Title: INSTRUMENTATION AND METHOD FOR PERFORMING IMAGE-GUIDED SPINAL SURGERY

Abstract: Instrumentation and methods are provided for performing image-guided spinal surgery using an anterior surgical approach. In one embodiment, the method comprises providing a surgical navigation reference device (300), mounting the reference device (300) to bone at a location remote from the spinal column and in a substantially fixed position relative thereto, accessing a portion of the spinal column from an anterior direction, and performing an image-guided surgical procedure on the spinal column using an anterior surgical approach. In another embodiment, the mounting of the reference device (300) comprises anchoring the reference device to a portion of the patient’s pelvic bone (P), and more specifically the anterior region of the iliac crest (IC). In a further embodiment, the image-guided surgical procedure comprises a spinal implantation procedure wherein a spinal implant (400) is inserted into an intervertebral opening formed along the lumbar region of the spinal column using an anterior surgical approach.
A. CLASSIFICATION OF SUBJECT MATTER
IPCl7) : A61B 5/05, 18/18, 17/56, 17/58
US Cl. : 600/407-434; 606/14, 27, 30, 60-62, 74, 150
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. : 600/407-434; 606/14, 27, 30, 60-62, 74, 150

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)
surgery; surgical; medical procedure; spinal cord or column; guidance; guided; navigate

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category *</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>Y, E</td>
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<td>Y</td>
<td>US 6,530,929 B1 (JUSTIS ET AL.) 11 March 2003, see entire document.</td>
<td>7-10, 14-16, 24, 25</td>
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Further documents are listed in the continuation of Box C. See patent family annex.

Date of the actual completion of the international search
31 May 2005 (01.05.2005)

Date of mailing of the international search report
07 JUN 2005

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
linda@ISA

Telephone No. (571) 272-4391

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