



ISTITUTO ITALIANO
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TITLE

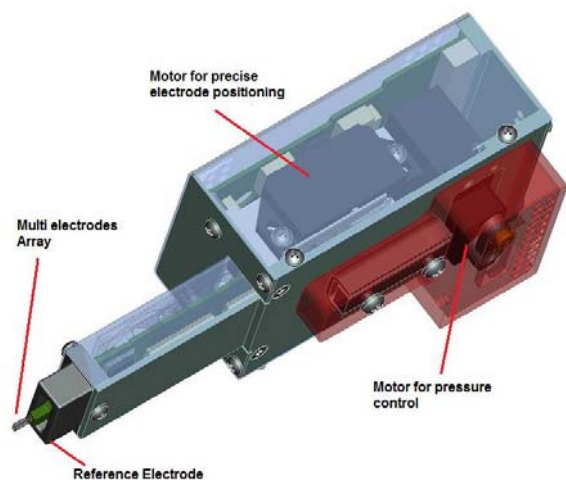
A dynamic brain pressure control for single unit in vivo neural recordings

INVENTORS

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DESCRIPTION

In the research field of the Cognitive Sciences, the RBCS department has developed compact multi-channel single and multi-unit in vivo neural recording system. This device permits both a very precise electrode positioning with respect of the brain tissue and the application of a finely, dynamically controlled pressure in the recording site. This device allows the surgeon to monitor the pressure exerted by the recording device on the brain tissue while a separate control adjust gradually this pressure, dynamically following and limiting the brain tissue bulging and pulsation. In this way dangerous interruptions of brain blood supply in the recording site due to excessive pressure produced by the recording device are avoided while brain pulsations are reduced.



APPLICATIONS

Every brain surgery that needs a single and multi-unit neural recording system will significantly take advantage of the unique automatic control of the pressure exerted on the brain tissue by this medical device, designed to be used in a surgery room and compliant with all the stringent requirement in this field of technology.

KEYWORDS

brain surgery, single-unit multi-unit recording system, brain tissue bulging, brain tissue pressure

BIBLIOGRAPHIC DATA TO2011A000516

Dispositivo di rilevazione intracorticale e relativo metodo di controllo

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Applicants

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