

BIOGRAPHICAL SKETCH

Lyric C. Bartholomay

Assistant Professor – Medical Entomology

EDUCATION/TRAINING - INSTITUTION AND LOCATION DEGREE

(if applicable) YEAR(s) FIELD OF STUDY

Colorado State University B.S. 1998 Bioagricultural Sciences and Pest Management, Microbiology

University of Wisconsin-Madison Ph.D. 2004 Comparative Biomedical Sciences and Entomology

A. Positions and Honors.

Positions:

Student Laboratory assistant, Colorado State University, Department of Microbiology, 1992-1994, 1995

Student Laboratory assistant, University of Wisconsin-Madison, Department of AHABS, 1995

Laboratory technician, Colorado State University, Department of Microbiology, 1996-1998

Research assistant, University of Wisconsin-Madison, Department of AHABS, 1999-present

Teaching assistant, University of Wisconsin-Madison, Department of Entomology, General Entomology, Fall 2002

Teaching assistant, University of Wisconsin-Madison, Department of AHABS, Parasitology, Spring 2003

Instructor, University of Wisconsin-Madison, Department of AHABS, Parasitology 350, Spring 2004

Postdoctoral Research Associate, University of Wisconsin-Madison, Department of AHABS, 2004-2005

Assistant Professor, Iowa State University, Department of Entomology, August 2005 – present

Honors and Professional activities:

Scholarship for excellence in undergraduate research, 1998

Member American Society of Tropical Medicine and Hygiene, 1999-present

Speaker at the 48th annual meeting of the American Society of Tropical Medicine and Hygiene, 1999

Cellular and Molecular Parasitology Fellow, 2001- 2004

Speaker at the Research and Training Center on Vectors of Diseases, Ain Shams University, Cairo, Egypt, 2002

Member American Society of Parasitologists, 2002-present

Invited lecturer, Biology of Disease Vectors course, Fort Collins, Colorado, 2002

Speaker at 10th International Congress of Parasitology meeting, 2002

Speaker at 51st annual meeting of the American Society of Tropical Medicine and Hygiene, 2002

Awarded Future Faculty Partner position, University of Wisconsin-Madison, 2003

Speaker at Vector Immunity and Molecular Medicine of Infectious Diseases seminar, Taipei, Taiwan, 2003

Speaker at 52nd annual meeting of the American Society of Tropical Medicine and Hygiene, 2003

Invited lecturer, Biology of Disease Vectors Course, Fort Collins, Colorado, 2004

Recipient of Richard F. Marsh Award for Outstanding Graduate Student Research, Department of AHABS, University of Wisconsin-Madison, 2005

Member Entomological Society of America, 2005

Invited Speaker, Illinois Mosquito & Vector Control Association 50th annual meeting, 2005

Member of Sigma Xi Research Society, Iowa State University Chapter, 2006

Member American Mosquito Control Association, 2006

Member Illinois Mosquito & Vector Control Association, 2006.

B. Selected publications (in chronological order).

Bartholomay, L.C., Farid, H.A., El Kordy, E., Christensen, B.M. 2001. Short report: a practical technique for the cryopreservation of *Dirofilaria immitis*, *Brugia malayi* and *Wuchereria bancrofti* microfilariae. *American Journal of Tropical Medicine and Hygiene*. 68: 162-163.

Cheng LL, Bartholomay LC, Olson KE, Lowenberger C, Vizioli J, Higgs S, Beaty BJ, Christensen BM. 2001. Characterization of an endogenous gene expressed in *Aedes aegypti* using an orally infectious recombinant Sindbis virus. 8 pp. *Journal of Insect Science*, 1.10. Available online: insectscience.org/1.10

Bartholomay, LC, Christensen, BM. Vector parasite interactions in mosquito-borne filariasis. In: world class parasites: the filariae. eds. T. Klei and T.V. Rajan. Boston: Kluwer Academic Publishers, 2002.

Dasgupta, R, Cheng, LL, Bartholomay, LC, Christensen, BM. 2003. Flock House Virus replicates and expresses Green Fluorescent Protein in Mosquitoes. *Journal of General Virology*. 84: 1789-1797.

Bartholomay, LC, Farid, HA, Ramzy, RA, Christensen, BM. 2003. *Culex pipiens pipiens*: characterization of immune peptides and the influence of immune activation on development of *Wuchereria bancrofti*. *Molecular and Biochemical Parasitology*. 130: 43-50.

