PROJECT RESUME

Evidence indicates that pathophysiological challenges in early life may have profound effects on later susceptibility to neurological disorders. Conditions such as cerebral palsy, autism, multiple sclerosis, schizophrenia, epilepsy have all been linked to environmental influences in early life, often prenatallys. The mechanisms underlying early-life risk factors remain unclear, as most aetiological evidence comes from correlational human studies. A major risk factor during the antenatal and postnatal period implicated in later-life neurological abnormalities is inflammation. New findings reveal that maternal inflammation can result in disturbances in the developing nervous system, affecting different cell types. However, the mechanisms by which different cell are affected are poorly understood. The goal of this project is to address this knowledge gap by testing the hypothesis that maternal inflammation detrimentally affects developing astrocytes and microglia cells. To test this, using confocal microscopy, morphological parameters of cells, either exposed to inflammation during development or not, will be compared.

*File: USSVRS-ProjectResume-201718-McDERMOTT*