

CURRICULUM VITAE (9/2023)
PATRICK C. PHILLIPS

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EDUCATION:

- 1986 B.A. Reed College, Portland, Oregon; Biology
Advisor: Robert H. Kaplan
- 1988 M.S. University of Chicago, Chicago, Illinois; Evolutionary Biology
- 1991 Ph.D. University of Chicago, Chicago, Illinois; Evolutionary Biology
Advisor: Stevan J. Arnold
Committee: Russell Lande, Brian Charlesworth, Michael Wade,
Barry Charnov
- 1991-92 Postdoc University of Wisconsin, Madison; Laboratory of Genetics
Mentor: James F. Crow

ACADEMIC POSITIONS:

- 2018– Philip H. Knight Chair in Liberal Arts and Sciences, University of Oregon
- 2006– *Professor*, Department of Biology, University of Oregon
- 2000-2006 *Associate Professor*, Department of Biology, University of Oregon
- 2000– *Member*, Institute for Ecology and Evolution, University of Oregon
- 2012-2017 *Member*, NIH Center for Excellence in Systems Biology, META: Microbial Ecology and Theory in Animals, University of Oregon
- 2014-2015 *Visiting Professor*, Institute de Biologie de l'École Normale Supérieure, Paris, France
- 2007 *Visiting Scientist*, Instituto Gulbenkian de Ciência, Oieras, Portugal
- 1998-2000 *Associate Professor*, Department of Biology, University of Texas at Arlington
- 1997-2000 *University Honors Faculty*, University of Texas at Arlington
- 1992-1998 *Assistant Professor*, Department of Biology, University of Texas at Arlington

ADMINISTRATIVE POSITIONS:

- 2022–2023 *Interim President*, University of Oregon
- 2019–2022 *Provost and Senior Vice President*, University of Oregon
- 2018-2019 *Special Advisor to the President*, University of Oregon
- 2016–2018 *Acting Executive Director, Phil and Penny Knight Campus for Accelerating Scientific Impact*, University of Oregon
- 2011–2014 *Associate Vice President for Research*, University of Oregon
- 2010-2011 *Department Head*, Department of Biology
- 2009-2010 *Director*, Center for Ecology and Evolutionary Biology

UNIVERSITY LEADERSHIP:

Context

The University of Oregon, an R1 university with an annual budget of \$1.2 billion and an

endowment of \$3 billion, is the flagship public university in the state. It is one of the two members of the American Association of Universities (AAU) in the Pacific Northwest. The university offers more than 300 undergraduate programs and more than 80 graduate degree programs. Undergraduate student enrollment exceeds 19,000, with a graduate student population of 3,600. It has roughly 2,000 faculty and 2,600 staff.

As acting president, I was responsible for building the overall strategic vision and direction of the university, as well as overseeing all aspects of university operations, including diversity, equity and inclusion, the office of the provost, finance and administration, communications, advancement, enrollment management, housing, university health services, and athletics. In addition to these internal operations, I served as the primary external voice of the university, including donors and friends, the state legislature, other public universities within the state, and with the broader business community. I reported directly to an independent board of trustees composed of fifteen individuals drawn from a diverse set of backgrounds and appointed by the governor. I worked directly with the University Senate on issues of shared governance and with multiple labor organizations on employment matters. I also sat as an ex-officio member of the UO Foundation Board of Trustees, an independent 501C3.

Previously, as UO provost and chief academic officer, I oversaw all academic operations of the university, comprising a budget of roughly \$470 million. The deans of 12 schools and colleges reported directly to me, as did the graduate school, the library, the museums, global education, academic affairs, student success, the office of research, and information services. During that time, I held plenary authority over the promotion and tenure of 50-90 faculty a year.

In my administrative roles, I have been fortunate to help create and lead two of the most ambitious philanthropically-enabled academic initiatives in the country, which in turn serve as models for broader transdisciplinary initiatives that seek to knit together areas of strength and impact at the university. Each of these initiatives, which involve facilities, faculty hiring, research excellence, and new academic programs, has proceeded at an unprecedented pace.

Knight Campus for Accelerating Scientific Impact

Supported by \$1 billion in gifts from Phil and Penny Knight—among the largest gifts ever given to a university—the Knight Campus is aimed at expanding the UO’s research and educational strengths in bioengineering and applied science, with a specific focus on facilitating the translation of these research activities into economic impact through the creation of new companies and creating a novel educational environment that holds entrepreneurship as a core value. I led the creation of this new initiative as Acting Executive Director for three years and have shepherded ongoing developments as provost and president.

As Acting Executive Director:

- Supervised the planning and construction for a new, award-winning \$225 million, 160,000 sq ft research building.
- Liaised with the state legislature in securing \$70 million in state bonding authority for the new building.
- Chaired the advisory committee responsible for creating the governance structure of the new campus, including tenure and promotion of new faculty.
- Directed the coalescence (and expansion) of existing materials science and

bioinformatics graduate internship programs at the UO into the Knight Campus.

- Led new state-wide effort on research partnerships with special attention to the relationship between the UO and Oregon Health Sciences University.
- Developed and implemented new Diversity Action Plan for the campus, including a funding program for URM student research training.
- Led the effort to hire a leading bioengineer as permanent executive director.

As Provost:

- Member of the planning group that helped secure an additional \$500 million gift (on top of the original \$500 million gift) from the Knight Family.
- Fostered the development of new undergraduate and graduate degree programs in bioengineering, the first engineering degrees at the UO.

As Interim President:

- Serve as the primary steward of the relationship with the donors.
- Oversee and coordinate fiscal and organizational actions needed to ensure the success of the second phase of the initiative.
- Support the integration of Knight Campus strengths with other university-wide initiatives, including sport & wellness and entrepreneurship.
- Led strategic planning for future phases of the initiative.

Balmer Institute for Children's Behavioral Health

Building upon long term strengths in psychology, special education, counseling, and prevention science, I brought together faculty drawn from across colleges to create an innovative approach for addressing the mounting crisis in children's mental and behavioral health by establishing new bachelor's level training for the behavioral health workforce and by greatly expanding our research efforts in this space. This work is supported by a \$420 million gift from Connie and Steve Ballmer, who were directly stewarded by me throughout the entirety of the process. The program necessitates engagement and co-creation among state agencies, school districts and local community groups, and led to the purchase of a new campus in Portland to facilitate training and engagement with historically underserved populations.

As Provost:

- Coordinated faculty-led planning efforts for the new program.
- Directed coordination with the governor's office and other state stakeholders to eliminate potential barriers to success for the program.
- Finalized the writing, structure and content of the formal proposal documents.
- Led the proposal team that engaged the donors and secured donor support.
- Appointed the acting executive director and coordinated their work and finances.
- Supported initial planning efforts around the new degree program.
- Initiated cluster hire of new institute-related faculty.

As Interim President:

- Helped to shepherd new degree program through shared governance and state approval processes.
- Help to coordinate potential synergistic activities between the Ballmer Institute and other state universities.
- Led the recruitment, hiring and appointment of the permanent executive director.

Diversity Initiatives

As faculty:

- Have provided 22 years of engagement and support for our Summer Program for Undergraduate Research (directing it for two years), which aims to enhance diversity in the sciences through on-campus research experiences for diverse students.
- Together with my Ph.D. student Alex de Verteuil, created SCORE (Students of Color Opportunities for Research Enrichment), which provides initial cohort training of diverse undergraduate students in research and professional development and then places the students into UO research labs.
- While associate vice president for research, created the Undergraduate Research Opportunity Program (UROP) and hired its first director.

As Provost:

- Worked with faculty-driven groups to establish new degrees/minors in LatinX Studies, Black Studies, and Indigenous Studies and to support cluster hiring in Indigenous, Race and Ethnic Studies and a campus-wide Indigenous Studies hiring initiative.
- Supported a number of target of opportunity hires to help enhance the diversity of scholarly activities and perspectives on campus.
- Created a faculty-led taskforce aimed at critically examining the university resources needed to prepare the UO to become a Hispanic Serving Institution.
- Led affinity group based listening tour on diversity and inclusion following the aftermath of the murder of George Floyd.
- Worked with the Office of Diversity, Equity, and Inclusion to develop new Active Retention effort for faculty of color.
- Helped each school, college, and administrative unit finalize and evaluate their Diversity Action Plans.

As Interim President:

- Used personal and central messaging to reinforce the UO's core values as a welcoming and inclusive institution.
- In consultation with the UO Native American Advisory Council and other stake holders, created our new Home Flight Scholars Program, which provides free tuition and fees for all American Indian/Alaska Native Oregon residents who are members of the 574 federally recognized tribes.
- Worked directly with the President's Diversity Advisory Council to help to develop awareness and actions that enhance the university's role in the broader community context of diversity-related activities.
- Directed a strategic and action-oriented response to our 2022 University Climate Survey, with a focus on equity, antidiscrimination, engagement and service.

