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CHRONOLOGY OF EDUCATION

2000 BSc Honors Invertebrate Biology: The University of Alberta
2007 PhD Graduate Interdisciplinary Program in Insect Science: The
 University of Arizona

MAJOR FIELDS OF RESEARCH

Insect neurobiology and neuroethology, specifically modulation of neural circuitry and effects on behavior.

ACADEMIC APPOINTMENTS

Previous Positions

1998 Laboratory Technician, Department of Biology, University of Alberta
1999-2001 Research Technician, Department of Biology, University of Alberta
2001-2005 Graduate Research Assistant, Division of Neurobiology, University of
 Arizona
2005-2007 Graduate Research Associate, Division of Neurobiology, University of
 Arizona

Current Position

2007-2008 Post-doctoral Research Associate, Division of Neurobiology, University
 of Arizona
2008-present Post-doctoral Excellence in Research and Teaching fellow, Center for
 Insect Science, University of Arizona

SCHOLARSHIPS, FELLOWSHIPS, AND AWARDS:

1996 Alexander Rutherford Scholarship for Academic Excellence
1998 Faculty of Science Undergraduate Scholarship for Students Entering Third
 Year
1999 University of Alberta Undergraduate Scholarship
1999 Faculty of Science Undergraduate Scholarship for Students Entering
 Fourth Year
1999 NSERC Undergraduate Student Research Award
2000 NSERC Undergraduate Student Research Award
2000 Dean's Silver Medal in Science
2001-2003 NSERC Postgraduate Scholarship A

2003 The Association for the Chemical Senses 2003 annual meeting travel scholarship
2003 The Center for Insect Science Student Research Award
2003 European Symposium on Insect Taste and Olfaction Housing Scholarship
2003-2005 NSERC Postgraduate Scholarship B
2004 The Association for the Chemical Senses 2004 annual meeting travel scholarship
2004 The Arizona Research Laboratories Edmund A. Arbas Award of Excellence
2005 The Association for the Chemical Senses 2005 annual meeting travel scholarship
2005 The Center for Insect Science Graduate Research Support Award
2005 The Graduate and Professional Student Council Travel Grant
2006 The Center for Insect Science Travel Grant
2006 The Association for the Chemical Senses 2006 annual meeting travel scholarship

MEMBERSHIPS:

The Association for Chemoreception Sciences (2003 to present)

The Society for Neuroscience (2005 to present)

The International Society for Neuroethology (2005 to present)

TEACHING and EDUCATIONAL OUTREACHES

Teaching Assistant for Neuroscience 407 (Neurobiology) fall of 2002

GWIZ educational outreach at the Association for the Chemical Senses 2003-2005 annual meeting

Teaching Assistant for the Neurobiology of Insect Social Behavior cycle at the Neural Systems and Behavior course in Woodshole (2005-2007).

STUDENTS MENTORED

Undergraduate Students

Chelsea Baraff

Stephanie Gage

Mike Miller

Akshay Muralidhar

Orel Zaninovich

Wujie Zhang

High School Students

Caitlin Regan

MEETINGS and PRESENTATIONS:

- 2001 “Variation in the serotonin immunoreactivity of structures in the sub-
esophageal ganglia of fed and unfed flesh flies” 48th Annual Meeting of
the Entomological Society of Alberta (Talk)
- 2001 “Serotonin neuromodulation of feeding behavior in flesh flies” University
of Alberta Department of Biology Entomology Seminar series (Talk)
- 2001 “Serotonin neuromodulation of feeding behavior in flesh flies” The 29th
International Chemoreception Workshop on Insects (Talk)
- 2003 “Ensemble codes for contextual features of olfactory stimuli recorded with
multi-electrode arrays in the moth antennal lobe” The Association for the
Chemical Senses 2003 annual meeting (Poster)
- 2003 “Effects of varying stimulus concentration on ensemble representations in
the moth antennal lobe” The 8th European Symposium on Insect Taste and
Olfaction (Poster)
- 2004 “Octopamine-like immunoreactive neurons in the olfactory and gustatory
centers in the brain of *Manduca sexta*” The Association for the Chemical
Senses 2004 annual meeting (Poster)
- 2005 “The cloning and characterization of the distribution of an octopamine
receptor and two serotonin receptors in the olfactory system of the tobacco
hawkmoth *Manduca sexta*” The Association for the Chemical Senses 2005
annual meeting (Poster)
- 2005 “The Phylogeny of a Putative Circadian Modulator of Olfactory
Sensitivity” 2005 Fall Center for Insect Science Hexapodium (Talk)
- 2006 “The Phylogeny of a Putative Circadian Modulator of Olfactory
Sensitivity” The Association for the Chemical Senses 2006 annual
meeting (Poster)
- 2006 “The cloning of one putative octopamine receptor and two putative
serotonin receptors from the tobacco hawkmoth, *Manduca sexta*” The 5th
International Symposium on Molecular Insect Science (Poster)
- 2007 “Serotonergic modulation of olfactory processing in the antennal lobe of
Manduca sexta” The 10th European Symposium on Insect Taste and
Olfaction (talk)
- 2007 “Serotonergic modulation of olfactory processing in the antennal lobe of
Manduca sexta” The 37th Meeting of the Society for Neuroscience (Poster)
- 2008 “Probing Activity Across Neural Networks Using Multichannel
Recording: Advantages, Techniques and Limitations.” 1st annual CILIA
Summer School: From Biological to Bionic Systems (Invited Talk)
- 2008 “Anatomical segregation of color, motion and timing in the bee brain.”
The 2nd International Conference on Invertebrate Vision (Poster)

PUBLICATION LIST

1. Dacks AM, Nickel T, Mitchell, B. 2003. An examination of serotonin and feeding in the flesh fly *Neobellieria bullata* (Sarcophagidae: Diptera) *The Journal of Insect Behavior*. 16(1):1-21.
2. Dacks AM, Christensen TA, Agricola H-J, Wollweber L, Hildebrand JG. 2005. Octopamine-immunoreactive neurons in the brain and subesophageal ganglion of

- the hawkmoth *Manduca sexta*. *The Journal of Comparative Neurology*. 488(3):255-269
3. Dacks AM, Christensen TA, Hildebrand JG. 2006. The Phylogeny of a Serotonin-Immunoreactive Neuron in the Primary Olfactory Center of the Insect Brain. *The Journal of Comparative Neurology*. 498:727-746.
 4. Dacks AM, Dacks JB, Christensen TA, Nighorn AJ. 2006. The cloning of one putative octopamine receptor and two putative serotonin receptors from the Tobacco hawkmoth, *Manduca sexta*. *Insect Biochemistry and Molecular Biology*. 36:741-747.
 5. Dacks AM, Guerenstein PG, Reisenman CE, Martin JP, Lei H, Hildebrand JG. 2006. Olfaction; *Manduca*. In Shepherd G. (ed) *The Encyclopedia for Neuroscience*. Elsevier, Oxford. In press.
 6. Dacks AM, Christensen TA, Hildebrand JG. 2008. Modulation of Olfactory Processing in the Antennal Lobe of *Manduca sexta* by serotonin. *The Journal of Neurophysiology*. 99(5):2077-85.
 7. Paulk A, Phillips-Portillo J, Dacks AM, Fellous J-M, Gronenberg W. The processing of color, motion, and stimulus timing are anatomically segregated in the bumblebee brain. *The Journal of Neuroscience*. 28(25):6319-32.