

KRISTIN E. GRIBBLE

Associate Scientist
Josephine Bay Paul Center for
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EDUCATION

B.A. Biology, *magna cum laude*, Lawrence University, Appleton, WI, 1994

Ph.D., Biological Oceanography, Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program, Woods Hole, MA, 2006
Advisor: Dr. Donald M. Anderson.

PROFESSIONAL POSITIONS

2021-present Associate Scientist; Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Marine Biological Laboratory, Woods Hole, MA
2016-2021 Assistant Scientist; Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Marine Biological Laboratory, Woods Hole, MA
2014-2016 Assistant Research Scientist; Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Marine Biological Laboratory, Woods Hole, MA
2012-2014 Research Associate; Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Marine Biological Laboratory, Woods Hole, MA
2006-2012 Postdoctoral Scientist; Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Marine Biological Laboratory, Woods Hole, MA
2000-2006 Ph.D. Candidate; Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program in Biological Oceanography, Woods Hole, MA

Prior to graduate school:

1998-2000 Research Assistant II; Woods Hole Oceanographic Institution, Woods Hole, MA
1997-1998 Guest Student; Woods Hole Oceanographic Institution, Woods Hole, MA
1996-1998 Coordinator for Cape Cod Citizen Water Quality Monitoring Programs; Waquoit Bay National Estuarine Research Reserve, Waquoit, MA
1996 Research Assistant; Center for Coastal Studies, Provincetown, MA
1994-1995 Teacher; Nature's Classroom, Colebrook, CT
1993 REU Marine Biology Intern; Marine Biological Laboratory/BUMP, Woods Hole, MA
1992 Research Assistant; Lawrence University/Great Lakes SeaGrant, Appleton, WI
1992 Tutor, Introductory Zoology; Laboratory Assistant, Aquatic Ecology; Laboratory Assistant, Introductory Biology; Lawrence University, Appleton, WI

RESEARCH INTERESTS

Transgenerational inheritance; genetic and epigenetic mechanisms of phenotypic plasticity; biology of aging; development of rotifers as a study system for biomedical research and evolutionary biology

AWARDS

Fellow, American Aging Association (2022)
American Aging Association Board, Elected Member (2018-2021), Re-elected (2021- 2025)
Patriotic Employer Award for Supporting Employee Participation in the Guard and Reserve, Office of the Secretary of Defense (2021)
Neal W. Cornell Career Development Award (2019-2021)
American Federation for Aging Research Dorothy Dillon Eweson Lecture Series Award (2018)
Josephine Bay Paul Center Junior Faculty Award (2014)
Runner-up Best Paper Award, Aging Cell (2014)
Ellison Medical Foundation/AFAR Postdoctoral Fellowship (2012)
Poster Award, Biology of Aging Gordon Research Conference (2012)
Postdoctoral Researcher Travel Award, Society for Molecular Biology and Evolution (2010)
Student Travel Award, XII International Conference on Harmful Algae (2006)
Student Travel Award, XI International Conference on Harmful Algae (2004)
Student Travel Award, Society of Protozoologists (2004)
Carroll Wilson Award, MIT Entrepreneurship Society (2003)
Comer Fellowship, Woods Hole Oceanographic Institution (2000-2005)

PUBLICATIONS

([‡] **K.E. Gribble** as corresponding author; ^U denotes undergraduate mentored by **K.E. Gribble**)

Refereed journal articles

- Liguori, A., S. Korm, A. Profetto, E. Richters, **K.E. Gribble**. Transgenerational and intergenerational maternal age effects exhibit genotype-specific, complex patterns of inheritance. *In press* The American Naturalist.
- Stevens, B.L.F., S. van Daalen, T.J. Blomquist, **K.E. Gribble**, M.G. Neubert. 2026. Timing the initiation of sex: delay mechanisms alter fitness outcomes in a rotifer population model. Journal of Theoretical Biology 620: 112333.
- Luviano, N., Dryburgh, M., McMaken^U, C., **K.E. Gribble**[‡]. 2025. Impact of inhibitors of histone post-translational modifications on lifespan, reproduction, and stress response in the rotifer *Brachionus manjavacas*. PLoS One 20(10): e0324769.
- Hernández, C.M, S.F. van Daalen, H. Caswell, M.G. Neubert, **K.E. Gribble**. 2025. Maternal effect senescence and caloric restriction interact to affect fitness through changes in life history timing. Journal of Animal Ecology 94(1): p. 99-111.
- Liguori A., S. Korm, A. Profetto, E. Richters, and **K.E. Gribble**[‡]. 2024. Intraspecific variability in maternal age effects on offspring lifespan and fecundity. Ecology and Evolution 14:e11287.
- McMaken, C.M. And **K.E. Gribble**[‡]. 2024. A user-friendly, free, and open-source software protocol to quantify swimming speed and behavior of microfauna. BioTechniques 76(5) 174-182.
- Feng, H., G. Bavister, **K.E. Gribble**, and D.B. Mark Welch. 2023. Development of highly efficient CRISPR-mediated gene editing in the rotifer *Brachionus manjavacas*. PLoS Biology 21(7): e3001888.
- R. Gollnisch, J. Wallenius, **K.E. Gribble**, D. Ahrén, K. Rengefors. 2023. SAG-RAD: a method for single-cell population genomics of unicellular eukaryotes. Molecular Biology and Evolution 40(5): msad095.
- van Daalen, S.F., C.M. Hernández, H. Caswell, M.G. Neubert, **K.E. Gribble**. 2022. The contribution of maternal age heterogeneity to variance in lifetime reproductive output. The American Naturalist 199(5):603-616

