



ASX Announcement

Melbourne, 11 April 2011

CogState Tests Used in Successful Phase 2 Schizophrenia Study

CogState Ltd (ASX: CGS) today announced that its computerized tests of cognition were successfully used as the primary endpoint by Targacept, Inc. to determine the effectiveness of their drug TC-5619 to improve cognitive function in patients suffering from schizophrenia.

Targacept presented data from the phase 2 clinical proof of concept trial to assess TC-5619 as an augmentation therapy to improve cognition in patients with schizophrenia at the International Congress on Schizophrenia Research in Colorado Springs, Colorado on Thursday 7th April 2011. In the trial, TC-5619 met the protocol criteria for a positive result on the primary efficacy outcome measure, the CogState Groton Maze Learning Task (GMLT), and was well tolerated.

Schizophrenia is often marked by impairment in cognitive functions, such as attention, vigilance, memory and reasoning. These cognitive impairments can limit the ability of people with schizophrenia to live independently, work or attend school. There is currently no drug approved in the United States or Europe specifically for Cognitive function in schizophrenia.

For CogState, the Targacept results are important for a number of reasons, including:

The results validate further the effectiveness of the CogState technology in assessing cognitive change in schizophrenia.

Companies have historically found it very difficult to achieve signals of cognitive change in schizophrenia. Over the last 18 months, CogState revenue has been negatively impacted by the decision by a number of its customers to abandon programs seeking to develop compounds to improve cognitive function in schizophrenia following a number of unsuccessful clinical trials. It is hoped that the positive Targacept result will encourage other companies to seek similar outcomes in schizophrenia utilizing CogState's technology.

Further clinical development of TC-5619 will provide additional clinical trial revenue for CogState, if CogState tests are again chosen as outcome measures in subsequent clinical trials.

Based on the outcome of the trial, TC-5619 is subject to license by AstraZeneca under the terms of an earlier collaboration agreement. Preliminary indications suggest that AstraZeneca may seek to negotiate different terms and whether it will license TC-5619 is uncertain. Discussions between AstraZeneca and Targacept remain ongoing and an outcome is expected in coming weeks.



About Cognitive Dysfunction In Schizophrenia

In 2005, an agreement between the U.S. Food and Drug Administration (FDA) and the U.S. National Institute of Mental Health (NIMH) determined cognitive dysfunction/impairment is an important health issue in schizophrenia and the FDA confirmed that improved cognitive function would be considered as a primary outcome measure in schizophrenia research. Following this guidance, the Measurement and Treatment Research to Improve Cognition in Schizophrenia (MATRICS) initiative recommended a test battery for the assessment of cognition in people with schizophrenia. CogState's Schizophrenia Battery meets all criteria established by the MATRICS initiative including scientific validity, reliability and consistency and the tests target the recommended cognitive domains.

The benefits of the CogState Schizophrenia Battery include:

- The test battery is rapid. It covers all necessary domains in around 35 minutes; minimizing the testing burden on both patient and test administrator.
- The user-friendly test battery allows for non-expert administration on standard computer equipment, reducing costs and increasing efficiency.
- The tasks utilize culture-neutral stimuli which ensures that they can be integrated into clinical trials all around the world regardless of each patient's culture, ethnicity, education or socio-economic status.

About the Groton Maze Learning Test (GMLT)

The Groton Maze Learning Test (GMLT) is a computerized test of executive function that is based on the stepping stone maze tests used in the mid-20th century to study patients with brain lesions. The GMLT was developed by Dr Peter Snyder working at Pfizer Global Research and Development Laboratories (in Groton, Connecticut, USA). The GMLT was licensed to CogState from Pfizer and the two companies continued to refine the computer programs, delivery systems and data analysis protocols so that the GMLT was optimized for use in clinical trials. Much of the process of development of the GMLT has been published in the peer reviewed scientific literature.

Performance on the GMLT does not show substantial practice effects even with short retest intervals making it useful for early development and allowing researchers to make sure patients obtain a stable baseline prior to drug administration. And, because it is non-verbal in nature and can be practiced in order to ensure understanding, the GMLT has been used without change across a wide range of cultural and language groups. Primate versions of the test have also been evaluated.

In clinical trials in healthy adults the GMLT has been shown to be sensitive to the deleterious effects of alcohol and fatigue, benzodiazepines, opiates, cholinergic agonists, NMDA agonists on executive function. Drugs such as amphetamine, nicotine and cholinesterase inhibitors improve performance on the GMLT. The GMLT has also been used widely to assess the effects of novel and licensed drugs on complex executive function in conditions such as mild cognitive impairment, attention deficit disorder depression and schizophrenia.



About Targacept and TC-5619

Targacept is developing a diverse pipeline of innovative NNR Therapeutics™ for difficult-to-treat diseases and disorders of the nervous system. NNR Therapeutics selectively modulate the activity of specific neuronal nicotinic receptors, a unique class of proteins that regulate vital biological functions that are impaired in various disease states. Targacept leverages its scientific leadership and proprietary drug discovery platform Pentad™ to generate novel small molecule product candidates to fuel its pipeline and attract significant collaborations with global pharmaceutical companies. TC-5619, a novel small molecule developed by Targacept, is highly selective for the alpha7 neuronal nicotinic receptor.

In addition to the Phase 2 trial in schizophrenia, Targacept recently reported results from a phase 2 trial in adults with attention deficit/hyperactivity disorder (ADHD), which included among the outcome measures CogState tasks. Targacept is currently conducting clinical and non-clinical studies designed to support potential phase 2 development of TC-5619 in Alzheimer's disease.

For more information, visit www.targacept.com.

About CogState

CogState Ltd (ASX: CGS) specialises in the development and commercialisation of rapid, computerised tests of cognition (brain function). To date, CogState has commercialised its technology in two markets – clinical drug trials and concussion management in sport.

In the clinical drug trial market, CogState technology and associated services are used by pharmaceutical and biotechnology companies to quantify the effect of drugs or other interventions on human subjects participating in clinical trials. Since sales into the clinical trials market began in 2004, CogState has secured agreements with top pharmaceutical companies including Pfizer, AstraZeneca, GlaxoSmithKline, Merck, Johnson & Johnson, Novartis, Lundbeck, Dainippon Sumitomo, Otsuka, and Servier.

In the area of sports related concussion, CogState's technology has been used by a number of highly regarded institutions and sporting organisations around the world for almost 10 years. Current users include, University of Notre Dame, University of Michigan, English Rugby League, English Jockey Club, and a number of national and international Rugby League and Rugby Union clubs. In Australia, both the AFL and NRL have mandated computerised cognitive testing, using CogState, within the last month.

CogState has established a joint venture in the USA, called Axon Sports, to market its concussion management technology. Axon Sports has an exclusive license to market and sell the CogState technology in the area of sports and related concussions within North America (USA, Canada, Mexico).

For further information:

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