

1. Record Nr.	UNINA9910437620803321
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Titolo	Cholesterol and presynaptic glutamate transport in the brain // Tatiana Borisova
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	1-4614-7759-X
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (90 p.)
Collana	SpringerBriefs in neuroscience ; ; 12
Disciplina	612.8042
Soggetti	Neurobiology Neurotransmitters Cholesterol - Physiological effect
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.
Nota di contenuto	Presynaptic glutamate transport in the brain -- Cholesterol and its role in synaptic transmission -- Effects of cholesterol-depleting agent methyl-b-cyclodextrin (MbCD) on the functional state of brain nerve terminals -- The extracellular level and uptake of glutamate in cholesterol-deficient nerve terminals -- Unstimulated and exocytotic glutamate release from cholesterol-deficient nerve terminals -- Neuroprotection by lowering cholesterol.
Sommario/riassunto	Glutamate is the primary excitatory neurotransmitter in the CNS and disturbances in glutamate transport contribute to a number of neurological and neurodegenerative disorders. Appropriate levels of cholesterol are very important for the proper functioning of glutamate transport while unbalanced levels of cholesterol have been implicated in the pathogenesis of disorders such as stroke, ischemia, traumatic brain injury, and neurotoxicity. In the proposed book, the author presents data from the literature and from her own lab to address the extent to and way in which membrane cholesterol modulates presynaptic glutamate transport and whether lowering the level of cholesterol available can offer some neuroprotective benefits.