[Continued on next page]

(54) Title: DECISION SUPPORT SYSTEMS AND METHODS FOR ASSESSING VASCULAR HEALTH

Arterial Condition Concepts
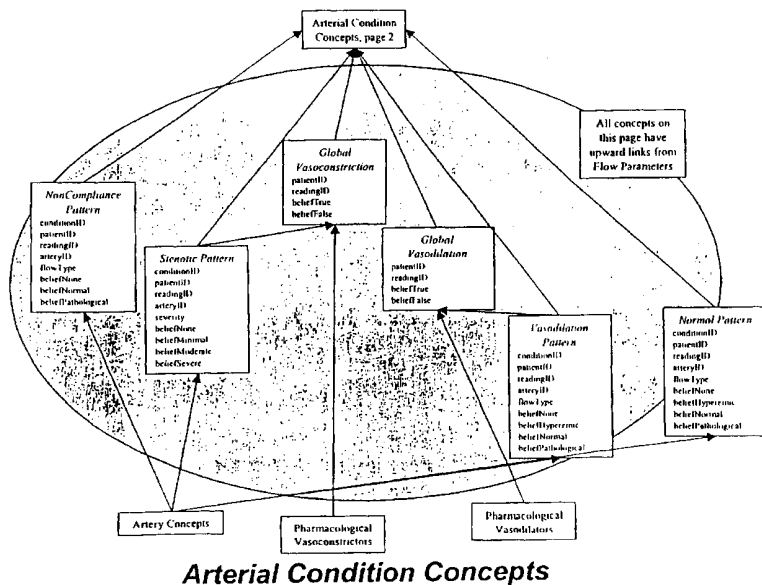
(57) Abstract: System and method for assessing blood flow in blood vessels, for assessing vascular health, for conducting clinical trials, for screening therapeutic interventions for adverse effects, and for assessing the effects of risk factors, therapies and substances, including therapeutic substances, on blood vessels, especially cerebral blood vessels, all achieved by measuring various parameters of blood flow in one or more vessels and analyzing the results in a defined manner. The relevant parameters of blood flow include mean flow velocity, systolic acceleration, and pulsatility index. In one embodiment, an expert system is used to implement the analysis.

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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/30536

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7)   : G06G 7/48, 7/58

US CL   : 703/11

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. :   703/11, 4, 6-7, 9

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, IEEE, Science Server

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X - Y	URSINO et al. A Mathematical Study of Some Biomechanical Factors Affecting the Oscillometric Blood Pressure Measurement. IEEE Trans. Biomedical Engineering. August 1996, Vol. 43, No. 8. sections 2-3.	1-37, 39-40, 43-49. - 38, 41-42, 50.
X - Y	BAUERNSCHMITT et al.. Simulation of Baroreflex in a Pulsatile Mathematical Model of the Human Arterial Circulation. Computers in Cardiology. September 1999. sections 2-3.	1-37, 39-40, 43-49 - 38, 41-42, 50.
Y	US 4,835,690 (GANGAROSA et al.) 30 May 1989, abstract, figures 1-7, col. 4, line 48 to col. 9, line 55.	38, 41-42, 50.

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

Date of the actual completion of the international search

23 FEBRUARY 2002

Date of mailing of the international search report

29 MAR 2002

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Form PCT/ISA/210 (second sheet) (July 1998)*

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CEVENINI et al.. A Neural Network Improves the Classification of High-Risk Intensive Care Patients. 18th Int. IEEE Conf. Engineering in Medicine & Biology Soc.. October 1996. Vol. 5, section 2.	38, 41-42, 50.