

ABSTRACT

**SYSTEM AND METHOD FOR DETERMINATION OF A BRAINSTEM RESPONSE
STATE DEVELOPMENT**

5 A system, method and computer program are disclosed that are adapted to detect a
lateral brainstem response state development of a subject over a period of time as a function
of a population of neurons evoked response patterns to sound stimuli. In these a sound stimuli
generating unit is operative stimulus comprises a first and at least a second consecutive train
of sound pulses. A detection unit is operative to detect a brainstem response signal related to
the neurons response patterns, wherein a first response signal is caused by the first train of
10 sound pulses and a second response signal is caused by the second train of sound pulses. A
storage unit may be included that is operative to store information based on the brainstem
response signals. Further, a control unit is operative to determine the lateral brainstem
response state development based on a comparison between the first and second response
signals.

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Figure accompanying abstract: Figure 4a

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