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CHARACTERISTICS OF MONTANIDE™ ISA 51 VG ADJUVANT DESIGNED FOR THERAPEUTIC CANCER VACCINES

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Therapeutic cancer vaccines are one interesting alternative to treat cancer by active immunotherapy. The use of well-defined overexpressed tumor antigens is linked with weak and short term immune response. To improve the immune response induced antigens may be associated with enhancers such as adjuvants. Water-in-oil (W/O) emulsions such as MontanideTM ISA 51 VG represent an interesting option for immunotherapy vaccines for which potent adjuvants are required. CIMAVAX-EGF vaccine to treat cancer has already been authorized in Cuba and many others latin american countries, it's also in late state in Europe and Asian countries which efficacy has been largely proven in patients suffering from lung cancer (NSCLC). Vaccines based on Montanide™ ISA 51 VG interestingly enhance the immune response thanks to a depot effect conferred by this kind of adjuvant at the injection site. This renders a danger signal that increases and prolongs the interaction with antigen presenting cells. These interactions lead to an enhanced CD8+ and CD4+ activation and promote production of IFN, TNFα, IL-2. Additionally, the use of adjuvant enhances the memory T-cells, in particular the central memory T-cells. Taken together, these results show that vaccines based on Montanide™ ISA 51 VG can induce a potent specific cytotoxic T response and a significant increase in antibody titers with the development of polarized Th1 responses.

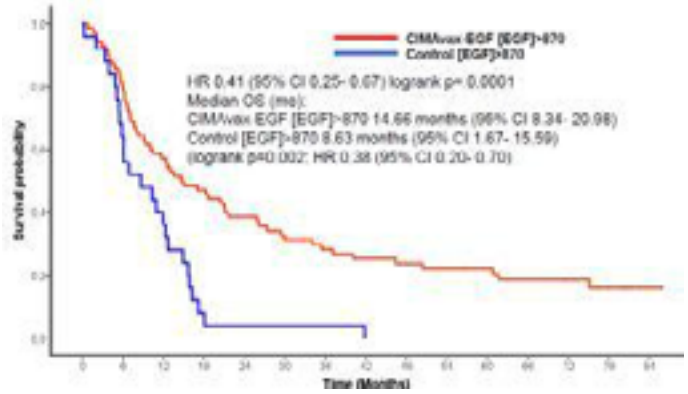

Fig.1: Kaplan–Meier curve in patients with high [EGF] at day 0. MST for vaccinated patients was 14.66 months (95% CI, 8.34–20.98) versus 8.63 months (95% CI, 1.67–15.59) for controls.

BIOGRAPHY

Maria Lazaro is a Pharmacist from Complutense University of Madrid. He/She(according to the author's gender) holds advanced master's in Biotechnology and Pharmaceutical Management works for Seppic in Human Biologicals department (adjuvants for vaccines and excipients for injectables) since 2012.

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