- Bronikowski, A.M, R.P. Meisel, P.R. Biga, J.R. Walters, J.E. Mank, E. Larschan, G.S. Wilkinson, N. Valenzuela, A.M. Conard, J. Pedro de Magalhães, J. Duan, A.E. Elias, T. Gamble, R.M. Graze, **K.E. Gribble**, J.A. Kreiling, and N.C. Riddle. 2022. Sex-specific aging in animals: Perspective and future directions. *Aging Cell* 21(2):e13542.
- Gribble, K.E.**[‡] 2021. *Brachionus* rotifers as a model for investigating dietary and metabolic regulators of aging. *Nutrition and Healthy Aging* 6:1-15.
Invited review
- Hernández, C.M., S.F. van Daalen, H. Caswell, M.G. Neubert, **K.E. Gribble**[‡]. 2020. A demographic and evolutionary analysis of maternal effect senescence. *Proceedings of the National Academy of Sciences, USA* 117(28):16431-16437.
- Gurdebeke, P.R., K.N. Mertens, V. Pospelova, K. Matsuoka, Z. Li, **K.E. Gribble**, H. Gu, K. Bogus, H. Gu, H. Vrielinck, S. Louwye. 2020. Taxonomic revision, phylogeny, and cyst wall composition of the **dinoflagellate** cyst genus *Votadinium* Reid (Dinophyceae, Peridinales, Protoperidiniaceae). *Palynology* 44(2):310-335.
- Ivashkin, E., V. Melnikova, A. Kurtova, N. Brun, A. Obukhova, M.Yu. Khabarova, A. Yakusheff, I. Adameyko, **K.E. Gribble**, E.E. Voronezhskaya. 2019. Transglutaminase activity determines nuclear localization of serotonin immunoreactivity in the early embryos of invertebrates and vertebrates. *ACS Chemical Neuroscience* 10 (8):3888-3899.
- Bock, M.J., G.C. Jarvis, E.L. Corey, E.E. Stone, **K.E. Gribble**[‡]. 2019. Maternal age alters offspring lifespan, fitness, and lifespan extension under caloric restriction. *Scientific Reports* 9:3138. *Top 100 in Ecology (40th), 2019*
- Gribble, K.E.**[‡], B.M. Moran^U, S. Jones^U, E.L. Corey, D.B. Mark Welch. 2018. Congeneric variability in lifespan extension and onset of senescence suggest active regulation of aging in response to low temperature. *Experimental Gerontology* 114:99-106.
- Gribble, K.E.** and D.B. Mark Welch. 2017. Genome-wide transcriptomics of aging in the rotifer *Brachionus manjavacas*, an emerging model system. *BMC Genomics* 18:217.
- Kaneko, G., T. Yoshinaga, **K.E. Gribble**, D.B. Mark Welch, H. Ushio. 2016. Measurement of survival time in *Brachionus* rotifers: Synchronization of maternal conditions. *Journal of Visualized Experiments* e54126, <http://www.jove.com/video/54126>.
- Snell, T.W., R.K. Johnston, **K.E. Gribble**, D.B. Mark Welch. 2015. Rotifers as experimental tools to investigate aging. *Invertebrate Reproduction and Development* 59(S1):5-10.
- Gribble, K.E.**, G. Jarvis^U, M.J. Bock^U, and D.B. Mark Welch. 2014. Maternal caloric restriction partially rescues the deleterious effects of advanced maternal age on offspring. *Aging Cell* 13(4):623-630. *Best Paper Runner Up, Aging Cell, 2014*
- Gribble, K.E.**, O. Kaido^U, G. Jarvis^U, and D.B. Mark Welch. 2014. Patterns of intraspecific variability in the response to caloric restriction. *Experimental Gerontology* 51:28-37.
- Gribble, K.E.** and D.B. Mark Welch. 2013. Lifespan extension by caloric restriction is determined by type and level of food reduction and by reproductive mode in *Brachionus manjavacas* (Rotifera). *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences* 68(4):349-358. *Selected as an "Editor's Choice"*
- Gribble, K.E.** and D.B. Mark Welch. 2012. The mate recognition protein gene mediates reproductive isolation and speciation in the *Brachionus plicatilis* cryptic species complex. *BMC Evolutionary Biology* 12:134.
- Gribble, K.E.**, T.W. Snell, and D.B. Mark Welch. 2011. Gene and protein structure of the mate recognition protein gene family in *Brachionus manjavacas* (Rotifera). *Hydrobiologia* 662:35-42.

