

Immunoepidemiologic profile of *Chlamydia trachomatis* infection:

Abstract:

Epidemiological, animal, and in vitro investigations suggest that *Chlamydia trachomatis* infection engenders acquired immunity, the basis for which is incompletely defined, especially in humans. In a prospective cohort study of women at high risk for *C. trachomatis* infection, we found that, at baseline and after adjustment for age and other potential confounding variables, production of interferon-gamma by peripheral-blood mononuclear cells (PBMCs) stimulated with chlamydia heat-shock protein 60 strongly correlated with protection against incident *C. trachomatis* infection. This investigation supports a direct role for *C. trachomatis*-specific immune responses in altering the risk of infection and suggests immune correlates of protection that are potentially useful in vaccine development.