

1. Record Nr.	UNINA9910483036503321
Autore	Holvoet Paul
Titolo	Non-coding RNAs at the cross-road of cardiometabolic diseases and cancer // Paul Holvoet
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-68844-5
Descrizione fisica	1 online resource (xxx, 265 pages) : illustrations
Disciplina	572.88
Soggetti	Non-coding RNA Cardiovascular system - Diseases - Molecular aspects Metabolism - Disorders - Molecular aspects Cancer - Genetic aspects Càncer Malalties cardiovasculars Trastorns del metabolisme Genètica molecular humana Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Intro -- Preface -- Acknowledgments -- Introduction -- The Move Towards Cellular Risk Markers -- Why Non-coding RNA? -- Objectives -- Approach -- Take Home Message -- References -- Contents -- Abbreviations -- 1 Biogenesis and Modes of Action of miRs and Circular and Long Non-coding RNAs -- 1.1 MiRs -- 1.1.1 Biogenesis of miRs -- 1.1.2 MiR Modes of Action -- 1.1.3 Naming of miRs -- 1.1.4 Useful Resources on miRs -- 1.2 Circular RNAs -- 1.2.1 Biogenesis of Circular RNAs -- 1.2.2 Circular RNAs Modes of Action -- 1.2.3 Useful Resources on Circ-RNAs -- 1.3 IncRNAs -- 1.3.1 Biogenesis of IncRNAs -- 1.3.2 Modes of Action of IncRNAs -- 1.4 piRs -- 1.4.1 Biogenesis of piRs -- 1.4.2 Modes of Action of piRs -- 1.4.3 Useful Resources on piRs -- References -- 2 Non-coding RNAs Related to Obesity -- 2.1 Mechanisms in White Adipogenesis --

