

NON-INVASIVE CONTINUOUS HYPOXIA MONITORING DEVICE

This invention provides a method and a device for non-invasive continuous hypoxia monitoring, in situations such as high risk labour, among other areas of interest.

TYPE OF DEVELOPMENT

Medical device.

DESCRIPTION

The failure of oxygenation at tissue level (hypoxia) underlies the development of numerous diseases and disorders in living organisms. Therefore, detecting hypoxia may have a major impact on human pathology, sports and veterinary medicine; and methods and devices accurately identifying local hypoxic conditions in living tissues can have a wide array of applications in multiple fields. One of these fields is intrapartum foetal compromise.

Labour monitoring methods currently in use do not allow successful, unequivocal and fully effective monitoring of a medical process as sensitive at social and healthcare levels as labour. Clinicians and users demand more rigorous and less invasive monitoring during labour, and in particular, in high risk labour, as the number of these has been exponentially increasing in recent years (due to older maternal age, previous caesarean deliveries, etc.), to achieve a reduction in the current high number of caesarean sections.

The technical procedure currently used to detect foetal distress is not only uncomfortable for the mum but also non-continuous with significant failure rates and excessively long measurement times.

This invention provides a new device based on Raman spectral measurements which allow non-invasive continuous monitoring of physiological variables to detect hypoxic situations.

ADVANTAGES

- Non-invasive method.
- Continuous monitoring
- Real-time measurement

USE

- Continuous control and monitoring of high risk labour.
- Other fields of application include: Biomedicine (control of patients transported in mobile ICUs, neonatal ICUs, sepsis); Sports (control of physical effort and recovery for sportsmen and women); Veterinary (control of animal well-being, physical effort and recovery for racing animals).

PROTECTION

European Patent application (EP 20382756.3)

Priority Date: 18/08/2020

Applicants: Administration of the Autonomous Community of the Basque Country and CIC nanoGUNE.

COOPERATION GOAL

- Company interested in licensing and marketing the product.

CONTACT:

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