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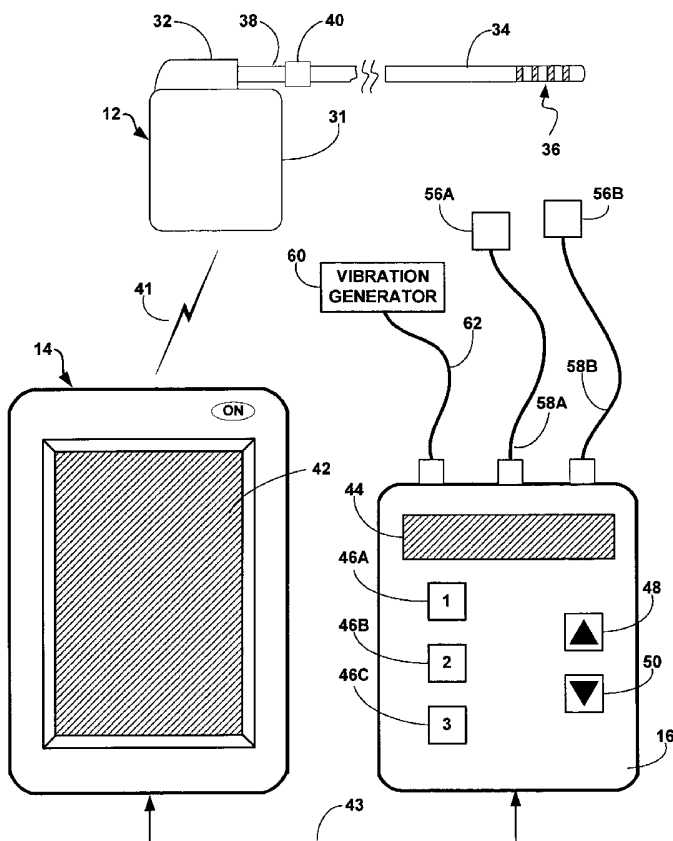
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[Continued on next page]

(54) Title: PATIENT SENSORY RESPONSE EVALUATION FOR NEUROMODULATION EFFICACY RATING



(57) Abstract: The invention is directed to a technique for rating neuromodulation efficacy based on evaluation of the response of the patient to sensory stimuli with and without delivery of neuromodulation therapy. In addition, the invention may provide a system capable of delivering sensory stimuli on a quantitative basis in a coordinated manner with delivery of neuromodulation therapy. A device programmer may provide a platform for controlling delivery of the sensory stimuli, delivery of neuromodulation therapy, and generation of rating information for neuromodulation efficacy based on patient sensory response to the stimuli. In operation, the programmer controls application of selected sensory stimuli to the patient's body and records the patient's verbal or physiological responses to the stimuli. This invention can be used to be a diagnostic or prognostic test that a given neuromodulation therapy, such as neurostimulation or drug delivery, is and will be successful.

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SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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.

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INTERNATIONAL SEARCH REPORT

International Application No
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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61N1/34 A61N1/36 A61M5/142

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)
IPC 7 A61N A61M

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 practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 612 983 B1 (MARCHAL BENOIT) 2 September 2003 (2003-09-02) abstract; figure 6 column 1, line 60 - column 2, line 17 column 3, line 47 - column 5, line 4 column 6, line 15 - line 65	13,22,24
Y	-----	27,29
Y	WO 03/072025 A (BIOVAIL LABORATORIES INC; SETH, PAWAN; MAES, PAUL, J) 4 September 2003 (2003-09-04) page 59, line 13 - line 23 page 62, line 2 - line 13	27,29
A	US 6 418 344 B1 (REZAI ALI R ET AL) 9 July 2002 (2002-07-09) the whole document	13,22, 24,27,29

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *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)
- *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

- *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
- *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
- *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.
- * & * document member of the same patent family

Date of the actual completion of the international search

31 March 2005

Date of mailing of the international search report

13/04/2005

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/029851

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: 1-12, 14-21, 23, 25, 26, 28
because they relate to subject matter not required to be searched by this Authority, namely:
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy
2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No
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