1. Record Nr. UNINA9910373921503321

Titolo	Heart of the Matter : Key concepts in cardiovascular science / / edited by Cesare Terracciano, Samuel Guymer
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-24219-6
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XV, 236 p. 62 illus., 60 illus. in color.)
Collana	Learning Materials in Biosciences, , 2509-6125
Disciplina	611
Soggetti	Molecular biology Cardiovascular system Cardiology Developmental biology Molecular Medicine Cardiovascular Biology Developmental Biology Malalties cardiovasculars Sistema cardiovascular Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Anatomy of the Heart and Coronary Vasculature -- Early Mechanisms of Cardiac Development -- Later Mechanisms of Cardiac Development -- Myocardial Microstructure and Contractile Apparatus -- An Introduction to the Cardiac Action Potentials -- Cardiac Excitation-Contraction Coupling -- Conduction in Normal and Diseased Myocardium -- Cell-Based Tachyarrhythmias and Bradyarrhythmias -- The Scientific Rationale of Artificial Pacing -- Cardiac Contractility -- The Scientific Basis of Heart Failure -- Molecular and Cellular Basis of Cardiomyopathies -- Substrate Remodelling Changes in Heart Failure -- Developments in Heart Failure: Mechanical Unloading with LVADs, Exosomes, and MicroRNAs -- Pharmacological Targets of Hypertension -- The Coagulation Cascade and its Therapeutic Modulation -- Cellular and Molecular Mechanisms of Atherosclerosis -- Molecular and Cellular

	Mechanisms of Angiogenesis -- Endothelial Function in Normal and Diseased Vessels.
Sommario/riassunto	This textbook introduces readers to the scientific basics of cardiovascular medicine and biology. It covers not only developmental but also cellular and molecular aspects of normally functioning vasculature and the heart; importantly, it also addresses the mechanisms leading to and involved in specific cardiovascular diseases. Though the main emphasis is on novel therapies and potential therapeutic targets, specific controversial topics like cardiac remodeling and regenerative capacities are also addressed. All chapters were written by lecturers from the Imperial College London, in collaboration with their students from the College’s BSc Programme in Medical Sciences with Cardiovascular Science. Bridging the gap between clinics and basic biology, the book offers a valuable guide for medical students, and for Master and PhD students in Cardiovascular Biomedicine.