



ASX Announcement

Melbourne, 30 September 2011

CogState Scientist Honored

Paul Maruff, Chief Science Officer at CogState Ltd and Professor at the Mental Health Research Institute of Victoria, Australia received one of 10 [Ig Nobel Prize](#) awards during the annual ceremony last night at Harvard University. He and his co-authors and colleagues from the Lifespan Hospital System in Providence, Rhode Island and Yale Medical School, New Haven, Connecticut were recognized for their work which found that an acute urge to void the bladder can result in impairment in cognitive function the magnitude of which was greater than that found for 0.05% blood alcohol concentration or with 24 hours sleep deprivation.

While it sounds unusual, in reality, the findings have important implications for people whose work place requires that they operate in demanding environments where there is some restriction in their access to toilets. These findings also help in efforts to understand the shared neurologic mechanisms that are involved in both pain perception and in concentration and problem-solving abilities.

The Ig Nobel Prizes "honour achievements that first make people laugh and then make them think. The prizes are intended to celebrate the unusual, honour the imaginative -- and spur people's interest in science, medicine, and technology." Administered by [Improbable Research](#), this year marks the 21st "1st Annual Ig Nobel Prize Ceremony." Each year, prizes are presented to recipients by past Nobel laureates in a ceremony held at Harvard University.

Maruff and his colleagues' paper, "[The Effect of Acute Increase in Urge to Void on Cognitive Function in Healthy Adults](#)" was published in 2010 in the journal *Neurourology and Urodynamics*. It involved eight healthy adults who took part in an experiment in which they consumed 250 millilitres of water every 15 minutes. The researchers then used the CogState computerized brief battery to measures of cognitive function at 45 minute intervals.

As anticipated, the researchers found that the urge to void and pain increased with time and with amount of water consumed. More importantly, they found that having an extreme urge to void had a negative effect on attention and working memory functions. The impact on cognitive function was equivalent to that found for low levels of alcohol intoxication or with fatigue due to sleep deprivation. Thus attempting to overcome a strong urge to go to the toilet could increase the risk of accidents in occupational settings (both kinds!). Cognitive functions returned to normal almost immediately after people emptied their bladder.

Maruff says, "Receiving an Ig Nobel Prize was completely unexpected and one of the oddest things that has occurred in my scientific career. When we conducted the research, we understood that it may seem a bit quirky, but this study really does have important and practical implications for everyday life. I know I speak on behalf of my colleagues when I say it was an honour to be among this year's recipients, and we thank Improbable Research for bringing attention to the fact that science can also be fun."

Professor Maruff co-authored the paper with Drs Matthew Lewis and David Darby from CogState Ltd in Melbourne Australia, Professor Peter Snyder at Lifespan Hospital Group in and The Warren Alpert Medical School of Brown University in Providence, R.I, Dr Robert H. Pietrzak



of the Department of Psychiatry at Yale University School of Medicine in New Haven, C.T and Dr Robert A. Feldman Urology Specialists, PC in Waterbury, CT. Drs. Snyder, Feldman and Darby were on hand to receive the Ig Nobel Prize on behalf of all co-authors.

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, Bristol-Myers Squibb, 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. That technology is now marketed to consumers as Axon Sports. Current users of CogState/Axon Sports include, University of Notre Dame, University of Michigan, University of Connecticut, 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.

For further information:

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