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(54) Title: METHODS AND APPARATUS FOR MODIFYING PROPERTIES OF THE BBB AND CEREBRAL CIRCULATION BY USING THE NEUROEXCITATORY AND/OR NEUROINHIBITORY EFFECTS OF ODORANTS ON NERVES IN THE HEAD

(57) Abstract: A method for modifying a property of a brain of a patient includes presenting an odorant to an air passage of the patient, the odorant having been selected for presentation to the air passage because it is such as to increase conductance of molecules from a systemic blood circulation of the patient through a blood brain barrier (BBB) of the brain into brain tissue of the patient. The molecules are selected from the group consisting of: a pharmacological agent, a therapeutic agent, an endogenous agent, and an agent for facilitating a diagnostic procedure.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/IL03/00338

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A61K 9/12  
 US CL : 424/45

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : 424/45, 607.3, 514/220, 424/73, 424/401

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 WEST

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 STN: Medline, Biosis, Embase, Japio, Scisearch, Hcaplus, Wpids, USpathful

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,904,916 A (HIRSCH, ALAN R.) 18 MAY 1999, See entire document.	1-135
A	US 5,756,071 A (MATTERN et al.) 26 MAY 1998, see entire document.	1-135
A	US 6,126,930 A (DUBOIS et al.) 03 October 2000, see entire document.	1-135
X,P	US 2003/010176892 A1 (SHALEV, ALON.) 18 Setember 2003, see entire document.	1-135
A	US 6,298,264 B1 (ZHONG et al.) 02 October 2001, see entire document.	1-135
A	US 5,958,919 A (OLNEY et al.) 28 September 1999, see entire document.	1-135

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"
"A" document defining the general state of the art which is not considered to be of particular relevance	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

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