Additional Initiatives

As Provost and Interim President:

- Fostered development of a new School of Global Studies and Languages within the College of Arts and Sciences. The new school is current the target of a major president-led philanthropic effort.
- Supervised a new data science initiative, leading to a new integrative degree program in data science and a faculty-led comprehensive strategic planning process that has resulted

in the creation of a new School of Computer and Data Science within the College of Arts and Sciences.

- Directed the development of a transdisciplinary initiative in the environment and worked with the director to engage more than hundred faculty and staff in planning discussions.
- Initiated a faculty-led strategic planning process in sports and wellness that involves business, journalism, communications, marketing, design, sports science, and regenerative medicine. This effort also involves and international effort to establish a new network of leading universities operating in the sport and wellness area.

Fiscal Oversight

As Provost:

- Restructured and reenergized the Office of the Provost and recruited and retained a new talented group of academic leaders. Established new leadership and teambuilding meetings for both vice provosts and for academic deans.
- Hired new deans of the College of Arts and Sciences and the College of Design, as well as Vice Provosts for Academic Affairs, University Libraries, and Graduate Studies
- Balanced the budgets of the schools and colleges, many of which has substantial debts and budgetary overruns before I began my work as provost.
- Led the covid crisis response as a member of the senior policy group, including establishing remote-education policies, on campus health approaches, and creation of a new covid-testing facility with statewide impact.
- Addressed financial and employment issues to help stave off a fiscal crisis during the pandemic, resulting in no pay cuts, layoffs or other employment actions of any faculty or staff within my portfolio, except for a few staff in global education (no study abroad programs during this period).

As President:

- Led strategic planning and direct engagement with all major university donors.
- Led negotiations and represent the university's interests in media negotiations with the Pac-12 athletic conference.
- Directed the structure of a new long-term strategic budget and academic investment plan.
- Directed space planning and facilities investments in our new \$60 million campus in Portland.

HONORS AND FELLOWSHIPS:

2017	Fellow, American Association for the Advancement of Science
2015	Professeur Invité, Laboratoires d'Excellence (Labex) MemoLife program, École Normale Supérieure, Paris, France
2008-2012	Senior Scholar in Aging Award, Ellison Medical Foundation
2007-2012	Fund for Faculty Excellence Award, University of Oregon
2006-2007	John Simon Guggenheim Fellowship
2003-2006	W. Taylor Fithian Faculty Fellowship, Biology Department, Univ. Oregon
2000	University Research Award for Outstanding Research Achievement, UTA
1999-2000	Professor of the Year, Phi Sigma (Graduate Student Honor Society), UTA
1991-1992	NIH NRSA Postdoctoral Fellowship, University of Wisconsin, Madison
1989-1991	NIH Genetics Pre-doctoral Trainee, University of Chicago

- 1986-1989 National Science Foundation Pre-doctoral Fellowship, University of Chicago
 1986-1989 Searle Fellow, University of Chicago
 1986 Phi Beta Kappa, Reed College

SERVICE TO FUNDING AGENCIES:

National Institutes of Health

- Genetic Variation and Evolution (GVE) Study Section, member (2016–2018), chair (2018–2020)
 NIGMS Maximizing Investigator’s Research Award (MIRA) Study Section, ad hoc member (2015)
 Transformative R01, Genes, Genetics & Genomics, reviewer (2014)
 Intramural Program Review, Systems Biology Center, National Heart Lung and Blood Institute, individual investigator reviewer (2014)
 Genetic Variation and Evolution (GVE) Study Section, ad hoc member (2009, 2010, 2011, 2013)
 NRSA Postdoctoral Fellowship Panel, Genes, Genetics & Genomics, ad hoc member (2005, 2006, 2008)
 Special Review Panel, Genes, Genetics & Genomics, member (2006)
 Special Emphasis Panel, National Institute on Alcohol Abuse and Alcoholism, member (2000)

National Science Foundation

- Population and Evolutionary Processes Panel, member (2003, 2007, 2013)
 Special Panel on “Frontiers in Evolutionary Biology,” member (2005)

EDITORIAL AND SCIENTIFIC SOCIETY SERVICE:

- 2010-2016 *Associate Editor*, Genes, Genomes, and Genetics (G3)
 1999-2012 *Associate Editor*, Genetical/Genetics Research
 2006-2010 *Associate Editor*, Genetics
 2002-2005 *Associate Editor*, Evolution
 2012–2014 *Audit Committee*, Genetics Society of America
 2008-2009 *Member*, Scientific Advisory Board, National Evolutionary Synthesis Center (NESCent)
 2006-2008 *Council Member*, Society for the Study of Evolution
 1999-2003 *Member*, Internet Resources Advisory Committee, Society for the Study of Evolution
 1997-2000 *Member*, Nominations Committee, Society for the Study of Evolution
 Reviewer: *American Naturalist*, *BMC Ecology*, *BMC Evolution*, *BMC Genomics*, *Copeia*, *Current Biology*, *eLife*, *Evolution*, *Genetica*, *Genetics*, *Genetical Research*, *Journal of Evolutionary Biology*, *Journal of Theoretical Biology*, *Journal of Herpetology*, *Heredity*, *Herpetologica*, *Nature*, *Nature Genetics*, *Nature Reviews Genetics*, *National Science Foundation*, *Nucleic Acids Research*, *Proceedings of the National Academy of Science*, *PLoS Biology*, *PLoS Computational Biology*, *PLoS Genetics*, *PLoS ONE*, *Science*

MEDIA AND OUTREACH:

- 1999-2005 *Editor*, Evonet.org, a website for education and research in evolutionary biology

- 2002-2004 *Primary Advisor*, Rediscovering Biology TV series, Oregon Public Broadcasting, Annenberg/CPB (www.learner.org)
- 2000-2008 *Member*, Education Committee, Society for the Study of Evolution
- 1995 *Consultant and commentator*, DNA Testing, KXAS TV NBC, Dallas

UNIVERSITY SERVICE:

University of Oregon (university-wide)

- 2017 *Chair*, Executive Director search committee, Phil and Penny Knight Campus for Accelerating Scientific Impact
- 2015– *Faculty advisor*, Students of Color Opportunities for Research Enhancement (SCORE) undergraduate research program
- 2015–2017 *Member*, Executive Committee, University of Oregon NIH Genetics Training Grant
- 2015-2016 *Member*, VP Research & Innovation Search Committee
- 2012-2014 *Member (ad hoc)*, University Research Advisory Board
- 2008-2013 *Member and Chair*, University Science Council
- 2001-2013 *Member*, Executive Committee, University of Oregon NIH Genetics Training Grant
- 2000-2012 *Co-Director*, NSF IGERT Training Program in Evolution, Development and Genomics
- 2008-2012 *Member*, High Throughput Genomics Coordinating Group
- 2010-2011 *Member*, Dean's Department Heads Advisory Group
- 2009-2011 *Member*, Steering Committee for the Program in Statistics, Informatics, and Applied Math
- 2010-2011 *Member*, VP Research Search Committee
- 2004-2005 *Member*, Dean's Advisory Committee on Promotion and Tenure, College of Science
- 2004-2005 *Member*, University Educational Technology Committee
- 2000-2001 *Member*, Dean's Advisory Committee for the Biology Department Chair Search
- 2000-2002 *Member*, Genomics/Proteomics Facility Advisory Committee, College of Arts and Science
- 2000-2002 *Member*, Bioinformatics Group Steering Committee, College of Arts and Science

University of Oregon (Departmental)

- 2018 *Member*, Undergraduate Research Committee
- 2016, 2017 *Chair*, Genomics and Bioinformatics Search Committee
- 2015 *Chair*, Evolutionary Biology Search Committee
- 2013, 2015 *Member*, Graduate Admissions Committee, Biology Department
- 2009-2010 *Member*, Biology Department Personnel Committee
- 2008-2009 *Member*, Evolutionary Biology Search Committee
- 2007-2008 *Member*, Evolutionary Biology Search Committee
- 2005-2006 *Chair*, Evolutionary Biology Search Committee
- 2004-2005 *Member*, Ecology Search Committee
- 2003-2004 *Chair*, Ecology and Evolution Search Committee
- 2001-2002 *Chair*, Ecology and Evolution Search Committee
- 2000-2001 *Member*, Oregon Institute of Marine Biology Director Search Committee

- 2008-2009 *Member*, Graduate Affairs Committee, Biology Department
 2000-2005 *Member*, Undergraduate Curriculum Committee, Biology Department
 2000-2006 *Member*, Graduate Admissions Committee, Biology Department
 2002 *Chair*, Ad hoc Committee on Graduate Affairs, Biology Department
 2002-2005 *Chair*, Seminar Committee, Ecology and Evolution
 2000-2002 *Chair*, Computer Resources Committee, Ecology and Evolution

