

ERIK R. ZINSER
Curriculum Vitae

University of Tennessee
Department of Microbiology
M409 Walters Life Science
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EDUCATION

- 9/94-3/01** **Ph.D. Harvard University (Microbiology and Molecular Genetics)**
- 8/90-5/94 A.B. Kenyon College (Major: Biology), *summa cum laude*
- Summer 02 Workshop on Molecular Evolution, Marine Biological Laboratory,
Woods Hole, MA
- Summer 98 Microbial Diversity course, Marine Biological Laboratory,
Woods Hole, MA

PROFESSIONAL EXPERIENCE

- 2/05-present** **Assistant Professor**
Department of Microbiology
University of Tennessee
- 1/01-1/05** **Postdoctoral Research Fellow**
Advisor: Dr. Sallie W. Chisholm
Department of Civil and Environmental Engineering and
Department of Biology
Massachusetts Institute of Technology
- 9/94-10/00** **Graduate Research Assistant**
Advisor: Dr. Roberto G. Kolter
Department of Microbiology and Molecular Genetics
Harvard Medical School
- 6/92-5/94** **Independent Undergraduate Research**
Advisor: Dr. Joan L. Slonczewski
Department of Biology
Kenyon College

FELLOWSHIPS AND AWARDS

Postdoctoral (Massachusetts Institute of Technology)

7/01-6/04 NSF Postdoctoral Fellowship in Microbial Biology

Graduate (Harvard University)

11/01 Bernard N. Fields Prize in Microbiology
9/99-8/00 Dept. of Health and Human Services training grant
12/97-10/00 Albert J. Ryan Pre-Doctoral Fellowship
9/94-8/96 NIH Cell and Developmental Biology training grant

Undergraduate (Kenyon College)

5/94 Maxwell Elliott Power Prize
5/94 High Honors, undergraduate thesis (Biology)
9/93-present Member-at-large, Phi Beta Kappa
9/92-5/94 Lillian and Thomas Mastin Scholarship
Summer 92 CURSOR undergraduate research fellowship

PROFESSIONAL SOCIETIES

94-present American Society for Microbiology
01-present American Society of Limnology and Oceanography

INVITED SEMINARS

Spring 2009	Monterey Bay Aquarium Research Institute
Fall 2006	Vanderbilt University (Carl Johnson research group)
Spring 2006	University of Georgia, Dept. of Marine Sciences
Spring 2005	Dartmouth Medical School, Dept. of Microbiology and Immunology
Fall 2004	Woods Hole Oceanographic Institution, Biology Department
Fall 2000	Universidad Nacional Autonoma de Mexico (UNAM), Department of Molecular Biology and Biotechnology at the Biomedical Research Institute

NATIONAL AND INTERNATIONAL CONFERENCE PRESENTATIONS (SINCE 2005)

Winter 09	ASLO Aquatic Sciences, Nice, France
Spring 08	Prochlorococcusfest 2008, MIT, Cambridge, MA
Summer 05	International symposium on the genomics of marine phytoplankton Station Biologique de Roscoff, France

NATIONAL AND INTERNATIONAL CONFERENCE PRESENTATIONS OF MENTORED STUDENTS (SINCE 2005)

Summer 09	Phycological Soc. America General Mtg, Honolulu, HI (J. Morris)
Summer 08	Phycological Soc. America General Mtg, New Orleans, LA (J. Morris)
Spring 08	ASM General Meeting, Boston, MA (J. Morris, J. Chandler)
Spring 08	Prochlorococcusfest 2008, MIT, Cambridge, MA (J. Morris, J. Chandler)
Summer 07	Phycological Soc. America General Mtg, Providence, RI (J. Morris)
Summer 07	Southeastern Phycological Colloquy, Dauphin IS., AL (J. Morris)

NATIONAL AND INTERNATIONAL CONFERENCE SESSION CONVENER

Winter 09	Aquatic Sciences Meeting (ASLO), Nice, France, “Linking microbial communities to geochemical cycling”
Winter 06	Ocean Sciences Meeting (ASLO), Honolulu, HI, “Linking microbial diversity to ecosystem functioning”

TEACHING EXPERIENCE

Faculty (University of Tennessee)

Spring 09	Micro 310: Introduction to Microbiology
Spring 08-09	Micro 601: Microbial Physiology Journal Club
Fall 07	Micro 606: Microbial Ecology Journal Club
Spring 06-09	Micro 410: Bacterial Physiology
Spring 07	Micro 320: Advanced Microbiology
Fall 06-present	Ph.D. candidate mentor (J. Morris, J. Chandler, M. Szul)
Fall 05-Present	Micro 401: Independent undergraduate research (B. Fagg, A. Anderson, M. Szul, A. Jawaid, P. Cupp, M. Floyd, J. Rucker, L. Siebert, E. Coultas)

Postdoctoral (Massachusetts Institute of Technology)

Jan 02-05	Supervised the research of a laboratory technician
Summer 02	Supervised an undergraduate performing an independent research project

Graduate (Harvard University)

Spring 98, 99, 2000	Teaching Assistant: Immunology, Microbiology, and Infectious Disease (Harvard Medical School laboratory course).
Fall 99	Supervised a rotation graduate student performing an independent research project.
Fall 97	Teaching Assistant: Mechanisms of Microbial Pathogenesis (Harvard Medical School laboratory course).
Summer 97	Supervised an undergraduate performing an independent research project.
Fall 95	Teaching Assistant: Principles of Genetics (graduate level lecture course).

