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Detecting Possible Chemical Carcinogens -- 42. The Microbial World -- 43. Fungi: Yeasts and Molds -- 44. Phototrophs: Algae and Cyanobacteria -- 45. Protozoa -- 46. Parasitic Helminths -- 47. Viruses -- 48. Isolation and Titration of Bacteriophages -- 49. Plant Viruses -- 50. Interaction of Microbe and Host -- 51. Epidemiology -- 52. Koch's Postulates -- 53. Immunology -- 54. Innate Immunity. 55. Agglutination Reactions: Slide Agglutination -- 56. Agglutination Reactions: Microtiter Agglutination -- 57. ELISA Technique -- 58. Microorganisms and Disease -- 59. Bacteria of the Skin -- 60. Bacteria of the Respiratory Tract -- 61. Bacteria of the Mouth -- 62. Bacteria of the Gastrointestinal Tract -- 63. Bacteria of the Genitourinary Tract -- 64. Identification of an Unknown from a Clinical Sample -- 65. Rapid Identification Methods -- 66. Microbiology and the Environment -- 67. Microbes in Water: Multiple-Tube Technique -- 68. Microbes in Water: Membrane Filter Technqiue -- 69. Microbes in Food: Contamination -- 70. Microbes Used in the Production of Foods -- 71. Microbes in Soil: The Nitrogen and Sulfur Cycles -- 72. Microbes in Soil: Bioremediation -- 73. Appendix: Pipetting -- 74. Appendix: Dilution Techniques and Calculations -- 75. Appendix: Use of the Spectrophotometer -- 76. Appendix: Graphing -- 77. Appendix: Use of the Dissecting Microscope -- 78. Appendix: Use of the Membrane Filter -- 79. Appendix: Electrophoresis -- 80. Appendix: Keys to Bacteria -- Index.

Sommario/riassunto

Containing 57 thoroughly class-tested and easily customizable exercises, Laboratory Experiments in Microbiology, Tenth Edition, provides engaging labs with instruction on performing basic microbiology techniques and applications for undergraduate students in diverse areas, including the biological sciences, allied health sciences, agriculture, environmental science, nutrition, pharmacy, and various pre-professional programs. The perfect companion to Tortora/Funke/Case's Microbiology: An Introduction or any introductory microbiology text, the Tenth Edition features an updated art program and a full-color design, integrating valuable micrographs throughout each exercise. Additionally, many of the illustrations have been re-rendered in a modern, realistic, three-dimensional style to better visually engage students. Laboratory Reports for each exercise have been enhanced with new Clinical Applications questions, as well as questions relating to Hypotheses or Expected Results. Experiments have been refined throughout the manual and the Tenth Edition includes an extensively revised exercise on transformation in bacteria using pGLO to introduce students to this important technique.