Praveen Bommareddy, J Cancer Sci Ther 2017, 9:7 (Suppl)
DOI: 10.4172/1948-5956-C1-108

Oncolytic HSV-1 viruses as novel therapies for melanoma treatment

Praveen Bommareddy
Rutgers Cancer Institute of NJ, USA

Oncolytic viruses are native or modified viruses that directly kill tumor cells, but spare normal tissue, and promote host anti-tumor immunity. An oncolytic herpes simplex virus (oHSV) type 1 encoding human granulocyte-macrophage colony-stimulating factor (GM-CSF), demonstrated significant clinical benefit in a randomized phase III clinical trial for patients with advanced melanoma leading to regulatory approval in 2015. In this review, we will describe the general characterization of herpes simplex viruses; and discuss methods for vector modification that can help limit viral pathogenicity and immunogenicity while promoting anti-tumor immunogenicity. We will also provide insight into general strategies for using oHSV agents in tumor immunotherapy regimens for the treatment of cancer and briefly review some of the current pre-clinical and clinical data emerging to support an important role for such agents in the treatment of cancer.

Biography

Praveen Bommareddy is a PhD Graduate Student at Rutgers University and his research is based on Tumor Immunology and Melanoma Immunotherapy via Oncolytic viruses, check point inhibitors and developing novel combinatorial approaches. He has been chosen as one of 30 young, emerging leaders in cancer immunotherapy by the Society of Immunotherapy in Cancer. He is enthusiastic and passionate to tackle human diseases through basic research. His long-term goal is to obtain a wide breadth of knowledge and skills in modern biomedical sciences, and to make significant contributions to the scientific community and the society at large.

pkb38@gsbs.rutgers.edu

Notes: