

# Happy New 2008: From Mild Cognitive Impairment to Pleasure Circuitry

By Eric Hollander, MD

January brings a start to 2008, and allows us to briefly reflect where we are coming from, and where we are heading in the new year.

This month, *CNS Spectrums* brings us another installment of "Brain Regions of Interest." This series, edited by Michael Trimble, MD, FRCP, FRPsych, allows us to describe the neuroanatomy and the functional network links of specific brain regions and their connecting integrated circuits. This is of great use to both clinicians and clinical neuroscientists. Daniel S. Zahm, PhD, describes both the pleasure circuits of the brain as well as the processes involved in fear conditioning that are mediated by basal forebrain macrosystems and dopamine projections. This system mediates not only contextual fear but also appetitive drives, such as interest, initiative, and motivation to pursue goals.

This new "Brain Regions of Interest" series adds to the existing outstanding clinical columns from Stephen M. Stahl, MD, PhD, and Dan J. Stein, MD, PhD, that enliven the pages of the journal, increase our expertise in psychopharmacology, and highlight case series of functional imaging. In the new year, we also await new columns on novel imaging techniques, and new brain-stimulation techniques, designed to provide a practical update of cutting-edge methods for the clinical neurosciences. Please provide us your feedback on these columns via communiques.

The theme of this month's issue is mild cognitive impairment (MCI). James M. Ellison, MD, MPH, and colleagues posit that while the presence of noncognitive behavioral symptoms is not required for a diagnosis of MCI, these symptoms are frequently present and constitute an important source of morbidity.

Apathy and depression may be difficult to differentiate, and targeted treatment of depression may fail to address apathy. Aaron P. Nelson, PhD,

and Margaret O'Connor, PhD, suggest that for most patients, MCI represents a transitional state between normal ageing and mild dementia, with multiple subtypes and involvement of symptoms of other cognitive domains, such as executive function, language, and visuospatial dysfunction. As we move closer to disease-modifying therapy for Alzheimer's disease, early identification is becoming even more critical for identifying patients who have an opportunity to benefit from treatment.

Ronald C. Petersen, MD, PhD, and Selamawit Negash, PhD, present an algorithm to assist clinicians in subclassifying various types of MCI, and discusses specific progression factors including genetic, neuroimaging, biomarker, and clinical characteristics.

Charles L. Bowden, MD, and colleagues assess the tolerability of and efficacy with lamotrigine (LTG) administered concomitantly with commonly prescribed bipolar medications. The percentages of patients with any reported adverse event and reported adverse events of mood symptoms or rash were comparable between those taking LTG with or without other concomitant bipolar medications. Adverse events in >10% of patients in at least one subgroup were headache, infection, nausea, rash, influenza, diarrhea, dizziness, and somnolence. Baseline scores on psychiatric rating scales improved similarly with LTG co-administered with other bipolar medications, and the pattern of results did not differ by baseline polarity of mood symptoms. Therefore, LTG co-administered with valproate, lithium, an atypical antipsychotic, or a selective serotonin reuptake inhibitor in the treatment of bipolar disorder seemed to be well tolerated and was associated with clinical improvement.

In addition, two communiques address pica and novel neuropeptides. Alan Jay Lerner, MD, describes the case of a woman with autism,

severe mental retardation, and seizures, who had severe and persistent pica associated with features of frontal disinhibition. In this case, the pica was markedly reduced with the atypical antipsychotic agent olanzapine. Chi-Un Pae, MD, discusses some preliminary thoughts about a novel neuropeptide "Semax" that increases brain-derived neurotrophic factor and, as such, could potentially have effects of hippocampal neuroplasticity and perhaps mood and attention. Of course, controlled studies would be needed to determine whether these hypothesized effects indeed are influenced by this neuropeptide.

Finally, I would like to thank the excellent and

hard work of our peer reviewers, without whom we could not maintain the high standards of the journal. I would also like to thank our excellent columnists Dr. Stahl, Dr. Stein, and Dr. Trimble who have enriched the scientific diversity of the publication as well as the authors whose work contributed to the rising impact factor of the journal. Last but not least, I would like to thank the avid readers of the journal, and urge them to continue to provide in-depth feedback about what they read in the journal, what they would like to see more of, and to continue to submit communiques.

May 2008 be healthy, prosperous, and full of new insights. **CNS**

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