1. Record Nr. UNINA9910298319603321 Neurotrophic Factors // edited by Gary R. Lewin, Bruce D. Carter Titolo Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa , 2014 **ISBN** 3-642-45106-3 Edizione [1st ed. 2014.] 1 online resource (514 p.) Descrizione fisica Handbook of Experimental Pharmacology, , 0171-2004; ; 220 Collana Disciplina 573.8536 Soggetti Pharmacology Molecular biology Neurosciences Pharmacology/Toxicology Molecular Medicine 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 at the end of each chapters and index. Nota di contenuto The Neurotrophin Family: NGF, BDNF, NT3 and NT4 -- Deciphering Proneurotrophin Actions -- Spatio-Temporal Intracellular Dynamics of Neurotrophins and Their Receptors. Implications for Neurotrophin Signaling and Neuronal Function -- Neurotrophins: Transcription and Translation -- Neurotrophin Receptors: Trk Receptors -- The Biological Functions and Signaling Mechanisms of the p75 Neurotrophin Receptor -- Sortilins in Neurotrophic Factor Signaling -- The Biology of Neurotrophins: Neurotrophins in the Regulation of Cellular Survival and Death -- BDNF and Synaptic Plasticity, Cognitive Function and Dysfunction -- Nerve Growth Factor and Nociception: From Experimental Embryology to New Analgesic Therapy -- Neurotrophins and the Regulation of Energy Balance and Body Weight -- The Biology of Neurotrophins: Cardiovascular Function -- Neurotrophin signalling

and transcription programs interactions in the development of

Neurotrophin Signaling by Monoclonal Antibodies.

somatosensory neurons -- Neurotrophins in Pathological Conditions: Huntington's Disease -- Motoneuron Disease -- Neurotrophic Factors in Spinal Cord Injury -- Neurotrophins and Psychiatric Disorders --Brain Derived Neurotrophic Factor and Rett Syndrome -- Modulation of

## Sommario/riassunto

This book provides critical reviews of the role of neurotrophins and their receptors in a wide variety of diseases including neurodegenerative diseases like Huntington's syndrome, cognitive function, psychiatric disorders such as clinical depression, Rett syndrome, motoneurone disease, spinal cord injury, pain, metabolic disease and cardiovascular disease. It also contains contributions from leaders in the field dealing with the basic biology, transcriptional and post-translational regulation of the neurotrophins and their receptors. The present book will review all recent areas of progress in the study of neurotrophins and their biological roles.