

# MICROBIOLOGY

## the laboratory experience

STEVE KEATING Pennsylvania State University

Students are drawn into the microbiology laboratory experience through: engaging and thorough explanations of laboratory concepts; an accessible, authoritative voice; and an unparalleled visual program.

- Extensive introductions to each lab explain concepts clearly, ensuring that students—and inexperienced TAs—come to the lab session with the necessary background to get the most out of the lab experience.
- Lab protocol sections provide frequent hints, tips, and detailed explanations on why procedures are performed in a particular way—helping students to develop an understanding of the tools and techniques used in microbiology lab work.
- Post-lab thought questions encourage students to consider how procedures and results can be applied beyond the classroom.
- Dynamic visual content distills complex concepts and demonstrates correct lab procedures.
- An engaging, authorial voice, using frequent anecdotes from popular culture and the history of science, draws students into the material.

**Teaching Microbiology Lab, A Guide to Microbiology: The Laboratory Experience**, also authored by Steve Keating, arms all lab coordinators and instructors with tips and tools for teaching successful, engaging courses. The first half of the guide includes helpful suggestions for how to design a course, create a syllabus, interact with students or TAs, and more. The second half provides a guide for teaching each lab, offering: background information; materials checklists; suggestions for modification; answers to the questions in the lab exercises; and ideas on how to expand on each lab.

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