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Effects of Exercise and Good Limb Training on Functional Outcome Following Stroke in C57bl/6 Mice

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Oral Presentation O4.2

**EFFECTS OF EXERCISE AND GOOD LIMB TRAINING ON
FUNCTIONAL OUTCOME FOLLOWING STROKE
IN C57BL/6 MICE**

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Stroke is a leading cause of long-term disability, making research on behavioral rehabilitation imperative. A common strategy following stroke is the compensatory use of the less impaired, or good, limb. Compensatory use of the good limb after stroke is efficient and promotes a quick return to independent daily living, but it ultimately negatively impacts overall recovery. We believe exercise may promote better recovery with compensatory limb use. Research shows that exercise promotes neuronal growth and prevents cell death. This study used mice to investigate whether exercise could prevent deterioration the bad limb associated with compensatory training of the good limb. Results showed that exercising mice, with or without good limb training, retained bad limb functionality and have better outcome than mice receiving compensatory training only. These findings suggest that exercise can maintain and extend the recovery potential of the bad limb while permitting compensatory limb use in the short term.