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IN BRIEF

NEURO-ONCOLOGY

Sorafenib hastens tumour growth in children with low-grade astrocytoma

A phase II trial of sorafenib, a small-molecule multikinase inhibitor, for the treatment of paediatric low-grade astrocytoma (PLGA) has been cut short after most of the participants exhibited acceleration of tumour growth. After only two or three treatment cycles, MRI scans revealed significant tumour growth in nine of 11 children with progressive PLGA. The researchers suggest that paradoxical ERK activation might have been responsible for this adverse response.

Original article Karajannis, M. A. *et al.* Phase II study of sorafenib in children with recurrent or progressive low-grade astrocytomas. *Neuro Oncol.* doi:10.1093/neuonc/nou059

MOVEMENT DISORDERS

Nicotinamide may ameliorate frataxin deficiency in patients with Friedreich ataxia

Friedreich ataxia, a progressive movement disorder caused by frataxin deficiency, might be treatable with daily oral doses of nicotinamide. Libri *et al.* conducted a dose-escalation study of nicotinamide in 12 patients with Friedreich ataxia. The drug was well tolerated, and mean plasma concentrations of frataxin significantly increased over 8 weeks of treatment. Clinical symptom ratings did not change, however, and long-term administration might be necessary to produce a meaningful benefit.

Original article Libri, V. *et al.* Epigenetic and neurological effects and safety of high-dose nicotinamide in patients with Friedreich's ataxia: an exploratory, open-label, dose-escalation study. *Lancet* doi:10.1016/S0140-6736(14)60382-2

TRAUMATIC BRAIN INJURY

No evidence for white matter changes in mild TBI

Previous diffusion tensor imaging (DTI) studies have reported changes in white matter anatomy associated with concussion or mild traumatic brain injury (TBI), but a new large, well-controlled study has found no evidence to support this effect. Ilvesmäki *et al.* scanned the brains of 75 patients admitted to hospital for mild TBI, and 40 patients admitted for ankle injuries. When the patients were matched for age and sex, no significant differences in DTI findings were observed between the injury types.

Original article Ilvesmäki, T. *et al.* Acute mild traumatic brain injury is not associated with white matter change on diffusion tensor imaging. *Brain* doi:10.1093/brain/awu095

NEURAL REPAIR

Continuous calcitonin administration enhances nerve regeneration in rats

Nerve injury can disrupt intracellular regulation of calcium ions, which might hinder regeneration. In a rat sciatic nerve transection model, Yan and colleagues used a minipump to deliver calcitonin—a hormone that reduces blood levels of calcium ions—continuously to the injury site. After 12 weeks, calcitonin-treated rats showed superior nerve regeneration and functional recovery compared with untreated animals.

Original article Yan, J.-G. *et al.* Calcitonin pump improves nerve regeneration after transection injury and repair. *Muscle Nerve* doi:10.1002/mus.24281