PROJECT RESUME

Spinal Muscular atrophy is a motor neuron disease that affects children. In this disease, motor

neurons which connect the spinal cord to muscles are lost. One of the first things to be lost is

the connection between the motor neuron and muscle, known as the neuromuscular

junctions. Interestingly, there are some motor neurons in the body which do not appear to

degenerate, even at late stages of disease. We have preliminary data that in these apparently

resistant muscles, there is on‐going degeneration which is masked by parallel regeneration. In

this project, we will use mouse models of SMA to investigate the incidence of ongoing

regeneration in apparently resistant muscles. Muscles will be isolated and stained via

immunofluorescence, and axon and endplate number will be quantified. This will give key

insight into these selectively resistant muscles, and help develop protective strategies to

protect motor neurons in the future.

File: USVRS Project Resume 202021 MURRAY