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Nota di contenuto	Introduction -- Myosin Structure -- Cargo Binding by Unconventional Myosins -- Cryo-EM of Actin-Myosin Structures -- Small Molecule Effectors of Myosin Function -- Single-Molecule Biophysical Techniques to Study Actomyosin Force Transduction -- High-Speed Atomic Force Microscopy to Study Myosin Motility -- How Myosin 5 Walks Deduced from Single-Molecule Biophysical Approaches -- How Actin Tracks Affect Myosin Motors -- Myosins in the Nucleus -- Myosins in Cytokinesis -- Myosins and Disease -- Myosins and Hearing -- The Actomyosin Systems in Apicomplexa -- Approaches to Identify and Characterise MYO6-Cargo Interactions -- Class IX Myosins: Motorized RhoGAP Signaling Molecules -- Myosin X -- Myosin XVI -- Myosin XVIII -- Myosin XIX.

Sommario/riassunto	Myosins are molecular motors that use the energy from ATP hydrolysis to move and exert tension on actin filaments. Although the best-known myosin is myosin II, which powers skeletal muscle contraction, there are at least two dozen classes of myosins, and cells generally express multiple isoforms. Myosins are involved in multiple cellular activities including cell structure, cell migration, intracellular trafficking, and cell-cell contact. Importantly, loss of function and mutation are associated with diseases including myopathies, hearing impairment, glomerulosclerosis, and cancer. Written by international experts in myosin motors and the approaches used to study them, this book is expected to provide a comprehensive assessment of the current status of our understanding of the structure and molecular mechanism of myosins and their cellular roles.