Liang et al (page 232) carried out a 3-stage case-control association study between the BCL9 gene and schizophrenia, bipolar disorder, and major depressive disorder in a total of 12,229 subjects. They concluded that common variations in the BCL9 gene confer risk of schizophrenia and may also be associated with bipolar disorder and major depressive disorder in the Chinese Han population.

Using data from more than 60,000 adults who participated in the World Mental Health Survey, Merikangas et al (page 241) present, to their knowledge, the first international data on the prevalence of bipolar disorder and the broader bipolar spectrum identified with common diagnostic procedures and methods. The high proportion with severe symptoms and role impairment demonstrates the serious nature of bipolar disorder worldwide. Less than half of those with bipolar disorders, and even fewer in low-income countries, receive mental health services.

Using data from the Treatment of SSRI-Resistant Depression in Adolescents Study, Lynch et al (page 253) examined the cost-effectiveness of combined cognitive behavior therapy plus medication switch with medication switch only for 334 patients aged 12 to 18 years with selective serotonin reuptake inhibitor-resistant depression. They report significantly more depression-free days and quality-adjusted life-years in the combined group, with a mean base-case incremental cost-effectiveness ratio of $188 per depression-free day and $78,948 per quality-adjusted life-year.

In a 5-year follow-up study of 196 adolescents who had participated in the Treatment for Adolescents With Depression Study, Curry et al (page 263) reported that almost all recovered from their index episode. Recovery by 2 years was significantly more likely among short-term treatment responders than among partial or nonresponders. Recurrence of depression within 5 years occurred in nearly half of those who recovered and was significantly more likely among females than among males.

Payer et al (page 271) examined neurocognitive underpinnings of heightened aggression in methamphetamine dependence, using functional magnetic resonance imaging and measures of self-reported and perpetrated aggression. Methamphetamine-dependent subjects reported and demonstrated more aggression than healthy control subjects, and they showed dysfunction of a region related to the evaluation of internal states, possibly contributing to aggression by limiting emotional insight.

Ailia-Klein et al (page 283) documented a gene × disease interaction in cocaine addiction where low–monoamine oxidase A carriers had gray matter volume loss in the orbitofrontal cortex, indicating that this genotype may exacerbate effects of cocaine use in the brain. In addition, long-term alcohol use was a major contributor to gray matter loss in the dorsolateral prefrontal cortex and hippocampus, further impairing executive function and learning in drug addiction.

Hoef et al (page 295) compared structural magnetic resonance images from 165 one- to 4-year-old boys diagnosed with idiopathic autism or fragile X syndrome, the most common known single-gene cause of autism, with control participants. Using advanced analytical methods, the investigators found that boys with idiopathic autism and fragile X syndrome demonstrated distinct neuroanatomical patterns of brain development relative to controls. These results support the hypothesis that autism is a neurobiologically heterogeneous diagnosis.

Suzuki et al (page 306) examined by means of positron emission tomography the hypothesis that social disability in autism spectrum disorders is associated with abnormalities in cholinergic function in the fusiform gyrus. They found significant reductions in the acetylcholinesterase activity in the bilateral fusiform gyri in adults with autism spectrum disorders compared with controls. The reduction in the fusiform gyrus was associated with their impairment in social interaction.

Lee et al (page 314) conducted a cross-sectional analysis of the neighborhood psychosocial environment, APOE genotype, and cognitive function in a random sample of community-dwelling persons living in Baltimore, Maryland, aged 50 to 70 years (N=1124). In persons with the APOEε4 allele, living in a psychosocially hazardous neighborhood was associated with worse cognitive function, evidence of a novel gene × environment interaction.