

innovations

from The University of Vermont

TITLE: TOXOPLASMA GONDII APICAL MEMBRANE ANTIGEN-1

INVENTOR: Gary E. Ward

DESCRIPTION: Toxoplasmosis is among the most common parasitic diseases of man. One child out of every 1000-4000 born in the USA acquires Toxoplasma infection in utero, with rates as high as 1 in 100 in other parts of the world. Approximately 45% of women who acquire an acute infection during pregnancy and are not treated will give birth to a congenitally infected child. This invention relates to the protein termed TgAMA-1 and is part of the extensively studied apical membrane antigen-1 (AMA-1) family of proteins. Dr. Ward has sequenced TgAMA-1, characterized it and produced recombinant protein for use in vaccine methods and formulations. The vaccines are useful for vaccinating the animal reservoir species for Toxoplasma (pigs, sheep, cats) as well as humans.

ADVANTAGES: Current therapies and preventative treatments suffers from short shelf life, the induced immunity declines significantly in the first two years post-inoculation, and has shown to establish infection in some cases, causing infection of the plecenta and damage to the fetus.

PATENT STATUS: US Patent applied for November, 2000.

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