DEVELOPMENT OF VACCINES AGAINST CANCER

The main project of Dr. Mordoh's team of researchers is the development of cancer vaccines. Research in this field is proceeding both at the laboratory and at the clinical level. It is a classical example of translational research. At the laboratory level, Mordoh's team is studying how to make the vaccines more efficient. For this, they are looking for ways to break the "tolerance" of the host to normal antigens (many tumor antigens are normal antigens, or closely related to them). They are also studying how to circumvent the mechanisms that the tumors use to evade the host's immune response. In Clinical Trials a vaccine (**Vaccimel**) which offers great promise to treat melanoma patients is currently being tested. VACCIMEL is undergoing a Phase I clinical trial (20 patients) and a Phase II / III clinical trial on about 108 patients is about to begin. Also, in collaboration with the Rockefeller Institute, a method is being developed in which dendritic cells are loaded with tumor cells severely damaged with irradiation (apoptotic). Under these conditions, dendritic cells phagocytose (eat) tumor cells and become potent vaccines. Although this vaccine has been associated with a skin tumor named melanoma, it could be useful for treating many other tumors, such as breast, colon and prostate carcinoma. This method is now awaiting approval from Argentinean regulatory agencies to begin clinical trials on human patients. In clinical trials, the preparation of vaccines must be strictly controlled and must be performed in a **GMP Unit for Vaccine Preparation** (GMP = Good Manufacturing Practice).

The Ministry of Science and Technology of Argentina selected our Antitumor Vaccine Program to receive a subsidy from the Interamerican Development Bank of US$1,000,000. They will supply matching funds of 3 dollars for every dollar donated by citizens.

SALES Foundation this year will initiate Phase II / III clinical trials of a vaccine that has already shown excellent results in advanced cancer patients.