Cognitive reserve and cortical atrophy in multiple sclerosis: A longitudinal study
The authors assessed the influence of cognitive reserve (CR) on the evolution of cognitive performance over a 1.6-year follow-up period in 35 patients with relapsing-remitting multiple sclerosis. CR protected patients' cognitive performance in those with higher cortical volumes, pointing to a time window of intervention in the earliest phases of the disease. See p. 1728; Editorial, p. 1724

Transglutaminase 6 antibodies in the diagnosis of gluten ataxia
This study looked at the prevalence of transglutaminase 6 (TG6) in gluten-related diseases and controls, as well as the ability of TG6 antibody to identify patients with gluten ataxia in the absence of other gluten-related serologic markers. Antibodies against TG6 were gluten-dependent and may be a specific marker of gluten ataxia. See p. 1740

Increased motor cortical facilitation and decreased inhibition in Parkinson disease
Short-interval intracortical facilitation and short-interval intracortical inhibition were measured in 12 patients with Parkinson disease (PD) and 12 controls. Motor cortical facilitation was increased and inhibition was decreased in PD, with increased cortical facilitation partly accounting for the decreased inhibition. Increased cortical facilitation may be a compensatory mechanism in PD. See p. 1746

From editorialists MacKinnon & Rothwell: "If inhibition is important for correct specification and selection of movement, then its behavior during task performance is more likely to help unravel the mysteries of how motor cortical dysfunction contributes to movement impairment in PD." See p. 1726

Targeted exome sequencing of suspected mitochondrial disorders
This study evaluated the potential of next-generation sequencing in the molecular diagnosis of mitochondrial disease. Sequencing the mtDNA and 1,600 nuclear genes in 102 patients with clinical evidence of a mitochondrial disease, the authors identified disease-causing mutations in 22 patients, demonstrating the potential and current limitations of these new tools. See p. 1762

Clinicopathologic variability of the GRN A9D mutation, including amyotrophic lateral sclerosis
Progranulin (GRN) mutations are common causes of frontotemporal lobar degeneration. The authors examined 3 patients with the pathogenic GRN A9D missense mutation and found clinical and pathologic heterogeneity, with one patient presenting with clinical and pathologic amyotrophic lateral sclerosis (ALS). Genetic testing for GRN should be considered for ALS. See p. 1771

Alzheimer disease in the United States (2010–2050) estimated using the 2010 census
Currently in the United States, about 5 million adults, 65 years and older, have Alzheimer disease. By 2050, this number will swell to about 13.8 million, assuming no new advances emerge to prevent or treat the condition. Clearly, more clinical, social, and research resources should be mobilized to address this epidemic. See p. 1778

Amyloid imaging and CSF biomarkers in predicting cognitive impairment up to 7.5 years later
Some Alzheimer disease (AD) biomarkers are now approved for clinical use. This study compared the ability of amyloid imaging and CSF biomarkers to predict time to cognitive impairment among 201 older adults who were cognitively normal at baseline. AD biomarkers better predict future cognitive impairment when combined with individual characteristics. See p. 1784

Treatment with statins and ischemic stroke severity: Does the dose matter?
In 969 stroke patients, 23% were taking low to moderate doses of statins and 4.1% took higher doses of statins prior to stroke. Pretreatment with statins was associated with lower stroke severity, by the NIH Stroke Scale, both at high as well as low to moderate doses. See p. 1800

NB: "Central neurocytoma: Characterization by MRI and MRS," see p. e195. To check out other Resident & Fellow Mystery Cases, point your browser to www.neurology.org and click on the link to the Resident & Fellow Section.

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### Spotlight on the May 7 issue

Robert A. Gross  
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