

OBSERVATION OF FREE CELLS INFECTED WITH *TOXOPLASMA GONDII* BY FIELD EMISSION SCANNING ELECTRON MICROSCOPY

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Observation of intracellular structures by FE-SEM has been achieved for many years in tissue blocks cleaved and macerated in a dilute solution of OsO₄. Free cells, however must be pre-embedded in a matrix resistant to the chemical procedure, as a 1:1 mixture of 10% gelatin and 2% chitosan, to resist further process. We observed LLC-MK2 cells infected with *Toxoplasma gondii* by this technique and got information on the inner ultrastructure of the host cell, the parasitophorous vacuole and the parasite itself. We obtained more faithful views of the intravascular network that connects the parasite to each other and fuses at some points with the vacuolar membrane. The vacuolar membrane 24hpi shows pores that progressively grow and helps on parasite escape from the vacuole. By this method we also observed rhoptries in the inner structure of intracellular tachyzoites. Some features previously observed by other methods and suspected to be artifacts, were corroborated by this method and also by cryo-SEM, where samples are pelleted, frozen and cleaved inside the FE-SEM chamber.