

# Biology

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## Bruce A. Bowerman, Department Head

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Biologists investigate a broad spectrum of questions about living organisms and life processes—the physical and chemical bases of life, how organisms and their component parts are structured, how they function, how they interact with their environment, and how they have evolved.

Departmental teaching and research emphases in cellular and molecular biology, developmental biology, ecology and evolution, human biology, marine biology, neuroscience and behavior, and bioinformatics offer students opportunities to learn and work with scientists who are making important contributions to knowledge in these areas.

## Faculty

Matthew F. Barber, associate professor (evolutionary genetics, host-microbe interactions, and biochemistry). BA, 2006, Colgate; PhD, 2012, Stanford. (2016)

Nicola C. Barber, senior instructor (molecular biology, science education). BA, 2006, Colgate; PhD, 2011, California, Berkeley. (2016)

Brendan J. M. Bohannon, Alec and Kay Keith Professor (microbial ecology and evolution). BS, 1991, Humboldt State; PhD, 1997, Michigan State. (2006)

Bruce A. Bowerman, professor (developmental genetics, regulation of the cytoskeleton in *C. elegans*). BA, 1981, Kansas State; PhD, 1989, California, San Francisco. (1992)

William E. Bradshaw, professor (evolutionary genetics, population biology, evolutionary physiology). BA, 1964, Princeton; MS, 1965, PhD, 1969, Michigan. (1971)

Mark C. Carrier, senior instructor (developmental biology and physiology). BS, BA, 1987, Massachusetts; MS, 1998, California, Berkeley. (2000)

Amy A. Connolly, instructor (genetics, cell biology, cell division). BS, 2008, Kansas; PhD, 2014, Oregon. (2018)

William A. Cresko, professor (evolutionary developmental genetics). BA, 1992, Pennsylvania; PhD, 2000, Clark. (2005)

Jeffrey M. Diez, associate professor (community ecology, phenology, climate change ecology). BA, MA, 1998, University of Pennsylvania; PhD, 2005, University of Georgia. (2020)

Chris Q. Doe, professor (development of the nervous system, neural stem cells, asymmetric cell division). BA, 1981, New College, Sarasota; PhD, 1987, Stanford. (1998)

Judith S. Eisen, professor (development and function of the nervous system). BS, 1973, MS, 1977, Utah State; PhD, 1982, Brandeis. (1985)

Richard B. Emlet, professor (evolution and development of marine invertebrates). BS, 1977, Duke; PhD, 1985, Washington (Seattle). (1992)

Aaron W. E. Galloway, associate professor (marine trophic ecology, fatty acids). BA, 1999, Evergreen State College; MS, 2004, Central Washington; PhD, 2013, Washington (Seattle). (2015)

David M. Garcia, assistant professor (molecular biology and epigenetics, prions that regulate RNA). BS, 2004, California, Santa Cruz; PhD, 2012, Massachusetts Institute of Technology. (2018)

Daniel T. Grimes, assistant professor (developmental biology, zebrafish genetics, human disease models). MBiochem, 2008, DPhil, 2013, Oxford. (2019)

Lauren M. Hallett, associate professor (plant community ecology, restoration ecology). BS, 2008, Yale; MSc, 2010, Western Australia; PhD, 2015, California, Berkeley. (2017)

Victoria Herman, associate professor (development and function of nervous system in *Drosophila*). BA, 1989, Harvard-Radcliffe; PhD, 1998, Massachusetts Institute of Technology. (2003)

Cristin L. Hulslander, senior instructor (behavioral ecology). BA, 1992, Bryn Mawr; PhD, 2003, Clark. (2003)

Santiago Jaramillo, associate professor (neuronal circuits underlying behavioral flexibility). BS, 1998, Universidad Pontificia Bolivariana; MS, 2002, New Mexico; PhD, 2007, National University of Ireland. (2013)

Eric A. Johnson, associate professor (*Drosophila* genetics, genomics and cellular physiology). BA, 1990, Grinnell; PhD, 1996, Iowa. (2001)

Andrew D. Kern, associate professor (population genetics, computational biology). ScB, 1999, Brown; PhD, 2005, California, Davis. (2017)

Diana E. Libuda, associate professor (molecular genetics, DNA repair, chromosome dynamics during meiosis). BS, 2003, California, Los Angeles; PhD, 2008, Harvard. (2014)

Shawn R. Lockery, professor (invertebrate neurobiology and neural networks). BA, 1981, Yale; PhD, 1989, California, San Diego. (1993)

V. Patten Lombardi, senior instructor with title of research assistant professor (human biology, medical physiology); director, undergraduate advising. BA, 1977, MAT, 1979, North Carolina, Chapel Hill; PhD, 1984, Oregon. (1984)

Stilianos Louca, assistant professor (microbial ecology and evolution, bioinformatics, mathematical modeling). BSc, 2010, Diplom, 2012, Friedrich Schiller; PhD, 2016, British Columbia. (2019)

Svetlana Maslakova, associate professor (evolution, development and systematics of marine invertebrates). BA, 1998, MS, 1999, Moscow State; PhD, 2005, George Washington. (2008)