- Snell, T.W., T.L. Shearer, H.A. Smith, J. Kubanek, **K.E. Gribble**, and D.B. Mark Welch. 2009. Genetic determinants of mate recognition in *Brachionus manjavacas* (Rotifera), *BMC Biology* 7:60.
- Gribble, K.E.** ‡, D.W. Coats, D.M. Anderson. 2009. Sexual and asexual reproduction in *Protoperidinium steidingeriae* Balech (Dinophyceae), with observations on life-history stages of *Protoperidinium depressum* (Bailey) Balech (Dinophyceae), *Journal of Eukaryotic Microbiology* 56(1): 88-103.
- Gribble, K.E.** ‡, G. Nolan, and D.M. Anderson. 2007. Biodiversity, biogeography and potential trophic impact of *Protoperidinium* spp. (Dinophyceae) off the southwestern coast of Ireland. *Journal of Plankton Research* 29 (11):931-947.
- Gribble, K.E.** ‡, and D.M. Anderson. 2007. High intragenomic variability in LSU rDNA genes in the heterotrophic dinoflagellates *Protoperidinium*, *Diplopsalis*, and *Preperidinium* (Dinophyceae). *Phycologia* 46 (3):315-324.
- Gribble, K.E.** ‡, and D.M. Anderson. 2006. Molecular phylogeny of the heterotrophic dinoflagellates, *Protoperidinium*, *Diplopsalis*, and *Preperidinium* (Dinophyceae), inferred from LSU rDNA. *Journal of Phycology* 42:1081-1095.
- Gribble, K.E.** ‡, B.A. Keafer, M. Quilliam, A.D. Cembella, D.M. Kulis, A. Dietz, and D.M. Anderson. 2005. Distribution and toxicity of *Alexandrium ostenfeldii* (Dinophyceae) in the Gulf of Maine, USA. *Deep-Sea Research II* 52:2745-2763.
- Anderson, D.M., D.M. Kulis, B.A. Keafer, **K.E. Gribble**, R. Marin, and C.A. Scholin. 2005. Identification and enumeration of *Alexandrium* spp. from the Gulf of Maine using molecular probes. *Deep-Sea Research II* 52:2467-2490.
- Orlova, T.Y., T.V. Morozova, **K.E. Gribble**, D.M. Kulis, and D.M. Anderson. 2004. Dinoflagellate cysts in recent marine sediments from the East Coast of Russia. *Botanica Marina* 47:184-201.

Other publications

- Gribble, K.E. ‡ and T.W. Snell. 2018. Chapter 38: Rotifers as a Model for the Biology of Aging; In: *Handbook of Models on Human Aging*, 2nd ed, P. Michael Conn, Ed., Elsevier.

CURRENT GRANT FUNDING

The role of mitochondrial dysfunction as a driver of accelerated aging in old mother offspring
 R01AG076592, NIA/NIH PI: K. Gribble
 \$1,737,375
 15 June 2022 – 28 February 2027

CAREER: Maternal age effects in an ecologically important aquatic invertebrate: Genetic and epigenetic controls and fitness outcomes in variable environments
 IOS-1942606, NSF PI: K. Gribble
 \$976,177
 1 May 2020 – 31 April 2025, in NCE through 31 April 2027

PREVIOUS GRANT FUNDING

Supplement: Mitochondrial mechanisms of maternal age effects on offspring health and lifespan
 3R01AG076592-02S1, NIA/NIH PI: K. Gribble
 \$816,990
 1 September 2023 – 29 February 2024

Developing microfluidics and automated image analysis for high-throughput investigation of lifespan and health in a novel invertebrate model for aging

R21 AG067034-01, NIA/NIH
\$256,953
15 April 2020 – 31 March 2022 (in NCE through 31 March 2023)

PI: K. Gribble

The role of mitochondrial dysfunction as a driver of accelerated aging in old mother offspring
1R56AG065434-01, NIA/NIH
\$401,800
30 September 2020 – 31 August 2021

PI: K. Gribble

The role of mitochondrial homeostasis in the maternal transmission of risk for neurodegenerative disease
Owens Family Foundation
\$330,000
January 1, 2018 – December 31, 2020 (in NCE through March 2021)

PI: K. Gribble

*Supplement: Mechanisms of beneficial transgenerational plasticity to improve offspring aging
(Using rotifers to screen FDA-approved drugs for age-related therapies)*
3K01AG049049-04S1
\$42,949
15 September 2018 – 31 March 2019

