

**299. Research (1-12)**

Prerequisite: consent of instructor. (S/U grading only.)

## Avian Sciences (A Graduate Group)

John M. Eadie, Ph.D., Chairperson of the Group

**Group Office.** 1202B Meyer Hall  
(530) 752-2382; <http://aviansciences.ucdavis.edu>

### Faculty

- Dan Anderson, Ph.D., Professor  
(*Wildlife, Fish, and Conservation Biology*)
- Francine A. Bradley, Ph.D., Specialist in  
Cooperative Extension and Lecturer  
(*Animal Science*)
- C. Christopher Calvert, Ph.D., Professor  
(*Animal Science*)
- Carol J. Cardona, D.V.M., Ph.D., ACPV, Associate  
Veterinarian; Associate Extension Specialist  
(*Population Health and Reproduction, School of  
Veterinary Medicine*)
- Mary E. Delany, Ph.D., Professor (*Animal Science*)
- John M. Eadie, Ph.D., Professor  
(*Wildlife, Fish, and Conservation Biology, Animal  
Science*)
- Holly B Ernest, D.V.M., Ph.D., Assistant Professor in  
Residence: Wildlife Geneticist  
(*Veterinary Genetics Laboratory and Population  
Health and Reproduction, School of Veterinary  
Medicine*)
- Thomas P. Coombs-Hahn, Ph.D., Associate Professor  
(*Neurobiology, Physiology, and Behavior*)
- Michelle Hawkins, V.M.D., ABVP, Assistant Professor  
(*Medicine and Epidemiology, School of  
Veterinary Medicine*)
- Annie J. King, Ph.D., Professor (*Animal Science*)
- Kirk C. Klasing, Ph.D., Professor (*Animal Science*)
- Jenella E. Loye, Ph.D., Research Associate  
(*Entomology*)
- Joy A. Mench, Ph.D., Professor (*Animal Science*)
- James R. Millam, Ph.D., Professor (*Animal Science*)
- Lisa A. Tell, D.V.M., Professor  
(*Medicine and Epidemiology, School of  
Veterinary Medicine*)
- Barry W. Wilson, Ph.D., Professor  
(*Animal Science, Environmental Toxicology*)

### Emeriti Faculty

- Ursula K. Abbott, Ph.D., Professor Emerita
- Hans Abplanalp, Ph.D., Professor Emeritus
- Ralph A. Ernst, Ph.D., Specialist Emeritus
- Peter Marler, Ph.D., Professor Emeritus

**Graduate Study.** The Graduate Group in Avian Sciences offers the M.S. degree program to students who wish to pursue specialized advanced work on avian species. Specializations students may choose include behavior, nutrition, physiology, reproduction, pathology, immunology, toxicology, food chemistry, management, ecology, genetics, comparative incubation, environmental physiology, and cellular and developmental studies using wild and domestic birds as experimental animals. Both master's degree plans, thesis or comprehensive examination, are available.

**Preparation.** Applicants should have undergraduate preparation in a field appropriate to the course of study selected, including courses in most of the following subjects: general biology, general and organic chemistry, biochemistry, avian biology, genetics, nutrition, physiology, and statistics.

**Graduate Adviser.** Consult program office.

## Biochemistry and Molecular Biology

See **Molecular and Cellular Biology**, on page 406; **Biochemistry and Molecular Biology (A Graduate Group)**, on page 165.

