(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 30 August 2001 (30.08.2001)

PCT

(10) International Publication Number WO 01/62134 A3

(51) International Patent Classification⁷: A61B 6/00

(21) International Application Number: PCT/IL01/00177

(22) International Filing Date: 25 February 2001 (25.02.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

09/512,294 24 February 2000 (24.02.2000) US

(71) Applicant (for all designated States except US): V-TAR-GET LTD. [IL/IL]; 3 Ha'etgar Street, 39120 Tirat Hacarmel (IL).

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): FRONT, Yaron [IL/IL]; 11/24 Mendel Zinger Street, 34984 Haifa (IL). BEN DAVID, Gal [IL/IL]; 238 Hazait Street, 17940 Mitzpe Adi (IL).
- (74) Agent: G. E. EHRLICH (1995) LTD.; 28 Bezalel Street, 52521 Ramat Gan (IL).

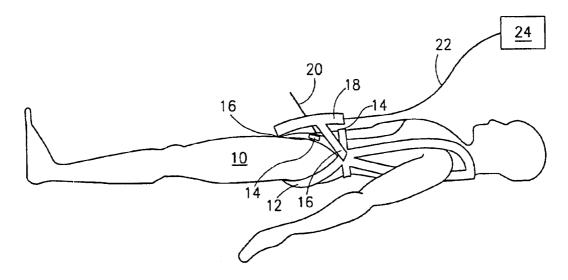
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW). Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- (88) Date of publication of the international search report: 3 January 2002

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.

(54) Title: A METHOD AND SYSTEM FOR GUIDING A DIAGNOSTIC OR THERAPEUTIC INSTRUMENT TOWARDS A TARGET REGION INSIDE THE PATIENT'S BODY



(57) **Abstract:** A guiding apparatus for diagnostic or therapeutic instrument (20) towards a desired target in the patient's body (10) employs a rigid frame (12) with a plurality of markers (14) and a stereotactic guide (18). Signals from these elements are sent to a computer (24) to generate a combined structural and functional image of the patient's body, including the target for guiding the instrument (20) to the target.





INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL01/00177

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) :A61B 6/00		
US CL :600/429 According to International Process Classification (ADC)		
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. : 600/429,407,4,36,439; 606/130		
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) none		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category Citation of document, with indication, where	appropriate, of the relevant passages	Relevant to claim No.
A US 5,373,844 A (SMITH et al.) 20	December 1994.	1-23
Further documents are listed in the continuation of Box C. See patent family annex.		
Special categories of cited documents:	"I" later document published after the inter	national filing date or priority
"A" document defining the general state of the art which is not considered to be of particular relevance	date and not in conflict with the appli the principle or theory underlying the	cation but cited to understand invention
"E" earlier document published on or after the international filing date "L" document which may throw doubte on priority claim(a) on which is	"X" document of particular relevance; the considered novel or cannot be considered	claimed invention cannot be
"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)	when the document is taken alone "Y" document of particular relevance, the	claimed invention cannot be
"O" document referring to an oral disclosure, use, exhibition or other means	considered to involve an inventive step with one or more other such docume obvicto a person skilled in the art	ben the document is combined
"P" document published prior to the international filing date but later than the priority date claimed	"d" document member of the same patent family	
Date of the actual completion of the international search	Date of mailing of the international search report	
16 JULY 2001	14 AUG	3 2001
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT	ssioner of Patents and Trademarks	
Washington, D.C. 20231	William E Kromm	
Facsimile No. (703) 305-3230	Telephone No. (703) 308-2994	1