WESTON BRAIN INSTITUTE

UPDATE
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Transformational Research 2015 - *Upcoming Deadline*

- Funding for translational research that will accelerate the development of therapeutics for neurodegenerative diseases of aging
- Projects with excellent preliminary data and where positive outcome would lead to a significant advance in the field
- Projects can request a total of $400,000 to $1,500,000 over up to 3 years
- **LOIs are due next week,** March 3rd at 2pm EST, submit at: https://weston.smartsimple.ca/welcome/neuroscience

MEND - MEchanisms of cellular death in NeuroDegeneration

- Global funding collaboration with the Alzheimer's Association and Alzheimer's Research UK
- To discover and understand the mechanisms and pathophysiological processes of brain cell loss and seek insights and potential targets for therapeutics to sustain healthy brain function
- **LOIs are due May 8th**, submit at: http://proposalcentral.altum.com

Research in Focus

Dr. Rogaeva and her team at the University of Toronto have published their findings on a gene called C9orf72 that is commonly mutated in amyotrophic lateral sclerosis (ALS). They are investigating the lower-limit number of pathological repeats in C9orf72, as expansion can lead to hypermethylation of the CpG island (5' end of the G4C2-repeat) and cause silencing of C9orf72 expression. Dr. Rogaeva previously identified that high amounts of methylation correlated with shorter disease duration and familial ALS (Xi et al., 2013). However, only 36% of expansion-carriers have hypermethylation of the CpG island, thus they investigated whether the G4C2-repeat itself could be the main site of methylation in these patients. Her team developed a novel assay and demonstrated that the G4C2-repeat expansion is methylated in all carriers of alleles with > 90 repeats, while carriers with fewer repeats are unmethylated (Xi et al., 2015). The G4C2 methylation was identified in blood and brain tissue and therefore could be a potential biomarker for ALS. These exciting new results contribute to our understanding of an ALS disease mechanism and could improve diagnosis.

Link to recent publications: click here

Contact the Weston Brain Institute at:

Telephone: (416) 935-4056 | Email: neuro@weston.ca | westonbraininstitute.ca