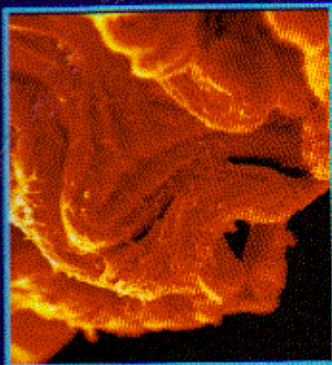


**INTERNATIONAL
STUDENT EDITION**

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Front Cover:

A scanning electron micrograph shows a biofilm of *Bacillus subtilis* soil bacteria. (The biofilm was fixed and coated with gold to reflect incident electrons.) The bacteria grow in long, tough chains, which are impervious to many antibiotics. These complex chains form patterns that are of great interest to materials scientists because the chained patterns depend on the surface structure of the material upon which the bacteria grows. Bacterial growth on surfaces is important because biofilms may contaminate implanted medical devices such as artificial joints. So, if microbiologists can discover a surface structure that inhibits biofilm formation, it may help in the future design of improved medical devices. *Bacillus subtilis* growth and development provides an important model system for the growth of Gram-positive pathogens as well as environmental soil bacteria.

The most contemporary microbiology textbook is also the most accessible. Extensive new research examples are used to integrate foundational topics with cutting-edge coverage of microbial evolution, genomics, molecular genetics, and biotechnology. *Microbiology: An Evolving Science* is now more student-friendly, with an authoritative and readable text, a comprehensively updated art program, and an innovative media package.

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ISBN 978-0-393-92321-6



9 780393 923216



W. W. NORTON New York • London
www.norton.com

Cover design: Shasti O'Leary Soudant
Cover art: Benjamin Hatton and
Joanna Alzenberg, Wyss Institute