



## TECHNOLOGY LICENSING OFFICE

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### **BV I08-06 - Dominant CD4 T Cell Epitopes of Human Papilloma Virus and Uses for Comprehensive Vaccine Development**

#### **APPLICATIONS:**

Generation of new vaccines against rare epitopes of HPV to block viral infection and prevent cervical cancer. The potential to extend the development of vaccines against previous unavailable HPV viral types.

#### **SUMMARY:**

Cervical cancer is linked to Human Papillomavirus (HPV) infections and the opportunity to treat women at risk that requires the development of individual therapeutic immunization programs. Over the course of a woman's lifetime, the risk of contracting HPV is greater than 50% and 6 million women in the U.S. alone are diagnosed with infections each year. Therapeutic treatment of HPV infections greatly reduces precancerous squamous intraepithelial lesions which lead to cancer. Not all viral types of HPV are currently treated because vaccines against some forms are not available or are not strong enough.

This technology discloses a method to identify the new epitopes of HPV and the use of dendritic cells to present selective peptides for the production of vaccines against these new epitopes. In addition this technology discloses the use of these methods and materials to identify specific peptide sequences that can be used in the further production of therapeutic vaccines against HPV. The administration of the "immunogenic compositions" that result from the above methods provide the new therapeutic opportunities to treat HPV infections and reduce or prevent the potential for severe consequences of this infectious agent.