Bartholomay, LC, Fuchs, JF, Cheng, L-L, Beck, ET, Vizioli, J, Lowenberger, C, Christensen, BM. 2004. Reassessing the role of defensin in the innate immune response of the mosquito, *Aedes aegypti*. *Insect Molecular Biology*. 13: 125-132.

Bartholomay, LC, Cho, W-L, Rocheleau, TA, Boyle, JP, Beck, ET, Liss, P, Rusch, M, Fuchs, JF, Butler, KM, Wu, RC-C, Kuo, HY, Tsao, I-Y, Huang, C-Y, Hsiao, K-J, Tsai, S-F, Yang, U-C, Nappi, AJ, Perna, NT, Chen, C-C, Christensen, BM. 2004. Description of the transcriptomes of immune response-activated hemocytes from the mosquito vectors *Aedes aegypti* and *Armigeres subalbatus*. *Infection and Immunity* 72: 4114-26.

Infanger, LC, Rocheleau, TA, Bartholomay, LC, Johnson, JK, Fuchs, JF, Higgs, S, Chen, CC, Christensen, BM. 2004. The role of phenylalanine hydroxylase in melanotic encapsulation of filarial worms in two species of mosquitoes. *Insect Biochemistry and Molecular Biology* 34: 1329-1338.

Huang, CY, Chou, SY, Bartholomay, LC, Christensen, BM, Chen, C-C. 2005. The use of gene silencing to study the role of Dopa Decarboxylase in mosquito melanization reactions. *Insect Molecular Biology* 14: 237-244.

Berentsen, BT, Bartholomay, LC, Lowery, RJ. 2007. Penetration of the mosquito midgut is not required for *Brugia pahangi* microfilariae to avoid the melanotic encapsulation response of *Armigeres subalbatus*. *Veterinary Parasitology* 144: 371-374.

Platt KB, Tucker BJ, Halbur PG, Tiawsirisup S, Blitvich BJ, Fabiosa FG, Bartholomay, LC, Rowley, WA. 2007. West Nile virus viremia in eastern chipmunks (*Tamias striatus*) sufficient for infecting different mosquitoes. *Emerg Infect Dis*. 13(6) 831-837.

Oliver, J, Holscher, K, Hutcheson, HJ, Bartholomay, LC. Ticks and tick-borne diseases in Iowa. 6 pp. *Iowa State University Extension Publications* PM2036.

Waterhouse, RM, Kriventseva, EV, Meister, S, Xi, ZY, Alvarez, KS, Bartholomay, LC, Barillas-Mury, C, Bian, G, Blandin, S, Christensen, BM, Dong, Y, Jiang, H, Kanost, M, Koutsos, AC, Levashina, E A, Li, J, Ligoxygakis, P, MacCallum, MR, Mayhew, GF, Mendes, A, Michel, K, Osta, MA, Paskewitz, S, Shin, SW, Vlachou, D, Wang, L, Wei, W, Zheng, L, Zou, Z, Severson, DW, Raikhel, A, Kafatos, FC, Dimopoulos, G, Zdobnov, EM, Christophides, GK. 2007. Evolutionary Dynamics of Immune-Related Genes and Pathways in Disease-Vector Mosquitoes. *Science*. [in press]

C. Research Support:

Epidemiology and Laboratory Capacity for Infectious Diseases, Iowa Department of Public Health, \$84,000, April 2007-December 2007, PI—Lyric Bartholomay

Monitoring Mosquitoes and Encephalitis Virus Activity in Iowa, Iowa Department of Public Health, \$34,000, Period: 1 July 2006-30 June 2007, PI: Lyric Bartholomay

Aedes vexans and *Ochlerotatus triseriatus* and the ecology of West Nile Virus, Centers for Disease Control, \$750,000, 2004-2007, PIs—Wayne Rowley and Kenneth Platt, Co-PIs—Lyric Bartholomay and Brad Blitvich

The Role of Hemocytes in Mosquito-Arbovirus Interactions, CIAG, \$30,000, Period: July 2006-June 2007, PI—Lyric Bartholomay, Co-PI—Brad Blitvich

Development of a small animal model of vaccination against malaria infection, University of Iowa, \$20,000, Period: September 15, 2006-June 30, 2007. PI—John Harty, Co-PI—Lyric Bartholomay