PI: K. Gribble

Development of genome editing tools in the rotifer model system
Marine Biological Laboratory
\$100,000
October 2017 – September 2022

coPIs: K. Gribble, D. Mark Welch

Pilot Project: The role of mitochondrial homeostasis in the maternal transmission of offspring health and lifespan
University of Oklahoma Nathan Shock Center
\$6,750
July 1, 2017 – June 30, 2018

PI: K. Gribble

Genetic and epigenetic mechanisms of beneficial transgenerational phenotypic plasticity to increase lifespan and improve health
5K01AG049049, NIA/NIH
\$564,960
1 April 2015 – 31 March 2020 (In NCE through 2021)

PI: K. Gribble

A comparative ecological and evolutionary investigation of the genetic mechanisms of lifespan extension by caloric restriction
Ellison Medical Foundation/American Federation for Aging Research
\$54,7241
July 2012 – 30 June 2013

PI: K. Gribble

INVITED SEMINARS

Transgenerational and intergenerational inheritance of maternal age. Lawrence University. 2 October 2025.

Causes and consequences of maternal age effects. Center on the Biology of Aging, Brown University. 5 December 2024

Causes and consequences of maternal age effects. Department of Biochemistry and Cell Biology, Boston University. 7 October 2024.

Maternal age effects on offspring lifespan and health. IISAGE (Integration Initiative: Sex, Aging, Genomics, and Evolution). Virtual Presentation, 22 April 2024.

Causes and consequences of maternal age effects. Genetics Department, University of Wisconsin-Madison. 23 October 2023.

Mechanisms and outcomes of maternal age effects on offspring fitness. University of South Carolina, Columbia, SC. 31 March 2023.

Maternal effects on offspring health and lifespan. Virtual presentation, University of Sheffield, Sheffield, UK. 21 March 2022.

Rotifers as a model system for aging. Virtual presentation, National Institute on Aging, NIH. 24 November 2020.

Maternal effects on offspring health and lifespan. Virtual presentation, PRAT Postdoctoral Fellows, National Institute of General Medicine, NIH. 4 November 2020.

Transgenerational determination of offspring health and lifespan. University of Texas Health Science Center, San Antonio, TX, 29 January 2019.

Maternal effects on offspring health and lifespan: Rotifers as a model system for the biology of aging. Lawrence University, 30 April 2018.

Maternal effects on aging. University of Vermont, Burlington, VT, March 20, 2017.

Maternal age and diet transgenerationally determine offspring health and lifespan. Providence Area Aging Research Forum, Brown University, Providence, RI, 15 November 2016.

Mechanisms of beneficial transgenerational plasticity to improve offspring aging, NIA-NIH, Bethesda, MD, 29 June 2016.

Transgenerational determination of aging, healthspan, and lifespan. Sackler School of Graduate Biomedical Studies, Tufts University, Boston, MA, 24 March 2016.

Aging, calorie restriction, and sex in rotifers. Providence Area Aging Research Forum, Brown University, Providence, RI, 24 April 2012.

Evolution of the mate recognition factor in a cryptic species complex. Josephine Bay Paul Center Seminar, Marine Biological Laboratory, Woods Hole, MA, 20 November 2009.

Proposed studies of *Protoperdinium*: Autecology, phylogeny and toxicity. University of Ireland-Galway. 29 July 2003.

INVITED CONFERENCE PRESENTATIONS

Gribble, K.E., What can we learn about the physiology of aging by studying rotifers? American Physiological Society Summit, Minneapolis, MN, 23-26 April 2026.

Gribble, K.E., Transcriptomic and metabolic signatures of maternal age effects. American Aging Association Annual Meeting, Anchorage, AK, 11-14 June 2025.

Gribble, K.E., Mitochondrial mechanisms of maternal age effects. Scottish Ecological Aging Research Group, virtual, 13 June 2023.

Gribble, K.E. Maternal effects on offspring health and lifespan. Society for Experimental Biology Annual Conference 2022, Montpellier, France, 5-8 July 2022.

Gribble, K.E. Maternal effects on offspring aging. 15th International Symposium on Neurobiology and Neuroendocrinology of Aging. Bregenz, Austria. Invited for July 2020, Covid postponement to July 2022, declined invitation.

Gribble, K.E. Maternal effects on offspring aging: Rotifers as a model system for aging. Gerontological Society of America, Boston, MA, 14-18 November 2018.

Gribble, K.E. Advanced maternal age decreases offspring lifespan and healthspan. 9th Aquatic Models of Human Disease Conference, Woods Hole, MA, 29 September – 4 October 2018.

Gribble, K.E. Maternal effects on offspring fitness: Rotifers as a model system for aging, Rotifera XIV, El Paso, TX, 3 – 9 June 2018.

Gribble, K.E. Offspring aging is transgenerationally determined by maternal age and diet. Fourteenth International Congress on Invertebrate Reproduction and Development, Naples, Italy, 28 August – 2 September 2017.

Gribble, K.E., B. Hecox-Lea, T.W. Snell, and D.B. Mark Welch. Diversity of the mate recognition protein gene in the *Brachionus plicatilis* species complex. Rotifera XII, Berlin, Germany, 16-21 August 2009.

