

# Contents

Key Features iv

Authors ix

Preface xiii

- 1. Introduction 1**  
*Gary D. Hammer, MD, PhD, & Stephen J. McPhee, MD*
- 2. Genetic Disease 3**  
*Gregory Barsh, MD, PhD*
- 3. Disorders of the Immune System 31**  
*Jeffrey L. Kishiyama, MD*
- 4. Infectious Diseases 61**  
*Karen C. Bloch, MD, MPH*
- 5. Neoplasia 89**  
*Mark M. Moasser, MD*
- 6. Blood Disorders 115**  
*J. Ben Davoren, MD, PhD, & Sunny Wang, MD*
- 7. Nervous System Disorders 145**  
*Catherine Lomen-Hoerth, MD, PhD*
- 8. Diseases of the Skin 187**  
*Melissa M. Meier, MD, & Timothy H. McCalmont, MD*
- 9. Pulmonary Disease 213**  
*Mark S. Chesnutt, MD, & Thomas J. Prendergast, MD*
- 10. Cardiovascular Disorders:**  
**Heart Disease 255**  
*Fred M. Kusumoto, MD*
- 11. Cardiovascular Disorders:**  
**Vascular Disease 295**  
*Igor Mitrovic, MD*
- 12. Disorders of the Adrenal Medulla 319**  
*Tobias Else, MD, & Gary D. Hammer, MD, PhD*
- 13. Gastrointestinal Disease 333**  
*Jason C. Mills, MD, PhD, AGAF, & Thaddeus S. Stappenbeck, MD, PhD*
- 14. Liver Disease 385**  
*Mandana Khalili, MD, MAS, & Blaire Burman, MD*
- 15. Disorders of the Exocrine Pancreas 427**  
*Christopher J. Sonnenday, MD, MHS*
- 16. Renal Disease 455**  
*Rachel L. Perlman, MD, Michael Heung, MD, MS, & Joachim H. Ix, MD*
- 17. Disorders of the Parathyroids & Calcium & Phosphorus Metabolism 483**  
*Dolores M. Shoback, MD, & Deborah E. Sellmeyer, MD*
- 18. Disorders of the Endocrine Pancreas 517**  
*Janet L. Funk, MD*
- 19. Disorders of the Hypothalamus & Pituitary Gland 545**  
*Tobias Else, MD, & Gary D. Hammer, MD, PhD*
- 20. Thyroid Disease 571**  
*Douglas C. Bauer, MD, & Stephen J. McPhee, MD*
- 21. Disorders of the Adrenal Cortex 593**  
*Tobias Else, MD, & Gary D. Hammer, MD, PhD*
- 22. Disorders of the Female Reproductive Tract 625**  
*Erika B. Johnston-MacAnanny, MD, & Robert N. Taylor, MD, PhD*

**23. Disorders of the Male  
Reproductive Tract 651**

*Mikkel Fode, MD, Jens Sønksen, MD, PhD,  
Stephen J. McPhee, MD, & Dana A. Ohl, MD*

**24. Inflammatory Rheumatic Diseases 677**

*Allan C. Gelber, MD, MPH, PhD,  
Stuart M. Levine, MD,  
& Antony Rosen, MB, ChB, BSc (Hons)*

**25. Case Study Answers 695**

*Yeong Kwok, MD*

Subject Index 743