BioMed Research International

Special Issue on
Oncolytics and Viral Gene Therapy

CALL FOR PAPERS

Engineered viruses have been utilized to develop several new medical technologies. Inoperable tumors and other cancers resilient to traditional drug and radiation regimens are being treated with oncolytic viruses. In addition, viral gene therapy vectors are being used to deliver transgenes that can correct for inherited mutations.

The latest developments in cancer immunotherapy have been instrumental in improving oncolytic therapies. This is exemplified by Imlygic™ (talimogene laherparepvec (T-VEC)), which recently became the first oncolytic virus to gain FDA approval. Imlygic is a herpes simplex virus based therapy that carries the immunostimulatory protein granulocyte-macrophage colony-stimulating factor (GM-CSF) transgene, and it is used to treat melanoma. Newer oncolytics encoding anti-PD-1 and anti-CTLR-4 checkpoint inhibitor antibodies have now established efficacy in treating melanoma, renal cell carcinoma, non-small-cell lung cancer, and others.

Gene editing methods, particularly clustered regularly interspaced short palindromic repeats (CRISPR), are providing entirely new ways to design gene therapy vectors. This is expanding the scope of treatable diseases while decreasing the cost and time of their development and commercialization. Indeed, Editas Medicine plans to piggyback off of the recent successes of traditional gene therapy for Leber's congenital amaurosis and begin testing CRISPR-based gene therapy in humans by 2017.

To capture some of the momentum in oncolytics and viral gene therapy, the editors herein are looking for high quality original research articles as well as review articles to include in a special issue covering these exciting fields.

Potential topics include, but are not limited to:

- Preclinical results of novel gene therapy and oncolytic viral therapy methods
- Use of CRISPR, TALENs, and zinc-finger nucleases for the development of virus-based treatments for inherited and acquired diseases
- Development of cancer vaccines, checkpoint inhibitors, cytokine, or antibody-based oncolytic viruses
- Basic viral biology insights that will enable improved oncolytics and viral gene therapies
- Regulatory constraints involved in development and commercialization of viral therapies
- Ethical considerations concerning gene editing and germline gene therapy

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/virology/ovgt/.

Lead Guest Editor
Christopher Y. Chen, Mayo Clinic, Rochester, USA
christopher.chen@yale.edu

Guest Editors
Reeti Khare, North Shore-LIJ Health System, Lake Success, USA
rkhare@nshs.edu

Seiga Ohmine, DiscoveRx, Fermont, USA
seiga.ohmine@jsotranspacific.com

Phonphimon Wongthida, National Science and Technology Development Agency, Pathumthani, Thailand
phonphimon.won@biotec.or.th

Sara J. Holditch, Mayo Clinic, Rochester, USA
holditch.sara@mayo.edu

Manuscript Due
Friday, 22 July 2016

First Round of Reviews
Friday, 14 October 2016

Publication Date
Friday, 9 December 2016