Contents

Preface v

Contributors xiii

1 Challenges, Opportunities, and Evolving Landscapes in Pharmacogenomics and Personalized Medicine: *An Industry Perspective* 1
Nadine Cohen and Theresa Frangiosa

2 Implementation of Pharmacogenomic Sample Collection in Clinical Trials 27
Deborah Sokol Ricci and Monique Franc

3 Pharmacogenomics: *The Regulatory Environment and Labeling Implications* 55
Myong-Jin Kim, Shiew-Mei Huang, Atiqur Rahman, Felix W. Frueh, and Lawrence J. Lesko

4 Applications of Pharmacogenomics in Drug Discovery 73
Dr. Duncan McHale

5 Applications of Pharmacogenomics in Clinical Trials 89
Monique Franc

6 Pharmacogenomics Applications in Drug Metabolism: *From Genotyping to Drug Label-Challenges?* 109
Ann K. Daly

7 The Genetics of Adverse Drug Reactions: *Promises and Problems* 121
Martin Armstrong

8 Strategies and Resources for Marker Selection and Genotyping in Genetic Association Studies 149
Nicole Soranzo, Dong-Jing Fu, and Qingqin S. Li

9 Study Design and Statistical Issues in Pharmacogenetics Research: *From Candidate Genes to Genome-Wide Screens* 185
Nicholas J. Schork, Nathalie Malo, and Eric J. Topol

10 Holy SNP, Batman! 207
Reyna Favis

11 Predictive Biomarker Classifiers in the Design of Pivotal Clinical Trials 229
Richard Simon

12 Translation of Biomarkers into Clinical Utility 239
William L. Trepicchio and George Mulligan

13 Pharmacogenomic Study Feasibility Assessment and Pharmaceutical Business Decision-Making 253
Monique Franc and Theresa Frangiosa

14 Co-Development of Drugs and Pharmacogenomics-Based Diagnostics in Oncology 267
Jeffrey S. Ross

15 Pharmacogenomics Applications in Epilepsy 299
Chantal Depondt

16 Pharmacogenomics in Alzheimer's Disease 317
Ramón Cacabelos

17 Pharmacogenomics Applications in Psychiatric Disorders 369
Todd Lencz and Anil K. Malhotra

18 Pharmacogenomics in HIV Disease 395
Amalio Telenti

19 Pharmacogenomics and Cardiovascular Drugs 413
Gérard Siest, Hind Berrahmoune, Jean-Brice Marteau, and Sophie Visvikis-Siest

20 Pharmacogenomic Applications in Children 447
Struan F.A. Grant and Hakon Hakonarson

21 Pharmacogenomics of Rare and Monogenic Disorders 479
Paul D. Maher

Index 499

http://www.springer.com/978-1-934115-04-6

Pharmacogenomics and Personalized Medicine
Cohen, N. (Ed.)
2008, XVI, 509 p. 53 illus., Hardcover
ISBN: 978-1-934115-04-6
A product of Humana Press