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## IN BRIEF

### MULTIPLE SCLEROSIS

#### High-avidity anti-tau antibodies found in patients with MS

A new study shows that patients with multiple sclerosis (MS) have higher levels of high-avidity intrathecal anti-tau antibodies than controls with other neurological diseases. The researchers also found higher levels of anti-tau IgG in the cerebrospinal fluid in the 49 patients with MS compared with the 47 controls, but no differences were detected in the levels of anti-tau in the serum. The findings suggest that following axonal injury, an immune response is mounted against extracellularly released tau.

**Original article** Fialová, L. *et al.* Increased intrathecal high-avidity anti-tau antibodies in patients with multiple sclerosis. *PLoS ONE* 6, e27476

### ALZHEIMER DISEASE

#### Does defective P-glycoprotein function contribute to pathology in Alzheimer disease?

Researchers have demonstrated dysfunction of P-glycoprotein—an efflux transporter that can move amyloid- $\beta$  across the blood–brain barrier—in patients with Alzheimer disease (AD). In 13 patients with AD and 14 healthy controls, P-glycoprotein function was determined on PET using an  $^{11}\text{C}$ -labeled P-glycoprotein ligand. The binding potential of the ligand was increased (indicative of reduced P-glycoprotein function) in patients with AD compared with controls. The study is the first to suggest a role for P-glycoprotein dysfunction in AD.

**Original article** van Assema, D. M. E. *et al.* Blood–brain barrier P-glycoprotein function in Alzheimer’s disease. *Brain* doi:10.1093/brain/awr298

### DEMENTIA

#### A new genetic locus linked to vascular dementia

A novel genetic locus for vascular dementia has been found in a genome-wide study conducted in the Netherlands. From a baseline population of 5,700 dementia-free individuals, the researchers identified 67 who went on to develop vascular dementia. A genome-wide significance was identified for rs12007229 (located on the X chromosome) in these individuals. The findings were confirmed in two independent populations; however, the authors note that further replication studies are needed.

**Original article** Schrijvers, M. C. *et al.* Genome-wide association study of vascular dementia. *Stroke* doi:10.1161/STROKEAHA.111.628768

### NEURODEVELOPMENTAL DISORDERS

#### Deficient auditory processing identified in children with suspected autism spectrum disorder

Children with autism spectrum disorder (ASD) or language delays show neurodevelopmental brainstem abnormalities, according to a new study. The researchers characterized auditory brainstem responses in 26 children with ASD and 26 with language delays. Absolute latencies and interpeak latencies of auditory waves were prolonged in the ASD group versus the language delay group, but both groups had prolonged latencies when compared with clinical controls. The findings suggest that an auditory processing deficit may underlie ASD and language delay disorders.

**Original article** Roth, D. A. *et al.* Evidence for atypical auditory brainstem responses in young children with suspected autism spectrum disorders. *Dev. Med. Child Neurol.* 54, 23–29 (2012)