ACNP

American College of Neuropsychopharmacology

EMBARGOED FOR RELEASE
December 8, 2008 at 6:00 a.m. Eastern

CONTACT: Sharon Reis, 202 745 5103
sreis@gymr.com

DRAMATIC RISE IN USE OF COGNITIVE-ENHANCING DRUGS LEADS SCIENTISTS TO RAISE A RED FLAG

A Jump in Non-Medical Stimulant Use Despite Lack of Research on Short or Long Term Effects Has Researchers Concerned

NASHVILLE, TN (December 8, 2008) – A group of prominent scientists is concerned about the growing popularity of using prescription medications to boost brain power. Experts from pediatrics, psychiatry, substance abuse and pharmacology will meet today at the American College of Neuropsychopharmacology's (ACNP) Annual Meeting to explore the possibility that casual use of these drugs could have unintended long-term effects, particularly in people who do not need them to treat a psychiatric condition.

There has been a dramatic rise in the use of so-called "cognitive-enhancing drugs," which are used among healthy individuals to sharpen thought processes and compensate for sleep deprivation. In fact, according to the annual reports of the International Narcotics Control Board (INCB) of the United Nations, between 1995 and 2006 there was a 300 percent increase in the production and supply of stimulants in the United States, as well as emerging demand for drugs that can be obtained by prescription but diverted to the "black market." Scientists have begun to raise questions about their short and long-term safety, and whether standards should be in place regarding their use. Particularly striking is the increasing use of a group of cognitive-enhancing drugs including amphetamine, methylphenidate which are medications approved for treatment of Attention Deficit Hyperactivity Disorder (ADHD), and modafinil, which is approved for treatment of narcolepsy and for shift work.

The tremendous jump in the production of these drugs and apparently in their non-medical use is taking place in the absence of research into the consequences of their use. There is extensive information about medical use for the treatment of ADHD, but "there is a shocking lack of research on the short and long-term effects of using these drugs to enhance cognitive performance in healthy individuals," said Nora D. Volkow, MD Director of the National Institute of Drug Abuse (NIDA), ACNP member and panel

participant. “We know that stimulant medications do not always improve cognitive performance in all subjects and that in some it may deteriorate their performance. Also a recent study of on-call medical students showed that non-ADHD individuals who use cognitive-enhancing medications may *perceive* an improvement in their performance that, when examined objectively, was not true.” Panelists will also discuss the need to examine whether the information learned by sleep deprived individuals using stimulants or modafinil is actually retained.

An alarming issue to be examined by the panel is the potential for dependence and abuse associated with the non-medical use of these drugs. “Non-ADHD students may begin using these medications as a result of pressure they feel to keep up in our 24/7 society or to compete with peers who are using these drugs. What they may not understand is the potential for these stimulants to produce addiction, psychosis and paranoia,” said Volkow. “As a scientific community we have not yet answered whether these drugs actually achieve the intended purpose or whether unintended consequences of this non-medical use may occur and impose a high price on some of those who seek cognitive enhancement,” she added.

Volkow emphasized that these drugs play an important role in psychiatry because they can be effective in the treatment of disorders for which there are few other options. Balancing the need to have these medications available with their potential to have unintended effects represents an evolving challenge in psychiatry, a field where the most widely-prescribed drugs (antidepressants) have no abuse liability. “We need to address this critical issue and act before we have a large problem on our hands.”

ACNP, founded in 1961, is a professional organization of more than 700 leading scientists, including four Nobel Laureates. The mission of ACNP is to further research and education in neuropsychopharmacology and related fields in the following ways: promoting the interaction of a broad range of scientific disciplines of brain and behavior in order to advance the understanding of prevention and treatment of disease of the nervous system including psychiatric, neurological, behavioral and addictive disorders; encouraging scientists to enter research careers in fields related to these disorders and their treatment; and ensuring the dissemination of relevant scientific advances.

# # #