innovations

from The University of Vermont

TITLE: METHODS AND COMPOSITIONS FOR TREATING *TOXOPLASMA*

INVENTORS: Mariana Matrajt

DESCRIPTION: Opportunistic infections of the intracellular protozoan parasite *Toxoplasma gondii (T. gondii)* can cause life threatening disease in immuno-compromised individuals, including cancer chemotherapy patients, transplant recipients, and individuals with AIDS or other immunosuppressive disorders. Virtually any nucleated animal cell can be infected, but the cellular immune response typically controls such infections rapidly leaving a latent infection consisting of bradyzoite cysts that can re-emerge periodically. Critical to the activation of bradyzoite cysts to an active infection is the transfer to an active tachyzoite stage. Professor Matrait has identified a regulator of this conversion pathway from bradyzoite to tachyzoite in the form of a heat shock protein of *T. gondii*. As expected, inhibitors of this protein stop the inter-conversion process, but more critically, inhibitors destroy even the potential for reactivation of the latent cysts by eliminating the bradyzoite cysts altogether.

ADVANTAGES: Currently there exists no effective treatment for chronic toxoplasmosis due to a lack of drugs capable of eliminating the bradyzoite cysts. This invention identifies potential inhibitor therapeutics and provides for a screen for the identification of other inhibitors
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PATENT STATUS: Patent Pending

LICENSING STATUS: Worldwide rights available

CONTACT: Todd S. Keiller, Director, Technology Transfer University of Vermont

1 Pendulum Pass
Hopkinton, MA 01748

tel (508) 497-2497
fax (508) 497-0733
Todd.Keiller@uvm.edu