) Pressure overload surgery does not induce cardiac fibrosis in the American alligator. Experimental Biology. Washington, D.C. *FASEB Journal*, Meeting Abstract Supplement **25**, 858.12

- **Eme J***, Burke M*, Pratt J*, Shah K*, Blackwell L* (2010) Integrating Research into the K-12 Classroom: From Molecules to Ecosystems. Focus Meeting of STEM Fellows in K-12 Education. AAAS. San Diego, CA.
- **Eme J***, Bennett WA, Dabruzzi TF, Fangue NA, Rummer JL (2010) Effects of warming sea temperatures on survival of juvenile reef fishes in nursery areas around Hoga Island in the Wakatobi Marine National Park. Association for Tropical Biology and Conservation. Sanur Beach, Bali, The Republic of Indonesia.
- **Eme J**, Hicks JW, Crossley II DA (2010) Cardiovascular plasticity during hypoxic incubation of American alligators (*Alligator mississippiensis*). Experimental Biology. Anaheim, CA. *FASEB Journal*, Meeting Abstract Supplement **24**, 988.6
- Owerkowicz T, **Eme J**, Gwalthney J, Blank JM, Hicks JW (2010) Cardiac shunting does not constrain aerobic capacity of the American alligator. Experimental Biology. Anaheim, CA. *FASEB Journal*, Meeting Abstract Supplement **24**, 988.5
- Owerkowicz T, Tsai HP, Sanchez L, Felbinger K, Andrade K, Blank JM, **Eme J**, Gwalthney J, Hicks JW (2010) Chronic exercise does not alter limb bone morphology or microstructure in the American alligator. Experimental Biology. Anaheim, CA. *FASEB Journal*, Meeting Abstract Supplement **24**, 637.4
- **Eme J**, Hicks JW, Crossley II DA (2010) Cardiovascular plasticity during hypoxic development of American alligators (*Alligator mississippiensis*). AAAS. San Diego, CA.
- **Eme J**, Hicks JW, Crossley II DA* (2010) Cardiovascular plasticity during development of American alligators (*Alligator mississippiensis*). SICB. Seattle, WA. *Integr Comp Biol* **50(suppl 1)**, 50
- Tate K, Swart J, **Eme J**, Conlon JM, Crossley II DA (2010) Effects of dehydration on cardiovascular development in American alligators (*Alligator mississippiensis*). SICB. Seattle, WA. *Integr Comp Biol* **50(suppl 1)**, 173
- Owerkowicz T, **Eme J**, Gwalthney J, Blank JM, Hicks JW (2010) Cardiac shunting does not constrain aerobic capacity of the American alligator. SICB. Seattle, WA. *Integr Comp Biol* **50(suppl 1)**, 277
- Tsai HP, Owerkowicz T, Sanchez L, Felbinger K, Andrade K, Blank JM, **Eme J**, Gwalthney J, Hicks JW (2010) Exhaustive terrestrial and aquatic exercise does not affect periosteal deposition, structural properties or mineral content in limb bones of the American alligator. SICB. Seattle, WA. *Integr Comp Biol* **50(suppl 1)**, 176
- Owerkowicz T, Tsai HP, Sanchez L, Gwalthney J, **Eme J**, Blank JM, Hicks JW (2009) Effect of running and swimming exercise training on skeletal growth and bone microstructure of the American alligator (*Alligator mississippiensis*) with and without cardiac shunt. Experimental Biology, New Orleans, LA. *FASEB Journal*, Meeting Abstract Supplement **23**, 1031.2
- **Eme J**, Crossley II DA, Hicks JW (2009) Hemodynamics of embryonic American alligators. SICB. Boston, MA. *Integr Comp Biol* **49(1)**, 225
- Tate KB, **Eme J**, Crossley II DA (2009) Assessing the capacity for sympathetic control of cardiovascular physiology in embryonic snapping turtles (*Chelydra serpentina*). SICB. Boston, MA. *Integr Comp Biol* **49(suppl 1)**, 313
- Crossley II, DA, Tate KB, **Eme J** (2009) The impact of periodic dehydration stress on cardiovascular function in the embryonic American alligator (*Alligator mississippiensis*). SICB. Boston, MA. *Integr Comp Biol* **49(suppl 1)**, 218
- **Eme J**, Gwalthney J, Owerkowicz T, Blank JM, Hicks JW (2008) Removal of cardiac shunt causes ventricular enlargement in American Alligator. Experimental Biology, San Diego, CA. *FASEB Journal*, Meeting Abstract Supplement **22**, 1239.26
- **Eme J***, Gwalthney J, Owerkowicz T, Blank JM, Hicks JW (2007) Growth and exercise endurance of American Alligator (*Alligator mississippiensis*) with and without cardiac shunt. International Congress of Comparative Physiology and Biochemistry. Salvador, Bahia, Federative Republic of Brasil. *Comp Biochem Physiol A – Mol Integr Physiol* Supplement **148**, S83
- Gwalthney J, **Eme J**, Owerkowicz T, Blank JM, Hicks JW (2007) The contribution of pulmonary-to-systemic cardiac shunting to growth, metabolism, and recovery from exercise in *Alligator mississippiensis*. Experimental Biology. Washington, D.C. *FASEB Journal*, Meeting Abstract Supplement **21**, 965.8
- Blank JM, Owerkowicz T, Gwalthney J, **Eme J**, Rourke BC, Hicks JW (2007) Hemodynamic consequences of eliminating right-to-left cardiac shunt in the American Alligator. Experimental Biology. Washington, D.C. *FASEB Journal*, Meeting Abstract Supplement **21**, 965.7
- **Eme J***, Gwalthney J, Owerkowicz T, Blank JM, Hicks JW (2007) Growth and exercise endurance of American Alligator (*Alligator mississippiensis*). SICB. Phoenix, AZ. *Integr Comp Biol* **46(suppl 1)**, E39
- Blank JM, Owerkowicz T, **Eme J**, Gwalthney J, Hicks JW (2006) Surgical removal of cardiac shunt in American Alligator (*Alligator mississippiensis*). APS Intersociety Meeting: Integrating Diversity. Virginia Beach, VA.
- **Eme J**, Fitchett K, Wallman H, Bennett WA (2004) Challenging van't Hoff's rule: Paradoxical Q₁₀ responses of fishes from hyperthermic rockpools. Annual Meeting of the Florida Chapter American Fisheries Society, Brooksville, FL. Runner-up: Best Student Platform Presentation.

