1. Record Nr. UNINA9910688461603321 Mitochondria and Brain Disorders / / edited by Stavros J. Baloyannis Titolo London, England:,: IntechOpen,, 2020 Pubbl/distr/stampa Descrizione fisica 1 online resource (124 pages) Disciplina 571.657 Soggetti Mitochondria Brain - Diseases - Etiology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia The mitochondrion is a unique and ubiquitous organelle that contains Sommario/riassunto its own genome, encoding essential proteins that are major components of the respiratory chain and energy production system. Mitochondria play a dominant role in the life and function of eukaryotic cells including neurons and glia, as their survival and activity depend upon mitochondrial energy production and supply. Besides energy production, mitochondria also play a vital role in calcium homeostasis and may induce apoptosis by excitotoxicity. Mitochondrial dysfunction is related to common neurological diseases, such as Parkinson's disease, Alzheimer's disease, Friedreich's ataxia, Huntington's disease, and Multiple Sclerosis. An efficient treatment of mitochondrial dysfunction would open new horizons in the therapeutic perspectives

disorders.

of a substantial number of inflammatory and degenerative neurological