2.1.1 Role of Non-coding RNAs in White Adipogenesis -- 2.2 Inflammation and Insulin Resistance in Obese White Adipose Tissue -- 2.2.1 Role of Non-coding RNAs in Inflammation and Insulin Resistance in Obese White Adipose Tissue -- 2.3 Mechanisms in Brown Adipogenesis and Thermogenesis -- 2.3.1 Role of Non-coding RNAs in Brown Adipogenesis and Thermogenesis -- 2.4 Mechanisms in Browning of White Adipose Tissues -- 2.4.1 Role of Non-coding RNAs in Browning of White Adipose Tissue -- 2.5 Leptin and Insulin in the Hypothalamus -- 2.5.1 Non-coding RNAs Related to Leptin and Insulin in the Hypothalamus -- References -- 3 Non-coding RNAs Related to Type 2 Diabetes -- 3.1 Mechanisms in Cell Maturation -- 3.1.1 Non-coding RNAs Related to Cell Maturation -- 3.2 Mechanisms in Insulin Signaling in the Pancreas -- 3.2.1 Non-coding RNAs in Insulin Signaling in Type 2 Diabetes -- 3.3 Inflammation in the Pancreas, Insulin Resistance, and Type 2 Diabetes. 3.3.1 Non-coding RNAs Related to Inflammation in the Pancreas, with Insulin Resistance and Type 2 Diabetes -- References -- 4 Non-coding RNAs Related to Lipid Metabolism and Non-alcoholic Fatty Liver Disease -- 4.1 Cholesterol and Lipids in the Liver -- 4.1.1 Non-coding RNAs and Cholesterol in the Liver -- 4.2 Fatty Acids and Triglycerides -- 4.2.1 Non-coding RNAs and Fatty Acids and Triglycerides -- 4.3 Non-alcoholic Fatty Liver Disease -- 4.3.1 Non-coding RNAs Related to Non-alcoholic Fatty Liver Disease -- References -- 5 Non-coding RNAs Related to Atherosclerosis -- 5.1 Endothelial Injury, Inflammation, and Apoptosis -- 5.1.1 Non-coding RNAs in Endothelial Injury, Inflammation, and Apoptosis -- 5.2 Fibroproliferative Remodeling and Plaque Destabilization -- 5.2.1 Non-coding RNAs in Fibroproliferative Remodeling and Plaque Destabilization -- References -- 6 Non-coding RNAs in Cardiomyopathy and Heart Failure -- 6.1 Mechanisms in Cardiomyopathy and Heart Failure -- 6.2 Non-coding RNAs in Cardiomyopathy and Heart Failure -- 6.2.1 Non-coding RNAs in Cardiac Hypertrophy -- 6.2.2 Non-coding RNAs in Cardiac Fibrosis and ECM Deposition -- 6.2.3 Non-coding RNAs in Cardiac Inflammation -- 6.2.4 Non-coding RNAs in Cardiac Angiogenesis -- 6.2.5 Non-coding RNAs in Cardiac Apoptosis -- 6.3 Metabolic Syndrome: The Link Between Metabolic and Cardiovascular Diseases -- 6.3.1 Definition of Metabolic Syndrome -- 6.3.2 Oxidative Stress and Metabolic Syndrome -- 6.3.3 Metabolic Syndrome and Cardiovascular Risk -- 6.3.4 Non-coding RNAs and Metabolic Syndrome Components -- References -- 7 Non-coding RNAs Related to Cardiometabolic Diseases and Associated to Cancer -- 7.1 Mechanisms of Cancer Progression -- 7.1.1 Induction of Stemness -- 7.1.2 Induction of EMT -- 7.1.3 Induction of Insulin Sensitized State, Cancer Cell Proliferation, and Protection Against Apoptosis. 7.1.4 Induction of Glycolysis -- 7.1.5 Induction of Angiogenesis -- 7.1.6 Repression of Anti-tumor Immunity and Apoptosis -- 7.1.7 Cancer Cell Proliferation -- 7.1.8 EGFR Signaling and Cancer Progression -- 7.1.9 BMI1 and EZH2 in Cancer Progression -- 7.2 Non-coding RNAs Related to Metabolic and Cardiovascular Diseases Are also Involved in Cancer Progression -- 7.3 Comparison of the Role of Non-coding RNAs in Cardiometabolic Diseases and Cancer -- References -- 8 Regulation of Non-coding RNAs in Cardiometabolic Tissues and Tumors -- 8.1 Regulation of miRs -- 8.1.1 Hypoxia -- 8.1.2 Glucose -- 8.1.3 Oxidative Stress -- 8.1.4 Inflammation -- 8.1.5 TGF- -- 8.1.6 MYC -- 8.1.7 Overview -- 8.2 Differences in miR- Profiles in Cardiometabolic Tissues and Tumors May be Due to the Typical Action of lncRNAs and circ-RNAs in Tumors -- 8.3 Action of piRs Particularly in Tumors -- References -- 9 Communication

Between Tumor-Adjacent Tissues and Tumors with Emphasis on Role of Inflammatory Cells -- 9.1 Exchange of miR-Enriched Microvesicles -- 9.2 MiR-155 as a Link Between M1 Macrophage-Mediated Inflammation in Tumor-Adjacent Tissue and Tumor Growth and Metastasis -- References -- 10 The Impact of Non-coding RNA Networks on Disease Comorbidity: Cardiometabolic Diseases, Inflammatory Diseases, and Cancer -- 10.1 Identification of Non-coding RNAs at Cross-Road of Metabolic and Cardiovascular Diseases -- 10.2 Many Non-coding RNAs at Cross-Road of Metabolic and Cardiovascular Diseases are also Related to Inflammatory Diseases -- 10.3 Differences Between Non-coding RNAs in Cardiometabolic Tissues and Tumors -- 10.4 Expected Technical Developments Underlying the Use of Non-coding RNAs as Biomarkers -- 10.5 The Need for Measuring Fluctuation of Non-coding RNAs -- References.
