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(72) Inventor; and
(71) Applicant : **PETERSSON, Per Fredrik** [SE/SE]; Bardisangränden 28, S-226 48 Lund (SE).

(72) Inventor: **HALJE, Pär**; Spångatan 14H, S-211 44 Malmö (SE).

(74) Agent: **HENRIKSSON, Dan**; Awapatent AB, P. O. Box 5117, S-200 71 Malmö (SE).

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(54) Title: SYSTEMS LEVEL STATE CHARACTERISTICS IN EXPERIMENTAL TREATMENT OF DISEASE

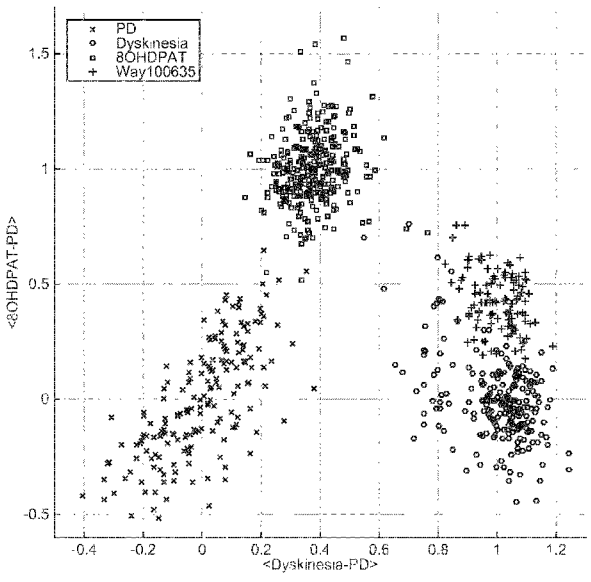

Fig 5

(57) Abstract: The present invention relates to a method for assessment of a state of the central nervous system (CNS) of a subject and/or differentiation between states of the central nervous system (CNS) of a subject at a specific time point based on electrophysiological recordings of signals from at least two anatomical structures, wherein the signals are recorded from recording sites located in the anatomical structures, wherein the electrophysiological recordings comprise spatiotemporal fluctuations in the recorded extracellular potential, wherein the electrophysiological recordings are action potentials and/or local field potentials (LFPs) in the anatomical structures and represent the state of the CNS at said specific timepoint. The present invention further relates to the use of the method for assessment of a state of the CNS and/or differentiation of at least two states of the CNS, as well as to the use of the method for evaluating the effect of a treatment of a condition or disease, wherein the condition or disease is neurological and/or psychiatric. The invention also relates to a system for assessment of a state of the central nervous system (CNS) of a subject and/or differentiation between states of the central nervous system (CNS) and to the use of such system for assessment of a state of the CNS and/or differentiation of at least two states of the CNS, as well as to the use of such systems for evaluating the effect of a treatment of a condition or disease, wherein the condition or disease is neurological and/or psychiatric.

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