OTHER PRESENTATIONS AT PROFESSIONAL MEETINGS (WHERE PRESENTING AUTHOR)

(^T Denotes talk, otherwise poster)

- ^T Gribble, K.E. Maternal age and maternal diet affect offspring lifespan, fitness, and response to caloric restriction. ***Oral presentation invited from poster abstracts.*** Gordon Research Conference: Biology of Aging, Casteldelffs, Spain, 2-7 July 2023.
- ^T Gribble, K.E. Maternal age and maternal diet affect offspring lifespan, fitness, and response to caloric restriction. ***Oral presentation invited from poster abstracts.*** Gordon Research Conference: Biology of Aging, Sunday River, ME, 12 – 20 July 2019
- Gribble, K.E., C. Carroll, K. Rodriguez. Proteasome expression, activity, and abundance decline with age in a novel model system for aging. American Association of Aging Annual Meeting, San Francisco, CA, 30 May – 2 June 2019.
- ^T Gribble, K.E. Maternal age effects on offspring aging: Rotifers as a model system for aging. Evolutionary Demography Annual Meeting, Miami, FL, 10 – 12 January 2019.
- Gribble, K.E., M.J. Bock, G.C. Jarvis, E. Corey, E. Stone. Maternal age effects on offspring aging: Rotifers as a model system for aging. American Aging Association Annual Meeting, Philadelphia, PA, 27 June – 1 July 2018
- ^T Gribble, K.E. Maternal age determines offspring lifespan, fitness, and response to therapy. Healthy Ageing: From Molecules to Organisms. Wellcome Genome Campus, Hinxton, UK, 31 January – 2 February 2018.
- ^T Gribble, K.E. Offspring aging is transgenerationally determined by maternal age and diet. Gordon Research Conference: Biology of Aging. ***Oral presentation invited from poster abstracts.*** Les Diablerets, Switzerland, 9 – 14 July 2017.
- ^T Gribble, K.E., M.J. Bock, G.C. Jarvis. Offspring aging is transgenerationally determined by maternal age and diet. ***Oral presentation invited from poster abstracts.*** Barshop Symposium on Aging, Bandera, TX 13-16 October 2016.
- Gribble, K.E., M.J. Bock, G.C. Jarvis. Maternal age determines offspring lifespan, health, mitochondrial function, and histone modification. American Aging Association Annual Meeting, Seattle, WA, 3-5 June 2016.
- Gribble, K.E., M.J. Bock, G.C. Jarvis, D.B. Mark Welch. Maternal age determines offspring lifespan, health, mitochondrial function, and histone modification. Keystone Symposia: Epigenetic and Metabolic Regulation of Aging and Age-Related Diseases, Santa Fe, NM, 1 – 5 May 2016.
- Gribble, K.E. and D.B. Mark Welch. Changes in gene expression with age: metabolism, proteostasis, and signaling. 2015 Barshop Symposium on Aging: Metabolism and Aging, Bandera, TX, 15 – 18 October 2015.
- Gribble, K.E. and D.B. Mark Welch. Maternal age and maternal caloric restriction determine offspring lifespan and healthspan. ***Oral presentation invited from poster abstracts.*** Gordon Research Conference: Biology of Aging, Sunday River, ME, 19 – 24 July 2015.
- ^T Gribble, K.E., S. Jones, B. Moran, D.B. Mark Welch. Intraspecific diversity in lifespan extension under reduced temperature. ***Oral presentation invited from poster abstracts.*** American Association of Aging Annual Meeting, Marina del Rey, CA, 29 May – 3 June 2015.
- Gribble, K.E. Patterns of intraspecific variability in lifespan, fecundity and gene expression in response to caloric restriction. The 26th Annual AFAR Grantee Conference, Santa Barbara, CA, 3-5 June 2013.
- ^T Gribble, K.E. and D.B. Mark Welch. Patterns of intraspecific variability in the lifespan response to caloric restriction. Molecular mechanisms of aging, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 9-13 October 2012.
- Gribble, K.E. and D.B. Mark Welch. Controls on lifespan extension by caloric restriction: Type of food restriction, reproductive mode, and evolutionary history. American Aging Association Annual Meeting 2012, Fort Worth, TX, 1-4 June 2012.
- Gribble, K.E. and D.B. Mark Welch. Lifespan extension by caloric restriction and the transcriptomics of aging in a new model system. Gordon Research Conference: Biology of Aging, Ventura, CA, 12-17 February 2012. ***Runner-up best poster.***

