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(71) Applicant (for all designated States except US): **HELI-
CON THERAPEUTICS, INC.** [US/US]; One Bioscience
Park Drive, Farmingdale, NY 11735 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TULLY, Timothy,
P.** [US/US]; 28 Fairway Place, Cold Spring Harbor, NY
11724 (US). **SCOTT, Roderick, E.M.** [US/US]; 75
West End Avenue, C14L, New York, NY 10023 (US).
BOURTCHOULADZE, Rusiko [US/US]; 160 Cabrine
Boulevard, Apt. 77, New York, NY 10033 (US).

(74) Agents: **WAGNER, Richard, W.** et al.; Hamilton, Brook,
Smith & Reynolds, P.C., 530 Virginia Road, P.O. Box 9133,
Concord, MA 01742-9133 (US).

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ning of each regular issue of the PCT Gazette.*

(54) Title: SCREENING METHODS FOR COGNITIVE ENHANCERS

(57) Abstract: The present invention provides methods for identifying cognitive enhancers able to enhance CREB pathway function. Cognitive enhancers identified in accordance with the invention can be used in rehabilitating an animal with cognitive dysfunctions and for enhancing memory or normal cognitive performance (ability or function) in a normal animal.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/25942

A. CLASSIFICATION OF SUBJECT MATTER														
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US CL : 435/7.1, 325; 800/3														
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. : 435/7.1, 325; 800/3														
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched														
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet														
C. DOCUMENTS CONSIDERED TO BE RELEVANT														
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.												
X	SHERIFF, S. ET AL. NPY upregulates genes containing cyclic AMP response element in human neuroblastoma cell lines bearing Y1 and Y2 receptors: involvement of CREB. Regulatory Peptides 25 September 1998, Vol. 75-76, pages 309-318, especially Figures 2 & 3.	1-11												
X	JIANG, K. ET AL. Characterization of Phorboster-Inducible Human Neuronal Factors Involved in Trans-Activation of Galanin Gene. Biochemical and Biophysical Research Communications. 1998 Vol. 246, No. 1, pages 192-198, especially Figures 3 & 4.	1-11												
X	YING, L. ET AL. Transactivation of the Human Renin Promoter by the Cyclic AMP/Protein Kinase A Pathway is Mediated by both cAMP-responsive Element Binding Protein-1 (CREB)-dependent and CREB-independent Mechanisms in Calu-6 Cells. The Journal of Biological Chemistry 24 January 1997, Vol. 272, No. 4, pages 2412-2420, especially Figure 9.	12-16												
☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.														
<table border="0"> <tr> <td>* Special categories of cited documents:</td> <td>"T" 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</td> </tr> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"E" earlier application or patent published on or after the international filing date</td> <td>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td></td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			* Special categories of cited documents:	"T" 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	"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"E" earlier application or patent published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family	"O" document referring to an oral disclosure, use, exhibition or other means		"P" document published prior to the international filing date but later than the priority date claimed	
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230		Authorized officer Christopher Nichols, Ph.D. Telephone No. 703-308-0196												

INTERNATIONAL SEARCH REPORT

C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HIRAYAMA, K. ET AL. Characterization of GTP cyclohydrolase I gene expression in the human neuroblastoma SKN-BE(2)M17: enhanced transcription in response to cAMP is conferred by the proximal promoter. Journal of Neurochemistry November 2001, Vol. 79, No. 3, pages 576-587, especially Figure 5.	12-16
X	KANG, H. ET AL. An Important Role of Neural Activity-Dependent CaMKIV Signaling in the Consolidation of Long-Term Memory. Cell 21 September 2001, Vol. 106, pages 771-783, especially Figures 3-5.	17-18
X	SON, G.H. ET AL. Glucocorticoid inhibits growth factor-induced differentiation of hippocampal progenitor HiB5 cells. Journal of Neurochemistry December 2001, Vol. 79, No. 5, pages 10-13-1021, especially Figures 1-4.	19-25
A	ASHER, O. ET AL. Ethanol Stimulates cAMP-Responsive Element (CRE)-Mediated Transcription via CRE-Binding Protein and cAMP-Dependent Protein Kinase. The Journal of Pharmacology and Experimental Therapeutics. 05 OCTOBER 2001, Vol. 301, No. 1, pages 66-70, entire document.	1-25
A,P	CIANI, E. ET AL. Nitric Oxide Protects Neuroblastoma Cells from Apoptosis Induced by Serum Deprivation through cAMP-response Element-binding Protein (CREB) Activation. The Journal of Biological Chemistry 20 December 2002, Vol. 277, No. 51, pages 49896-49902, entire document.	1-25
A,P	PUGAZHENTHI, S. ET AL. Oxidative stress-mediated down-regulation of bcl-2 promoter in hippocampal neurons. Journal of Neurochemistry March 2003, Vol. 84, No. 5, pages 982-996, entire document.	1-25

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WEST (JPO, EPO, USPT, PG PUBS, US OCR, DERWENT)
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STN (BIOSCIENCE)