

## MULTITARGET AGENTS FOR THE TREATMENT OF ALZHEIMER'S DISEASE

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**D**uring past 15 years, any new agent that was investigated in clinical trials on Alzheimer's disease (AD) patients has not been approved in the market. One of the main problems in successful development of the agents for CNS neurodegenerative disorders treatment related to multifactorial nature of such diseases. In this relation, design of multitarget drugs was focused that simultaneously act on several biotargets connected to pathogenesis of neurodegenerative diseases looks as a promising strategy for developing new generation of neuroprotective CNS agents. In the present work, we present the results of design and synthesis of novel polypharmacophore agents superposing in one molecule several structural pharmacophore fragments of already validated neuroprotective agents. In particular, synthesis and study of conjugates of phenothiazine (methylene blue) and gamma-carboline (Dimebon) derivatives, as well as conjugates of adamantane (memantine) and carbazole derivatives was performed. Currently several lead-compounds successfully passed preclinical trials and ready to be moved on further clinical study.

### Biography

Bachurin Sergey has completed his PhD and Dr. Sci degree from Moscow State University, Russia. He had been working in the University of San Francisco and in Taft's University (USA) in 1992 and in 1995. Since 2006, he is serving as the Director of the Institute of Physiologically Active Compounds, Russian Academy of Science in Chernogolovka, Russia, and the Head of the Department of Medicinal and Biological Chemistry. He has published more than 220 papers in reputed journals and about 40 patents, and has been serving as an Editorial Board Member of repute.

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