

## Immunoprotective capacity of recombinant chimeric *Toxoplasma gondii* proteins

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Toxoplasmosis, caused by an obligatory intracellular parasite *Toxoplasma gondii*, may pose a great threat to immunocompromised hosts. The parasite invasion leads also to considerable economic losses due to infection of livestock. Moreover, the possible link between parasite invasion and occurrence of certain central nervous system disorders has been postulated. Despite extensive research no effective immunoprophylactic measures providing long-lasting protection against toxoplasmosis in both humans and animals are available to date and studies on possible vaccine candidates continue. One of the recently employed approaches to vaccine development involves chimeric proteins comprising several fragments of parasite antigens important for the protozoan invasion and intracellular survival. Thus, the aim of the study was to evaluate the immunogenic and protective potential of recombinant chimeric *T. gondii* proteins, as prospective immunoprophylactic tools, using mouse experimental model. Taking into account safety precautions the antigens were administered with safe adjuvant formulation. Obtained up to now results showed that immunization with tested preparations provided partial protection against chronic toxoplasmosis in mice. Further experiments on specific cellular and humoral immune responses triggered by the vaccination are in progress and their results will be presented and discussed during the conference.

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