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Sommario/riassunto

The Molecular Nutrition of Fats presents the nutritional and molecular aspects of fats by assessing their dietary components, their structural and metabolic effects on the cell, and their role in health and disease. Subject areas include molecular mechanisms, membranes, polymorphisms, SNPs, genomic wide analysis, genotypes, gene expression, genetic modifications and other aspects. The book is divided into three sections, providing information on the general and introductory aspects, the molecular biology of the cell, and the genetic machinery and its function. Topics discussed include lipid-related molecules, dietary lipids and lipid metabolism, high fat diets, choline, cholesterol, membranes, trans-and saturated fatty acids, and lipid rafts. Other sections provide comprehensive discussions on G protein-coupled receptors, micro RNA, transcriptomics, transcriptional factors, cholesterol, triacylglycerols, beta-oxidation, cholesteryl ester transfer, beta-oxidation, lysosomes, lipid droplets, insulin mTOR signaling and ligands, and more. Summarizes molecular nutrition in health as related to fats. Discusses the impact of fats on cancer, heart disease, dementia, and respiratory and intestinal disease. Includes preclinical, clinical and population studies. Covers the genome, the whole body and whole communitiesIncludes key facts, a mini dictionary of terms and summary points.