University of Texas at Arlington

- 1999-2000 *Chair's Advisory Committee*, Biology Department
 1998-2000 *Promotion and Tenure Committee*, Biology Department
 1994-2000 *Secretary*, Graduate Studies Committee, Biology Department
 1999-2000 *Undergraduate Curriculum Committee*, Biology Department
 2000 *University Faculty Developmental Leave Committee*
 1995-2000 *University Safety Committee*
 1998-2000 *Secretary*, College of Science Instructional Technology Committee
 1996-1998 *Science Honors Course Development Committee*
 1993-1996 *Student Grievance Review Committee*, Biology Department
 1992-1995 *Goals and Standards Subcommittee of the Graduate Studies Committee*
 1993-1995 *Seminar Committee*, Biology Department
 1997-1998 *Eukaryotic Genetics Search Committee*
 1993-1994 *Cell and Molecular Biology Search Committee*
 1993-1994 *UTA Minority Student Mentor Project*

Graduate and Undergraduate Service

- 1988-1991 *Computer Consultant*, Department of Ecology & Evolution and Committee on Evolutionary Biology, University of Chicago
 1990-1991 *Graduate Student Representative*, Committee on Evolutionary Biology, University of Chicago
 1985-1986 *Student Member*, Technological Resources Committee, Reed College
 1984-1986 *Assistant Systems Administrator*, Academic Computing, Reed College

RESEARCH INTERESTS:

Aging biology; genetics of longevity and stress response; neuronal health and dementia; genomics; molecular quantitative genetics; theoretical population and quantitative genetics; behavioral genetics; gene interaction systems and genetic networks; high throughput, high precision phenotyping.

ACTIVE FUNDING:

I retain a very active lab of roughly 14 members that is among the top five awardees for grants from the NIH at the UO. Unless otherwise noted, Phillips is the PI on each grant listed and listed costs are those provided to the Phillips Lab.

- 2022-2027 *Caenorhabditis Intervention Testing Program at the University of Oregon.* \$2,005,000 direct costs, \$2,957,375 total costs. National Science of Health U01AG045829.
 2022-2027 *Caenorhabditis Intervention Testing Program Data Center.* \$975,000 direct costs, \$1,438,125 total costs. National Institutes of Health U24AG056052.
 2019-2024 *MIRA: Systems genomics of complex traits.* \$1,250,000 direct costs, \$1,831,000 total costs. National Institutes of Health R35GM131838.

2017-2023 Systems variation underlying the genetics of aging. \$808,000 UO direct costs, \$2,500,000 total costs. With Hang Lu (Georgia Tech, co-PI). National Institutes of Health R01AG056436.

PRIOR FUNDING:

2019-2022 Novel genetic screen for increased late-life neuronal health. \$275,000 direct costs, \$405,625 total costs. National Institutes of Health R21AG066051.

2017-2022 Caenorhabditis Intervention Testing Program at the University of Oregon. \$1,865,000 direct costs, \$2,750,000 total costs. National Science of Health U01AG045829. Renewal submitted 10/21.

2018-2022 Caenorhabditis Intervention Testing Program Data Center. \$269,825 direct costs, \$397,972 total costs. National Institutes of Health U24AG056052. Renewal submitted 10/21.

2021-2022 CITP Data Center supplement. \$92,770 total costs. National Institutes of Health U24AG056052.

2018-2020 CITP Data Center supplement. \$171,894 direct costs, \$253,544 total costs. National Institutes of Health U01AG045829.

2015-2020 Deterministic and stochastic effects of diet on demography. \$1,125,000 direct costs, \$1,631,250 total costs. National Institutes of Health R01AG049396.

2018-2019 Alzheimer's Disease supplement: systems variation underlying the genetics of aging. \$173,419 direct costs, \$244,918 total costs. National Institutes of Health R01AG056436.

2015-2019 Systems genetics of natural variation in stress response pathways. \$841,620 direct costs, \$1,144,382 total costs. National Institutes of Health R01GM102511.

2012-2017 META: Microbial Ecology and Theory of Animals. \$8,000,000 direct costs to the Center, \$11,000,000 total costs. Karen Guillemin, PI. National Institutes of Health (Center of Excellence in Systems Biology).

2013-2017 Genetic variation underlying the response to longevity interventions. \$1,047,655 direct costs, \$1,487,425 total costs. National Science of Health U01AG045829.

2012-2015 An experimental model for stochastic biodemography. \$275,000 direct costs, \$362,957 total costs. National Institutes of Health R21AG043988.

2011-2015 Functional and population genomics of small RNA regulation. \$674,187 UO direct costs, \$1,525,263 total costs. With Asher Cutter (University of Toronto, co-PI). National Institutes of Health R01GM096008.

2011-2015 Mating systems and the origins of genetic conflict. \$545,751 direct costs, \$775,000 total costs. National Science Foundation DEB-1120417.

2008-2012 Natural variation in genomic targets of aging pathways. \$600,000 direct costs, \$830,000 total costs. Ellison Medical Research Foundation.

2009-2011 Natural ecology of stress and aging in *C. elegans*, part of the Biodemography of Aging Program Project. \$140,774 direct costs, \$208,346 total costs. National Institutes of Health PO1 AG022500, subcontract from UC Davis (James Carey, PO1 PI).

2007-2010 Partial selfing and the genetic basis of mating system variation. \$456,000 direct costs, \$660,000 total costs. National Science Foundation DEB-0641066.

2007-2010 Partial selfing and the genetic basis of mating system variation, REU supplements (support for five students). \$12,000, \$6,000, \$12,000 total costs.

- National Science Foundation DEB-0737592.
- 2007-2010 The Microevolution of craniofacial development in threespine stickleback. \$450,000 total costs. With William Crekso (lead PI) and John Postlethwait and Charles Kimmel (co-PIs). National Science Foundation, IBN-0642264.
- 2005-2010 Integrated training in the evolution of development. \$3,000,000 direct costs. With John Postlethwait (PI), Karen Guillemin (co-PI), and Rudolf Raff (Indiana University, co-PI). National Science Foundation, Integrated Graduate Education and Research Training Program DGE-0504627.
- 2007-2010 Natural variation in aging: building upon the nematode model system. \$82,000 direct costs, \$119,000 total costs. National Institutes of Health R03AG029377.
- 2006-2009 OPUS: The evolution of genetic architecture. \$95,708 direct costs, \$142,126 total costs. National Science Foundation DEB-0614588.
- 2003-2007 Collaborative Research: Experimental tests of the adaptive significance of ectotherm thermoregulation. \$246,488 direct costs, \$367,267 total costs. Half of a collaborative grant with Raymond Huey (University of Washington) as the PI on the other award. National Science Foundation IBN-0416205.
- 2003-2007 Genetic basis of morphological evolution in sticklebacks. \$712,000 total costs. With John Postlethwait (lead PI) and Charles Kimmel (co-PI). National Science Foundation, IBN-0236239.
- 2003-2006 Mutation, mating systems, and the rate of adaptation. \$311,580 direct costs, \$450,000 total costs. National Science Foundation, DEB-0236180.
- 2004-2006 Mutation, mating systems, and the rate of adaptation, REU supplements (support for three students, two minority). \$11,633 total costs; \$12,000 total costs. National Science Foundation, DEB-0425301.
- 2004 Genetic basis of morphological evolution in sticklebacks, Research Opportunity Award supplement for Dr. Robert Kaplan (Reed College, sabbatical visit in Phillips lab). \$30,000 total costs. National Science Foundation, IBN-0236239.
- 2001 Evolution of genetic covariance structure. \$33,333 direct costs, \$50,000 total costs. National Science Foundation, DEB-0088083.
- 2000-2003 A web site providing research and educational information in biology. \$130,493 direct costs, \$191,814 total costs. National Science Foundation, DEB-9987394.
- 1999-2003 The evolution of virulence of equine infectious anemia virus: an experimental approach. \$734,202 direct costs, \$1,013,832 total costs. With Susan Payne (lead PI) and Paul Chippindale (co-PI). National Institutes of Health.
- 1998-2003 Quantitative trait loci for chemosensation. \$545,653 direct costs, \$775,532 total costs. National Institutes of Health GM54185.
- 1996-1999 Resampling methods for quantitative genetic analysis. \$106,606 direct costs, \$155,599 total costs. National Science Foundation, DBI-9722921.
- 1996 Faculty Development Leave. UTA.
- 1995 Mapping genes affecting complex traits. \$6,310. Research Enhancement Program, UT Arlington.
- 1993 Real-time computing system for biological imaging and analysis. \$245,350 from Harris Corp.
- 1991-1992 An analysis of the shifting-balance theory of evolution. National Institutes of Health National Research Service Award, GM14612.

DISSERTATIONS AND THESES:

- “Plasticity and maternal effects in amphibian early development.” B.A. Thesis in Biology, Reed College (May, 1986). Advisor: Robert H. Kaplan.
- “A genetic and functional analysis of larval development in the wood frog, *Rana sylvatica*.” Ph.D. Dissertation in Evolutionary Biology, University of Chicago (August, 1991). Advisor: Stevan J. Arnold.

