PKB AND PI3K CHARACTERIZATION IN *RHIPICEPHALUS (BOOPHILUS) MICROPLUS* EMBRYOS

L Abreu[1], A Fabres[1], E Esteves[2], S Daffre[2], C Logullo[1]
1 LQFPP – CBB - UENF – RJ
2 Dept. Parasitologia – ICB – USP - SP

Besides its metabolic role, insulin signaling pathway (ISP) is widely described as crucial for vertebrate and invertebrate embryogenesis and development. In such cascade Phosphatidylinositol 3-OH Kinase (PI3K) is hierarchically located upstream Protein Kinase B (PKB). Preliminarily, we observed that Protein Kinase B (PKB) may be activated between the 1st and the 7th days after oviposition, in egg homogenates. PKB activity was also significant, especially during cellular blastoderm formation (5 days after oviposition). It correlates well with the importance of this event not only for embryo formation as well as for its metabolism. Additionally, PKB activity was directly disturbed by the selective inhibition of PI3K, when an established embryonic cell line, obtained from *B. microplus* (BME26), was treated with Wortmannin. We also observed a DNA sequence with high homology PI3K on public database. We are looking forward to study both PKB and PI3K expression, how they correlate with other components of the insulin triggered cascade and their importance for the hard tick embryogenesis.
Supported by: PRONEX, CNPq, FAPERJ, PROCAD/CAPES