Exercise as a neuroprotectant: what are the underlying mechanisms?

Sedentary behaviour is associated with an increased risk of developing a variety of non-communicable diseases, including disorders of the brain. The mechanisms by which exercise may protect the brain from cognitive decline associated with age or metabolic disorders are beginning to be revealed. Here, I will describe recent work from my laboratory assessing the efficacy of exercise in preventing age-related cognitive decline in mice, including the APP/PS1 mouse model of Alzheimer’s disease, and our efforts to assess the cellular mechanisms by which exercise results in improved cognitive performance.