

## SUMMARY OF THESIS\*

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GALISTEO Jr., Andrés Jimenez - *Toxoplasma gondii* vs radiação ionizante: estudo da imunidade intestinal em camundongos C57Bl/6J experimentalmente vacinados com taquizoítos irradiados. São Paulo, 2004. (Dissertação de Mestrado - Instituto de Pesquisas Energéticas e Nucleares/Universidade de São Paulo).

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### ***Toxoplasma gondii* VS IONIZING RADIATION: INTESTINAL IMMUNITY INDUCED IN C57BL/6J MICE BY IRRADIATED TACHYZOITES**

We studied the oral route for the development of a vaccine for toxoplasmosis, using parasites irradiated with 60 Cobalt, as an alternative for vaccine development to this worldwide parasitic infection. We evaluated the development of immunity at serum or mucosal levels, and their efficiency to protect the mice against challenge with oral cysts of the ME-49 strain. C57Bl/6j isogenic mice were immunized by oral route with  $10^7$  255 Gy irradiated tachyzoites from RH strain, at several protocols using milk as anti-peptic adjuvant and alum hydroxide as antacid. The preparations of irradiated tachyzoites induced production of serum IgG and IgA in immunized mice, as determined by ELISA, with IgG2a as the dominant subclass, similar to chronic infection. Their use with adjuvant allowed the excretion of significant amounts of IgA in stools also IgG, despite a lesser extent. There are suggestions of tolerance induction at mucosal level, with lower antigen induced proliferation and

lower *in vitro* antibody production by spleen and gut lymphocytes, with the latter doses, specially when milk was used as adjuvant. All oral preparations induced some quantitative protection against challenge, which was similar to the parenteral route only isolated alum hydroxide was used as adjuvant.

All these data support the possibility of the development of an oral vaccine against toxoplasmosis, using irradiated tachyzoites, which would be possible tool in near future for use in field baits, for immunizing either domestic or wild felids.

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\*This thesis is available at the Library of the Instituto de Medicina Tropical de São Paulo