PUBLICATIONS (* = senior author, italics = student or postdoc):

126. *Teterina, A.A.*, J.H. Willis, M. Lukac, R. Jovelin, A.D. Cutter, and P.C. Phillips*. 2023. Genomic diversity landscapes in outcrossing and selfing *Caenorhabditis* nematodes. PLoS Genetics 19:e1010879.
125. *Stevenson, Z.C.*, Megan J. Moderdyk-Schauwecker, S.A. Banse, D.S. Patel, H. Lu, and P.C. Phillips*. 2023. High-throughput library transgenesis in *Caenorhabditis elegans* via transgenic arrays resulting in diverse integrated sequences (TARDIS). Elife 12: RP84831.
124. *Hammerschmith, E.W.*, *G.C. Woodruff*, K.A. Moser, E. Johnson, P.C. Phillips*. 2022. Opposing directions of stage-specific body shape change in a close relative of *C. elegans*. BMC Zoology 7:1-11.
123. *K.R. Kasimatis*, M.J. Moerdyk-Schauwecker, *R. Lancaster*, *A. Smith*, J.H. Willis, P.C. Phillips*. 2022. Post-insemination selection dominates pre-insemination selection in driving rapid evolution of male competitive ability. PLOS Genetics 18: e1010063.
122. Teterina, A.A., A.L. Coleman-Hulbert, S.A. Banse, J.H. Willis, V.I. Perez, G.J. Lithgow, M. Driscoll, and P.C. Phillips*. 2022. Genetic diversity estimates for the *Caenorhabditis* intervention testing program screening panel. Micropublication Biology 2022 10.17912/micropub.biology.000518.
121. Onken, B., C.A. Sedore, A.L. Coleman-Hulbert, D. Hall, E. Johnson, E.G. Jones, S.A. Banse, P. Huynh, S. Guo, J. Xue, E. Chen, G. Harinath, A.C. Foulger, E.A. Chao, J. Hope, D. Bhaumik, T. Plummer, D. Inman, M. Morshead, M. Guo, G.J. Lithgow, P.C. Phillips, and M. Driscoll. 2022. Metformin treatment of diverse *Caenorhabditis* species reveals the importance of genetic background in longevity and healthspan extension outcomes. Aging Cell e13488.
120. Adams, P.E., A.B. Crist, E.M. Young, J.H. Willis, P.C. Phillips*, and J.L. Fierst*. 2022. Slow recovery from inbreeding depression generated by the complex genetic architecture of segregating deleterious mutations. Molecular Biology and Evolution 39:msab330.
119. H.C. Osman, C.A. Sedore, E.G. Jackson, E.T. Battistoni, D. Hall, A. Foulger, M. Lucanic, M. Guo, M. Driscoll, P. Phillips, G.J. Lithgow. 2021. *Caenorhabditis* Intervention Testing Program: the herbicide diuron does not robustly extend lifespan in nematodes. microPublication Biology 2021. <https://dx.doi.org/10.17912>
118. *O'Connor, C.H.*, *K.L. Sikkink*, T.C. Nelson, *J.L. Fierst*, W.A. Cresko, and P.C. Phillips*. 2021. Complex pleiotropic genetic architecture of evolved heat stress and oxidative

- stress resistance in the nematode *Caenorhabditis remanei*. G3: Genes, Genomes, Genetics 11:jkab045.
117. Kasimatis, K.R., A. Abraham, P.L. Ralph, A.D. Kern, J.A. Capra*, and P.C. Phillips*. 2021. Evaluating human autosomal loci for sexually antagonistic viability selection in two large biobanks. Genetics 217:1-10.
 116. Stevenson, Z.C., M.J. Moerdyk-Schauwecker, B. Jamison, and P.C. Phillips*. 2020. Rapid self-selecting and clone-free integration of transgenes into engineered CRISPR safe harbor locations in *Caenorhabditis elegans*. G3: Genes, Genomes, Genetics 10:3775-3782.
 115. Teterina, A.A., J.H. Willis, P.C. Phillips*. 2020. Chromosome-level assembly of the *Caenorhabditis remanei* genome reveals conserved patterns of nematode genome organization. Genetics 214:769-780.
 114. Abbott, M., S.A. Banse, I. Melentijevic, C.M. Jarrett, J.S. Ange, C.A. Sedore, R. Falkowski, B.W. Blue, A.L. Coleman-Hulbert, E. Johnson, M. Guo, G.J. Lithgow, P.C. Phillips, and M. Driscoll. 2020. A simplified design for the *C. elegans* lifespan machine. Journal of Biological Methods 7:e137.
 113. M.L. Morshead, C.A. Sedore, E.G. Jones, D. Hall, W.T. Plummer, T. Garrett, M. Lucanic, M. Guo, M. Driscoll, P.C. Phillips, and G. Lithgow. 2020. *Caenorhabditis* Intervention Testing Program: the farnesoid X receptor agonist obeticholic acid does not robustly extend lifespan in nematodes. microPublication 2020. 10.17912/micropub.biology.000257.
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PATENTS:

- Stevenson, Z.C., S.A. Banse, and P.C. Phillips. 2021. Genetic data compression and methods of use. US patent pending US20210332387A1.

UNREFEREED NOTES AND ABSTRACTS:

- Phillips, P.C. 1995. Plate ecology. *Worm Breeder's Gazette* 13(5):13.
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- Evolutionary Biology Workshop. 2005. *Frontiers in Evolutionary Biology*. Prepared for the National Science Foundation. 10 pp.

COMPUTER SOFTWARE (see <http://www.uoregon.edu/~pphil/software.html>):

- Phillips, P.C. 1994-1998. CPC: the Flury hierarchy of covariance matrix comparisons.
- Phillips, P.C. 1991-1998. H2jack: jackknife estimates of quantitative genetic parameters.
- Phillips, P.C. 1993-2004. H2boot: bootstrap estimates of quantitative genetic parameters.
- Phillips, P.C. 1995-1998. CPCrand: randomization test of covariance matrix comparisons for quantitative genetic data.
- Phillips, P.C. 1987. Scope: a computer-microscope interface.

TEACHING ACTIVITIES:

- Evolutionary Quantitative Genetics (Spring 2019)
- Biological Modeling, Oregon (Winter 2016)
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- Seminars:
- Evolution of Genetic Architecture, Oregon (2005–2010)
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Teaching Assistant, Reed College:

Population Biology (Spring, 1984–86)

WORKSHOP PARTICIPATION:

5/2013 Biodemography, Stanford University

8/2013 Biology of Aging, Woods Hole

8/2013 Evolutionary Quantitative Genetics, National Evolutionary Synthesis Center, Durham, NC

STUDENT AND POSTDOC TRAINING:

Current Graduate Students:

2017– Zach Stephensen, Ph.D. candidate, Analysis of evolutionary dynamics using individual specific lineage tracking.

2020– Rose Al-Saadi. Ph.D. candidate. Enhancing neuronal health during aging.

Previously Supervised Graduate Students:

1997 Andrew D. Stewart, M.S. Currently an associate professor at Canisius College.

1997 Behzad Gerami, M.S. Currently a stem cell biologist at Thymune Therapeutics.

1999 Aliece Watts, M.S. Currently Quality Manager at Integrated Forensic Laboratories and Lecturer, University of Texas at Arlington.

2000 Asha Patel, M.S.

2000 Kirsten Lundin, M.S. Currently Dean of Instruction for Juan Seguin High School in Arlington, TX.

2001 Juliet Morphey, M.S. Currently enterprise client manager, Siemens Smart Infrastructure, Dallas, TX.

2002 Suzanne Estes, Ph.D. Currently an associate professor, Department of Biology, Portland State University.

2002 Julie Thompson, Ph.D. (co-advised with Emilia Martins, Indiana University). Currently an associate professor with the American Public University System.

2003 Scott Kolpak, M.S. 2003 (co-advised with Michael Lynch, Indiana University). Currently a geneticist for the US Forest Service.

2004 Jan Aagaard, Ph.D. Currently a postdoctoral fellow, Department of Genome

- Sciences, University of Washington.
- 2004 Colin Peden, M.S. Musician and audio intern at KALW, San Francisco.
- 2006 David Baltrus, Ph.D. (co-advised with Karen Guillemin). Currently an associate professor, School of Plant Sciences, University of Arizona.
- 2007 Erika Hersch, Ph.D. (co-advised with Bitty Roy). Currently an associate professor, Department of Biological Sciences, Michigan Tech University.
- 2009 Richard Jovelin, Ph.D. Currently a bioinformatician at the Ontario Institute for Cancer Research.
- 2009 Levi Morran, Ph.D. Currently an associate professor, Department of Biology, Emory University.
- 2012 Bryn Gaetner, Ph.D. Associate Medical Writer, Prescott Medical Communications Group.
- 2013 Heather Archer, M.S.
- 2014 Kristin Sikkink, Ph.D. (co-advised with Bill Cresko), Currently a postdoctoral fellow, University of Minnesota.
- 2018 Christine O'Connor, Ph.D. Currently a postdoctoral fellow, University of Minnesota.
- 2019 Heather Archer, Ph.D. Currently an independent researcher.
- 2019 Katja Kasimatis, Ph.D. Currently a postdoctoral fellow, University of Toronto.
- 2020 P. Alex de Verteuil, Ph.D., Currently a project manager and team lead at Abcam.