- Gribble, K.E. and D.B. Mark Welch. Lifespan extension by caloric restriction and the transcriptomics of aging in a new model system. Gordon Research Conference: Biology of Aging, Ventura, CA, 12-17 February 2012.
- Gribble, K.E. and D.B. Mark Welch. Monogonont rotifers as a new model system: dietary restriction and a survey of aging related genes. AGE 2011, Raleigh, NC, 3-6 June 2011.
- ^T Gribble, K.E., T.W. Snell, D.B. Mark Welch. Evolution of mate recognition in the cryptic species complex *Brachionus plicatilis* Rotifera. Society for Molecular Biology and Evolution, Lyon, France, 4-8 July 2010.
- ^T Gribble, K.E., J. Mark Welch, E. Suatoni, D.B. Mark Welch. Diversity and role in speciation of the mate recognition protein gene in the *Brachionus plicatilis* species complex. 30th Congress of the International Association of Theoretical and Applied Limnology, Montréal, Québec, Canada, 12-18 August 2007.
- ^T Gribble, K.E., D.W. Coats and D.M. Anderson. Asexual and sexual reproduction in *Protoperidinium steidingeriae* (Dinophyceae). XII International Conference on Harmful Algae, Copenhagen, Denmark. 4-8 September 2006.
- Gribble, K.E. and D.M. Anderson. Pseudogenes of the LSU rDNA of *Protoperidinium* spp. (Dinophyceae): Interspecific, intraspecific, and intracellular variability. ASLO Summer Meeting, Santiago de Compostela, Spain, 19-24 July 2005.
- ^T Gribble, K.E. and D.M. Anderson. Molecular phylogeny of the *Protoperidinium*. XI International Conference on Harmful Algae, Cape Town, South Africa, 14-19 November 2004.
- Gribble, K.E., G. Nolan, and D.M. Anderson. Distribution of *Protoperidinium* species, including *Protoperidinium crassipes*, the putative producer of azaspiracid toxins, in southwestern Ireland, July 2003. International Conference on Molluscan Shellfish Safety, Galway, Ireland, 13-18 June 2004.
- ^T Gribble, K.E. and D.M. Anderson. Observations of asexual and sexual processes in *Protoperidinium depressum* (Dinophyceae). 56th Annual Meeting of the Society of Protozoologists, Smithfield, RI, 1-6 June 2004.
- Gribble, K.E., Keafer, B.A., Kulis, D.M., Cembella, A.D., and D.M. Anderson. *Alexandrium ostenfeldii*: Spatial and temporal distribution of cell concentrations and discovery of spirolide toxins in populations from the Gulf of Maine, USA. Gordon Research Conference: Mycotoxins and Phycotoxins, Colby College, Waterville, ME, 15–18 June 2003.
- Gribble, K.E., B.A. Keafer, D.M. Kulis, A. Cembella, and D.M. Anderson. *Alexandrium ostenfeldii*: Spatial and temporal distribution of cell concentrations and discovery of spirolide toxins in populations from the Gulf of Maine, USA. X International Conference on Harmful Algae, St. Pete Beach, FL, 21-25 October 2002.

TEACHING AND MENTORING

Courses and programs

Adaptation and Evolution, High School Discovery Course, MBL, Woods Hole, MA
2021-2022, 2024-2026 (1 – 3 sections each year)

Biological Oceanography Elective, Semester in Environmental Sciences, MBL, Woods Hole, MA
In preparation for 2026

High School Teacher in Residency Program, MBL, Woods Hole, MA, 2020

Semester in Environmental Sciences, MBL, Woods Hole, MA, 2017-19, 2021-2026

Core course – Phytoplankton biology, harmful algal blooms

Methods in Microbial Ecology – lectures and labs on molecular methods

Independent Project Mentor – mentor 6-week long student projects

Teaching Assistant; Oceanography; Sea Education Association, Woods Hole, MA, 2005

Teacher; Biology, Ecology, Physics; Nature's Classroom, Colebrook, CT, 1994-1995

Environmental Education Intern; Mosquito Hill Nature Center, New London, WI, 1994

Course lectures and labs

UChicago Lab School MBL Summer Program, Woods Hole, MA

2015 – 2019, 2023

Lecture and lab for high school students

Thesis Committee

Samantha Exner, Master of Science candidate, Reproductive Science and Medicine Program, Northwestern University. Advisor: Francesca Duncan. December 2023 – April 2024.

Advising/Supervising

Undergraduates

Semester in Environmental Sciences Student Independent Projects, MBL:

Uranzaya Ariunbold, Rhodes College. *Project: Effect of weathered plasticized PVC microplastics on rotifer fertility, health, behavior, and gene expression.* 2025.

Samantha Supan, Rhodes College. *Project: The effect of antibiotic waste on phytoplankton and zooplankton dynamics: Examining how erythromycin alters the growth and interaction of T. suecica and B. manjavacas.* 2023.

Megan Alberding, Wesleyan University. *Project: Rotifer life cycle response to nitrogen loading.* 2021.

Eva Schneiderman, Mt. Holyoke College. *Project: Controls on eelgrass distribution in Edgartown Great Pond, Martha's Vineyard.* 2018.

