

Foreword	viii
Preface	xi
Contributors	xv
PART I. CARDIAC MARKERS IN CLINICAL PRACTICE	
1 Early Detection of Myocardial Necrosis in the Emergency Setting and Utility of Serum Biomarkers in Chest Pain Unit Protocols <i>Andra L. Blomkalns and W. Brian Gibler</i>	3
2 Management of Acute Coronary Syndromes <i>Constantine N. Aroney and James A. de Lemos</i>	15
3 Evolution of Cardiac Markers in Clinical Trials <i>Alexander S. Ro and Christopher R. deFilippi</i>	37
4 Assessing Reperfusion and Prognostic Infarct Sizing with Biochemical Markers: Practice and Promise <i>Robert H. Christenson and Hassan M. E. Azzazy</i>	59
5 The Use of Cardiac Biomarkers to Detect Myocardial Damage Induced by Chemotherapeutic Agents <i>Eugene H. Herman, Steven E. Lipshultz, and Victor J. Ferrans</i>	87
6 The Use of Biomarkers to Provide Diagnostic and Prognostic Information Following Cardiac Surgery <i>Jesse E. Adams, III</i>	111
PART II. CLINICAL USE FOR CARDIAC TROPONINS	
7 Cardiac Troponins: Exploiting the Diagnostic Potential of Disease-Induced Protein Modifications <i>Ralf Labugger, D. Kent Arrell, and Jennifer E. Van Eyk</i>	125
8 Cardiac Troponin Testing in Renal Failure and Skeletal Muscle Disease Patients <i>Fred S. Apple</i>	139
9 Cardiac-Specific Troponins Beyond Ischemic Heart Disease <i>David Morrow</i>	149
PART III. ANALYTICAL ISSUES FOR CARDIAC MARKERS	
10 Antibody Selection Strategies in Cardiac Troponin Assays <i>Alexei Katrukha</i>	173
11 Interferences in Immunoassays for Cardiac Troponin <i>Kiang-Teck J. Yeo and Daniel M. Hoefner</i>	187

12 Cardiac Marker Measurement by Point-of-Care Testing <i>Paul O. Collinson</i>	199
13 Standardization of Cardiac Markers <i>Mauro Panteghini</i>	213
14 Analytical Issues and the Evolution of Cutoff Concentrations for Cardiac Markers <i>Alan H. B. Wu</i>	231
PART IV. EARLY CARDIAC MARKERS OF MYOCARDIAL ISCHEMIA AND RISK STRATIFICATION	
15 Rationale for the Early Clinical Application of Markers of Ischemia in Patients with Suspected Acute Coronary Syndromes <i>Robert L. Jesse</i>	245
16 Ischemia-Modified Albumin, Free Fatty Acids, Whole Blood Choline, B-Type Natriuretic Peptide, Glycogen Phosphorylase BB, and Cardiac Troponin <i>Alan H. B. Wu, Peter Crosby, Gary Fagan, Oliver Danne, Ulrich Frei, Martin Möckel, and Joseph Keffer</i>	259
17 C-Reactive Protein for Primary Risk Assessment <i>Gavin J. Blake and Paul M. Ridker</i>	279
18 Prognostic Role of Plasma High-Sensitivity C-Reactive Protein Levels in Acute Coronary Syndromes <i>Luigi M. Biasucci, Antonio Abbate, and Giovanna Liuzzo</i>	291
19 Preanalytic and Analytic Sources of Variations in C-Reactive Protein Measurement <i>Thomas B. Ledue and Nader Rifai</i>	305
20 Fatty Acid Binding Protein as an Early Plasma Marker of Myocardial Ischemia and Risk Stratification <i>Jan F. C. Glatz, Roy F. M. van der Putten, and Wim T. Hermens</i>	319
21 Oxidized Low-Density Lipoprotein and Malondialdehyde-Modified Low-Density Lipoprotein in Patients with Coronary Artery Disease <i>Paul Holvoet</i>	339
PART V. CARDIAC MARKERS OF CONGESTIVE HEART FAILURE	
22 Pathophysiology of Heart Failure <i>Johannes Mair</i>	351
23 B-Type Natriuretic Peptide: <i>Biochemistry and Measurement</i> <i>Jeffrey R. Dahlen</i>	369
24 B-Type Natriuretic Peptide in the Diagnoses and Management of Congestive Heart Failure <i>Ramin Tabbibizar and Alan Maisel</i>	379

25 Monitoring Efficacy of Treatment with Brain Natriuretic Peptide <i>Emil D. Missov and Leslie W. Miller</i>	397
26 N-Terminal Pro-B-Type Natriuretic Peptide <i>Torbjørn Omland and Christian Hall</i>	411
PART VI. ROLE OF INFECTIOUS DISEASES AND GENETICS IN HEART DISEASE	
27 Infectious Diseases in the Etiology of Atherosclerosis and Acute Coronary Syndromes: <i>FOCUS on Chlamydia pneumoniae</i> <i>Martin Möckel</i>	427
28 Polymorphisms Related to Acute Coronary Syndromes and Heart Failure: <i>Potential Targets for Pharmacogenomics</i> <i>Alan H. B. Wu</i>	439
Index	461