Pharmacogenomics in Clinical Therapeutics

EDITED BY

Loralie J. Langman, PhD, DABCC, FACB, DABFT
Associate Professor of Laboratory Medicine
Mayo Clinic, Rochester, MN

Amitava Dasgupta, PhD, DABCC, FACB
Professor of Pathology and Laboratory Medicine
University of Texas Health Sciences Center at Houston
Houston, TX

WILEY-BLACKWELL
A John Wiley & Sons, Ltd., Publication
Contents

List of Contributors, vii
Preface, ix

1 Pharmacogenomics Principles: Introduction to Personalized Medicine, 1
   Parvaz Madadi, PhD and Gideon Koren, MD

2 Traditional Therapeutic Drug Monitoring and Pharmacogenomics: Are They Complementary? 15
   Christine L.H. Snozek, PhD, Loralie J. Langman, PhD, and Amitava Dasgupta, Ph.D

3 Pharmacogenomics Aspect of Warfarin Therapy, 26
   Matthew D. Krasowski, MD, PhD

4 Pharmacogenetics and Cancer Chemotherapy, 39
   Christine L.H. Snozek

5 Pharmacogenomic Considerations in Anesthesia and Pain Management, 53
   Christine M. Formea, PharmD and Wayne T. Nicholson, MD, PharmD

6 Pharmacogenomics of Immunosuppressants, 70
   Nicolas Picard, PharmD, PhD and Pierre Marquet, MD, PhD

7 Pharmacogenomics of Cardiovascular Drugs, 98
   Linnea M. Baudhuin, PhD

8 Pharmacogenomic Aspects of Antiretroviral Therapy, 127
   Natella Y. Rakhmanina, MD, PhD and John N. van den Anker, MD, PhD

9 Pharmacogenetics of Psychoactive Drugs, 144
   Jorge L. Sepulveda, MD, PhD

10 Pharmacogenomic Aspects of Adverse Drug–Drug Interactions, 176
    Loralie J. Langman, PhD and Christine L.H. Snozek, PhD

11 Microarray Technology and Other Methods in Pharmacogenomics Testing, 185
    Jorge L. Sepulveda, MD, PhD

12 Pharmacogenetic Testing in the Clinical Laboratory Environment, 201
    Mark P. Borgman, PhD and Mark W. Linder, PhD

Index, 225