**Functional Metabolism. Regulation and Adaptation**

**Description:**
In the post-genome era, questions concerning gene products, enzymes, and metabolism are returning to the forefront of life science research. Genetic information on its own does not fully account for an enzyme's kinetic and regulatory properties or for the behavior of the enzymes within its particular cellular milieu. Unanswered questions about the regulation, integration, and adaptation of metabolism have led to a resurgence of interest in protein, enzymological, and metabolic research for understanding biological processes.

Functional Metabolism: Regulation and Adaptation provides a comprehensive survey of metabolism. It includes an in-depth examination of the regulation of carbohydrates, lipids, and amino acids, and approaches to the study of enzyme regulation, signal transduction, and control of transcription and translation. The contributors - an internationally recognized group of researchers - also cover:

- The metabolic basis of diabetes, obesity, and blood disorders
- Oxidative stress and antioxidant defenses in health and disease
- Novel perspectives on biochemical adaptation to environmental stress
- Application of metabolic knowledge to developments in organ preservation and understanding the origin of life

From the basics of metabolic regulation and adaptation to the latest relevant advances in the genetic, proteomic, and enzymatic basis of how cells regulate their functions, Functional Metabolism: Regulation and Adaptation offers the most exhaustive treatment of the subject currently available. It is an essential text for students and practitioners in biochemistry, cell and molecular biology, and biomedicine.

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