Luca Mazzucato, assistant professor (neural basis sensory perception, neurostatistical analysis). MSci, 2002, Padua; PhD, 2005, Scuola Internazionale Superiore di Studi Avanzati. (2017)

David A. McCormick, professor (cellular mechanisms of cortical function); Presidential Chair. BA, BS, 1979, Purdue; PhD, 1983, Stanford. (2017)

Krista McGuire, associate professor (microbial ecology). BS, 2000, Muhlenberg College; PhD, 2007, Michigan, Ann Arbor. (2017)

Adam C. Miller, associate professor (neural circuit formation and function). BS, 2001, PhD, 2008, Oregon. (2016)

James M. Murray, assistant professor (theoretical neuroscience, learning in neural circuits). BS, 2006, Montana State University; PhD, 2013, Johns Hopkins University. (2020)

Cristopher M. Niell, associate professor (development and function of neural circuits for visual processing). BS, 1995, PhD, 2004, Stanford. (2011)

Ken-ichi Noma, professor (3D genome organization in yeast and human systems). BS, 1995, Nagaoka University; PhD, 2000, University of Tokyo. (2018)

Laurel E. Pfeifer-Meister, senior instructor (ecology, climate change, biodiversity). BA, BS, 2000, Westmont College; PhD, 2008, Oregon. (2016)

Patrick C. Phillips, professor (evolution, genetics, complex traits). BA, 1986, Reed; PhD, 1991, Chicago. (2000)

Tobias J. Policha, senior instructor (plant community ecology, pollination, tropical orchid conservation). BS, 2007, MS, 2011, PhD, 2014, Oregon. (2017)

Lauren C. Ponisio, assistant professor (community ecology, species interactions, data science). BS, 2010, Stanford University; MS, 2011, Stanford University; PhD, 2017, UC Berkeley (2020)

Jana Prikryl, senior instructor (molecular genetics). BS, 1999, Colorado, Boulder; PhD, 2009, Oregon. (2010)

Peter L. Ralph, associate professor (evolution and population genetics, data analysis, stochastic processes). AB, 2002, PhD, 2009, California, Berkeley. (2016)

Eric Selker, professor (epigenetic mechanisms). BA, 1975, Reed; PhD, 1980, Stanford. (1985)

Lucas Silva, associate professor (terrestrial ecology, biogeochemistry, biogeography) BS 2005, Forest Engineering, University of Brasilia; MS 2007, Ecosystem Ecology, University of Miami/University of Brasilia; PhD, 2011, Environmental Biology, University of Guelph (2016)

Nadia D. Singh, associate professor (evolutionary genetics, genomics). BA, 1999, Harvard; PhD, 2006, Stanford. (2016)

Kryn Stankunas, associate professor (chromatin and regulators as dynamic sources of epigenetic information during heart development). BS, 1997, British Columbia; PhD, 2003, Stanford. (2009)

Matthew A. Streisfeld, associate professor (adaptation in natural plant populations). BS, 1998, Emory; PhD, 2005, California, San Diego. (2009)

Kelly Sutherland, associate professor (marine biology). BS, 1999, Tufts; MSc, 2004, South Alabama; PhD, 2009, Massachusetts Institute of Technology. (2011)

Emily L. Sylwestrak, assistant professor (neural circuits of behavior, motivation, synaptic physiology). BS, 2006, Illinois Urbana-Champaign; PhD, 2011, California, San Diego. (2019)

George R. von Dassow, associate professor (cell biology of development). PhD, 2000, Washington (Seattle). (2014)

Philip E. Washbourne, associate professor (molecular neurobiology, synapse formation). BS, 1995, Imperial College; PhD, 2000, Padua. (2004)

Maya W. Watts, instructor/education coordinator (invertebrate zoology, parasitology). BS, 2004, College of Charleston; PhD, 2010, University of Oregon. (2018)

Monte Westerfield, professor (molecular genetics of nervous system development). AB, 1973, Princeton; PhD, 1977, Duke. (1981)

A. Michelle Wood, professor (microbial ecology and evolution, biological oceanography). BA, 1973, Corpus Christi; PhD, 1980, Georgia. (1990)

Craig M. Young, professor (marine ecology, deep-sea biology, invertebrate embryology); director, Oregon Institute of Marine Biology. BS, 1975, MS, 1978, Brigham Young. PhD, 1982, Alberta. (2002)

Anne Zemper, assistant professor (intestinal stem cell biology, adult homeostasis disease states). BA, 2003, Concordia; PhD, 2010, Oregon Health and Science. (2014)

## Courtesy

Steven S. Rumrill, courtesy research associate (estuarine ecology and management, larval biology of marine invertebrates). BA, 1981, MS, 1983, California, Santa Cruz; PhD, 1987, Alberta. (1991)

Carl A. Stiefbold, courtesy senior instructor (science laboratory education). BS, 1971, Portland State. (1987)