Dissertation Advisory Committees (UO non-supervised students):

Current Ecology & Evolution: Murillo Rodrigues

Past Ecology & Evolution: Ahrash Bissell (Chair, 2001), Erich Flemming (2006), Derrick Mathias (Chair, 2006), Craig Everroad (Chair, 2007), Laurel Pfeiffer-Meister (Chair, 2008), Kevin Emerson (2009), Sean Carroll (Chair, 2009), Kimberly Lum (granted MS, 2010), Elizabeth Perry (2012), Alida Gerritsen (Chair, 2014), David Anderson (Chair, 2014), Paul Cziko (2014), Kristin Alligood (2016), Thom Nelson (2017), Allison Fuiten (Chair, 2018),

Past Neuroscience: Michael Spezio (2002), Christian Frokjaer-Jensen (left program 2004), Yvonne Bradford (2006), Todd Thiele (2007), Katherine McCormack (Chair, 2013), Samantha Steiner (2016), Abe Katzen (Chair, 2016), Stacy Levichev-Connolly (Chair, 2021)

Past Molecular Biology: Greg Ellis (2002), Michael Miller (2012), Jessica Preston (2015), Anneliese Morrison (2021)

Past Marine Biology: Michael Berger (2004), Erin Cooper (2009, Chair)

Past Chemistry: Diana Liu (2005), Alesia KcKeown (2014), Luke Wheeler (2017)

Past Computer Science: Bryan Kolaczowski (2006)

Current Postdocs:

2018– Anastasia Teterina. Genomic analysis of the genotype-phenotype map.

2021– Amy Webster. Epigenetic regulation of phenotypic variation and its evolutionary consequences. NIH NRSA Postdoctoral Fellowship.

Previously Supervised Postdocs:

1999-2000 Marjorie Gurganus. Currently a patent attorney, Mei & Mark, LLP, North Carolina.

- 2002-2003 Henrique Teotónio. Currently an associate professor, Institut de Biologie de l'École Normale Supérieure, Paris, France.
- 2002-2004 Julie Thompson. Currently an associate professor with the American Public University System.
- 2001-2005 Steven Proulx. NIH NRSA postdoctoral fellowship. Current an associate professor, Department of Ecology, Evolution and Marine Biology, UC Santa Barbara.
- 2001-2005 Katrina McGuigan (co-mentored with John Postlethwait). Currently an associate professor at University of Queensland, Australia.
- 2004-2012 Jennifer Anderson. NIH NRSA postdoctoral fellowship. Currently a research scientist at Uppsala University.
- 2007-2012 Rose Reynolds. NIH NRSA postdoctoral fellowship. Currently a data science research associate, Children's Mercy Research Institute.
- 2009-2013 John Willis. Currently a research associate at the University of Oregon.
- 2010-2014 Janna Fierst. NSF Bioinformatics postdoctoral fellow. Currently an associate professor at Florida International University.
- 2012-2015 Nadine Timmermeyer. Experimental evolution of polygamy in *C. remanei*.
- 2013-2016 Stephen Banse. Microfluidic analysis of health and aging. Currently a research assistant professor at the University of Oregon.
- 2016–2017 Tyler Hether. High throughput population genomics. Bioinformatics researcher at Adaptive Biotechnology.
- 2015–2020 Gavin Woodruff. NIH NRSA postdoctoral fellow. Currently an assistant professor at University of Oklahoma.

Supervised Undergraduate Research:

Over 80 total

UO Clark Honors College students: Jennifer Comstock (2008), Emily Ebel (2011), Hannah Jarman-Miller (2012), Max Ryan (2012), Mekhala Dissanayake (2014), Hanna Moore (2015), Benjamin Blue (2015), Eric Hammerschmith (2017), Tela Caul (2017), Sally Claridge (2017), Juliana Rantisi (2018), Hanna Minns (2019), Alex Smith (2019)

UO Biology Honors Theses: Beverly Ajie (2001), Brian Cappy (2007), Jennifer Comstock (2008), Stephen McNamara (2008), Tyrell Love (2008), Lauren Noll (2011), Byron Etta (2013), Anna Crist (2013), Ruben Lancaster (2019)

UO Human Physiology Honors Theses: Sara Mete (2013), Angela Uys (2014).

UO Biochemistry Honors Theses: Benjamin Story (2013), Mekhala Dissanayake (2014).

UTA honor students: Christopher Gates (1998), Shea Holt (2000), Malahat Kizilbash (1997), John Morse (1999)

UO Summer Program for Undergraduate Research minority students: 22

UTA Alliance for Minority Participation summer research students: 5

Sabbatical Visitors:

2003-2004 Dr. Robert Kaplan, Reed College

2004 Dr. Fred Janzen, Iowa State University

Other Mentorship:

2014–2021 Dr. Susan Harbison, Systems Biology Center, National Heart Lung and Blood Institute, NIH; junior investigator mentor

MENTORED UNDERGRADUATE AND GRADUATE AWARDS:

- 2016-2018 Christine O'Connor. Dissertation Improvement Grant: Interaction of gene flow, selection and genomic architecture on the genetics of adaptation. \$18,850 total costs.
- 2015 Precious (Alex) de Verteuil. Diversity supplement. \$116,289 total costs. National Institutes of Health (NIA).
- 2014 Christine O'Connor. National Science Foundation Graduate Fellowship (University of Oregon).
- 2011 Emily Ebel. National Science Foundation Graduate Fellowship (Stanford University).
- 2010 Michelle Parmenter. National Science Foundation Graduate Fellowship (University of Wisconsin, Madison).
- 2009-2011 Bryn Gaertner. Dissertation Improvement Grant: Determining the functional genetic basis of natural variation in thermosensory behavior. \$14,993 direct costs. National Science Foundation IOS-0909816.
- 2007-2009 Levi Morran. Dissertation Improvement Grant: Outcrossing in a self-Fertilizing species, adding the *Caenorhabditis elegans* tool-kit to the outcrossing-selfing paradigm. \$6,994 direct costs. National Science Foundation, DEB-0710386.
- 2007-2009 Richard Jovelin. Dissertation Improvement Grant: Evolution of neuronal regulatory genes in *Caenorhabditis*. \$11,927 direct costs. National Science Foundation, DEB-0710378.
- 2005-2007 David Baltrus. Dissertation Improvement Grant: Direct tests of the adaptive benefits of gene exchange in evolving bacterial populations. \$12,000 direct costs. With Karen Guillemin (co-PI). National Science Foundation, DEB-0508919.
- 2001-2003 Jan Aagaard. Dissertation Improvement Grant: The evolution of floral developmental genes in *Mimulus*. \$9,221 direct costs. National Science Foundation, DEB-0105176.
- 2001 Beverly Ajie. National Science Foundation Graduate Fellowship (UC Davis).

MEETING ORGANIZATION:

- 2020 *Organizing committee*, 22nd International *C. elegans* Conference, UCLA.
- 2018 *Conference co-organizer*, Evolutionary biology, ecology and genomics of *C. elegans* and other nematodes. Wellcome Genome Campus, Hinxton, England.
- 2015 *Symposium Organizer*, "Linkage and the Limits to Adaptation in Experimental Sexual Populations," Mathematical Models in Ecology and Evolution (MMEE) annual meeting, Paris, France.
- 2013 *Session Chair*, "Evolutionary Genetics," Gordon Conference on Quantitative Genetics and Genomics
- 2009 *Symposium Organizer*, "Evolution of Molecular Function," Annual Meeting of the Society for the Study of Evolution, Moscow, Idaho
- 2009 *Organizer*, Darwin 200th Birthday Lecture Series, Winter/Spring, University of Oregon
- 2007 *Conference Chair*, Gordon Conference on Quantitative Genetics and Genomics
- 2006 *Co-organizer* (Henrique Teotónio, lead organizer), EMBO workshop on the study of the evolutionary biology of *C. elegans* and closely related species, Instituto Gulbenkian de Ciência, Portugal

