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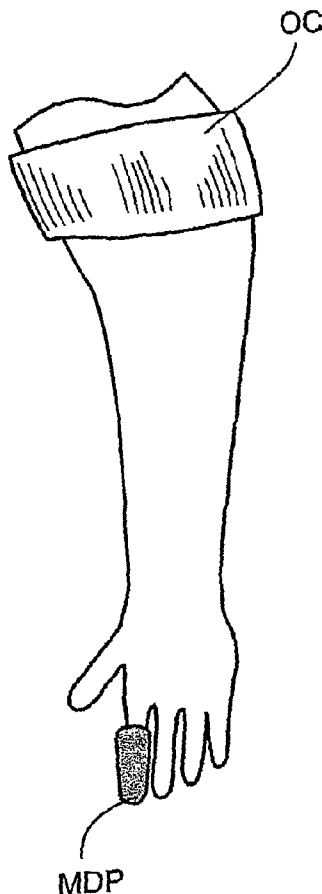
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[Continued on next page]

(54) Title: NON-INVASIVE ENDOTHELIAL ACTIVITY EVALUATION



(57) Abstract: A method and apparatus non-invasively indicates an endothelial dysfunction condition in a patient. The method includes applying an occluding pressure to a predetermined part of a patient's extremity to occlude arterial blood flow, maintaining the pressure for a predetermined time period, removing the pressure after the elapse off such period to restore arterial blood flow, monitoring a digit of the extremity by a probe for arterial tone changes therein before and after application of the occluding pressure to the extremity, and utilizing detected peripheral arterial tone changes to evaluate endothelial activity in the patient. Important advantages are provided when the occluding cuff (OC) is applied to the same digit receiving the monitoring digit probe (MDP) on the proximal side thereof with respect to the patient's heart, and when a reference probe is applied to another digit, uninfluenced by the occluding pressure, to compensate for shifts inherent to vascular beds.

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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 5/00, 5/02
 US CL : 600/300, 481, 483, 485, 490, 504

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. : 600/300, 481, 483, 485, 490, 504

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)
 USPAT, EPO, JPO, Derwent

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, E	US 6,322,515 B1 (GOOR et al.) 27 November 2001 (27.11.2001), col. 2, lines 32-42, col.15, line6-col.19, line 67, col.20, line 46-col. 22, line 59, col. 23, line 36-col. 24, line 20, col. 35, lines 16-37.	1-42
A, E	US 6,319,205 B1 (GOOR et al.) 20 November 2001 (20.11.2001), col.2, lins 11-20; col. 9, lines 1-21; col. 12, line 30-col. 17, line 24; col. 18, line 2-col. 20, line 13; col. 20, line 55-col. 21, line 31.	1-42
A, E	US 6,338,719 B1 (DRZEWIECKI et al.) 15 January 2002 (15.01.2002), full document.	1-42
A,P	US 6,152,881 A (RAINES et al.) 28 November 2000 (28.11.2000), full document.	1-42
A	US 5,065,749 A (HASABE et al.) 19 November 1991 (19.11.1991), full document.	20-42
A	US 4,860,759 A (KAHN et al.) 29 August 1989 (29.08.1989), col. 2, line 60-col. 4, line 15; col. 10, line 41-col.14, line 20.	20-42
A	US 4,846,189 A (SUN) 11 July 1989 (11.07.1989), full document.	20-42

Further documents are listed in the continuation of Box C. See patent family annex.

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"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent published on or after the international filing date	"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
"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 being obvious to a person skilled in the art
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"P"	document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family

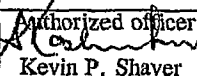
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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,821,734 A (KOSHINO) 18 April 1989 (18.04.1989), full document.	20-42

INTERNATIONAL SEARCH REPORT

International application No.

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Continuation of Item 4 of the first sheet:

Title too long.

NEW TITLE: Non-Invasive Endothelial Activity Evaluation