IN BRIEF

PARKINSON DISEASE

Parkin gene-related disease is responsible for many cases of young-onset parkinsonism and is often indistinguishable at presentation from classic young-onset Parkinson disease (YOPD), despite evidence suggesting differences in pathology between these disorders. A study now shows that several nonmotor symptoms of parkinsonism differ in prevalence between Parkin disease and YOPD. According to the study's researchers, these differences might assist in the identification of the cause of parkinsonism in the clinic.

Original article Kägi, G. *et al.* Nonmotor symptoms in *Parkin* gene-related parkinsonism. *Mov. Disord.* doi:10.1002/mds.22897

STROKE

Drugs targeting inflammatory processes might limit brain tissue damage following intracerebral hemorrhage (ICH). Matsushita *et al.* tested Am80—a retinoic acid receptor (RAR) agonist—in a mouse model of ICH, and found that treatment with this drug was associated with reductions in the number of activated microglia and the expression of a marker of oxidative stress. The researchers also saw a notable improvement in behavioral recovery in treated animals, and suggest that RARs represent promising therapeutic targets for ICH.

Original article Matsushita, H. *et al.* A retinoic acid receptor agonist Am80 rescues neurons, attenuates inflammatory reactions, and improves behavioral recovery after intracerebral hemorrhage in mice. *J. Cereb. Blood Flow Metab.* doi:10.1038/jcbfm.2010.80

MIGRAINE

Why cranial autonomic symptoms develop in some but not all patients with migraine during their headache attacks is unknown. In a study involving 117 patients with migraine, Rozen found that such symptoms had been experienced by 70% of individuals with a history of smoking but only 42% of patients who had never smoked. He concluded that a history of smoking is associated with the development of cranial autonomic symptoms during migraine headaches.

Original article Rozen, T. D. A history of cigarette smoking is associated with the development of cranial autonomic symptoms with migraine headaches. *Headache* doi:10.1111/j.1526-4610.2010.01707.x

NEUROMUSCULAR DISEASE

Single-stranded oligodeoxynucleotides (ssODNs) have shown promise in preclinical research for correcting the dystrophin gene defect underlying Duchenne muscular dystrophy (DMD). In a new study involving a mouse model of DMD, ssODNs formed of peptide nucleic acids (PNA-ssODNs) were associated with higher frequencies of gene repair, and a higher number of dystrophin-positive muscle fibers following intramuscular injection than were unmodified ssODNs. The authors conclude that PNA-ssODNs might advance DMD therapy.

Original article Kayali, R. *et al.* Sire directed gene repair of the dystrophin gene mediated by PNA-ssODNs. *Hum. Mol. Genet.* doi:10.1093/hmg/ddq235