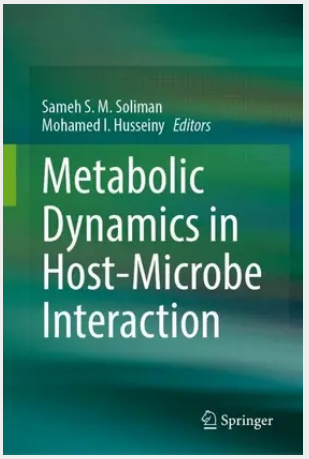
Soliman / Husseiny

Metabolic Dynamics in Host-Microbe Interaction



This book is a ground-breaking that delves into the fascinating world of metabolism and its pivotal role in the survival, attack, and defense strategies in human-microbe interaction. This book explores the intricate biochemical processes that enable organisms to thrive, adapt, and protect themselves against various challenges they encounter in their environments. The book will describe the importance of metabolism in defense and attack by bacteria and fungi in the human microenvironment and the reverse immuno-metabolic responses by the human. Different metabolites from different organisms will be described, in addition to their changes due to interaction with other organisms during infection or defense. The book also will describe the methods of detection and identification of metabolites including metabolomics. The use of artificial intelligence in prediction of metabolic patterns following interaction between different organisms will be included as well. The metabolism in microbiome will be described in relation to infection, and other metabolic diseases, in addition to their effects on therapeutic drugs. The book combines the latest scientific research with accessible explanations, providing readers with a deep understanding of how metabolism empowers organisms to thrive and protect themselves in diverse environments. It will be an invaluable resource for researchers, students, physicians, and anyone fascinated by the wonders of biology and the intricate workings of life.

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