

LIPID DERIVATIVES OF DOPAMINE - A SUM-UP OF 18 YEARS OF RESEARCH

D. Zajac¹, A. Stasińska² and M. Pokorski³

¹ Laboratory of Respiration Physiology, Mossakowski Medical Research Centre PAS, Warsaw, Poland

² Department of Animal Nutrition and Biotechnology, Faculty of Animal Sciences, Warsaw University of Life Sciences, Warsaw, Poland

³ Opole Medical School, Opole, Poland

e-mail: dominikazajac@wp.pl

Lipid derivatives of dopamine, namely N-oleoyl-dopamine (OLDA) and 3'-O-methyl-N-oleoyl-dopamine (OMeOLDA), are substances of broad biological activity. They are known for being vanilloids and antioxidants; they also enhance glucose homeostasis and protect against ischemia-reperfusion injury. Apart from that, the derivatives influence respiration in a dopamine-like manner. Both OLDA and OMeOLDA decrease normoxic and hypoxic respiration in anesthetized and conscious animals, with OMeOLDA being less active. At the same time, they penetrate through the BBB and thus, are a good tool for dopaminergic research and good prospective candidates for antiparkinsonian drugs. The aim of this presentation is to briefly sum-up the findings of 18 years of research on OLDA and OMeOLDA, the most active lipid derivatives of dopamine.

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