

1. Record Nr.	UNINA9910544847103321
Titolo	Autism Spectrum Disorder and Alzheimer's Disease : Advances in Research // edited by Ghulam Md Ashraf, Athanasios Alexiou
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2021
ISBN	981-16-4558-2
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (315 pages)
Collana	Biomedical and Life Sciences Series
Disciplina	305.9084
Soggetti	Neurosciences Neurology Neuroscience
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Behavioral pathophysiology and psychological implications for sleep disorder in dementia -- Chapter 2. Mitochondrial dysfunction is a key player in the pathogenesis of autism spectrum disorders and Alzheimer's disease -- Chapter 3. The pathogenesis and complications associated with autism spectrum disorder and Alzheimer 's disease: A Comparative study -- Chapter 4. Impact of common natural compound in the treatment of Alzheimer's disease -- Chapter 5. Mapping a link between mercury-toxicity and Alzheimer disease -- Chapter 6. Drug therapy of Alzheimer's disease: Cholinesterase inhibitors, NMDA Antagonists -- Chapter 7. Therapeutic potential of polyphenols in Alzheimer's therapy: Broad-spectrum and minimal side effects as key aspects -- Chapter 8. recent advances in Alzheimer's disease in relation to cholinesterase inhibitors and NMDA receptor antagonists -- Chapter 9. Genetic basis of psychotic illnesses: A comprehensive overview RNA Secondary structures in neurodegeneration -- Chapter 10. RNA secondary structures in neurodegeneration -- Chapter 11. Immunotherapy: An approach to treat Alzheimer's disease and autism spectrum disorders -- Chapter 12. Alzheimer's disease (AD) - Physiological barriers for therapy and Nanotechnological applications in the treatment -- Chapter 13. Autism spectrum disorder relationship between sleep and behavior: The effect of sleep variability exploration -- Chapter 14. Role of impaired ABC transporters in Alzheimer's

disease -- Chapter 15. Cognitive impairment and rehabilitation of children and adults with autism spectrum disorder.

---

## Sommario/riassunto

This book talks about the multidimensional biological etiology of Alzheimer's disease and autism spectrum disorder which leads to distinctive ways of perception, thinking and learning in affected individuals. It provides a deeper emphasis on the need for early diagnosis, continuous assessment of patients and the proper educational methods and environment required towards enabling people affected with these disorders capable of evolving and learning. This book explores alternative solutions for autism spectrum disorder based on the theory of brain plasticity, the relationship between the gut microbiota and the central nervous system along with genetic factors and toxic metal exposures which are responsible for the oxidative damage resulting in a decreased ability of the patients to use objects or response to auditory stimuli. It also identifies and provides the latest research towards dealing with memory loss, which is the first sign of cognitive impairment followed by behavioral disturbances. These symptoms are associated with a rigorous neuronal decline and the appearance of two brain lesions, senile plaques and neurofibrillary tangles, which are mainly composed of A and hyper phosphorylated tau protein respectively. This book also provides the latest research towards reducing autism disorder severity such as targeting the disease with symptomatic treatments such as cholinesterase inhibitors, NMDA receptor antagonist, -secretase and -secretase inhibitors, -secretase stimulators, tau inhibitors, immunotherapy, nutraceuticals, and nano drugs. This book will not only be a good resource for professors and lecturers teaching in the area of neuroscience, medicine, biochemistry, neuroinformatics, and nanotechnology, etc. but also for professionals working in the field of occupational therapy and geriatric clinics and rehabilitation.

---