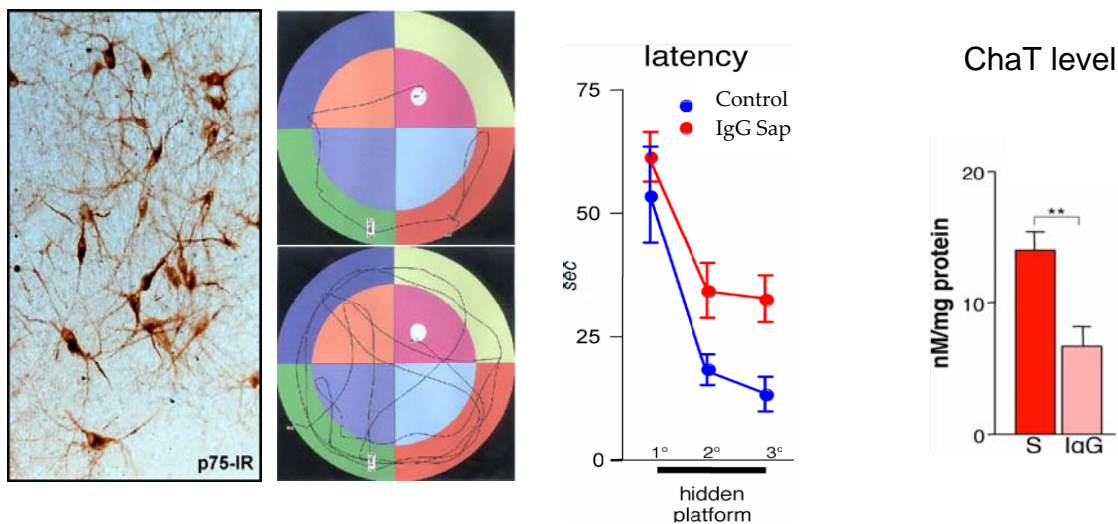


Experimental model for Dementia

Dr.ssa Luciana Giardino - University of Bologna

Degenerative diseases represent a severe problem because of the very limited repair capability of the nervous system. In the wide scenery of dementia experimental models (old animals, transgenic mice, vascular lesion) we adopted the model of selective lesion of the cholinergic system.



1. Description of the product

Lesion of the cholinergic system in the basal forebrain was induced in rats by IVC injection of the immunotoxin ^{192}IgG -saporin (agonist of NGF receptor) that induces a progressive decline in cholinergic innervation of the cerebral cortex and hippocampus and leads to a disappearance of ChAT- and p75-positive neurons in the basal forebrain resulting in a progressive impairment of performance in the water maze test.

With this model is also possible to test the effect of drugs administration in the specific cerebral area using slow-delivery osmotic minipumps.

2. Innovative aspects of the product

- Standardized parameters
- Validated model

3. Main advantages of the offer

Not available as ready to use commercial item

4. Technology keywords

Lesion of the cholinergic system, ^{192}IgG -saporin, NGF

5. Current stage of development

In vivo and in vitro pilot study of active molecules have been performed.

6. Intellectual property rights

Non patentable as part of laboratory expertise

Technical and scientific publications

Calza L., Giuliani A., Fernandez M., Pironi S., D'Intino G., Aloe L., Giardino L. Neural stem cells and cholinergic neurons: regulation by immunolesion and treatment with mitogens, retinoic acid, and nerve growth factor. Proc. Natl. Acad. Sci. USA 2003, 100:7325-30.

CONTACT

info@biopharmanet.eu

Tel.: +39 0521 905073 - Fax: +39 0521 905006