

The role of regulatory T lymphocytes in the induced immune response mediated by biological vaccines

López, Mercedes

Aguilera, Raquel

Pérez, Claudio

Mendoza-Naranjo, Ariadna

Pereda, Cristian

Ramirez, Marcos

Ferrada, Carlos

Aguillón, Juan Carlos

Salazar-Onfray, Flavio

Immunotherapy has become a novel therapeutic alternative for various kinds of tumours. Recently, we have finalized the first phase I clinical study in Chile for the treatment of advanced malignant melanoma, using dendritic cells (DCs) loaded with allogeneic melanoma cell lysate. This study included 20 patients and the obtained results, pioneer in Latin America, showed that DC-based immunotherapy is innocuous, even provided in combination with IL-2. In addition, immunological responses were detected in 50% of the treated patients, establishing a positive correlation between the delayed type hypersensitivity (DTH) reaction, which indicates induction of in vivo immunological memory, and patients surviving. Nevertheless, objective clinical responses in vaccinated patients are still insufficient. Only sporadic objective metastasis regressions have been registered and an important proportion of the treated patients did not respond, or their responses were weak. Several strategies have been d