

Microbe SECOND EDITION

Brings the excitement, breadth, and power of the modern microbial sciences to the next generation of students and scientists.

This new edition of *Microbe* is an eloquent and highly readable introduction to microbiology that will engage and excite science majors and pre-health professionals. The authors, all prominent scientists, have carefully crafted this lively narrative to bring key microbiology concepts to life and promote a lifelong passion for the microbial sciences.

Far more than a comprehensive testbook, *Microbe* is replete with case studies, ranging from sauerkraut fermentation to the cholera outbreak in Haiti, that illustrate the impact of key microbiology concepts on real-world scenarios. To further engage students and deepen their understanding of both the principles and practice of science, each chapter includes multiple active learning exercises that encourage students to demonstrate their understanding and application of concepts, as well as video, spoken, and written resources. Questions are posed throughout the book to introduce the next key concept and to prompt students to actively participate in the learning experience.

An equally valuable tool for instructors who teach a traditional lecture format and those who emphasize active learning in their classroom, *Microbe* integrates key concepts, learning outcomes, and fundamental statements directly from the *ASM Recommended Curriculum Guidelines for Undergraduate Microbiology Education*.

"This is a fantastic text! Written in a comfortable, conversational style, it grabs the readers' attention immediately, sparking their curiosity and keeping them engaged throughout each chapter while they seek and find answers to questions posed at the beginning of each section. A true joy to read. I recommend it highly for both traditional and flipped classrooms."

—PEGGY COTTER, PhD, Professor, Department of Microbiology and Immunology, UNC School of Medicine

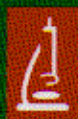
ABOUT THE AUTHORS

MICHELE S. SWANSON was born and raised in the Midwest, majored in biology at Yale, and discovered biomedical research as a laboratory technician at Rockefeller University. She fell in love with microbial genetics while earning a Master's at Columbia and her doctorate at Harvard Medical School and became captivated by microbial pathogenesis as a postdoc at Tufts University School of Medicine. At the University of Michigan Medical School, her research group investigates how metabolic and environmental cues govern the life cycle of the intracellular pathogen *Legionella pneumophila*.

GEMMA REGUERA is a native of Spain, where she majored in biological sciences at the University of Oviedo. As a Master's student at the University of Massachusetts in Amherst, she discovered her passion for environmental microbiology and later earned a doctorate in microbiology before moving to Harvard Medical School as a postdoc to study the ecology of infectious diseases. At Michigan State University, she studies microbial energy conversions and physiologies of environmental relevance, particularly those that can be harnessed for applications in bioenergy and bioremediation.

MOSELIO SCHAECHTER was born in Italy, lived in Ecuador as a teen, and obtained his doctorate at the University of Pennsylvania. He spent most of his academic life at Tufts University School of Medicine, then moved to San Diego in 1995. His research interests involve aspects of bacterial physiology, including growth rate regulation, membrane biology, and chromosome transactions.

FREDERICK C. NEIDHARDT was born in Philadelphia, majored in biology at Kenyon College in Ohio, and received his doctorate at Harvard University. He has held academic posts at Harvard, Purdue University, and the University of Michigan. His research has focused on catabolite repression, growth rate regulation, amino acyl-tRNA synthetases, and heat shock and other global networks.



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MICROBIOLOGY

ISBN 978-1-55581-912-5



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