Generex Publishes Results From Pre-Clinical Studies On Immunotherapeutic Vaccine for HPV-Induced Cervical Cancer

22.07.2009 - Generex Biotechnology Corporation announced publication of studies demonstrating the anti-cancer activity of a novel li-Key/HPV immunotherapeutic vaccine. The immunotherapeutic vaccine for HPV-induced cancers makes use of the li-Key platform technology developed by scientists at Antigen Express, Inc., Generex’s wholly-owned immunotherapeutics subsidiary.

The Antigen Express studies demonstrate that mice immunized with an li-Key/HPV16 E7 hybrid show increased killing of cells expressing an HPV-specific antigen, but not control cells lacking the antigen. Consistent with the predicted mechanism of action of the vaccine, HPV-specific activation of CD4+ T helper cells was observed in immunized mice. The first author of the study, Dr. Minzhen Xu, is Vice-President of Biology at Antigen Express.

The current studies demonstrate an additional application of the li-Key technology platform being developed at Antigen Express. Currently, another peptide designed with this technology is the subject of three clinical trials: a Phase II trial in breast cancer patients, a Phase I trial in prostate cancer patients, and a separate Phase I trial in breast or ovarian cancer patients wherein it is being tested in combination with another peptide vaccine. That immunotherapeutic vaccine, AE37, couples li-Key with a fragment of the HER2 protein, which is expressed in a variety of cancers and is associated with worse prognosis.

While prophylactic vaccines against HPV-induced cervical cancer are available, those vaccines do not benefit patients once cancer has arisen. The difference is that li-Key/HPV hybrid vaccines help to induce a cellular immune response, which is necessary for killing cancer cells.

Original publication: “li-Key/HPV16 E7 hybrid peptide immunotherapy for HPV16+ cancers”; Vaccine July 2009, Volume 27, Issue 34