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IN BRIEF

ALZHEIMER DISEASE

Reduced tolerance for pain in Alzheimer disease

People with Alzheimer disease (AD) tend to report pain less than age-matched controls, prompting speculation that the disease impairs pain processing. Jensen-Dahm *et al.* investigated pain detection and tolerance using temperature and pressure stimuli. Patients with AD detected stimulus change as effectively as controls, but their tolerance for pressure pain was significantly reduced. Contrary to prior reports, therefore, these results suggest enhanced pain processing in patients with AD.

Original article Jensen-Dahm, C. *et al*. Quantitative sensory testing and pain tolerance in patients with mild to moderate Alzheimer's disease compared to healthy control. *Pain* doi:10.1016/j.pain.2013.12.031

NEURO-ONCOLOGY

mTORC1 inhibition slows schwannoma growth

Functional loss of merlin, an endogenous tumour suppressor, is a potential cause of the schwannoma growth associated with neurofibromatosis type 2 (NF2). Merlin is a negative modulator of mTORC1 (mammalian target of rapamycin complex 1) and, in a new study, Giovannini *et al.* found that the mTORC1 inhibitor rapamycin reduced schwannoma proliferation in a cellular model of NF2. The researchers also demonstrated that another mTORC1 inhibitor, sirolimus, halted tumour growth in a patient with NF2, highlighting the promise of mTORC1 inhibition as a treatment for NF2-associated schwannomas.

Original article Giovannini, M. *et al.* mTORC1 inhibition delays growth of neurofibromatosis type 2 schwannoma. *Neuro Oncol.* doi:10.1093/neuonc/not242

CEREBRAL ANEURYSMS

Noninvasive detection of aneurysms via 7 T MRI

Digital subtraction angiography is the standard method for detecting unruptured intracranial aneurysms, but it requires administration of radioactive tracers. Using 7 T MRI without contrast enhancement, Wrede *et al.* assessed patients with previously detected cerebral aneurysms. All features of the unruptured aneurysms were clearly and reliably measured with MRI. Although the results are not sufficient to obviate digital subtraction angiography, the potential of magnetic resonance angiography is clear.

Original article Wrede, K. H. *et al.* Non-enhanced MR imaging of cerebral aneurysms: 7 Tesla versus 1.5 Tesla. *PLoS ONE* **9**, e84562 (2014)

DEMYELINATING DISEASE

Important role for KIR4.1 in demyelinating diseases

Approximately half of adults living with multiple sclerosis have a serum antibody for the inwardly rectifying potassium channel KIR4.1, which might signal the degeneration of these channels. In a study published in *Neurology*, Kraus and colleagues reported that the KIR4.1 antibody was also present in over half of children with acquired demyelinating disease, but not in healthy children or children with other neurological or autoimmune diseases. The KIR4.1 antibody might, therefore, have a crucial role in demyelination.

Original article Kraus, V. *et al*. Potassium channel KIR4.1-specific antibodies in children with acquired demyelinating disease. *Neurology* doi:10.1212/WNL.0000000000000097