UNIVERSITY of OTAGO
Te Whare Wānanga o Otāgo
NEW ZEALAND

Department of Pathology
Te Tari Mātauraka Mate

PRESENTS

Senecavirus: A Picornavirus with Potent Oncolytic Activity

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Oncolytic viruses (OVs) are replication competent viruses that preferentially infect and destroy cancer cells. While historic evidence of cancer regression following virus infection could be traced more than a century ago, the scientific investigation and knowledge of the mechanism of action of oncolytic viruses expanded rapidly during the last decade. After penetrating the tumor cell, OVs replicate and eventually trigger cell lysis, releasing the new viral progeny, which at their turn will attack and kill neighbouring cells. The ability of OVs to self-amplify within the tumor, while sparing normal cells can provide several advantages including the capacity to encode and locally produce therapeutic protein payloads, and to prime the host immune system.
Seneca Valley Virus (SVV) is a newly discovered picornavirus, which has earned a significant reputation as a potent oncolytic agent. Recently, anthrax toxin receptor 1 (ANTXR1) has been identified as the high-affinity cellular receptor for SVV. We will discuss the structural basis of SVV specific tropism and how this information can inform further development of SVV as an anticancer agent.

Friday 23 October, 1pm | D'Ath Lecture Theatre, Department of Pathology