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ERKS - A NEW MARKER IN PSYCHIATRY?

M. Mateus^{1,2}, G.P. da Silva Borges², C. Silva¹, F. Lourenço²

¹*Centro Hospitalar Psiquiátrico de Coimbra, Coimbra*, ²*Universidade do Porto, Porto, Portugal*

Recent studies involved the pathways of kinases regulated by extracellular signal (ERK - extracellular signal regulated kinases), a broad range of key cellular processes, in the mechanisms of depression and consequently in the action of antidepressants. It is also known that the use of specific inhibitors of phosphorylation of ERKs1 / 2 showed to have antidepressant effect in animal models. Fluoxetine (SSRI) was recently discovered to be a potent inhibitor of phosphorylation of ERKs. The ERKs1 / 2 and recently the 3, are present in neurons and glia, these also engaged in biological mechanisms of depression.

The authors propose to do, based on the current literature, the characterization of the type (s) of cell (s) where changes in activation of ERKs1 / 2, occur during depression, and during the administration of antidepressants, in order to understand, to what extent these kinases may be considered as biological markers of depression. Possibly also to examine the feasibility of using these markers in clinical use.