Novel hybrid compounds in the cognitive decline caused by neurodegeneration

https://neurodegenerationresearch.eu/survey/novel-hybrid-compounds-in-the-cognitive-decline-caused-by-neurodegeneration/

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Country

Czech Republic

Title of project or programme

Novel hybrid compounds in the cognitive decline caused by neurodegeneration

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Czech Science Foundation

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€ 369,259

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3

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Research Abstract

This project follow-up with ending 5-year project focused on hybrid compounds. Based on preliminary data, we would like to deeply investigate newly designed hybrids combining AChEI pharmacophore and NMDA antagonist pharmacophore in a single molecule. We hypothesize that simultaneous inhibition of AChE and NMDA receptors results in amelioration of the cognitive decline associated with neurodegeneration. Using in vitro pharmacological/toxicological profile screening of newly prepared compounds and deep characterization of NMDA and AChE interaction, one candidate will be selected. Subacute toxicity, bioavailability and dosing scheme for animal model will be assessed. Subsequently, the

compound will undergo in vivo behavioral validation of pro-cognitive properties with subsequent ex vivo biochemical assessment of underlying mechanisms of action. Altogether, the pro-cognitive therapeutic value of such hybrid compounds will be determined.

Further information available at:

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Czech Republic

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