

Contents

Contributors, vii

Preface, xiii

Foreword, xvii

PART I: Principles

- 1 Candidate gene and genome-wide association studies, 3
J. Gustav Smith and Christopher Newton-Cheh
- 2 A primer in statistical methods in genetics, 20
Jonathan L. Haines, Dana C. Crawford, and Marylyn D. Ritchie
- 3 The role of ethnicity in managing cardiovascular patients, 33
Raymond Hreiche, Veronique Michaud, and Jacques Turgeon
- 4 Genetic testing: moving to the bedside—when and how?, 47
Jacqueline S. Danik and Paul M. Ridker

PART II: Specific Cardiovascular Disease

- 5 Genomics and atrial arrhythmias, 67
Dawood Darbar and Calum A. MacRae
- 6 Ventricular arrhythmias and sudden death, 80
Jonas S.S.G. de Jong, Lukas R.C. Dekker, and Arthur A.M. Wilde
- 7 Hypertrophic cardiomyopathy and other forms of hypertrophy, 96
Carolyn Y. Ho
- 8 Genetics and genomics of dilated cardiomyopathy, 118
Jeffrey A. Towbin and Matteo Vatta
- 9 Arrhythmogenic right ventricular cardiomyopathy, 136
Srijita Sen-Chowdhry, Petros Syrris, and William J. McKenna
- 10 Genetics of atherosclerosis, 151
Robert Roberts, Ruth McPherson, and Alexandre F.R. Stewart

vi Contents

- 11 Hypertension, 167
Donna K. Arnett
 - 12 Stroke genomics, 177
Mark J. Alberts
 - 13 Genetic determinants of arterial thrombosis, 193
Yasmin Khan, Nauder Faraday, William Herzog, and Alan R. Shuldiner
 - 14 Pharmacogenetics and pharmacogenomics, 211
Julie A. Johnson, Issam Zineh, and Michael A. Pacanowski
 - 15 Case study: warfarin pharmacogenetics from single to multiple genes, 231
Michael D. Caldwell and Richard Berg
- Appendix, 248
- Index, 253
- Author Disclosure Table, 261