

Title (en)

SYSTEMS AND METHODS FOR DETERMINING INTRACRANIAL PRESSURE NON-INVASIVELY AND ACOUSTIC TRANSDUCER ASSEMBLIES FOR USE IN SUCH SYSTEMS

Title (de)

SYSTEME UND VERFAHREN ZUR NICHTINVASIVEN BESTIMMUNG DES SCHÄDELINNENDRUCKS UND SCHALLWANDLERANORDNUNGEN ZUR VERWENDUNG IN DIESEN SYSTEMEN

Title (fr)

SYSTEMES ET PROCEDES PERMETTANT DE DETERMINER LA PRESSION INTRACRANIENNE DE FA ON NON INVASIVE ET ENSEMBLES DE TRANSDUCTEURS ACOUSTIQUES DESTINES A ETRE UTILISES DANS CES SYSTEMES

Publication

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Application

**EP 04754563 A 20040603**

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Abstract (en)

[origin: WO2004107963A2] Systems and methods for determining ICP based on parameters that can be measured using non-invasive or minimally invasive techniques are provided, wherein a non-linear relationship is used to determine ICP based on one or more variable inputs. The first variable input relates to one or more properties of a cranial blood vessel and/or blood flow, such as acoustic backscatter from an acoustic transducer having a focus trained on a cranial blood vessel, flow velocity in a cranial blood vessel, and the like. Additional variables, such as arterial blood pressure (ABP), may be used in combination with a first variable input relating to one or more properties of a cranial blood vessel, such as flow velocity of the middle cerebral artery (MCA) to derive ICP using a non-linear relationship. Methods and systems for locating target areas based on their acoustic properties and for acoustic scanning of an area, identification of a target area of interest based on acoustic properties, and automated focusing of an acoustic source and/or detector on a desired target area are also provided. Acoustic transducer assemblies are described.

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**A61B 1/00**

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