PROFESSIONAL HISTORY

Postdoctoral Fellow

August 2013 –

Department of Biology

McMaster University; Hamilton, Ontario, Canada, L8S 4K1

Supervisor: Dr. Joanna Wilson & Dr. Douglas Boreham, Primary Investigators

In the Wilson and Boreham labs, we study the development and plasticity of fish embryonic development in response to variable thermal and radiological regimes, from comparative, toxicological, and evolutionary physiology perspectives.

Postdoctoral Research Associate

February 2011 – July 2013

Department of Biological Sciences

University of North Texas; Denton, TX 76203

Supervisor: Dr. Dane A. Crossley II, Primary Investigator

<http://www.biol.unt.edu/~dc0015>

In the Crossley lab, I studied the development and plasticity of reptilian and avian cardiopulmonary systems.

Postdoctoral Research Associate

September 2010 – January 2011

Department of Biology

University of North Dakota; Grand Forks, ND 58202

Supervisor: Dr. Dane A. Crossley II, Primary Investigator

Staff Scientist

June 2005/2010 – September 2005/2010

Operation Wallacea

Supervisor: Dr. David Smith, Director of Marine Research

Lincolnshire, United Kingdom PE23 4EX

www.opwall.com

Fish ecophysiological research in the Wakatobi Marine National Park, South East Sulawesi, Indonesia.

