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(54) Title: COMPOSITIONS AND METHODS OF USE OF PHORBOL ESTERS

(57) Abstract: Methods and compositions containing a phorbol ester or a derivative of a phorbol ester are provided for the treatment of cytopathic diseases. Cytopathic diseases may be caused by a variety means such as viral infections like HIV and AIDS, or the development of neoplasms in a mammalian subject. The methods and compositions of the invention are effective for inhibiting de novo HIV infection, upregulating viral expression from latent provirus, inhibiting HIV-induced cytopathic effects, down regulating the HIV receptor, increasing Th1 cytokine expression, decreasing Th2 cytokine expression, increasing ERK phosphorylation, inducing apoptosis in malignant cells, inducing remission, maintaining remission, as chemotherapeutic agents, as well as for decreasing symptoms of cytopathic diseases and opportunistic infections that may accompany such diseases. Additional compositions and methods are provided which employ a phorbol ester or derivative compound in combination with at least one additional agent such as those used in HAART protocols, therapeutic agents used to treat opportunistic infections due to HIV, or chemotherapeutic agents to yield more effective treatment tools against cytopathic diseases in mammalian subjects.



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