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Declarations under Rule 4.17:

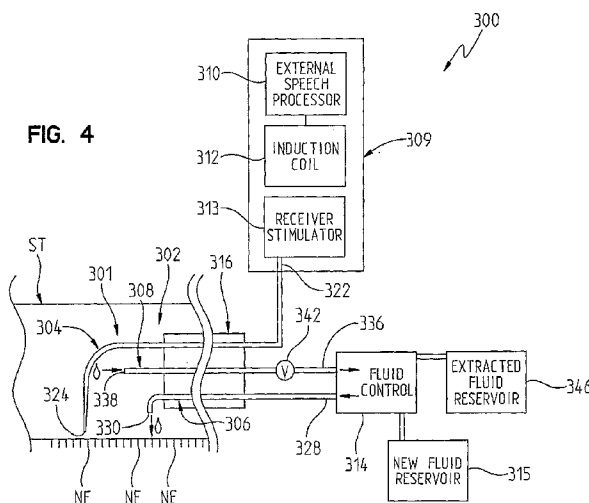
- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
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[Continued on next page]

(54) Title: INTRACOCHELEAR NANOTECHNOLOGY AND PERFUSION HEARING AID DEVICE



(57) Abstract: An intra-cochlear implant (401) is provided for aiding in the hearing of a patient. The implant includes a body portion (301) implantable within an interior of a cochlea of a patient. The body portion (301) has a proximal end (394), a distal end (396) and a primary axis (A). A plurality of signal carrying electrodes (406) extends along the body portion (301). The electrodes (406) have proximal ends (412) and distal ends (414), with the proximal ends (412) being capable of receiving a signal from a signal generator (309), and the distal ends (414) being capable of delivering the received signal to an anatomical receptor within a cochlea. At least several of the plurality of electrodes (406) have a nanoelectrode-sized portion (414). The implant also may include a fluid delivery system of tubules (408, 410), reservoirs (315), and pumps (314) for the delivery of chemicals and cells to activate regeneration of neural elements lost during the hearing loss process.

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# INTERNATIONAL SEARCH REPORT

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC: A61N 1/00(2006.01)

USPC: 607/57

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. : 607/57

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)

EAST

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P ---	US 2007/0060815 A1 (MARTIN et al) 15 March 2007, see entire document.	1-3, 11 and 12
Y, P		4-10, 13-26 and 28-42
X	US 6,946,851 B2 (LEE et al) 20 September 2005, see entire document.	1 and 27
Y, P	US 7,146,227 B2 (DADD et al) 05 December 2006, see entire document.	4-10, 13-26 and 28-42
Y	US 7,044,942 B2 (JOLLY et al) 16 May 2006, see entire document.	7-10, 15-20 and 30-42

Further documents are listed in the continuation of Box C.

See patent family annex.

\* Special categories of cited documents:

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"P" document published prior to the international filing date but later than the priority date claimed

"T"

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"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

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