



## PARKINSON'S DISEASE NEWS

<http://www.viartis.net/parkinsons.disease/news.htm>

27th July 2014 - New research

### NASAL DELIVERY OF PARKINSON'S DISEASE TREATMENT

Expert opinion on drug delivery [2014] 11 (6) : 827-842 (S.Md, S.Haque, M.Fazil, M. Kumar, S.Baboota, J.K.Sahni, J.Ali)

Complete abstract : <http://www.ncbi.nlm.nih.gov/pubmed/24655115>

Researchers evaluated whether prepared nanoparticles would be able to target Parkinson's Disease treatments to the brain via the nasal route, thereby enhancing their bioavailability. They tested the method using an optimised nanoformulation of the dopamine agonist bromocriptine for direct nose-to-brain delivery.



The percentage accuracy observed for intra-day and inter-day batch samples was very high. Bromocriptine was found to be stable in all exposed conditions. Bromocriptine nanoparticles also showed greater retention into the nostrils for about four hours. Direct bromocriptine nanoparticle nose-to-brain transport was shown to then bypass the blood-brain barrier. Most importantly, bromocriptine nanoparticles administered nasally showed significantly high dopamine concentrations.

The researchers concluded that Nanoparticle drug delivery system could be potentially used as a nose-to-brain drug delivery carrier for improving the existing means of treating Parkinson's Disease.

<http://www.viartis.net/parkinsons.disease/news/140727.pdf>

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