(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 10 June 2004 (10.06.2004)

PCT

(10) International Publication Number WO 2004/047911 A3

(51) International Patent Classification⁷:

A61N 1/08

(21) International Application Number:

PCT/US2003/037372

(22) International Filing Date:

21 November 2003 (21.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/428,281

22 November 2002 (22.11.2002) US

- (71) Applicant: INTERNATIONAL REHABILITATIVE SCIENCES, INC. [US/US]; P.O. BOX 872650, Vancouver, WA 98687 (US).
- (72) Inventors: CARROLL, William, J.; P.O. Box 430, Sedro Woolley, WA 98284 (US). TERRELL, Richard, M.; 2314 S.E. Park Crest Avenue, Vancouver, WA 98683 (US).

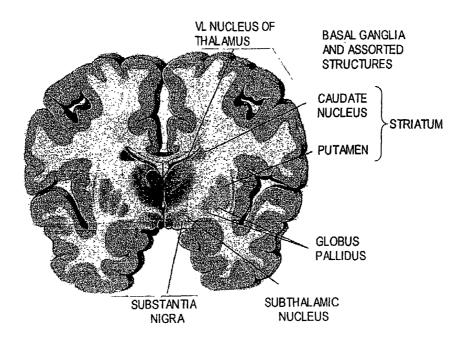
- (74) Agent: GREENBAUM, Michael, C.; BLANK ROME LLP, 600 New Hampshire Avenue, N.W., Suite 1100, Washington, DC 20037 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: SURFACE STIMULATION FOR TREMOR CONTROL



(57) Abstract: Apparatus and methods for non-invasive electrical stimulation of the brain through skin surface stimulation of the peripheral nervous system (410) as a treatment for movement disorders. Skin surface electrodes (208, 209, 308, 309) are positioned at predetermined peripheral surface stimulation sites on the skin surface using a variety of neural imaging techniques. A pulsatile electrical current is generated at the stimulation sites through a variety of standard electrical stimulation devices. Stimulation of the peripheral surface stimulation sites translates to electrical stimulation of a specific area of the brain.

WO 2004/047911 A3



 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

1 July 2004

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US03/37372

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A61N 1/08 US CL : 607/048 According to International Patent Classification (IPC) to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S.: 607/048, 002			
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)			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where ap		Relevant to claim No.
Х	US 6,647,296 B2 (FISCHELL et al.) 11 November 2 5 - column 13, line 9; column 22, line 50-65.	003 (11.11.2003), See column 12, line	1-39
	'		
			,
	,		
		· · · · · · · · · · · · · · · · · · ·	
:	,		
		4	
Further documents are listed in the continuation of Box C. See patent family annex.			
* Special categories of cited documents: "T" later document published after the international fill date and not in conflict with the application but cit			
"A" document defining the general state of the art which is not considered to be of particular relevance		principle or theory underlying the inve	
"E" earlier application or patent published on or after the international filing date		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	
"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)		"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	
"O" document referring to an oral disclosure, use, exhibition or other means		being obvious to a person skilled in the	
"P" document published prior to the international filing date but later than the priority date claimed		"&" document member of the same patent family	
		Date of mailing of the international sear 2.4 MAY 2004	ch report
02 Way 2004 (02.03.2004)			M. /
•	nailing address of the ISA/US all Stop PCT, Attn: ISA/US	Authorized officer Maran 1. There for	
Commissioner for Patents		Angela D. Sykes	
	O. Box 1450 exandria, Virginia 22313-1450	Telephone No. (703) 308-0858	
Facsimile No. (703) 305-3230			