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Nota di contenuto	1. Semaphorin Receptors and their Signaling -- 2. Semaphorin Regulation of Neural Circuit Assembly in the Central Nervous System -- 3. Axon Guidance in the Spinal Cord -- 4. Semaphorin and Neuronal Migration in the Central Nervous System -- 5. Structure of Semaphorins and their Receptors -- 6. Regulation of Angiogenesis and Tumor Progression by Semaphorins -- 7. Semaphorins in the Immune System -- 8. Semaphorins in Bone Homeostasis -- 9. Semaphorin in the Heart

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Semaphorin in the Retinal System.

Sommario/riassunto

This book presents the current concepts of semaphorin biology. In the early 1990s, semaphorins were originally identified as axon guidance cues that function during neuronal development. However, cumulative findings have clarified that they have diverse functions in many physiological processes, including cardiogenesis, angiogenesis, vasculogenesis, osteoclastogenesis, retinal homeostasis, and immune regulation. Additionally, they have been implicated in the pathogenesis of various human diseases, including tumorigenesis/tumor metastasis, neuroregenerative diseases, retinal degeneration, irregular pulse/sudden death, and immune disorders. Based on this current research background, the book covers the essential state-of-the-art findings for basic scientists in biochemistry, molecular biology, neuroscience, developmental biology, and structural biology, as well as for physicians in neurology, cardiology, oncology, orthopedic surgery, otorhinolaryngology, ophthalmology, allergology, and rheumatology.