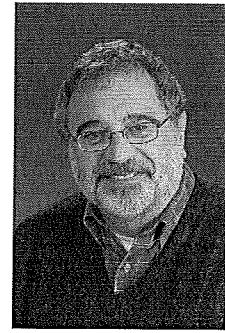


DAVID L. DENLINGER

Professional Preparation

Pennsylvania State University	Zoology	B.S.	1967
University of Illinois	Entomology	Ph.D.	1971



Appointments

2005-present: Distinguished University Professor, Ohio State University
1994-2005: Professor and Chair of Entomology, Ohio State University
1984-2005: Professor, Ohio State University
1980-1984: Associate Professor, Ohio State University
1976-1980: Assistant Professor, Ohio State University
1974-1976: Research Associate, Harvard University (laboratory of C.M. Williams)
1972-1974: Research Scientist, International Centre of Insect Physiology and Ecology, Nairobi, Kenya
1971-1972: Research Associate, Agricultural University, Wageningen, The Netherlands (Laboratory of Jan de Wilde)

Top Honors and Awards

Antarctica Service Medal, National Science Foundation, 2006
Gregor Mendel Medal, Czech Academy of Sciences, 2006
National Academy of Sciences, 2004
Recognition Award in Insect Physiology, Biochemistry and Toxicology, Ent. Soc. Amer., 2003
Founder's Memorial Award, Ent. Soc. Amer., 1999
C.V. Riley Achievement Award, Ent. Soc. Amer., 1998
Distinguished Scholar Award, Ohio State University, 1996
Fellow, Entomological Society of America, 1994
Rockefeller Foundation Scholar-in-Residence, Bellagio, Italy, 1992
Fellow, AAAS, 1988

Program Capsules

Research: Molecular and physiological regulation of insect diapause and cold hardiness.

Teaching: Primary instructor for course in insect physiology, a core course for our graduate students.

Three Most Important Scholarly Accomplishments, Last Five Years

- Initiated major genomic, metabolomic and proteomic approaches to the understanding of diapause and cold tolerance, including work on flesh flies (*Sarcophaga crassipalpis*) and species of medical (*Culex pipiens*) and agricultural (*Heliothis/Helicoverpa* complex) importance.
- Initiated collaborative work on insect neuropeptides, with special emphasis on the function of diapause hormone in the *Heliothis/Helicoverpa* complex.
- Field work at Palmer Station, Antarctica, focusing on mechanisms of low temperature survival in an Antarctic midge.

Five Selected Publications (>250 total)

Denlinger, D. L. 1974. Diapause potential in tropical flesh flies. *Nature* 252:223-224.

- Lee, R. E., C.-P. Chen and D. L. Denlinger. 1987. A rapid cold-hardening process in insects. *Science* 238:1415-1417.
- Sim, C. and D.L. Denlinger. 2008. Insulin signaling and FOXO regulate the overwintering diapause of the mosquito *Culex pipiens*. *Proceedings of the National Academy of Sciences, USA* 105:6777-6781.
- Teets, N.M., M.A. Elnitsky, J.B. Benoit, G. Lopez-Martinez, D.L. Denlinger and R.E. Lee, Jr. 2008. Rapid cold-hardening in larvae of the Antarctic midge, *Belgica antarctica*: Cellular cold-sensing and a role for calcium. *American Journal of Physiology* 294:R1938-R1946.
- Zhang, Q., R.J. Nachman, P. Zubrzak and D.L. Denlinger. 2009. Conformational aspects and hyperpotent agonists of diapause hormone for termination of pupal diapause in the corn earworm. *Peptides* 30:596-602.

Current Grants

- USDA/Competitive Research Grant, "A new function for diapause hormone as a regulator of *Heliothis* diapause", 2005-2009.
- National Institutes of Health, "Molecular regulation of diapause in *Culex pipiens*", 2005–2010.
- National Science Foundation, "Mechanisms of rapid and winter cold hardening in insects", R.E. Lee, Jr. and D.L. Denlinger, 2009-2013.
- National Science Foundation, "Roles of dehydration and photoperiodism in preparing an Antarctic insect for the polar night", 2009-2013.

Professional Service Highlights, Last 5 Years

- Editor, *Journal of Insect Physiology*.
- Editorial Boards, *European Journal of Entomology*, *Entomological Science* (Japan), *Insect Science* (China), *Proceedings of the National Academy of Sciences, USA*, *Psyche*, *Entomological Research* (Korea).
- Chair of review committee, USDA/ARS laboratory, Fargo, N. Dakota, 2004.
- Review team member, University of Florida, 2006.
- Lecturer in course on Biology of Disease Vectors, Colorado State University, 2002, 2004.
- National Institutes of Health Advisory Panel (2007, 2008).

Key Collaborations

Long-term involvement (since 1972) with the International Centre of Insect Physiology and Ecology in Nairobi, Kenya. This institution has provided the infrastructure for my ongoing work on tsetse. Most recently, this work has also involved collaborations with Jan Zdarek from the Czech Academy.

For over 20 years, Richard Lee, Jr. (Miami University) and I have shared ongoing NSF support for joint projects on insect cold hardiness.

A collaborative project on diapause in *Heliothis/Helicoverpa* has been established, with Wei-Hua Xu (China). Further collaboration on this project involves Ron Nachman, USDA, College Station, Texas.