Record Nr. UNINA9910458654503321 Protein trafficking in neurons [[electronic resource] /] / editor, Andrew **Titolo** Bean Pubbl/distr/stampa Amsterdam;; Boston,: Elsevier/Academic Press, c2007 **ISBN** 1-280-70761-5 9786610707614 0-08-046589-7 Descrizione fisica 1 online resource (466 p.) Altri autori (Persone) BeanAndrew J Disciplina 572/.69 Soggetti Proteins - Physiological transport Neurons Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front cover: Title page: Copyright page: Table of contents: Contributors; Acknowledgments; SECTION I: PROTEIN MOVEMENT; CHAPTER 1: Molecular Mobility in Cells Examined with Optical Methods; I. BROWNIAN MOTION AND THE FUNDAMENTALS OF DIFFUSION; II. A VIEW OF CYTOPLASM AND MEMBRANE FROM THE SINGLE MOLECULE PERSPECTIVE: III. DIFFUSION AND MOBILITY OF PROTEINS IN CELLS STUDIED WITH BIOPHYSICAL TECHNIQUES; IV. CONCLUSIONS AND FUTURE DIRECTIONS; CHAPTER 2: The Role of Molecular Motors in Axonal Transport; I. INTRODUCTION; II. KINESIN; III. CYTOPLASMIC DYNEIN; IV. DYNACTIN; V. MYOSIN VI. TRANSPORT REGULATION AND CONTROLVII. AXONAL TRANSPORT; VIII. PROTEIN DEGRADATION; IX. mRNA LOCALIZATION; X.

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## Sommario/riassunto

The efficient delivery of cellular constituents to their proper location is of fundamental importance for all cells and is of particular interest to neuroscientists, because of the unique functions and complex architecture of neurons. Protein Trafficking in Neurons examines mechanisms of protein trafficking and the role of trafficking in neuronal functioning from development to plasticity to disease. The book is divided into seven sections that review mechanisms of protein transport, the role of protein trafficking in synapse formation, exo- and endocytosis, transport of receptors, tra