

Molecular Nutrition Vitamins

Edited by

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Molecular Nutrition: Vitamins presents the nutritional and molecular aspects of vitamins with specific focus on vitamins A, B1 (thiamine), B2 (riboflavin), B3 (niacin), B5 (pantothenic acid), B6 (pyridoxine), B7 (biotin), B9 (folate), B12 (cobalamin), C, D, E, and K.

Part of the Molecular Nutrition series, this book is divided into three sections: general and introductory aspects, molecular biology of the cell, and genetic machinery and its function. The first section, General and introductory aspects presents general coverage of vitamins in relation to nutrition. The second section, Molecular biology of the cell includes material on transporters, oxidative stress, uptake, malabsorption, mitochondrial energy, proliferation, reproduction, lipids, cancer, inflammation, apoptosis, ageing, and dementia. The third section, Genetic machinery and its function addresses transcriptional processes, homeostasis genes, cancer, gene expression, mutations, and epigenetics molecular receptors.

The book also addresses emerging fields of molecular biology and presents important discoveries related to diet and nutritional health.

This book, being an indispensable resource, will be useful for researchers, industry professionals, educators and students interested in nutrition, diet, health science, and policy.

Key Features

- Coverage ranges from molecular aspects to whole organs, and the impact of nutrition or malnutrition on individuals and whole communities. It includes concepts, preclinical studies and clinical investigations relating to molecular nutrition.
- Summarizes molecular nutrition in health as related to vitamins, covering vitamins A, B, C, D, E, and K
- Addresses emerging fields of molecular biology and presents important discoveries related to diet and nutritional health
- Each chapter has an abstract and summary points so that it is suitable for novices and experts alike

About the Editor

Dr. Vinood B. Patel is currently a reader in clinical biochemistry at the University of Westminster and honorary fellow at King's College London (Diabetes and Nutritional Sciences Division and the Department of Nutrition and Dietetics). He presently directs studies on molecular and metabolic pathways involved in organ disease, particularly related to subcellular organelles and cell death, and conducts research into the role of nutrients, antioxidants, phytochemicals, minerals, toxins, and macronutrients. He graduated from the University of Portsmouth with a degree in pharmacology and completed his PhD in protein metabolism from King's College London in 1997. His postdoctoral work was carried out at Wake Forest University Baptist Medical School studying structural-functional alterations to mitochondrial ribosomes, where he developed novel techniques to characterize their biophysical properties. He has edited biomedical books in the area of nutrition and health prevention, biomarkers and has published over 150 articles and in 2014 he was elected as a fellow to The Royal Society of Chemistry.

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