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Autore	Parinandi Narasimham L.
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Nota di contenuto	Part 1: Cardiac Signaling -- Chapter 1: Calcium-Dependent Signaling in Cardiac Myocytes -- Chapter 2: Organization of Ca ²⁺ Signaling Microdomains in Cardiac Myocytes -- Chapter 3: Stress Kinase Signaling in Cardiac Myocytes -- Chapter 4: Cardiotoxicity and cardiac cell signaling -- Chapter 5: Protein Phosphatase Signaling in Cardiac Myocytes -- Chapter 6: Metabolic Regulation of Mitochondrial Dynamics and Cardiac Function -- Chapter 7: NADPH Oxidase System Mediates Cholesterol Secoaldehyde-Induced Oxidative Stress and

Cytotoxicity in H9c2 Cardiomyocytes -- Chapter 8: Lipid Mediators in Cardiovascular Physiology and Disease -- Chapter 9: Cardiac Inflammasome and Arrhythmia -- Chapter 10: Myocardial Fibrosis: Cell Signaling and In Vitro Modeling -- Chapter 11: Neural regulation of cardiac rhythm -- Part 2: Vascular Signaling -- Chapter 12: Mechanisms of lipoproteins and reverse cholesterol transport in atherosclerotic cardiovascular disease -- Chapter 13: Atherosclerotic plaque regression: Future perspective -- Chapter 14: Role of Bioactive Lipid, Phosphatidic Acid in Hypercholesterolemia Drug-induced Myotoxicity – Statin-induced Phospholipase D (PLD) Lipid Signaling in Skeletal Muscle Cells -- Chapter 15: Cell-Cell Communication in the Vascular Endothelium -- Chapter 16: Lysophosphatidic acid regulates endothelial barrier integrity -- Chapter 17: Regulation of Vascular Endothelial Barrier Integrity and Function by Lipid-Derived Mediators -- Chapter 18: Hyperglycemic Oxoaldehyde (Glyoxal)-induced Vascular Endothelial Cell Damage through Oxidative Stress is protected by Thiol Iron Chelator, Dimercaptosuccinic Acid – Role of Iron in Diabetic Vascular Endothelial Dysfunction.

Sommario/riassunto

This contributed volume focuses on cardiovascular diseases (CVDs), and explores the ways in which signaling mechanisms at the biochemical, molecular, and cellular levels in the blood vessels (vascular) and heart contribute to the underlying causes of development and progression of the CVDs. This volume covers unique topics such as oxidant signaling in vascular and heart diseases and health, cytoskeletal signaling in vascular health and disease, phospholipase signaling in CVDs, lipid signaling in vascular and myocardial health and diseases, and drug discovery in cellular signaling for cardiovascular diseases. This book assembles the most important discoveries made by leaders on the cellular signaling mechanisms operating behind the development and progression of life-threatening CVDs. It is an extremely useful resource for the investigators in the field of CVDs, and opens the discussion for further discovery of efficient management and effective treatment of the CVDs.
