HER-Vaxx Re-Formulation Shows Dramatic Ten-Fold Increase in Antibodies and Early Onset of Response

22.04.2015 - Imugene Limited, a clinical stage immuno-oncology company developing HER-2 positive gastric and breast cancer immunotherapies, announces that Imugene’s lead candidate HER-Vaxx has demonstrated a powerful increase in the production of cancer fighting antibodies in preclinical animal model testing. This new formulation shows responses that are up to ten times those produced in previous formulations, and importantly also shows a convincing shortening in the time taken for the immune system to respond to HER-Vaxx.

This success is a result of preclinical immunologic results scheduled for reporting in 1H 2015, the initiation of which were announced in September 2014. The work has been conducted by the research team at the Medical University of Vienna under the direction of Professor Dr Ursula Wiedermann, principal investigator for the preclinical development of HER-Vaxx, and member of the Imugene Scientific Advisory Board. The enhanced formulation of HER-Vaxx incorporates an existing, clinically and commercially validated vaccine carrier protein called CRM197 together with an adjuvant. CRM197 replaces the virosomes used in previous formulations of HER-Vaxx.

The experiments indicate a potentially lower dose, and a fewer number of immunisations could be required for a better clinical outcome than with the previous virosome-based formulation of HER-Vaxx.

Of importance from a clinical perspective, based on the immunogenicity results against extracellular HER-2/neu, there was a clear difference in the kinetics of antibody responses in the course of immunisations, showing that the reformulated HER-Vaxx leads to earlier antibody increases (significant after 2 immunizations, with a peak response observed after 3 immunizations), compared with the earlier virosome-based formulation of HER-Vaxx. HER-Vaxx stimulates a polyclonal antibody response to HER-2/neu, the oncogene which is targeted by the currently used monoclonal antibody Herceptin®.