Graduate STEM Fellow in K-12 Education

July 2009 – June 2010

National Science Foundation (DGE-0638751)

Supervisors: Dr. L Mota-Bravo & Dr. RM Mulligan, Primary Investigators

University of California, Irvine; Irvine, CA 92697

http://comparativephysiol.zsl.org/GK-12/GK-12_CM_High.html

K-12 education for grades 7th-12th in Santa Ana and Newport-Mesa Unified School Districts, CA, USA.

Laboratory Instructor and Teaching Assistant

September 2005 – June 2009

Department of Ecology and Evolutionary Biology

University of California, Irvine; Irvine, CA 92697

Laboratory Instructor: BIO 112L (Physiology): Spring 2007, Fall 2006, Spring 2006, Winter 2006. BIO 100LW (Experimental Biology): Fall 2005.

Teaching Assistant: BIO 93 (DNA to Organisms): Fall 2008; BIO E109L (Human Physiology): Summer I 2008; BIO E179L (Field Freshwater Ecology): Spring 2008; BIO E142W (Philosophy of Biology): Winter 2008; *BIO 93 (DNA to Organisms): Fall 2007; BIO 11 (Marine Environmental Issues): Winter 2007.

*HHMI UCI Graduate Fellow, awarded \$1100 to present at Annual Meeting of SICB, Boston, MA, 2009.

Laboratory Instructor and Teaching Assistant

August 2002 - May 2005

Department of Biology

University of West Florida; Pensacola, FL 32514

Laboratory Instructor: BCH 3033L (Biochemistry I): Spring 2005 (2 Sections), Fall 2004 (2 Sections), Spring 2004 (2 Sections), Fall 2003, Spring 2003. BCH 3034L (Biochemistry II): Fall 2004 (2 Sections), Spring 2003.

Teaching Assistant: PCB 5527L (Molecular Biology): Spring 2005 (2 Sections); ZOO 4753L (Histology): Fall 2004, Fall 2003, Fall 2002; PCB 4043L (Ecology): Fall 2003; MCB 3020L (Microbiology): Fall 2002 (2 Sections).

Research Technologist II

September 2000 – June 2002

Department of Biochemistry, Molecular Biology and Cell Biology

Northwestern University; Evanston, IL 60203

Supervisor: Dr. Erwin Goldberg, Principal Investigator

REVIEWING SERVICE

14 different journals, ad hoc peer reviewer: *Am J Physiol: Reg Integr Comp Physiol* (2), *Anim Beh*, *Biol Letters*, *Comp Biochem Physiol A* (2), *Coral Reefs*, *Fish Physiol Biochem* (2), *Global Change Biol* (2), *J Exp Biol*, *J Therm Biol*, *Mar Ecol Prog Ser*, *Naturwissenschaften*, *PLoS ONE*, *Trop Zool*, *Zool*

