Biographical Sketch
Sarah M. Boomer, Ph.D.

a. Professional Preparation

Undergraduate	University of Puget Sound (Tacoma, WA)	Biology B.S., 1989 English B.A., 1989
Graduate	University of Washington (Seattle, WA)	Microbiology Ph.D., 1996
Post-Doctoral	University of Washington (Seattle, WA)	Microbiology, 1997

b. Appointments

4/02-present	Associate Professor of Biology, Western Oregon University
9/97-3/02	Assistant Professor of Biology, Western Oregon University

c. Publications

Boomer, S.M., D. P. Lodge, B.E. Dutton, 2002. Molecular characterizaton of novel red green nonsulfur bacteria from five distinct hot spring communities in Yellowstone National Park. Applied and Environmental Microbiology (ASM Press), 68:346-55.

Boomer, S.M., D. P. Lodge, B.E. Dutton, 2002. Bacterial diversity studies using the 16S rRNA gene provide a powerful research-based curriculum for molecular biology laboratory. Microbiology Education (ASM Press), 3:18-25.

Lodge, D.P., S.M. Boomer, P.F. Williams, B.E. Dutton, 2002. Expanded studies of red green nonsulfur communities in Yellowstone provide further evidence of diversity and selection. ASM General Meeting Abstract, Salt Lake City, UT.

Williams, P.F., S.M. Boomer, D.P. Lodge, P.E. Poston, 2002. Red green nonsulfur bacteria: are they in the sourcewater? ASM General Meeting Abstract, Salt Lake City, UT.

Boomer, S.M., D. Lodge, B.E. Dutton. 2001. Comparative Molecular Analyses of Red Layer Bacteria from Alkaline Hot Spring Communities in Yellowstone National Park Demonstrate Diversity in the Green Non-Sulfur Bacteria Lineage. ASM General Meeting Abstract, Orlando, FL.

Boomer, S.M., D. Lodge, B.E. Dutton. 2001. A Research-Driven Curriculum for Undergraduate Molecular Biology that Assesses Microbial Diversity Using a 16S rRNA Approach. ASM General Meeting Abstract, Orlando, FL.

Boomer, S.M., B.K. Pierson, R. Austinhirst, R.W. Castenholz, 2000. Characterization of novel bacteriochlorophyll a-containing red filaments from alkaline hot springs in Yellowstone National Park." Archives of Microbiology, 174(3):152-61.

Boomer, S.M., C.C. Burns, M.V. Eiden, and J. Overbaugh, 1997. "Three distinct envelope domains, variably present in subgroup B feline leukemia virus recombinants, mediate Pit 1 and Pit 2 receptor recognition." J. Virology (ASM Press), 71(11):8116-23.

Boomer, S.M., L.R. Whalen, P. Gasper, and J. Overbaugh, 1994. Isolation of a novel subgroup B feline leukemia virus from a cat infected with FeLV-A. Virology, 204: 805-810.

d. Synergistic Activities (1999-Present)
Development of original research-based curricula in Molecular Biology, Computational Biology, and Microbiology. Education materials have been disseminated via peer-reviewed publications (previous section), national meetings (previous section), local science educator meetings (Oregon Academy of Science), and via the RLMO Website Database (www.wou.edu/rlmo).

RLMO-Based Education Outreach service to 65 pre-college secondary science students, facilitated through professional partnerships with on-campus Upward Bound program, Oregon Junior Academy of Science, and Saturday Academy (Oregon State University).

e. Collaborators and Other Affiliations

(i) Collaborators:

R.W. Castenholz, University of Oregon (Eugene, OR)
B.E. Dutton, Western Oregon University (Monmouth, OR)
S. Hanada, National Institute of Advanced Industrial Science and Technology (Tsukuba, Japan)
R. Herwig, University of Washington (Seattle, WA)
T. McDermott, Thermal Biology Institute, University of Montana (Bozeman, MT)
B. K. Pierson, University of Puget Sound (Tacoma, WA)

(ii) Graduate and Post-Doctoral Advisors

J. Overbaugh, Fred Hutchinson Cancer Research Center (Seattle, WA)
M. Eiden, National Institutes of Health (Bethesda, MD)

(iii) Undergraduate Research Advisees*

Melissa Boschee, completing biology degree (2002-3)**
Terry Manning, completing pre-medicine program (2002-3)**
Jessica Cameron, Secondary Science Educator (2001-2)**
Peter Williams, completing forensics program (2001-2002)**
James Erdman, U.S. Government (2000-1)
Jeanine Earnest, GeneTools Inc. (2000-1)
Sean Vigil, completing pre-medicine program (1998-9)
Kody Phillis, North Creek Labs (1998-9)
Alex Dumanovsky, OHSU Medical School (1997-8)
Robin Leitch, Local Health Care Administrator (1997-8)

*Western Oregon University offers undergraduate-only science programs
**Completed/completing formal theses with NSF-MO-RUI support