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Titolo	Nutrigenomics : How Science Works // by Carsten Carlberg, Ferdinand Molnár
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ISBN	3-031-85881-6
Edizione	[2nd ed. 2025.]
Descrizione fisica	1 online resource (XX, 220 p. 102 illus., 101 illus. in color.)
Disciplina	616.042
Soggetti	Medical genetics Nutrition Epigenetics Cytology Metabolism Medical Genetics Cell Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Nutrition's Role in Health and Disease -- Diet Driven Genetic Adaptations of Modern Humans -- Mechanisms of Nutrient Detection and Nuclear Receptors -- Interplay Between Environment, Diet, and Genome -- Nutritional Epigenetics -- Nutrition and Aging -- Nutrition and Immune Responses -- Nutrition and Cancer -- Obesity -- Insulin Resistance and Diabetes -- CVD and Metabolic Syndrome.
Sommario/riassunto	Now in its second edition, this concise textbook provides an overview of the field of nutrigenomics, a topic at the intersection of nutrition and genetics that explores how dietary molecules interact with our genome and epigenome to influence health and disease. Substantially updated and expanded, the book offers a fresh perspective on how diet has shaped human evolution and our susceptibility to conditions such as type 2 diabetes and cardiovascular disease. The 11 chapters cover a wide range of topics, beginning with an overview of the role of nutrients in health and disease, basic mechanisms of nutrient sensing and nuclear receptors, and the impact of epigenetic regulation on health. Readers will discover how chromatin-modifying enzymes and

energy status-sensing kinases play critical roles in signaling pathways between diet and the genome. The book also explores the influence of diet on cancer prevention, the importance of the microbiome, and low-grade chronic inflammation and aging. Written in an accessible style, this textbook is intended for undergraduate and graduate students in nutrition, biochemistry, molecular biology, and biology as well as for students and practitioners in medicine. Numerous color illustrations aid in the transfer of knowledge by graphically summarizing complex processes. Combined with a glossary that explains key terms, this work is an indispensable resource for anyone interested in how our daily dietary choices interact with our genome.

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