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IN BRIEF

NEURO-ONCOLOGY

Exosomal mRNA might provide a biomarker for treatment response in patients with glioblastoma

Exosomes found in serum can provide an easily accessible route for analysing glioblastomas, according to a new study. Shao and colleagues used a chip-based system that separates tumour-derived and physiological exosomes on the basis of their RNA profiles, then amplifies tumour RNA via quantitative PCR. The investigators were able to measure expression of drug-resistance markers, such as MGMT (*O*⁶-methylguanine-DNA methyltransferase), before and after chemotherapy—a process that might otherwise have required serial biopsies of the tumour.

Original article Shao, H. *et al.* Chip-based analysis of exosomal mRNA mediating drug resistance in glioblastoma. *Nat. Commun.* **6**, 6999 (2015)

MOVEMENT DISORDERS

Inhibition of the tyrosine kinase Src might be a new strategy for treating Friedreich ataxia

In a series of *in vitro* experiments, Cherubini and colleagues have demonstrated that inhibitors of the tyrosine kinase Src can ameliorate deficits of frataxin protein, which are the cause of Friedreich ataxia. Src phosphorylates frataxin, leading to ubiquitination and degradation of the protein. Cherubini's team tested multiple Src inhibitors on B cells and fibroblasts derived from patients with Friedreich ataxia, and detected upregulation of frataxin as soon as 24 h after treatment.

Original article Cherubini, F. *et al.* Src inhibitors modulate frataxin protein levels. *Hum. Mol. Genet.* doi:10.1093/hmg/ddv162

STROKE

Overlap between the genetic loci that confer risk of migraine and ischaemic stroke

A meta-analysis of genome-wide association studies has revealed substantial overlap in the genetic loci linked to migraine and ischaemic stroke. Strong correlations were observed between the risk variants for migraine without aura and large-artery or cardioembolic strokes, and the authors speculate that platelet dysfunction could link these diseases. By contrast, migraine with aura had only a weak genetic relationship to ischaemic stroke.

Original article Malik, R. *et al.* Shared genetic basis for migraine and ischemic stroke. *Neurology* doi:10.1212/WNL.0000000000001606

MULTIPLE SCLEROSIS

Vitamin D supplementation might be most protective against multiple sclerosis when taken during adolescence

A subgroup analysis of the EnvIMS case-control study suggests that cod liver oil, a vitamin D₃ supplement, decreases the risk of multiple sclerosis (MS) in adolescents, but not in children or adults. The data from Norway revealed that individuals who took cod liver oil between the ages of 13 and 18 years had a reduced risk of MS relative to their peers who did not use the supplement (OR 0.67). No effect of cod liver oil was seen at other ages, possibly indicating a critical period for modifying the risk of MS.

Original article Cortese, M. *et al.* Timing of use of cod liver oil, a vitamin D source, and multiple sclerosis risk: the EnvIMS study. *Mult. Scler.* doi:10.1177/1352458515578770