Undergraduate (Kenyon College)

Spr., Fall 92	Teaching Assistant: Introduction to Experimental Biology (undergraduate level laboratory course).
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OCEANOGRAPHIC CRUISES (personal participation)

11/2008	R/V Savannah, SAV 07-34, Georgia shelf
1-2/2007	R/V Kilo Moana, WP2, Hawaii to Australia transect, Co-Chief Sci.
11/2006	R/V Kilo Moana, KM0629, North Pacific Subtropical Gyre
08/2006	CCGS Limnos, MELEE XI, Lake Erie
10/2003	R/V Kilo Moana, HOT 152, North Pacific Subtropical Gyre
11/2002	R/V Weatherbird II, BATS 170, Sargasso Sea
10/2002	R/V Ka'imikai-O-Kanaloa, HOT 140, North Pacific Subtropical Gyre
8-9/2002	R/V Endeavor, EN 375, Sargasso Sea
3-4/2001	R/V Endeavor, EN 351, Sargasso Sea

Total days at sea: 92

PUBLICATIONS

Primary Research Articles

ZINSER, E.R., Lindell, D., Johnson, Z.I., Futschik, M.E., Steglich, C., Coleman, M.L., Wright, M.A., Rector, T., Steen, R., McNulty, N., Thompson, L.R., and S.W. Chisholm. 2009. Choreography of the transcriptome, photophysiology, and cell cycle of a minimal photoautotroph, *Prochlorococcus*. *PLoS ONE*, **4**: e5135

Morris, J.J., R. Kirkegaard, M.J. Szul, Z.I. Johnson, and E.R. ZINSER. 2008. Robust growth of *Prochlorococcus* colonies and dilute liquid cultures: facilitation by “helper” heterotrophic bacteria. *Appl. Environ. Microbiol.* **74**: 4530-4534.

ZINSER, E.R., Z.I. Johnson, A. Coe, E. Karaca, D. Veneziano, and S.W. Chisholm. 2007. Influence of light and temperature on *Prochlorococcus* ecotype distributions in the Atlantic Ocean. *Limnol. Oceanogr.* **52**: 2205-2220.

Moore, L.R., A. Coe, E.R. ZINSER, M.A. Saito, M.B. Sullivan, D. Lindell, K. Frois-Moniz, J. Waterbury, and S.W. Chisholm. 2007. Culturing the marine cyanobacterium *Prochlorococcus*. *Limnol. Oceanogr.: Methods*, **5**: 353-362.

Johnson, Z.I.*, E.R. ZINSER*, A. Coe, N.P. McNulty, E.M.S. Woodward, and S.W. Chisholm. 2006. Niche partitioning among *Prochlorococcus* ecotypes along ocean-scale environmental gradients. *Science* **311**: 1737-1740.

* co-first authors

(Reported in Science’s News of the Week: Pennisi, E. 2006. How a marine bacterium adapts to multiple environments. *Science* **311**: 1697)

ZINSER, E.R., A. Coe, Z.I. Johnson, A. Martiny, N.J. Fuller, D.J. Scanlan, and S.W. Chisholm. 2006. *Prochlorococcus* ecotype abundances in the North Atlantic Oceans as revealed by an improved quantitative PCR method. *Appl. Environ. Microbiol.* **72**: 723-732.

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

(Reported in Nature’s News and Views section: Fuhrman, J. 2003. Genome sequences from the sea. *Nature* **424**: 1001-1002)

ZINSER, E.R., D. Schneider, M. Blot, and R. Kolter. 2003. Bacterial evolution through the selective loss of beneficial genes: Trade-offs in expression involving two loci. *Genetics* **164**: 1271-1277.

(Reported in Nature's News and Views section: Whitfield, J. 2003. Loss for profit. *Nature* **425**: 34)

ZINSER, E.R. and R. Kolter. 2000. Prolonged stationary phase incubation selects for *lrp* mutations in *Escherichia coli* K-12. *J. Bacteriol.* **182**:4361-4365.

ZINSER, E.R., and R. Kolter. 1999. Mutations enhancing amino acid catabolism confer a growth advantage in stationary phase. *J. Bacteriol.* **181**: 5800-5807.

Small, P., D. Blankenhorn, D. Welty, E. ZINSER, and J.L. Slonczewski. 1994. Acid and base resistance in *Escherichia coli* and *Shigella flexneri*: role of *rpoS* and growth pH. *J. Bacteriol.* **176**: 1729-37.

Review articles

ZINSER, E.R., and R. Kolter. 2004. *Escherichia coli* Evolution During Stationary Phase. *Res. Microbiol.* **155**: 328-336.

Finkel, S.E., E.R. ZINSER, and R. Kolter. 2000. Long-term survival and evolution in stationary phase. p. 231-238. *In* G. Storz and R. Hengge-Aronis (eds.) *Microbial Stress Responses*. ASM Press, Washington, D.C.

Finkel, S.E., E.R. ZINSER, S. Gupta, and R. Kolter. 1998. Life and death in stationary phase. p. 3-16. *In* S.J.W. Busby, C.M. Thomas, and N. L. Brown (eds.) *Molecular Microbiology*, vol. 103. Springer-Verlag, Berlin.