Connor Saucedo, University of Chicago. *Project: Nutrient limitations on primary productivity in freshwater versus marine systems.* 2018.

Charlotte Hovland, University of Chicago. *Project: Endocrine disrupting water contaminants and rotifer reproductive cycling.* 2017.

Kristy Sullivan, Wheaton College. *Project: Phytoplankton Nutrient Response in Oyster Pond: Identification of Cyanobacteria and Potential for Future Blooms.* 2016.

Community College and Maritime Academy Interns

Lena Ellis, NSF CAREER Award Intern, Cape Cod Community College. January – March 2026.

Lucas Pender, NSF CAREER Award Intern, Massachusetts Maritime Academy. June – August 2024.

Summer Undergraduate Interns:

Benjamin Pimenta, Blue Economy Internship Program, University of Massachusetts-Dartmouth. May – June 2024.

Meghan Dryburgh, Washington and Jefferson College Intern. June – August 2024.

Ana Carney, NSF REU, Swarthmore College. June – August 2023.

Netta Nevo, University of Chicago Metcalf Intern. June – August 2023.

Jackie Culotta, NSF REU, Carleton College. *Project: Maternal age effects on offspring life and healthspan.* June – August 2018.

Julia Smith, University of Chicago Metcalf Intern. *Project: Therapies for age-related decline in vision.* MBL. June – August 2017.

Theresa Black, Undergraduate Summer Student Fellow. Woods Hole Oceanographic Institution, Woods Hole, MA, Summer 2005

Northeastern Cooperative Program Undergraduate Interns, 6 months, full-time, MBL. Supervised while in D. Mark Welch Lab.

Oksana Kaido, January – June 2012

George Jarvis, July - December 2012

Martha Bock, January - June 2013

Hollis Jones, June – December 2014

Benjamin Moran, January – June 2015

Shannon Jones, January – June 2015

High School Students

Aksel Jacobs, Falmouth High School. Blue Economy Intern Program. January – May 2022.

Ilana Jacobs, Denver Jewish Day School. Summers 2018, 2019, 2021

Sofia Metri, Falmouth Academy. *Project: Using rotifers to screen FDA-approved drugs for novel aging therapies.* Oct 2018 – Feb 2019.
Bishakha Oli, Falmouth Academy. *Project: Effect of endocrine mimicking contaminants on reproduction in rotifers.* Oct 2017 – Feb 2018.
Anna Metri, Falmouth Academy. *Project: Effect of metabolic and antioxidant drugs on protecting vision during aging, using rotifers as a model system.* Oct 2016 – Feb 2017.
Tucker Hopkins, MBL, Summers 2010, 2011
Hunt Batter, MBL, Summers 2007, 2008, 2009

OUTREACH

Rotifers as a model system to investigate aging and maternal effects. Logan Journalism Fellows. MBL, June 2017, June 2021, May 2025
Science Fair Judge, Lawrence School and Falmouth Academy, Falmouth, MA, 2002–2018, 2023-2025
Science Fair Project Mentor, Falmouth Academy, 2016 – 2018, 2023, 2024
Virtual High School Classroom Drop-Ins. Milton Academy, Lowell Catholic High School, Agoura High School, Doherty Memorial High School, Newton North High School, Winter 2020- 2021.
Invited speaker. Falmouth Academy Women and Science in Engineering Club, Falmouth, MA, 27 November 2018 and 22 October 2020.
Understanding Aging: Investigations of health and lifespan using a novel aquatic animal model. Science Before Supper Series, Falmouth, MA, 24 May 2018.
Rotifers as a model system for the biology of aging (and other studies). Sandwich High School Honors Biology, Sandwich, MA, 1 Dec 2016

SERVICE

Service to Community

Professional society leadership

Secretary, American Aging Association, 2022 – 2024
Assistant Secretary, American Aging Association, 2018-2021
Elected Board of Directors Member, American Aging Association, June 2018 – 2021, Re-elected 2021-2024, position extended to 2028 due to service as Secretary
National Scientific Advisory Council, American Federation for Aging Research, 2020 – 2026

Conference leadership

Program Committee and Session Chair (Parental Age Effects), 2025 American Aging Association Annual Meeting, Anchorage, AK, May 2025
Site Selection Committee, 2025 American Aging Association Annual Meeting
Program Committee and Session Chair (Comparative Biology of Aging), 2024 American Aging Association Annual Meeting, Madison, WI, 2-5 June 2024
Program Committee and Session Chair (Novel Models and Comparative Biology of Aging), 2023 American Aging Association Annual Meeting, Oklahoma City, OK, 8 -11 June 2023
Program Committee and Session Chair (Comparative Biology of Aging); 9th Aquatic Models of Human Disease Conference, Woods Hole, MA, 29 September – 4 October 2018

