Lay Summary

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Identification of novel therapeutic targets in malignant peripheral nerve sheath (MPNST)

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Malignant peripheral nerve sheath tumours (MPNST) can occur at numerous sites in the body and form within the outer layer of nerves. MPNSTs are associated with poor patient survival and are more common in a group of patients with a genetic condition called Neurofibromatosis type 1. These patients are missing an important protein, Neurofibromin 1, which normally prevents tumour growth along nerves. When Neurofibromin 1 is absent, it leads to an increase or decrease in many other proteins, helping the tumour to grow and survive. We are interested in finding new treatments for patients who have an MPNST that is missing Neurofibromin 1. We will look at a number of proteins that are increased in other tumours and determine if they are increased in MPNST tumours. If they are, we will use a drug to stop these proteins from working and see if there are any changes in tumour growth. In the future these drugs could be used to treat patients instead of invasive surgery and they may be able to improve patient survival.