

## SUMMARY OF THESIS\*

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OKAY, Thelma Suely - **Diagnóstico molecular da toxoplasmose congênita. Expressão de genes específicos de estágio parasitário em amostras de líquido amniótico.** São Paulo, 2005. (Tese de Livre-Docência - Faculdade de Medicina da Universidade de São Paulo).

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### MOLECULAR DIAGNOSIS OF CONGENITAL TOXOPLASMOSIS. EXPRESSION OF PARASITE STAGE-SPECIFIC GENES IN AMNIOTIC FLUID SAMPLES

One hundred amniotic fluid samples of pregnant women who seroconverted to toxoplasmosis and were treated were analyzed by DNA-PCR-B1. There were 50 positive and 50 negative amniotic fluid samples. Afterwards, a DNA-nested-PCR-B1 was conducted and detected other nine cases in a total of 50 previously negative samples (9/50 or 18%). The McNemar test found discordance between the two amplification tests ( $p = 0.027$ ;  $\alpha = 5\%$ ). In the second part of the study, we determined the efficiency of treatment by means of three RT-nested-PCR (B1, SAG1, BAG1). The B1 gene is expressed in all parasite forms, while SAG1 is specific of tachyzoites and BAG1 of bradyzoites. Among 59 DNA-positive samples, six were positive by RT-nested-PCR (four with B1, and two with SAG1). Thus, 53 of 59 (89.83%) women did not present with parasite replication, while 6/59 (10.17%) did, indicating therapeutic failure. The two positive SAG1 fetuses had

hydrocephalus. There were three samples that were RT-nested-PCR-B1 positive and DNA-nested-PCR negative, therefore indicating false-negative results of DNA amplification (3/50 or 6.9%). In conclusion, the DNA-nested-PCR-B1 is superior to the one-round amplification, and the anti-*Toxoplasma* treatment seems to be efficient to stop parasite replication. Further studies are needed to confirm whether RT-nested-PCR-SAG1 might act as a prognostic marker in infected fetuses.

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