## Biochemistry and Molecular Biology (A Graduate Group)

JoAnne Engebrecht, Ph.D., Chairperson of the Group

**Group Office.** 306 Life Sciences;  
(530) 752-9091;  
<http://www-ggc.ucdavis.edu/ggc/bmb>

### Faculty

- Steffen Abel, Ph.D., Associate Professor  
(*Plant Sciences*)
- James Ames, Ph.D., Associate Professor (*Chemistry*)
- Peter Armstrong, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Enoch Baldwin, Ph.D., Associate Professor  
(*Molecular and Cellular Biology*)
- Kenneth A Beck, Ph.D., Associate Professor  
(*Cell Biology and Human Anatomy*)
- Diane Beckles, Ph.D., Assistant Professor  
(*Plant Sciences*)
- Alan Bennett, Ph.D., Professor (*Plant Sciences*)
- Charles Bevins, Ph.D., Professor  
(*Medical Microbiology and Immunology*)
- Linda F. Bisson, Ph.D., Professor  
(*Viticulture and Enology*)
- Eduardo Blumwald, Ph.D., Professor (*Plant Sciences*)
- Sue Bodine, Ph.D., Professor  
(*Neurobiology, Physiology, and Behavior*)
- R. David Britt, Ph.D., Professor (*Chemistry*)
- Sean Burgess, Ph.D., Associate Professor  
(*Molecular and Cellular Biology*)
- Marie E. Burns, Ph.D., Associate Professor  
(*Center for Neuroscience*)
- Judy Callis, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Kermit L. Carraway, Ph.D. Associate Professor  
(*Cancer Center UCDMC*)
- Simon Chan, Ph.D., Assistant Professor  
(*Plant Biology*)
- Frederic Chedin, Ph.D., Assistant Professor  
(*Molecular and Cellular Biology*)
- Hongwu Chen, Ph.D., Associate Professor  
(*Cancer Center UCDMC*)
- Tsung-Yu Chen Ph.D., Associate Professor  
(*Center for Neuroscience*)
- Xinbin Chen, Ph.D., Director  
(*Surgical and Radiological Science*)
- Hwai-Jong Cheng, Ph.D., Associate Professor  
(*Neurobiology, Physiology, and Behavior*)
- R. Holland Cheng, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Gino A. Cortopassi, Ph.D., Professor  
(*Molecular Biosciences*)
- Michael E. Dahms, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Sheila David, Ph.D., Professor (*Chemistry*)
- Scott Dawson, Ph.D., Assistant Professor  
(*Microbiology*)
- William DeBello, Ph.D., Assistant Professor  
(*Center for Neuroscience*)
- Katayoon Dehesh, Ph.D., Professor (*Plant Biology*)
- Wenbin Deng, Ph.D., Assistant Professor  
(*Cell Biology and Human Anatomy*)
- Michael S. Denison, Ph.D., Professor  
(*Environmental Toxicology*)
- Elva Diaz, Ph.D., Assistant Professor  
(*Medical Pharmacology and Toxicology*)
- Bruce Draper, Ph.D., Assistant Professor  
(*Molecular and Cellular Biology*)
- JoAnne Engebrecht, Ph.D., Associate Professor  
(*Molecular and Cellular Biology*)
- Carol Erickson, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Marilynn E. Etzler, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Robert H. Fairclough, Ph.D., Associate Professor  
(*Neurology*)
- Peggy Farnham, Ph.D., Professor  
(*Medical Pharmacology and Toxicology*)
- Oliver Fiehn, Ph.D., Associate Professor  
(*Genome Center and Bioinformatics*)
- Andrew Fisher, Ph.D., Associate Professor  
(*Chemistry*)
- Paul G. FitzGerald, Ph.D., Professor  
(*Cell Biology and Human Anatomy*)
- J. David Furlow, Ph.D., Associate Professor  
(*Neurobiology, Physiology, and Behavior*)
- Charles S. Gasser, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Angela Gelli, Ph.D., Assistant Professor  
(*Medical Pharmacology and Toxicology*)
- Paramita Ghosh, Ph.D., Assistant Adjunct Professor  
(*Urology*)
- Cecilia Giulivi, Ph.D., Professor  
(*Molecular Biosciences*)
- Tzipora Goldkorn, Ph.D., Professor  
(*Internal Medicine*)
- Qizhi Gong, Ph.D., Assistant Professor  
(*Cell Biology and Human Anatomy*)
- Paul Hagerman, Ph.D., Professor  
(*Biochemistry and Molecular Medicine*)
- Nobuko Hagiwara, Ph.D., Assistant Professor  
(*Internal Medicine: Cardiovascular Medicine*)
- Fawaz Hajj, Ph.D., Assistant Professor (*Nutrition*)
- Bruce D. Hammock, Ph.D., Professor (*Entomology*)
- John H. Harada, Ph.D., Professor (*Plant Biology*)
- Stacey L. Harmer, Ph.D., Assistant Professor  
(*Plant Biology*)
- Jerry L. Hedrick, Ph.D., Professor (*Animal Science*)  
*Distinguished Graduate Mentoring Award*
- Wolf-Dietrich Heyer, Ph.D., Professor (*Microbiology*)
- Neil Hunter, Ph.D., Assistant Professor  
(*Microbiology*)
- Kentaro Inoue, Ph.D., Assistant Professor  
(*Plant Sciences*)
- Clarence I. Kado, Ph.D., Professor  
(*Plant Pathology*)
- Ken Kaplan, Ph.D., Associate Professor  
(*Molecular and Cellular Biology*)
- Daniel Kliebenstein, Ph.D., Assistant Professor  
(*Plant Sciences*)
- Ian Korf, Ph.D., Assistant Professor  
(*Molecular and Cellular Biology*)
- Stephen C. Kowalczykowski, Ph.D., Professor  
(*Microbiology*)
- Hsing-Jien Kung, Ph.D., Professor  
(*Cancer Center UCDMC*)
- J. Clark Lagarias, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Kit S. Lam, Ph.D., Professor  
(*Hematology—Oncology*)
- Janine LaSalle, Ph.D., Professor  
(*Medical Microbiology and Immunology*)
- Jerrold A. Last, Ph.D., Professor (*Internal Medicine*)
- Walter Leal, Ph.D., Professor (*Entomology*)
- Julie A. Leary, Ph.D., Professor  
(*Molecular and Cellular Biology*)
- Noelle L'Etiole, Ph.D., Assistant Professor  
(*Center for Neuroscience*)
- Su-Ju Lin, Ph.D., Assistant Professor (*Microbiology*)
- Yu-Fung Lin, Ph.D., Assistant Professor  
(*Physiology and Membrane Biology*)
- Su Hao Lo, Ph.D., Associate Professor  
(*Orthopaedic Surgery*)
- Angie Louie, Ph.D., Assistant Professor  
(*Biomedical Engineering*)
- Paul Luciw, Ph.D., Professor (*Pathology*)
- Kimberley A. McAllister, Ph.D., Associate Professor  
(*Center for Neuroscience*)
- Francis J. McNally, Ph.D., Associate Professor  
(*Molecular and Cellular Biology*)
- Claude F. Meares, Ph.D., Professor (*Chemistry*)

Quarter Offered: I=Fall, II=Winter, III=Spring, IV=Summer; 2009-2010 offering in parentheses

General Education (GE) credit: ArtHum=Arts and Humanities; SciEng=Science and Engineering; SocSci=Social Sciences; Div=Social-Cultural Diversity; Wrt=Writing Experience