



## Faculty - Sallie W. (Penny) Chisholm

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### Sallie W. (Penny) Chisholm

Lee and Geraldine Martin Professor of  
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[Curriculum Vitae](#)

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### Education

- B.A. 1969, Skidmore College
- 1970, Cornell University
- Ph.D. 1974, S.U.N.Y. Albany

### Research Interests

- General areas
  - Biological oceanography
  - Microbial ecology
  - Ecological Genomics
- Current interests
  - Ecology, evolution, and comparative genomics of marine cyanobacteria and viruses that infect them
  - The ecological and policy dimensions of large-scale ocean fertilization

### Teaching Interests

- Ecology
- Microbial Oceanography

### Awards and Honors

- 2013 Ramon Margalef Prize in Ecology, Government of Catalonia, Spain
- 2013 Resident Scholar - Bellagio Conference and Study Center, Italy
- 2013 Awarded 2011 National Medal of Science, the White House
- 2013 Elected Fellow, American Association for the Advancement of Science
- 2012 Elected Fellow, Ecological Society of America
- 2012 Ruth Patrick Award, American Society of Limnology and Oceanography
- 2011 Darbaker Prize: Botanical Society of America
- 2010 Agassiz Medal in Oceanography: National Academy of Sciences

- 2005 Huntsman Award for Excellence in Marine Science
- 2004-2012 Gordon and Betty Moore Foundation Marine Microbiology Investigator
- 2003 Member the National Academy of Sciences
- 1998 Resident Scholar, Bellagio Study Center, Lake Como, Italy
- 1997 Guggenheim Fellow
- 1996 Fellow American Geophysical Union
- 1993 Fellow American Academy of Microbiology
- 1992 Fellow American Academy of Arts and Sciences
- 1991 Rosensteel Award in Ocean Sciences

### Selected Publications

2014: Kashtan, N. SE Roggensack, S. Rodrigue, JW Thompson, SJ Biller, A Coe, H Ding, P Marttinen, R Stocker, M. Follows, R. Stephanauskas, and SW Chisholm. Single cell genomics reveals hundreds of coexisting subpopulations in wild *Prochlorococcus*. *Science* Vol. 344 no. 6182 pp. 416-420.

2014: Biller, SJ, F Schubotz, SE Roggensack, AW Thompson, RE Summons, and SW Chisholm. Bacterial vesicles in marine ecosystems. *Science* Vol. 343 no. 6167 pp. 183-186.

2012: Chisholm, S.W. Unveiling *Prochlorococcus*. In *Microbes and Evolution: The World that Darwin Never Saw*. R. Kolter and S. Malow [eds]. ASM Press.

2012: Malmstrom, R.S. Rodrigue, K.H. Huang, L. Kelly, S. Kern, A. Thompson, S. Roggensack, M. Henn, and S.W. Chisholm. Ecology of uncultured *Prochlorococcus* clades revealed through single-cell genomics and biogeographic analysis. *ISME Journal* 7:184-198.

2009: Strong, A.L., J.J. Cullen and S.W. Chisholm. Ocean fertilization: Science policy and commerce. *Oceanography Magazine* 22 (3):236-261.

2007: Coleman, M.L. and S.W. Chisholm Code and Context: *Prochlorococcus* as a model for cross-scale biology. *Trends in Microbiology* 15:398-407.

2006: Coleman, M.L., M.B. Sullivan, C. Steglich, E.F. DeLong and S.W. Chisholm. Genomic Islands and the ecology and evolution of *Prochlorococcus*. *Science* 311:1768-1770.

2006: Johnson Z, Zinser ER, Coe A, McNulty NP, Woodward EMS, Chisholm SW. Niche partitioning among *Prochlorococcus* ecotypes along ocean-scale environmental gradients. *Science* 311:1737-1740.

2005: Lindell, D, J. D. Jaffe, Z. I. Johnson, G. M. Church, S. W. Chisholm. Photosynthesis genes in marine viruses yield proteins during host infection. *Nature* 438:86-89.

2003: Rocoap G, Larimer F, Lamerdin J, Malfatti S, Chain P, Ahlgren N, Arellano A, Coleman M, Hauser L, Hess W, Johnson Z, Land M, Lindell D, Post A, Regala W, Shah M, Shaw S, Steglich C, Sullivan M, Ting C, Tolonen A, Webb E, Zinser E, Chisholm S. Genome divergence in two *Prochlorococcus* ecotypes reflects oceanic niche differentiation. *Nature* 424: 1042-1047.



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