FUNDING, AWARDS AND SELECTED TRAVEL MONIES

- **\$2000** – October 2014, American Physiological Society, Symposium Chair/Organizer, Intersociety Meeting in Comparative Physiology, San Diego, CA, *Challenges from the Very Beginning: Developmental Physiology, Epigenetics, and Critical Windows*.
- **\$200** – April 2013, American Physiological Society, Runner-Up, Per Scholander Award Best Poster Presentation. Comparative and Evolutionary Physiology Section, Experimental Biology 2013 Meeting in Boston, MA
- **\$2000** – April 2013, American Physiological Society, Featured Topic Chair/Organizer, Experimental Biology 2013 Meeting in Boston, MA, *Integrative Cardiovascular and Respiratory Physiology of Non-Model Organisms*.
- **\$825** – February 2012, American Physiological Society, Comparative and Evolutionary Physiology Section's Research Recognition Award for meritorious research and *Experimental Biology* 2012.
- **\$1500** – June 2010, Dr. William F. Holcomb Scholarship. Annual award given by UCI's School of Biological Sciences, in recognition of outstanding research in marine biology (graduate student).
- **\$30000** – July 2009-June 2010, Graduate STEM Fellow in K-12 Education, University of California, Irvine. One-year fellowship to teach life science to 7th and 11th grade students.
- **\$2000** – June 2009, Company of Biologists, Ltd. Journal of Experimental Biology Traveling Fellowship. Proposal entitled "Chronic and acute effects of Left Aortic occlusion during embryonic development of American alligator (*Alligator mississippiensis*)" funded to collaborate with Dr. Dane A. Crossley II at the University of North Dakota.
- **\$500** – June 2009, Grover C. Stephens Memorial Fellowship Award. Annual award given by UCI's School of Biological Sciences to an outstanding comparative physiologist (graduate student).
- **\$1100** – January 2009, Howard Hughes Medical Institute (HHMI), HHMI UCI Graduate Fellow, awarded monies to present three papers at Annual SICB meeting, Boston, MA, 2009.
- **\$6750** – March 2006, National Science Foundation (NSF). NSF East Asia Summer Institutes for U.S. Students Fellowship. Proposal funded with travel and expense monies (US \$1750) and stipend (US \$3000) from NSF and stipend (AU \$3000) from Australian Academy of Science to collaborate with Dr. Peter B. Frappell (La Trobe University, Melbourne, Victoria, Australia) on the plasticity of metabolism and the cardiopulmonary system in response to hyperoxia, using Murray Cod (*Maccullochella peelii peelii*) as a model.
- **\$500** – November 2004, University of West Florida, Graduate Student Scholarly and Creative Activity Award "Ecological thermal tolerance of Black snapper in Sulawesi, Indonesia".
- **\$100** – November 2004, University of West Florida, Student Government Association. Travel award to attend 4th Annual Fisheries Student Colloquium in Marineland, Florida.
- **\$2760** – June 2004, Operation Wallacea. Travel monies provided for supervision of American undergraduate research (6 students) and British undergraduate dissertation research (2 students). Five proposals submitted to intertidal fish physiology research plan.
- **\$100** – February 2004, Florida Chapter, American Fisheries Society. Travel award.
- **\$500** – August 2003, Project AWARE® Asia Pacific, Micro Grant "Biodiversity and Community Structure of Fish Fauna Inhabiting Marginal Habitats in the Wakatobi Marine National Park, Sulawesi, Indonesia".
- **\$200** – June 2003, University of West Florida, Marine Eco-physiology Research Society Grant "Biodiversity of Fish Fauna Inhabiting Marginal Habitats in the Wakatobi Marine National Park, Sulawesi, Indonesia".

SOCIETY AFFILIATIONS

- | | |
|--|-------------|
| • Society for Integrative and Comparative Biology (SICB) | 2006 – |
| • The American Physiological Society (APS) | 2005 – |
| • Florida Chapter American Fisheries Society | 2002 – 2006 |
| • Marine Eco-Physiology Research Society (UWF) – Treasurer | 2002 – 2005 |

UNIVERSITY, SOCIETY AND COMMUNITY SERVICE

- Symposium Chair/Organizer, APS Intersociety Meeting 2014 in San Diego, CA,
Challenges from the Very Beginning: Developmental Physiology, Epigenetics, and Critical Windows. 2014
- Featured Topic Chair/Organizer, Experimental Biology 2013 Meeting in Boston, MA,
Integrative Cardiovascular and Respiratory Physiology of Non-Model Organisms. 2013
- Student & Post-doctoral Workshop, Lead Speaker, SICB 2012
- Chair, Cardiovascular and Respiration Physiology Presentation Section, SICB 2012
- Science Fair Judge, Orange County, CA 2010
- Organized UCI EEB departmental graduate student recruitment and social weekend 2007
- Organized UCI EEB departmental graduate student symposium 2006

SCUBA CERTIFICATIONS

- Scientific Diver – University of West Florida 2003
- Open water SCUBA diver (NAUI®) 2002

REFERENCES

- James W. Hicks (jhicks@uci.edu), Professor, Associate Vice Chancellor for Research, University of California, Irvine (949) 824 6386
- Wayne A. Bennett (wbennett@uwf.edu), Professor, University of West Florida (850) 474 3362
- Dane A. Crossley II (dane.crossley@unt.edu), Assistant Professor, University of North Texas (940) 369 7327