

**<b>EXCRETED/SECRETED ANTIGENS FROM THE PROTOZOAN *NEOSPORA CANINUM*: BIDIMENSIONAL PROFILE AND IMMUNODOMINANT PATTERN</b>**

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<i>Neospora caninum</i> is a cosmopolitan Apicomplexan parasite of growing economical importance due to its direct involvement in bovine abortion. Apicomplexans invade host cells by a conserved and unique mechanism, where the secretory organelles (micronemes, rhoptries and dense granules), present in the invasive stages, have a crucial role. These organelles are secreted just before, during or soon after the entrance into the host cell. Invasion process represents, therefore, a potential target for prophylactic/therapeutic intervention. The present project aims to obtain the bidimensional profile of the secreted proteins from <i>N. caninum</i> and correlate with its immunodominant pattern. Tachyzoites of <i>N. caninum</i> incubated at 37<sup>0</sup>C secrete proteins which constitutes the excretion/secretion antigens (ESA). The ESA of <i>N. caninum</i> revealed 406 spots, from which 89% are parasite specific spots when compared to the control host cell extract. Bidimensional immunoblottings were performed with serum of dogs (the definitive host) experimentally infected with <i>N. caninum</i>. The immunodominant proteins were co-localized to the 2D gels, including extremely immunogenic spots that are faintly stained in the silver 2D gels. The most abundant and the most immunogenic parasite proteins will compose the first set of potential secreted proteins for further mass spectrometry identification. Acknowledgments to FAPESP for project grant (2005/53785-9) and fellowship awarded to Inada (2006/06431-0). Keywords: <i>Neospora caninum</i>, Apicomplexa, ESA, 2D.