Aaron T. Haselton
State University of New York at New Paltz
Department of Biology
Assistant Professor

Education:

Degree	Date	Institution	Major
Ph.D.	2005	University of Massachusetts Amherst	Entomology
M.S.	2001	University of Massachusetts Amherst	Entomology
B.S.	1997	University of Massachusetts Amherst	Biology

Dissertation Title and Description:

"Myotropic peptide hormones and serotonin in the regulation of feeding in the adult blow fly, *Phormia regina*, and the adult horse fly, *Tabanus nigrovittatus*"

My dissertation investigated the involvement of several classes of myoactive neuropeptides and the biogenic amine serotonin in the regulation of feeding in insects. I was able to immunolocalize and characterize the occurrence of these neuromessengers throughout the central and stomatogastric nervous systems and the alimentary tracts in two model insects, the blow fly, *Phormia regina*, and the blood-feeding horse fly, *Tabanus nigrovittatus*. I also studied the effects of myotropic neuropeptides on gut motility in *P. regina in situ* and *in vitro* and the effects of the serotonin depleter, α-methyltryptophan on blood-feeding behavior in *T. nigrovittatus*. My results demonstrated that feeding behavior and nutrient processing are under the control of a constellation of neuromessengers that are produced by specialized cells in the nervous system and in the alimentary tract. The act of feeding triggers a neurohormonal cascade in these insects that, through the control of gut musculature, results in the proper delivery of nutrients to appropriate regions of the digestive tract at appropriate times. Simultaneously, many of these released neuromessengers serve as systemic hormones that regulate other unidentified aspects of physiology and behavior.

Professional Experience:

August 2006 – Present, Assistant Professor, State University of New York at New Paltz, New Paltz, NY, Assistant Professor of Biology, 1.0.

October 2005 – July 2006, Postdoctoral Researcher, Brown University, Providence, RI, Postdoctoral Research Associate in the laboratory of Stephen Helfand in the Department of Molecular Biology, Cell Biology, and Biochemistry, 1.0.

June 2004 – September 2005, Postdoctoral Researcher, University of Connecticut Health Center, Farmington, CT, Postdoctoral Research Associate in the laboratory of Stephen Helfand in the Department of Genetics and Developmental Biology, 1.0.

February 1999 – May 2004, Graduate student researcher, University of Massachusetts Amherst, Amherst, MA Graduate Research Assistant in the laboratory of John Stoffolano in the Department of Entomology, 1.0

August 1995 - January 1999, Research Assistant, University of Massachusetts Amherst, Amherst, MA, Research Assistant in the laboratory of Professor Lynn Margulis, 0.5 and 1.0.

Fellowships and Awards:

2009-2011	Merck/AAAS Undergraduate Science Research Program Award (as a co-PI/Participating Faculty)
2009-2010	Provost's Research Award, SUNY New Paltz
2009	Evolutionary Studies Program internal National Science Foundation grant to support collaborative research and course development
2009	Summer Undergraduate Research Experience Award, SUNY New Paltz
2008	Summer Undergraduate Research Experience Award, SUNY New Paltz
2007	Summer Undergraduate Research Experience Award, SUNY New Paltz
2002-2003	University of Massachusetts Graduate School Fellowship
1996-1997	Hughes Undergraduate Research Award

Publications (Journal Articles)**:**

Haselton, A. T. and Dinsmore, J. E., The effects of dietary history on post-starvation re-feeding in *Drosophila melanogaster*. Manuscript in preparation for submission to the Journal of Insect Physiology.

Haselton, A. T., Halpern, R., Vinson, R., and Klein, R., The effects of nutrition on lifelong sleep and activity patterns in *Drosophila melanogaster.* Submitted to the Journal PLoS ONE.

Haselton, A. T., and Fridell, Y-W. Adult Drosophila melanogaster as a model for the study of glucose homeostasis. Aging 2: 1-4

Haselton, A. T., Sharmin, E, Schrader, J, Sah, M, Poon, P, Fridell, Y-W. 2010. Partial Ablation of Adult *Drosophila* Insulin-Producing Neurons Modulates Glucose Homeostasis and Extends Life Span Without Insulin Resistance. Cell Cycle 9: 3063-3071.

Haselton, A.T., Downer, K.E., Zylstra, J., Stoffolano, J.G., Jr., 2009. Serotonin inhibits protein feeding in the Blow Fly, *Phormia regina* (Meigen). Journal of Insect Behavior, 22: 452-463.

Haselton A.T., Yin, C.-M., Stoffolano, J.G., Jr., 2008. FMRFamide-like immunoreactivity in the central nervous system and alimentary tract of the non-hematophagous blow fly *Phormia regina* and the hematophagous horse fly *Tabanus nigrovittatus*. Journal of Insect Science, 8:65, 17pp.

