IN BRIEF

NEURO-ONCOLOGY

RNA interference-based nanomedicine provides a new approach for glioblastoma therapy

Preclinical evaluation of a novel RNA interference technique has demonstrated that nanoparticles carrying small interfering RNAs (siRNAs) can penetrate glioblastoma multiforme (GBM) tumours and modulate the expression of oncogenes and apoptotic genes in mice. Effective targeting of GBM oncogenes by conventional methods is challenging, and the prognosis for GBM has remained poor. Jensen *et al.* found that systemic delivery of siRNA-conjugated nanoparticles reduced tumour burden without causing adverse effects in a mouse xenograft model of GBM.

Original article Jensen, S. A. *et al*. Spherical nucleic acid nanoparticle conjugates as an RNAi-based therapy for glioblastoma. *Sci. Transl. Med.* doi:10.1126/scitranslmed.3006839

STROKE

Poststroke depression is independently associated with poor health outcomes

Depression immediately after stroke onset is associated with increased mortality and disability up to 5 years later, a 10-year follow up study of 3,240 patients has shown. Furthermore, poststroke depression was associated with anxiety and decreased quality of life. Recovery from depression at the 1-year follow-up did not improve health outcomes. The results argue for the importance of immediate recognition and treatment of poststroke depression.

Original article Ayerbe, L. *et al*. The long-term outcomes of depression up to 10 years after stroke; the South London Stroke Register. *J. Neurol. Neurosurg. Psychiatry* doi:10.1136/jnnp-2013-306448

PARKINSON DISEASE

Yeast models of PD enable disentangling of α-synuclein pathology and screening for therapeutic compounds

Molecules that alleviate α-synuclein toxicity *in vitro* have been identified in two recent studies. The research teams created yeast models of Parkinson (PD) disease to assess the molecular pathways involved in α-synuclein pathology—a hallmark of PD—and identified the ubiquitin ligase Nedd4 as a target for compounds that conteract α-synuclein toxicity. Cell-based high-throughput screening technology may provide an efficient way to identify novel targets and therapeutic compounds in PD and other neurodegenerative diseases.

Original articles Chung, C. Y. *et al*. Identification and rescue of α-synuclein toxicity in parkinson patient–derived neurons. *Science* doi:10.1126/science.1245296 | Tardiff, D. F. *et al*. Yeast reveal a "druggable" Rsp5/Nedd4 network that ameliorates α-synuclein toxicity in neurons. *Science* doi:10.1126/science.1245321

NEURODEVELOPMENTAL DISORDERS

Attenuated connectivity in networks associated with self-paced movement control may underlie childhood stuttering

Little is known about the aetiology of stuttering, which affects 1% of population and can have substantial psychosocial impact on the individual. Findings from an MRI study suggest that auditory–motor and basal ganglia–thalamocortical networks develop differently in children who stutter, providing important clues to the neural bases of stuttering.

Original article Chang, S. E. & Zhu, D. C. Neural network connectivity differences in children who stutter. *Brain* doi:10.1093/brain/awt275