

Charles University in Prague

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Title of diploma thesis: **Sildenafil causes a large neuroprotection against malonate-induced lesion of the rat striatum.**

The aim of this thesis was to investigate the neuroprotective effects of sildenafil (PDE-5 inhibitor) and of the substance SB203580 (p38 MAP kinase inhibitor). Both substances provided significant protection against malonate-induced lesions in the rat striatum. The results showed that the protective effects of sildenafil are not related to any effect on ROS production. The model of malonate-induced lesions was examined as well. The Bax levels remained unchanged in both the mitochondria and cytosol in the malonate-treated rats. Similarly, no changes in cytochrome c levels were observed.