

**Institute of Pharmaceutical Technology and
Regulatory Affairs
Faculty of Pharmacy
University of Szeged**

I. Symposium of Young Researchers on Pharmaceutical Technology, Biotechnology and Regulatory Science

Szeged, Hungary



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Nanocarrier Based Systems for Nose to Brain delivery of Anti-Neurodegenerative Medicines

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As the prevalence of the neurodegenerative diseases is steady increasing and most of the patients are elderly people, discovering and formulating effective, easy-to-use and non-invasive therapies are two of the main goals of pharmaceutical technology and regulatory affairs. In the presence of the blood brain barrier just few medications show good penetrating and effectiveness, especially that this barrier has specific properties suit only the lipophilic and very tiny particles. Nowadays, targeted Nano therapies greatly draw attention as new possible ways to deliver medicines showing promising approach to improve their therapeutic index while reducing their side effects. Nose-to-brain as a way of delivering medicines considers one of the most recent routes shows fast and effective action and by applying lipid-based Nano-systems, the chance of obtaining the required penetration and optimum properties can be raised up, so here we discuss the types of lipid based Nano-systems, their properties, advantages and disadvantages that made them preferable as carriers for nose-to-brain delivery application of some therapies targeted neurodegenerative disease.

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