- 2006 *Organizer*, Evo-WIBO II, Meeting of Pacific NW evolutionary biologists, Fort Warden, Washington
- 2005 *Conference Vice-Chair*, Gordon Conference on Quantitative Genetics and Genomics
- 2004 *Founding Co-organizer* (Michael Whitlock, lead organizer), Evo-WIBO, Meeting of Pacific NW evolutionary biologists, Fort Warden, Washington
- 2004 *Symposium Organizer*, “Evolution of Gene Regulation,” UO/IU IGERT Symposium, University of Oregon
- 2003 *Session Chair*, “Evolutionary Genetics,” Gordon Conference on Quantitative Genetics and Genomics
- 2001 *Symposium Organizer* (with Margaret Saks), “Evolution of Genetic Networks,” UO/IU IGERT Symposium, University of Oregon
- 2001 *Session Chair*, “Selection in Natural and Experimental Populations,” Gordon Conference on Quantitative Genetics and Genomics
- 1997 *Session Chair*, “Beyond QTL: Epistasis in Segregating Populations,” Gordon Conference on Quantitative Genetics and Biotechnology
- 1993 *Symposium Organizer*, “Wright's Shifting-Balance Theory, Sixty Years Later,” Society for the Study of Evolution annual meeting, Snowbird, Utah

INVITED SYMPOSIA PRESENTATIONS:

- 2019 Next generation experimental evolution: expanding the evolutionary toolkit in pursuit of the molecular basis of phenotypic evolution. SMBE Satellite Meeting: Towards an integrated concept of adaptation: uniting molecular population genetics and quantitative genetics, Vienna, Austria.
- 2018 Reproducibility and robustness in the pursuit of life-extending compounds: The *Caenorhabditis* Intervention Testing Program. Gerontological Society of America annual meeting, Boston.
- 2018 Whole organism genetic systems at single-cell resolution. Evolutionary Systems Biology, Wellcome Genome Campus. Hinxton, England.
- 2017 Experimental evolution and the evolution of genetic architecture. Kavli Institute for Theoretical Physics workshop on Eco-Evolutionary Dynamics in the Nature and the Lab. University of California Santa Barbara.
- 2016 Systems genomics of adaptation. The Ecology of Genome Evolution. Evolutionary Biology Centre, Uppsala University.
- 2016 Using experimental evolution to under the complex genetics of stress resistance and aging. British Society for Research on Ageing (BSRA) Annual Meeting. Durham, England.
- 2016 The influence of genetic background and experimental reproducibility in identifying longevity-enhancing compounds: The *Caenorhabditis* Intervention Testing Program (CITP). Scottish Ecological Aging Research Group (SEARG). Durham, England.
- 2016 Integrating fitness measures for next generation quantitative genetics. Paris Fitness Workshop. École Normale Supérieure, Paris, France.
- 2016 Population and evolutionary genetics in the genomics era. 5th International Conference on Quantitative Genetics. Madison, WI.
- 2016 Systems genomics of adaptation: pleiotropy and experimental evolution of stress resistance in the nematode *Caenorhabditis remanei*. Evolutionary

- Systems Biology: From Model Organisms to Human Disease, Welcome Trust Meeting. Hinxton, England.
- 2015 Genomic analysis of the pleiotropic networks underlying the experimental evolution of increased stress resistance in the nematode *Caenorhabditis remanei*. SMBE Satellite Meeting on Investigating Biological Adaptation with NGS. Hameau de l'étoile, France.
- 2015 Transgenerational hormesis: Testing the adaptive plasticity hypothesis using experimental evolution to heat stress in *C. remanei*. Annual VerMidi (French *C. elegans*) Meeting, Paris, France.
- 2014 Environmental influences on individual variation in the stochastic demography of the nematode *C. elegans*. Keynote speaker, Evolutionary Demography Society annual meeting, Stanford, CA.
- 2014 Sex, Stress & Death: Experimental evolution and the genetics of complex traits in *Caenorhabditis*. Keynote Address, Evolutionary Biology of *Caenorhabditis* and Other Nematodes, Sanger Center, Hixton, England.
- 2014 Using experimental evolution to study the molecular quantitative genomics of stress resistance and longevity in the nematode *Caenorhabditis remanei*. Keystone Symposia on Aging—Pushing the Limits of Cellular Quality Control, Steamboat Springs, CO.
- 2013 Individuality: systematic and stochastic factors underlying biodemographic variation. Stanford Biodemography Workshop, Stanford, CA.
- 2013 Introduction and concepts. Evolutionary Genetics session, Gordon Conference on Quantitative Genetics and Genomics, Galveston, TX.
- 2012 Mutation, sex, and genomic evolution. National Association of Biology Teachers. Dallas, TX.
- 2012 Identifying the genetic basis of natural variation in stress and aging: genesis of a new nematode model system. Ellison Medical Foundation Biology of Aging Colloquium, Woods Hole, MA.
- 2012 Gene interactions underlying the evolution of complex traits. 4th International Conference on Quantitative Genetics. Edinburgh, Scotland.
- 2009 Evolution, development and genomics during the last (and next) decade. UO-IU IGERT Program in Evolution, Development and Genomics, Bloomington, IN.
- 2009 Evolutionary metaphors and molecular reality. Evolution of Molecular Function Symposium, Society for the Study of Evolution annual meeting. Moscow, ID.
- 2008 Perception and environmental context: The ecological genomics of the response to temperature, chemicals, and food within the nematode *C. elegans* and its relatives. 6th Annual Ecological Genomics Symposium, Kansas State University, Manhattan, KS.
- 2006 The study of evolutionary biology with *Caenorhabditis*. Opening talk, EMBO Workshop on the study of evolution biology with *Caenorhabditis elegans* and related species, Instituto Gulbenkian de Ciência, Lisbon, Portugal.
- 2006 Closing remarks. Origin of Novelty Symposium. UO-IU IGERT Program in Evolution, Development and Genomics, Bloomington, IN.
- 2004 Introduction and overview. Evolution of Gene Regulation Symposium. UO-IU IGERT Program in Evolution, Development and Genomics, Eugene, OR.
- 2003 Introduction to “Evolutionary Genetics.” Gordon Conference on Quantitative

- Genetics and Genomics, Ventura, CA.
- 2001 How should we test hypotheses about the genetics of adaptation? Georgia Genetics Symposium III: Genetics of Adaptation. University of Georgia, Athens, GA.
- 2001 Molecular quantitative genetics of chemotaxis in *Caenorhabditis elegans*. Georgia Genetics Symposium III: Genetics of Adaptation. University of Georgia, Athens, GA.
- 2001 Introduction and overview. Evolution of Genetic Networks Symposium. University of Oregon, Eugene, OR.
- 2001 Evolutionary genomics in natural populations: from QTL to gene function and back again. Evolutionary and Ecological Functional Genomics Symposium, Society for the Study of Evolution annual meeting, Knoxville, TN.
- 2001 Introduction to “Selection in Natural and Experimental Populations.” Discussion leader, Gordon Conference on Quantitative Genetics and Genomics, Ventura, CA.
- 1999 Complex traits in a simple organism: behavioral variation for chemotaxis in the nematode *Caenorhabditis elegans*. Gordon Conference on Quantitative Genetics and Biotechnology, Ventura, CA.
- 1997 The language of gene interaction. Gordon Conference on Quantitative Genetics and Biotechnology, Ventura, CA.
- 1993 Kickstarting the shifting-balance process: Phase zero. Shifting Balance Theory Symposium, Society for the Study of Evolution annual meeting, Snowbird, UT.

OTHER PRESENTATIONS:

- 2017 Single-cell transcriptome profiling in *C. elegans daf-2* mutants identifies tissue-specific expression of *daf-16* target genes. 21st International *C. elegans* meeting, Los Angeles, CA. (talk coauthored and presented by Jessica Preston)
- 2017 The natural history of a fig-associated *Caenorhabditis*. 21st International *C. elegans* meeting, Los Angeles, CA. (poster coauthored and presented by Gavin Woodruff)
- 2017 High throughput assessment of natural variation in the resistance to starvation stress in *C. elegans* using microfluidics. 21st International *C. elegans* meeting, Los Angeles, CA. (poster coauthored and presented by Heather Archer)
- 2017 Fine scale electrophysiological analysis of pharyngeal aging and a transition-state model of activity. 21st International *C. elegans* meeting, Los Angeles, CA. (poster coauthored and presented by Stephen Banse)
- 2017 The Crucible: A microfluidic platform for stress assays. 21st International *C. elegans* meeting, Los Angeles, CA. (poster coauthored and presented by Stephen Banse)
- 2017 Automation of the *Caenorhabditis* Intervention Testing Program. 21st International *C. elegans* meeting, Los Angeles, CA. (poster coauthored and presented by Anna Coleman-Hulbert)
- 2017 Genomic analysis of chronic heat stress resistance in the nematode *Caenorhabditis remanei*. 21st International *C. elegans* meeting, Los Angeles, CA. (poster coauthored and presented by Sally Claridge)
- 2017 Molecular evolution of the *Caenorhabditis* sperm proteome. Society for the Study of Evolution Annual meeting, Portland, OR. (talk coauthored and

