REVIEW

NEW GENERATION OF VALPROIC ACID

Michal K. Trojnar\textsuperscript{1}, Ewa Wierzchowska-Cioch\textsuperscript{1}, Maciej Krzyżanowski\textsuperscript{1}, Małgorzata Jargielło\textsuperscript{1}, Stanisław J. Czuczwar\textsuperscript{1,2,##}

\textsuperscript{1}Department of Pathophysiology, Słupiński Medical University, Jazewskiego 8, PL 20-600 Łódź, Poland,
\textsuperscript{2}Isotope Laboratory, Institute of Agricultural Medicine, Jazewskiego 2, PL 20-600 Łódź, Poland


Valproic acid (VPA) is one of four first-line antiepileptic drugs (AEDs) currently established in the long-term treatment of epilepsy. Despite VPA’s wide spectrum of action, in some cases its use is limited due to specific pharmacokinetics and dangerous adverse effects. These include hepatotoxicity and teratogenicity. Such limitations account for intensive research that has been carried out in order to develop new analogues or derivatives of VPA. In our review, we focus on three out of a number of substances that have been lately under investigation: NPS 1776, valrocemide and DP-VPA. These potential AEDs present both good anticonvulsive and safety profiles and seem to be more potent than the original VPA. Clinical trials, which are now ongoing, will answer the question whether or not they could become second generation of VPA.

\textit{Key words:} valproic acid derivatives, valrocemide, NPS 1776, DP-VPA

## correspondence: e-mail: czuczwar$sj@yahoo.com