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(54) Title: BICYCLIC AMIDE DERIVATIVES FOR ENHANCING GLUTAMATERGIC SYNAPTIC RESPONSES

(57) Abstract: This invention relates to compounds, pharmaceutical compositions and methods for use in the prevention and treatment of cerebral insufficiency, including enhancement of receptor functioning in synapses in brain networks responsible for basic and higher order behaviors. These brain networks, which are involved in cognitive abilities related to memory impairment, such as is observed in a variety of dementias, in imbalances in neuronal activity between different brain regions, as is suggested in disorders such as Parkinson's disease, schizophrenia, sleep apneas, attention deficit hyperactivity disorder and affective or mood disorders, and in disorders wherein a deficiency in neurotrophic factors is implicated, as well as conditions such as stroke-induced central sleep apnea, obstructive sleep apnea, congenital hypoventilation syndrome, obesity hypoventilation syndrome, sudden infant death syndrome, Rett syndrome, spinal cord injury, traumatic brain injury, Cheney-Stokes respiration, Ondines curse, Prader-Willi's syndrome and drowning. In a particular aspect, the invention relates to bicyclic amide compounds useful for treatment of such conditions, and methods of using these compounds for such treatment.