

Abstract

Charles University in Prague

Faculty of Pharmacy in Hradec Králové

Department of pharmacology and toxicology

Candidate: Tomáš Tahovský

Supervisor: Doc. PharmDr. František Trejtnar, CSc.

Title of diploma thesis: Progresses in pharmacotherapy of parkinsonism

During the last few decades, there has been a remarkable progress in our understanding of the biology of Parkinson's disease (PD), which has been translated into the development of numerous antiparkinsonian drugs. There are different therapeutic strategies for patients in an early stage versus patients in a late stage of the disease. The current therapeutic arsenal includes levodopa preparations, MAO-B inhibitors, dopamine agonists, COMT inhibitors and several other compounds that target non-dopaminergic systems. Much interest is focused on the potential neuroprotective effect of the already available drugs, as well as on new research approaches for the development of disease-modifying agents. These include mainly antiglutamatergic compounds, antiapoptotic and antioxidative agents. Future pharmacotherapy might include targeted delivery of genes involved in the pathogenesis of the disease.