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(a) Professional Preparation

University of Chicago, Biological Sciences, S.B. 1989
University of Chicago, Organismal Biology and Anatomy, Ph.D. 1995
University of Utah, Biology, Postdoctoral fellow, 1995-2001

(b) Appointments

2001 - 2012, Assistant/Associate Professor
Department of Psychological and Brain Sciences, Johns Hopkins University
2012 - Present, Associate Professor
Federated Department of Biological Sciences, NJIT

(c) Publications

(i) Publications most closely related to the proposed project

Sutton EE, Demir A, Stamper SA, Fortune ES and NJ Cowan (**2016**) Dynamic modulation of visual and electrosensory gains for locomotor control. J R Soc Interface 13(118): 20160057.

Cowan NJ, Ankarali MM, Dyhr JP, Madhav MS, Roth E, Sefati S, Sponberg S, Stamper SA, Fortune ES and TL Daniel (**2014**) Feedback control as a framework for understanding tradeoffs in biology. Int. Comp. Biol, 54:223-237, PMID:24893678.

Sefati S, Neveln ID, Roth E, Mitchell TR, Snyder JB, Maciver MA, Fortune ES, and NJ Cowan (**2013**) Mutually opposing forces during locomotion can eliminate the tradeoff between maneuverability and stability. PNAS, 110:18798-18803, PMID: 24191034.

Madhav MS, Stamper SA, Fortune ES, and NJ Cowan (**2013**) Closed-loop stabilization of the Jamming Avoidance Response reveals its locally unstable and globally nonlinear dynamics, J. Exp. Biol., 216:4272-4284, PMID:23997196.

Stamper SA, Roth E, Cowan NJ, and ES Fortune (**2012**) Active sensing via movement shapes spatiotemporal patterns of sensory feedback. J. Exp. Biol., 215:1567-1574, PMID: 22496294.

(ii) Other significant publications

McGillivray P, Vonderschen K, Fortune ES, Chacron MJ. (**2012**) Parallel coding of first and second-order stimulus attributes by midbrain electrosensory neurons. J. Neurosci. 32:5510-5524, PMID: 22514313.

Roth, E., Zhuang, K., Stamper, S.A., Fortune, E.S., and N.J. Cowan (**2011**) Stimulus predictability mediates a switch in locomotor smooth pursuit performance for Eigenmannia virescens. J. Exp. Biol., PMID: 21389203.

Fortune, E.S., Rodriguez, C., Li, D., Ball, G.F., and M. Coleman (**2011**) Neural mechanisms for the coordination of duet singing in wrens. Science, 334:666-670, PMID: 22053048.

Khosravi-Hashemi, N., Fortune, E.S., and M.J. Chacron (**2011**) Coding movement direction by burst firing in electrosensory neurons. J. Neurophysiol., 1954-1968, PMID: 21775723.

Chacron, M.J. and E.S. Fortune (**2010**) Subthreshold membrane conductances enhance directional selectivity in vertebrate sensory neurons. J. Neurophysiol., PMID: 20445028.

(d) Synergystic Activities

1) Development of research infrastructure and academic advising at Universities in Ecuador including Pontificia Universidad Católica del Ecuador, Universidad San Francisco de Quito, and Escuela Politécnica del Ejército.

2) Development of inexpensive electronic circuits for use in physiological measurements.

3) Ad Hoc teaching (lectures, demonstrations) in K-12, undergraduate- and graduate-level courses at JHU and other institutions.

4) Ad hoc Journal and grant reviews for Neuron, Journal of Neuroscience, Animal Behavior, Journal of Neurophysiology, Journal of Comparative Physiology A, Brain Behavior and Evolution, PLoS Biology, etc. and the National Science Foundation.

5) Council member, International Society for Neuroethology.