Study section and proposal review

Ad hoc reviewer, Minnesota Sea Grant, 2025

Reviewer, Discovery Award proposals, American Federation for Aging Research, 2025, 2026
Cellular Mechanisms of Aging and Disease (CMAD) Study Section, NIA, Feb 2024, Oct 2026
Early Career Reviewer, CMAD Study Section, NIA, 25-26 February 2021
Proposal Review Panel, Integrative Ecological Physiology, Division of Integrative Organismal Systems, NSF, 18-19 May 2020
Ad hoc reviewer Austrian Science Fund (FWF), 2022
Ad hoc reviewer, Wisconsin Sea Grant, 2019
Ad hoc reviewer, Rhode Island SeaGrant, 2017
Ad hoc reviewer, FCT (Fundação para a Ciência e a Tecnologia), Lisbon, Portugal, 2012

Publication reviewing and editing

Editorial Board Member, Experimental Gerontology, 2020 - present
Reviews Editor, Interventions in Aging, Frontiers in Aging, 2020 - present
Reviews Editor, Toxicogenomics Section, Frontiers in Genetics, 2018 – present
Ad hoc journal referee for: Aging Cell; American Naturalist; Archives of Gerontology; Aquatic Microbial Ecology; Current Research in Insect Science; Comparative Biochemistry and Physiology – Part C: Toxicology and Pharmacology; Conference Proceedings, XII International Conference on Harmful Algae; Deep Sea Research II; Environmental Science and Technology; Estuarine, Coastal and Shelf Science; Evolution; Experimental Gerontology; Frontiers in Cell and Developmental Biology; Frontiers in Marine Science; Hydrobiologia; Journals of Gerontology A: Biological Sciences; Marine Drugs; Nature Ecology and Evolution; Nature Scientific Reports; Phycologia; PLoS ONE; Proceedings of the Royal Society: B; Zoomorphology

Service to MBL

Promotion Committee, Assistant to Associate Scientist, 2025-2026
Co-Lead, Responsible Authorship and Publication Session, Responsible Conduct of Research Course, 2025
Promotion Committee, Assistant to Associate Scientist, 2024
MBL Director of Research Hiring Committee, 2021
MBL Website Redesign Committee, 2021 - 2022
Ecosystems Center Faculty Hiring Committee (3 positions), 2020-2021
MBL Rotifer Journal Club Organizer, 2018 - 2019
Bell Center Faculty Hiring Committee, 2018
Bay Paul Center Seminar Series Organizer, 2014 - 2017
MBL Summer Child Care Committee, 2016
MBL Hiring Committee, Director of Children's Programs, 2016
Postdoctoral Association Faculty Advisor, 2015 - 2017
MBL Space Allocation Committee, 2015
MBL Marine Model Organisms Vision Team, 2015
MBL Salary Support Committee, 2015

PROFESSIONAL SOCIETIES

American Aging Association
American Association for the Advancement of Science
Society for Integrative and Comparative Biology

COURSES TAKEN

Workshop on Leadership in Biosciences. Cold Spring Harbor Laboratory. Lloyd Harbor, NY. March 13 – 16, 2016.
Molecular Biology of Aging. Marine Biological Laboratory. Woods Hole, MA. July - August 2011 – 2014 (audit).
Statistical Analysis and Graphics with R. Brown University, held at the Marine Biological Laboratory, Woods Hole, MA. January 2013.
Workshop on Molecular Evolution. Marine Biological Laboratory. Woods Hole, MA. July - August 2004.
School for Field Studies Marine Mammal Biology and Conservation Program. La Paz, B.C.S. Mexico. September - December 1993.
Lawrence University Marine Program. Coral Reef Ecology. Grand Cayman Island. April - June 1992.

RESEARCH CRUISES

Biological Oceanography of Harmful Algal Blooms Survey, Southwestern Coast of Ireland. R/V Celtic Voyager. 19-25 July 2003.
Irish Harmful Algal Bloom Survey, Western Coast of Ireland. R/V Celtic Voyager. 25 July – 4 August 2002.
Ecology and Oceanography of Harmful Algal Blooms, Gulf of Maine. R/V Oceanus. 5 – 14 June 2001.
Ecology and Oceanography of Harmful Algal Blooms, Casco Bay, Gulf of Maine. R/V Gulf Challenger. Eight cruises of 2-3 days each. May – June 2000.
Massachusetts Water Resources Authority, Massachusetts Bay. R/V Gulf Challenger. Three cruises of 2 days each. May – June 2000.
Massachusetts Water Resources Authority, Massachusetts Bay. R/V Gulf Challenger. Three cruises of 2 days each. May – June 1999.
Dinoflagellate cyst survey, Bering Sea, Russia. M/V Turmoil (Ship of Opportunity). 15 – 28 July 1999.
Ecology and Oceanography of Harmful Algal Blooms, Casco Bay, Gulf of Maine. R/V Gulf Challenger, 11 cruises of 2 to 3 days each. April – June 1998.
Harmful Algal Bloom Cyst Survey, Gulf of Maine. R/V Endeavor. 4 – 12 November 1997.