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Titolo	Handbook of Nutrition, Diet, and Epigenetics [[electronic resource] /] / edited by Vinood Patel, Victor Preedy
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
Descrizione fisica	1 online resource (2000 p.)
Disciplina	616.2
Soggetti	Clinical nutrition Human genetics Health promotion Molecular biology Clinical Nutrition Human Genetics Health Promotion and Disease Prevention Molecular Medicine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Nervous system -- Development and ageing -- Cancers -- Caloric and dietary restriction -- Detailed processes in epigenetics of diet and nutrition.-Modifications of DNA via methylation -- Modifications of histones -- Modifications of non-coding RNAs -- DNA repair -- Modulating epigenetics with diet and nutrition -- General treatments and strategies -- Vitamins -- Minerals -- Specific foods and nutrients -- Nutritional toxicology -- Practical techniques .
Sommario/riassunto	This multivolume reference work addresses the fact that the well being of humankind is predicated not only on individuals receiving adequate nutrition but also on their genetic makeup. The work includes more than 100 chapters organized in the following major sections: Introduction and Overview; Epigenetics of Organs and Diseases in Relation to Diet and Nutrition; Detailed Processes in Epigenetics of Diet and Nutrition; Modulating Epigenetics with Diet and Nutrition; and Practical Techniques. While it is well known that genes may encode

proteins responsible for structural and dynamic components, there is an increasing body of evidence to suggest that nutrition itself may alter the way in which genes are expressed via the process of epigenetics. This is where chemically imposed alteration in the DNA sequence occurs or where the functional expression of DNA is modulated. This may include changes in DNA methylation, non-coding RNA, chromatin, histone acetylation or methylation, and genomic imprinting. Knowledge regarding the number of dietary components that impact on epigenetic processes is increasing almost daily. Marshalling all the information on the complex relationships between diet, nutrition, and epigenetic processes is somewhat difficult due to the wide myriad of material. It is for this reason that the present work has been compiled. .

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