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### **Review Article**

# Neuroprotective Effects, Biological Activities and Therapeutic Potential of Phytochemicals: A Comprehensive Review

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#### ABSTRACT

The incidence of neurological disorders is growing in the world together with an increased lifespan. Nowadays, there are still no effective treatments for neurodegenerative pathology, which make necessary to search for new therapeutic agents. Natural products, most of them used in phytochemicals from herbal medicine, are considered promising alternatives for the treatment of neurodegenerative diseases. Numerous herbs have been applied to neurodegenerative disease treatments as complementary and alternative medicines. In the 21st century, omics-coupled functional pharmacology was developed for neurodegenerative drug discovery from natural products. In this article, we firstly provide the latest understanding of neurological disorders on risk factors, category, diagnosis and treatment, and then specially present an overview of natural products in neuroprotective effects research from chemical biology to pharmacological targets, and also discuss the natural products application and future challenge.

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