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IN BRIEF

ALZHEIMER DISEASE

AD-related mRNA exacerbates pathology in mouse model

Significant increases in cortical levels of inositol trisphosphate 3-kinase B (*ITPKB*) mRNA have been observed in patients with Alzheimer disease (AD). Stygelbout and colleagues have now observed complementary increases in cortical levels of ITPKB protein in these individuals. The protein tended to accumulate around dystrophic neurites. In a mouse model of AD, overexpression of the ITPKB protein exacerbated disease pathology, highlighting the regulation of ITPKB as a potential therapeutic target for AD.

Original article Stygelbout, V. *et al.* Inositol trisphosphate 3-kinase B is increased in human Alzheimer brain and exacerbates mouse Alzheimer pathology. *Brain* doi:10.1093/brain/awt344

SLEEP

Implanted upper-airway stimulator improves sleep apnoea

For most patients with sleep apnoea, continuous positive airway pressure therapy mitigates health risks, but some struggle with treatment adherence. A recent study showed that 12 months after surgical implantation of an upper-airway stimulation device, patients experienced significantly fewer apnoea or hypopnoea events per sleeping hour than at baseline, and also reported improved quality of life. A random subset of patients then had their stimulators deactivated for 7 days, which prompted a return of sleep apnoea events.

Original article Strollo, P. J. Jr *et al.* Upper-airway stimulation for obstructive sleep apnea. *N. Engl. J. Med.* **370**, 139–149 (2014)

PRION DISEASE

Doxycycline treatment is not effective for Creutzfeldt–Jakob disease

Creutzfeldt–Jakob disease (CJD) is fatal and untreatable, but previous investigations have suggested that the antibiotic doxycycline might increase survival time. Haik and colleagues randomly assigned patients with CJD to receive doxycycline or placebo in a multicentre, phase II clinical trial. The trial was stopped early after an interim analysis revealed that 89% of patients had died, with doxycycline apparently having no effect on any of the primary outcome measures.

Original article Haik, S. *et al.* Doxycycline in Creutzfeldt–Jakob disease: a phase 2, randomised, double-blind, placebo-controlled trial. *Lancet Neurol.* doi:10.1016/S1474-4422(13)70307-7

SPINAL CORD INJURY

Contact heat and pinprick responses are independent in patients with spinal injury

Pinprick response is a longstanding feature of the clinical examination for spinal cord damage, but this test cannot target every afferent pathway in the spinothalamic tract. Haefeli *et al.* applied moderate levels of heat to areas of skin where patients with spinal injury had impaired pinprick response. By recording contact heat evoked potentials, the authors were able to objectively measure spinothalamic tract integrity that was previously thought to be lost. The independence of these measures suggests complementary roles for contact heat and pinprick sensitivity tests in spinal injury examination.

Original article Haefeli, J. *et al.* Assessment of spinothalamic tract function beyond pinprick in spinal cord lesions: a contact heat evoked potential study. *Neurorehabil. Neural Repair* doi:10.1177/1545968313517755