

FUNCTIONS OF THE $\Delta 133$ p53 ISOFORM IN IMMUNE REGULATION

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MD9-02-01G&H, LEVEL 1
WORKSHOPS 1 & 2
PHYSIOLOGY DEPT
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Synopsis:

The canonical p53 functions as a tumour suppressor – without a functional p53 we will develop cancers. However, the p53 (TP53) encodes several variants or isoforms, some of which appear to function as p53's nemesis and promote cancer. One of these is the $\Delta 133$ p53 isoform. We created a transgenic mouse model of this isoform and discovered that it promotes many inflammatory pathologies, including having elevated levels of several pro-inflammatory cytokines in the serum. The talk will focus on the role of IL-6 in cancer progression in the mouse model and also the role of the $\Delta 133$ p53 isoform in prostate and brain cancers in promoting cancer with an immune cell component. We show that high levels of $\Delta 133$ p53 β variant in combination with an index of immune cell infiltration, can predict high risk disease.