

## **KRISTIN E. GRIBBLE**

Associate Scientist  
Josephine Bay Paul Center for  
Comparative Molecular Biology and Evolution  
Marine Biological Laboratory  
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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**

Biology of aging; transgenerational inheritance; genetic and epigenetic mechanisms of phenotypic  
plasticity; development of rotifers as a study system for biomedicine and evolutionary biology

## AWARDS

Fellow, American Aging Association (2022)  
American Aging Association Board, Elected Member (2018-2021), Re-elected (2021- 2025)  
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

(<sup>‡</sup> **K.E. Gribble** as corresponding author; <sup>U</sup> denotes undergraduate mentored by **K.E. Gribble**)

### Refereed journal articles

- Hernández, C.M., S.F. van Daalen, H. Caswell, M.G. Neubert, **K.E. Gribble**. Maternal effect senescence and caloric restriction interact to affect fitness through changes in life history timing. *In press Journal of Animal Ecology*.
- Liguori A., S. Korm, A. Profetto, E. Richters, and **K.E. Gribble**<sup>‡</sup>. 2024. Intraspecific variability in maternal age effects on offspring lifespan and fecundity. *Ecology and Evolution* 14:e11287.
- McMaken, C.M. And **K.E. Gribble**<sup>‡</sup>. 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.**<sup>‡</sup> 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**<sup>‡</sup>. 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**<sup>‡</sup>. 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.**<sup>‡</sup>, B.M. Moran<sup>U</sup>, S. Jones<sup>U</sup>, 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<sup>U</sup>, M.J. Bock<sup>U</sup>, 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<sup>U</sup>, G. Jarvis<sup>U</sup>, 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.**<sup>‡</sup>, D.W. Coats, D.M. Anderson. 2009. Sexual and asexual reproduction in *Protoperidinium steidingerae* 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, 2<sup>nd</sup> ed, P. Michael Conn, Ed., Elsevier.

### **INVITED SEMINARS**

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

#### **INVITED CONFERENCE PRESENTATIONS**

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. 15<sup>th</sup> 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. 9<sup>th</sup> 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)**

(<sup>T</sup> Denotes talk, otherwise poster)

<sup>T</sup> 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.  
<sup>T</sup> 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.  
<sup>T</sup> 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  
<sup>T</sup> 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.  
<sup>T</sup> 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.

- <sup>T</sup> 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 Association of Aging 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.
- <sup>T</sup> 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 26<sup>th</sup> Annual AFAR Grantee Conference, Santa Barbara, CA, 3-5 June 2013.
- <sup>T</sup> 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. AGE 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.
- <sup>T</sup> 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.
- <sup>T</sup> 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. 30<sup>th</sup> Congress of the International Association of Theoretical and Applied Limnology, Montréal, Québec, Canada, 12-18 August 2007.
- <sup>T</sup> Gribble, K.E., D.W. Coats and D.M. Anderson. Asexual and sexual reproduction in *Protoperidinium steidingerae* (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.
- <sup>T</sup> 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.

<sup>T</sup> Gribble, K.E. and D.M. Anderson. Observations of asexual and sexual processes in *Protoperidinium depressum* (Dinophyceae). 56<sup>th</sup> 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**

Semester in Environmental Sciences Biological Oceanography Elective In preparation for 2025  
Adaptation and Evolution, High School Discovery Course, MBL, Woods Hole, MA 2021-2024  
High School Teacher in Residency Program, MBL, Woods Hole, MA 2020  
Semester in Environmental Sciences, MBL, Woods Hole, MA 2017-19, 2021-2023  
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

### **Advising/Supervising**

#### **Undergraduates**

*Semester in Environmental Sciences Student Independent Projects, MBL:*

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.

*Summer Undergraduate Interns:*

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

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

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

Rotifers as a model system to investigate aging and maternal effects. Logan Journalism Fellows. MBL, June 2017, June 2021

Science Fair Judge, Lawrence School, Falmouth Academy, Falmouth, MA, 2002–2018, 2023, 2024

Science Fair Project Mentor, Falmouth Academy, 2016 – 2018, 2023, 2024



## **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 2026

National Scientific Advisory Council, American Federation for Aging Research, 2020 – present

#### *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); 9<sup>th</sup> Aquatic Models of Human Disease Conference, Woods Hole, MA, 29 September – 4 October 2018

#### *Study section and proposal review*

Cellular Mechanisms of Aging and Disease (CMAD) Study Section, NIA, Feb 22-23, 2024

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

### **Service to MBL**

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, MBL, 2015 - 2017  
MBL Space Allocation Committee, 2015  
MBL Marine Model Organisms Vision Team, 2015  
MBL Salary Support Committee, 2015

### **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.