David H. Wagner, courtesy associate professor (plant taxonomy, ecology, evolution of bryophytes and pteridophytes). BA, 1968, Puget Sound; MS, 1974, PhD, 1976, Washington State. (1976)

## Emeriti

Andrew S. Bajer, professor emeritus. PhD, 1950, DSc, 1956, Cracow. (1964)

Alice Barkan, professor emerita (molecular genetics). BS, 1978, Massachusetts Institute of Technology; PhD, 1983, Wisconsin, Madison. (1991)

Howard T. Bonnett Jr., professor emeritus. BA, 1958, Amherst; PhD, 1964, Harvard. (1965)

Scott D. Bridgham, professor emeritus (ecosystem ecology, plant community dynamics). BA, 1980, BA, 1982, Maine; MS, 1986, Minnesota; PhD, 1991, Duke. (2002)

Roderick A. Capaldi, professor emeritus. BS, 1967, London; PhD, 1970, York. (1973)

George C. Carroll, professor emeritus. BA, 1962, Swarthmore; PhD, 1966, Texas. (1967)

John S. Conery, professor emeritus. BA, 1976, California, San Diego; PhD, 1983, California, Irvine. (1983)

David. O. Conover, professor emeritus (fisheries science, marine ecology, evolutionary biology). BS, 1975, Eckerd College; MS, 1979, PhD, 1981, University of Massachusetts, Amherst. (2016)

Alan Dickman, professor emeritus. BA, 1976, California, Santa Cruz; PhD, 1984, Oregon. (1986)

Janet Hodder, senior lecturer (ecology of marine birds and mammals, science education). BS, 1977, Liverpool; PhD, 1986, Oregon. (1986)

Charles B. Kimmel, professor emeritus. BA, 1962, Swarthmore; PhD, 1966, Johns Hopkins. (1969)

John H. Postlethwait, professor emeritus. BS, 1966, Purdue; PhD, 1970, Case Western Reserve. (1971)

William Roberts, professor emeritus. BA, 1970, Harvard; PhD, 1979, California, San Diego. (1989)

Bitty A. Roy, professor emerita. BS, 1982, Evergreen State; MS, 1985, Southern Illinois; PhD 1992, Claremont Graduate School. (2001)

Paul P. Rudy, professor emeritus. BA, 1955, MA, 1959, PhD, 1966, California, Davis. (1968)

Eric Schabtach, senior instructor emeritus. BS, 1963, McGill. (1969)

Alan Shanks, professor emeritus (marine and intertidal ecology, larval biology, zooplankton). BA, 1977, California, Santa Cruz; PhD, 1985, California, San Diego. (1993)

Lynda P. Shapiro, professor emerita. BA, 1960, MS, 1963, Arkansas; PhD, 1974, Duke. (1990)

George F. Sprague Jr., professor emeritus. BS, 1969, North Carolina State; PhD, 1977, Yale. (1981)

Karen U. Sprague, professor emerita. BA, 1964, Bryn Mawr; PhD, 1970, Yale. (1977)

Franklin W. Stahl, professor emeritus. AB, 1951, Harvard; PhD, 1956, Rochester. (1959)

Terry Takahashi, professor (analysis of neural circuitry). BS, 1975, California, Irvine; PhD, 1981, State University of New York, Downstate Medical Center. (1988)

Nora B. Terwilliger, professor emerita. BS, 1963, Vermont; MS, 1965, Wisconsin, Madison; PhD, 1981, Oregon. (1972)

Nathan J. Tublitz, professor emeritus (peptidergic regulation of behavior in insects and cephalopod mollusks). BA, 1975, Reed; PhD, 1984, Washington (Seattle). (1986)

Daniel Udovic, professor emeritus. BA, 1970, Texas; PhD, 1973, Cornell. (1973)

Janis C. Weeks, professor emerita. BS, 1975, Massachusetts Institute of Technology; PhD, 1980, California, San Diego. (1989)

Norman K. Wessells, professor emeritus; provost emeritus, academic affairs. BS, 1954, PhD, 1960, Yale. (1988)

James A. Weston, professor emeritus. BA, 1958, Cornell; PhD, 1963, Yale. (1970)

Peter B. Wetherwax, senior instructor emeritus with title of research assistant professor (pollination ecology, tropical ecology, science education). BA, 1980, California, Los Angeles; MA, 1985, Humboldt State; PhD, 1993, Oregon State. (1991)

Herbert P. Wisner, senior instructor emeritus. BA, 1949, MA, 1950, Syracuse. (1966)

*The date in parentheses at the end of each entry is the first year on the University of Oregon faculty.*

## Undergraduate Programs

### Majors - Bachelor's Degree

- Biology (BA/BS) (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/biology/ug-biology/>)
- Marine Biology (BA/BS) (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/biology/ug-marine-biology/>)

### Minor

- Biology (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/biology/min-biology/>)

## Graduate Programs

### Major - Master's Degree

- Biology (MS) (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/biology/mas-biology/>)

### Major - Doctoral Degree

- Biology (PhD) (<http://catalog.uoregon.edu/arts-sciences/natural-sciences/biology/phd-biology/>)