- presented by Katja Kasimatis)
- 2015 Genetic basis of evolved heat shock response in the nematode *Caenorhabditis remanei*. Gordon Conference on Quantitative Genetics and Genomics, Barga, Italy. (poster coauthored and presented by Christine O'Connor).
- 2015 The genetics of individuality: High throughput phenomics in *C. elegans* and its relatives. Gordon Conference on Quantitative Genetics and Genomics, Barga, Italy. (poster)
- 2014 Natural variation for longevity and demography within and between species of *Caenorhabditis* nematodes. Evolutionary Demography Society annual meeting. Stanford, CA. (poster)
- 2014 From shopping cart to baby carriage: The influence of having dietary choices on reproduction in the nematode *C. elegans*. Evolutionary Demography Society annual meeting. Stanford, CA. (poster coauthored and presented by Stephen Banse).
- 2014 Microfluidic measures of pharyngeal health: Increasing throughput and resolution. Aging, Metabolism, Pathogenesis, Stress, and Small RNAs in *C. elegans* Meeting. Madison, WI. (talk coauthored and presented by Stephen Banse).
- 2014 The *C. elegans* Intervention Testing Program: plans to establish a potent pipeline for interventions that promote healthy aging. Aging, Metabolism, Pathogenesis, Stress, and Small RNAs in *C. elegans* Meeting. Madison, WI.
- 2014 Experimental evolution reveals independent genetic pathways for stress response and longevity in *Caenorhabditis remanei*. Aging, Metabolism, Pathogenesis, Stress, and Small RNAs in *C. elegans* Meeting. Madison, WI. (poster coauthored and presented by Rose Reynolds).
- 2014 Rewriting the back label: a history of axenic media and the progress towards a holidic medium. Aging, Metabolism, Pathogenesis, Stress, and Small RNAs in *C. elegans* Meeting. Madison, WI. (poster coauthored and presented by Ben Blue).
- 2014 Evolution of independent genetic pathways for pathogen resistance within the nematode *Caenorhabditis remanei*. Aging, Metabolism, Pathogenesis, Stress, and Small RNAs in *C. elegans* Meeting. Madison, WI. (poster coauthored and presented by Heather Archer).
- 2014 Breaking G: Variable pleiotropy and environmentally induced changes in the correlated response to selection. Annual Meeting of the Society for the Study of Evolution, Raleigh, NC. (talk coauthored and presented by Kristin Sikkink).
- 2014 Influence of mating system on genome evolution in *Caenorhabditis*. Annual Meeting of the Society for the Study of Evolution, Raleigh, NC. (talk coauthored and presented by Janna Fierst).
- 2013 The worm not taken: quantifying individual variation in stochastic demography. First meeting of the Evolutionary Demography Society, Odense, Denmark.
- 2013 x within G: Pleiotropic networks underlying the response to selection for heat and oxidative stress resistance in the nematode *Caenorhabditis remanei*. Society for the Study of Evolution annual meeting, Snowbird, UT.
- 2013 Assimilate this! Experimental evolution of phenotypic plasticity under heat stress in the nematode *Caenorhabditis remanei*. Society for the Study of

- Evolution annual meeting, Snowbird, UT. (talk coauthored and presented by Kristin Sikkink).
- 2013 Independent genetic pathways for stress response and longevity revealed by experimental evolution in the nematode *Caenorhabditis remanei*. 19th International *C. elegans* meeting, Los Angeles, CA. (poster)
- 2011 Natural variation in longevity and a recent selective sweep in the insulin-like signaling pathway in nematodes. Society for the Study of Evolution annual meeting, Norman, OK.
- 2011 Worm population cages: using soil microcosms to elucidate longevity patterns in aging mutants in *Caenorhabditis elegans*. Society for the Study of Evolution annual meeting, Norman, OK. (talk coauthored and presented by Michelle Parmenter).
- 2011 Experimental evolution of stress response and correlated effects on longevity in *Caenorhabditis remanei*. Society for the Study of Evolution annual meeting, Norman, OK. (poster coauthored and presented by Rose Reynolds).
- 2011 The League of Extraordinary Worms: complex epistasis underlying pleiotropy in neurodevelopment, behavior, and life history traits. Society for the Study of Evolution annual meeting, Norman, OK. (talk coauthored and presented by Bryn Gaertner).
- 2011 Identifying natural genetic variation in stress and aging pathways in *Caenorhabditis remanei* populations. 18th International *C. elegans* meeting, Los Angeles, CA. (poster coauthored and presented by John Willis).
- 2010 Epistasis and the functional genetic basis of natural variation in behavior. Society for the Study of Evolution annual meeting, Portland, OR. (talk coauthored and presented by Bryn Gaertner).
- 2010 How to be a successful male: identification of QTL associated with male frequency and outcrossing frequency in *C. elegans*. Biology of the *C. elegans* Male, Madison, WI. (talk coauthored and presented by Jennifer Anderson).
- 2010 *Caenorhabditis remanei*: Building a platform for investigations of natural genetic variation in aging & stress resistance. Aging, Metabolism, Stress, Pathogenesis, and Small RNAs, Madison, WI. (poster coauthored and presented by Rose Reynolds).
- 2010 Creating a sexy model: genetic and genomic resources in *C. remanei*. Evolutionary Biology of *Caenorhabditis* and other nematodes, Hixton, UK.
- 2009 Why Sex with a companion is better: mutation load and rapid adaptation favor outcrossing over self-fertilization. Society for the Study of Evolution annual meeting, Moscow, ID. (talk coauthored and presented by Levi Morran).
- 2009 Compensatory evolution response at phenotypic and nucleotide levels in natural mutant lines of *C. elegans*. Society for the Study of Evolution annual meeting, Moscow, ID. (talk coauthored and presented by Suzanne Estes).
- 2009 Fitness, temperature, and experimental evolution: identifying loci underlying fitness in *C. elegans*. Society for the Study of Evolution annual meeting, Moscow, ID. (talk coauthored and presented by Jennifer Anderson).
- 2009 Genetic architecture of thermal preference in *C. elegans*. Society for the Study of Evolution annual meeting, Moscow, ID. (talk coauthored and presented by Bryn Gaertner).

- 2009 *C. elegans* males perform best under pressure. Sex and Recombination: In Theory and Practice meeting. Iowa City, IA. (talk coauthored and presented by Jennifer Anderson).
- 2009 Why sex with a companion is better: mutation load and rapid adaptation favor outcrossing over self-fertilization. Sex and Recombination: In Theory and Practice meeting. Iowa City, IA. (talk coauthored and presented by Levi Morran).
- 2008 Evolving toxic New York males: Natural and experimental evolution of sexual conflict within *Caenorhabditis*. *C. elegans* Development and Evolution meeting, Madison, WI, and Society for the Study of Evolution annual meeting, Minneapolis, MN.
- 2008 Sex for the stressed: facultative outcrossing in the predominantly selfing nematode *C. elegans*. Society for the Study of Evolution annual meeting, Minneapolis, MN. (talk coauthored and presented by Levi Morran).
- 2008 Sex in unexpected places: natural variation in male frequency and its role in adaptation to a novel environment in *C. elegans*. Society for the Study of Evolution annual meeting, Minneapolis, MN. (talk coauthored and presented by Jennifer Anderson).
- 2008 *Caenorhabditis remanei* as the perfect “aging” organism: genetic variation in lifespan, oxidative stress response, and the insulin signaling pathway. Society for the Study of Evolution annual meeting, Minneapolis, MN. (poster coauthored and presented by Rose Reynolds).
- 2008 Physiology and genetics of natural variation in thermal preference in *C. elegans*. Society for the Study of Evolution annual meeting, Minneapolis, MN. (poster coauthored and presented by Bryn Gaertner).
- 2006 When New York males kill: sperm competition and sexual conflict in the nematode *Caenorhabditis remanei*. Society for the Study of Evolution annual meeting, Stony Brook, NY.
- 2004 Ecological context of morphological development, performance, and fitness: thermal environment, maternal effects and plasticity in the frog, *Bombina orientalis*. Ecological Society of America annual meeting, Portland, OR. (talk coauthored and presented by Robert Kaplan).
- 2004 Spontaneous mutational correlations in *Caenorhabditis elegans*. Society for the Study of Evolution annual meeting, Fort Collins, CO. (talk coauthored and presented by Suzanne Estes).
- 2004 Sex, death, and strangers: mating fecundity and lifespan in the nematode *Caenorhabditis remanei*. Society for the Study of Evolution annual meeting, Fort Collins, CO. (talk coauthored and presented by Colin Peden).
- 2004 Evolution of a duplicated floral regulatory pathway in the Lamiales. Society for the Study of Evolution annual meeting, Fort Collins, CO. (talk coauthored and presented by Jan Aagaard).
- 2003 Genetic variation, inbreeding and mating systems in nematodes (*Caenorhabditis* sp.). Society for the Study of Evolution annual meeting, Chico, CA. (talk coauthored by Beverly Ajie).
- 2003 Evidence that selection stabilizes the G-matrix. Society for the Study of Evolution annual meeting, Chico, CA. (talk coauthored by Steve Arnold).

