

## CHARACTERIZATION OF *ECHINOCOCCUS GRANULOSUS* METACESTODE PROTEINS

Monteiro, K. M.<sup>1</sup>; Laschuk, A.<sup>1</sup>; Bizarro, C. V.<sup>1</sup>; Carvalho, M. O.<sup>1</sup>; Kitajima, E. W.<sup>2</sup>; Zaha, A.<sup>1</sup>; Ferreira, H. B.<sup>1</sup>

<sup>1</sup> Centro de Biotecnologia, UFRGS, RS, Brazil; <sup>2</sup> NAP/MEPA, ESALQ/USP, SP, Brazil

*Echinococcus granulosus* is a cestode parasite, whose metacestode form develops as an unilocular and fluid filled hydatid cyst in domestic ungulates and primates, including man. Identification and characterization of proteins of different hydatid cyst components, such as the germinal layer, protoscoleces and hydatid fluid (HF), may lead to a better understanding of host-parasite relationships. Therefore, we are using different approaches to study proteins expressed in the *E. granulosus* metacestode. MudPIT analysis from protoscolex extracts allowed the identification of 53 proteins, including some related with parasite detoxification, stress response and metabolism. Two-dimensional gel electrophoresis (2DE) of protoscolex extracts resolved 270 spots, which will be subjected to identification by MALDI-TOF MS/MS. Moreover, in 2DE western blot, several proteins were recognized by sera from cystic hydatid disease patients. The oligomeric structure of the HF major protein, antigen B (AgB), is also under investigation. AgB oligomers with hydrodynamic radii of 100-2000 nm were evidenced by dynamic light scattering measurements and visualized by electron microscopy. AgB subunit composition will be analyzed by immunogold and ELISA, using monospecific sera raised against three AgB subunits (AgB8/1, AgB8/2 and AgB8/3). Our results are expected to improve our knowledge about parasite biology and better characterize antigenic components, such AgB, with potential application for immunodiagnosis. (CNPq, FAPERGS, RTPD Network-SIDA/SAREC)