Potential Use of the Protein Kinase C Inhibitor Chelethyrine for the Treatment of Bipolar Disorder

**Description:**

Dr. Arnsten has discovered in animal studies that exposure to uncontrollable stress impairs prefrontal cortical function via activation of protein kinase C, and that administration of chelerythrine or a chelerythrine analog in accordance with the invention inhibits harmful protein kinase C activation. Accordingly, the invention provides compositions and methods useful in treating a subject suffering from a CNS disorder, particularly a CNS disorder associated with impaired prefrontal cortical function related to activation of protein kinase C due to exposure to uncontrollable stress. In particular, the invention provides compositions and methods that treat a subject suffering from such disorders by administering to the subject an effective amount of the selective protein kinase C inhibitor chelerythrine or a chelerythrine analog as defined hereinafter.

Additionally, the invention provides a method of protecting a subject's cognitive performance from alpha-1 receptor stimulation or stress exposure by administering to the subject an effective amount of the selective protein kinase C inhibitor chelerythrine or a chelerythrine analog.

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