- 2003 The genetic basis of convergent evolution: armor loss in Alaskan populations of stickleback. Society for the Study of Evolution annual meeting, Chico, CA. (talk coauthored and presented by William Cresko).
- 2003 Effect of population size on fitness correlates in *Caenorhabditis elegans*: implications for the distribution of mutational effects. Society for the Study of Evolution annual meeting, Chico, CA. (talk coauthored and presented by Suzanne Estes).
- 2003 Limits on the evolution of genetic canalization in genetic networks. Society for the Study of Evolution annual meeting, Chico, CA. (talk coauthored and presented by Stephen Proulx).
- 2002 Molecular evolution and quantitative variation in the chemosensory signal transduction pathway in Caenorhabditid nematodes. Society for the Study of Evolution annual meeting. Champaign-Urbana, IL. (talk coauthored by Richard Jovelin and Beverly Ajie).
- 2002 The power (or lack thereof) of regression approaches to detecting selection in natural populations. Society for the Study of Evolution annual meeting. Champaign-Urbana, IL. (talk coauthored and presented by Erika Hersch).
- 2002 Divergence for thermal performance and thermal preference among natural isolates of the nematode *C. elegans*. Society for the Study of Evolution annual meeting. Champaign-Urbana, IL. (talk coauthored and presented by Colin Peden).
- 2002 Mutation accumulation and mutational covariances among behavior, morphology and fitness in *C. elegans*. Society for the Study of Evolution annual meeting. Champaign-Urbana, IL. (talk coauthored by Beverly Ajie, Suzanne Estes, and Michael Lynch, presented by Beverly Ajie).
- 2000 QTL congenics: mapping chromosome region-specific effects on chemotaxis in *Caenorhabditis elegans*. Society for the Study of Evolution annual meeting. Bloomington, IN. (poster co-authored and presented by Kirsten Lundin).
- 2000 Evonet.org: A website for education and research in evolutionary biology. Society for the Study of Evolution annual meeting. Bloomington, IN. (poster)
- 1999 Things that make G go hmm: selection, drift and genetic covariance structure. Society for the Study of Evolution annual meeting. Madison, WI.
- 1999 Candidate locus approaches to dissecting genetic architecture: QTL for chemotaxis in *C. elegans*. Society for the Study of Evolution annual meeting. Madison, WI. (poster co-authored and presented by Margorie Gurganus).
- 1999 Influence of temperature on reproductive rate in *C. elegans*: r vs. Ro. Society for the Study of Evolution annual meeting. Madison, WI. (poster co-authored by Barbara Armstrong, Christina Cooke, and Raymond Huey).
- 1999 Assessing natural variation at a single locus affecting chemotaxis in *C. elegans* using complementation testing. Society for the Study of Evolution annual meeting. Madison, WI. (poster co-authored and presented by Juliet Morphew).
- 1999 Quantitative trait loci for chemotaxis in *C. elegans*: repulsion mutants. Twelfth International *C. elegans* Meeting, Madison, WI. (poster co-authored and presented by Margorie Gurganus).
- 1999 Ethanol tolerance in *C. elegans*. Twelfth International *C. elegans* Meeting, Madison, WI. (poster co-authored and presented by Kirsten Lundin).

- 1998 Phylogenetic analysis of chemosensory behavior of rhabditid nematodes: a starting point for comparative QTL analysis. Society for the Study of Evolution annual meeting, Vancouver, BC. (co-authored and presented by Juliet Morphew).
- 1998 Synthetic lethals: two-locus mutation selection balance. Society for the Study of Evolution annual meeting, Vancouver, BC. (co-authored by Norman Johnson).
- 1997 Sex and the single worm: An examination of the utility of outcrossing in the partially selfing nematode, *Caenorhabditis elegans*. Society for the Study of Evolution annual meeting, Boulder, CO. (co-authored and presented by Andrew Stewart).
- 1997 Software for the analysis of covariance matrices and quantitative genetic data using resampling methods. Society for the Study of Evolution annual meeting, Boulder, CO. (poster).
- 1997 Mutation accumulation for chemosensory behavior in the nematode, *Caenorhabditis elegans*. Society for the Study of Evolution annual meeting, Boulder, CO. (poster co-authored by Juliet Morphew).
- 1997 Mapping quantitative trait loci for chemotaxis: correspondence between QTL and *odr* candidate loci. Eleventh International *C. elegans* Meeting, Madison, WI. (poster coauthored by Behzad Gerami and Juliet Morphew)
- 1997 Mutation accumulation for chemosensory behavior. Eleventh International *C. elegans* Meeting, Madison, WI. (poster co-authored by Juliet Morphew).
- 1997 Reproductive competition in the nematode, *Caenorhabditis elegans*: recognition of self and non-self. Eleventh International *C. elegans* Meeting, Madison, WI. (talk co-authored by Donald Selby and Stephanie Jacobs).
- 1997 Mapping genes affecting chemotaxis in the nematode *Caenorhabditis elegans*: a QTL approach. Texas Genetics Society Annual Meeting, Dallas, TX. (co-authored and presented by Behzad Gerami).
- 1996 Mapping genes affecting chemotaxis in the nematode *Caenorhabditis elegans*: a QTL approach. Conference on Response and Adaptation to the Environment sponsored by the U.S. Army Research Office, Raleigh, NC. (poster with Behzad Gerami and Juliet Morphew).
- 1996 A QTL model system: chemotaxis in the nematode, *Caenorhabditis elegans*. Society for the Study of Evolution annual meeting, St. Louis, MO.
- 1995 Distinguishing chaos from noise in nematode population dynamics. Society for the Study of Evolution annual meeting, Montreal, Quebec. (poster).
- 1995 Comparing methods for the analysis of selection and performance: sprint speed in larval wood frogs (*Rana sylvatica*). Society for the Study of Evolution annual meeting, Montreal, Quebec.
- 1995 Distinguishing chaos from noise in nematode population dynamics. Tenth International *C. elegans* meeting, Madison, WI. (poster).
- 1995 Hierarchical comparisons of genetic covariance matrices. Gordon Conference on Quantitative Genetics and Biotechnology, Ventura, CA. (poster).
- 1994 Computing net selection gradients on a phylogeny for the garter snake, *Thamnophis elegans*: how important is divergence in genetic variance-covariance matrices? (coauthored and presented by Stevan Arnold). Society for the Study of Evolution annual meeting, Athens, GA.

- 1994 A hierarchical comparison of genetic variance-covariance matrices: coastal-inland divergence in the garter snake, *Thamnophis elegans*. Society for the Study of Evolution annual meeting, Athens, GA.
- 1992 Peak-shifts and polymorphism during Wright's shifting-balance process. Society for the Study of Evolution annual meeting, Berkeley, CA.
- 1990 Quantitative-genetic analysis of morphological development in the wood frog, *Rana sylvatica*. American Society of Zoologists annual meeting, San Antonio, TX.
- 1987 Using canonical analysis to visualize multivariate selection surfaces. Second International Conference on Quantitative Genetics, Raleigh NC. (poster).

INVITED SEMINARS:

- 2019 University of Veterinary Medicine, Vienna
- 2019 University of Pennsylvania
- 2019 Vanderbilt University
- 2018 Florida State University
- 2018 University of Maryland
- 2018 Pasteur Institute, Paris
- 2018 University of Alabama Birmingham
- 2017 Duke University
- 2017 USC
- 2017 University of Arizona
- 2017 Texas A&M University
- 2017 University of Florida
- 2015 University of Utah
- 2015 Université de Lille1
- 2015 École Normale Supérieure, Paris
- 2014 Buck Institute for Research on Aging
- 2014 University of Idaho
- 2014 Indiana University
- 2013 Oregon State University
- 2012 University of Texas at Arlington
- 2011 North Carolina State University
- 2011 Washington University, St. Louis
- 2011 Washington State University, Vancouver
- 2011 UC San Diego
- 2011 Center for Genomic Regulation, Spain
- 2010 Kellogg Biological Station
- 2010 Michigan State University
- 2010 Sun River Nature Center
- 2010 Central Oregon Community College
- 2009 University of Toronto
- 2009 University of Southern California
- 2008 Reed College
- 2008 Portland State University
- 2006 University of Maryland
- 2006 Instituto Gulbenkian de Ciencia, Portugal

2006	University of Illinois
2005	University of California, Davis
2004	University of British Columbia
2001	Oregon Institute of Marine Biology
2001	Washington State University
2000	Oregon State University
2000	University of Oregon
1999	University of Texas (Austin)
1998	University of Washington
1998	University of British Columbia
1997	University of Oregon
1997	Reed College
1997	University of Houston
1995	University of Miami
1994	Texas Christian University
1991	University of Texas at Arlington