Downer, K., **Haselton, A.T.,** Nachman, R.J., Stoffolano, J.G., Jr., 2007. Insect satiety: sulfakinin localization and the effect of drosulfakinin on protein and carbohydrate ingestion in the blow fly, *Phormia regina* (Diptera: Calliphoridae). Journal of Insect Physiology, 53, 106-112.

Haselton, A.T., Yin, C.-M., Stoffolano, J.G., Jr., 2006. The effects of *Calliphora vomitoria* Tachykinin-I and the FMRFamide-related peptide Perisulfakinin on female *Phormia regina* crop contractions, in vitro. Journal of Insect Physiology, 52, 436-441.

Haselton, A.T., Yin, C.-M., Stoffolano, J.G., Jr., 2006. Occurrence of serotonin immunoreactive cells and processes in the central nervous system and midgut of the horse fly, *Tabanus nigrovittatus* (Diptera: Tabanidae). Journal of Medical Entomology, 42, 252-257.

Haselton, A.T., Stoffolano, J.G., Jr., Nichols, R., Yin, C.-M., 2004. Peptidergic innervation of the crop and the effects of an ingested nonpeptidal agonist on longevity in female *Musca domestica* (Diptera: Muscidae**)**. Journal of Medical Entomology, 4, 684-690.

Feinberg, L., Jorgensen, J., **Haselton, A.**, Pitt A., Rudner, R., Margulis, L., 1999. *Arthromitus* (*Bacillus cereus*) symbionts in the cockroach *Blaberus giganteus*: dietary influences on bacterial development and population density. Symbiosis, 27, 109-123.

Guerrero, R., **Haselton, A.**, Solé, M., Wier, A., Margulis, L., 1999. *Titanospirillum velox*: A huge, speedy, sulfur-storing spirillum from Ebro Delta microbial mats. Proceedings of the National Academy of Sciences, 96, 11584-11588.

Jorgensen, J., Dolan, S., **Haselton, A.**, Kolchinsky, R., 1997. Isolation and cultivation of spore-forming filamentous bacteria from *Porcellio scaber*. Canadian Journal of Microbiology, 43, 129-135.

Publications (Books)**:**

Margulis, L., Matthews, C., **Haselton, A.**, eds. Environmental Evolution: Effects of the Origin and Evolution of Life on Planet Earth. Cambridge, MA: MIT Press, 2000.

Presentations (Undergraduate co-presenters underlined):

Effects of adipokinetic hormone on crop function in *Drosophila melanogaster*. Aruna Puthota, Leila Crisson, and Aaron Haselton. SUNY New Paltz Student Research Symposium. April 2010.

The effects of DEET on fly development. Hana Akimoto, Kenneth Nystrom, and Aaron Haselton. SUNY New Paltz Student Research Symposium. April 2010.

Repellency of Pinenes Against the House Fly, *Musca domestica*. Angela Acevedo, Hannah Lewis-Rosenblum, Preeti Dhar, and Aaron T. Haselton. Annual Meeting of the Entomological Society of America, Indianapolis Indiana, December 2009; Hudson Valley Life Sciences Group Symposium, SUNY New Paltz, April 2010.

Diet, Sex, and Aging for Supermodels (Supermodel Organisms, that is). Aaron Haselton. Evolutionary Studies Seminar Series, State University of New York at New Paltz. April 2009.

Buzz worthy: alpha pinene derivatives and *Musca domestica*. Angela Acevedo, Aaron Haselton, and Preeti Dhar. Hudson Valley Life Sciences Group Symposium, Vassar College; SUNY New Paltz Student Research Symposium. May 2009.

The Effects of Dietary Regime on Post-starvation Feeding in *Drosophila melanogaster* Jannett Dinsmore and Aaron Haselton. Annual Meeting of the Entomological Society of America's Eastern Branch, Harrisburg, Pa. March 2009.

Changes in activity/sleep patterns of *Drosophila* due to dietary control. Ryan Vinson, Richard Halpern, and Aaron Haselton. SUNY New Paltz Summer Undergraduate Research Experience Presentations. September 2008.

Post-starvation prandial behavior in the fruit fly. Jannett Dinsmore and Aaron Haselton. SUNY New Paltz Summer Undergraduate Research Experience Presentations. September 2008.

Eating and Aging: Lessons from the Diptera. Aaron Haselton. Department of Plant and Soil Sciences Entomology Division, University of Massachusetts Amherst. May 2008.

Effects of diet and aging on circadian activity patterns in *Drosophila melanogaster*. Regina Klein and Aaron Haselton. Hudson Valley Model Organisms Group. Vassar College. February 2008.

Aaron Haselton August 6, 2010

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