



## Does your product affect Brain Function?

### About CogState

We specialize in the development and commercialization of rapid, computerized tests of cognition (brain function). These tests are used by pharmaceutical, biotechnological, nutraceutical and functional food companies to quantify the effect of drugs or other interventions on human subjects participating in clinical trials. Our products and services have been used in over 60 trials in highly regulated markets with some of the largest pharmaceutical companies in the world.

If you are a developer of smart foods, functional foods or nutraceuticals and intend on making claims regarding their effects on brain function, we are the experts in this field. Our chief scientists have authored hundreds of scientific publications about cognition, ensuring that our products and services are backed up with quality scientific research.

### Our Service

We pride ourselves on providing a flexible service. The diagram on the right outlines the total service that we can provide for you. However, we can perform as much or as little of the process as you require.

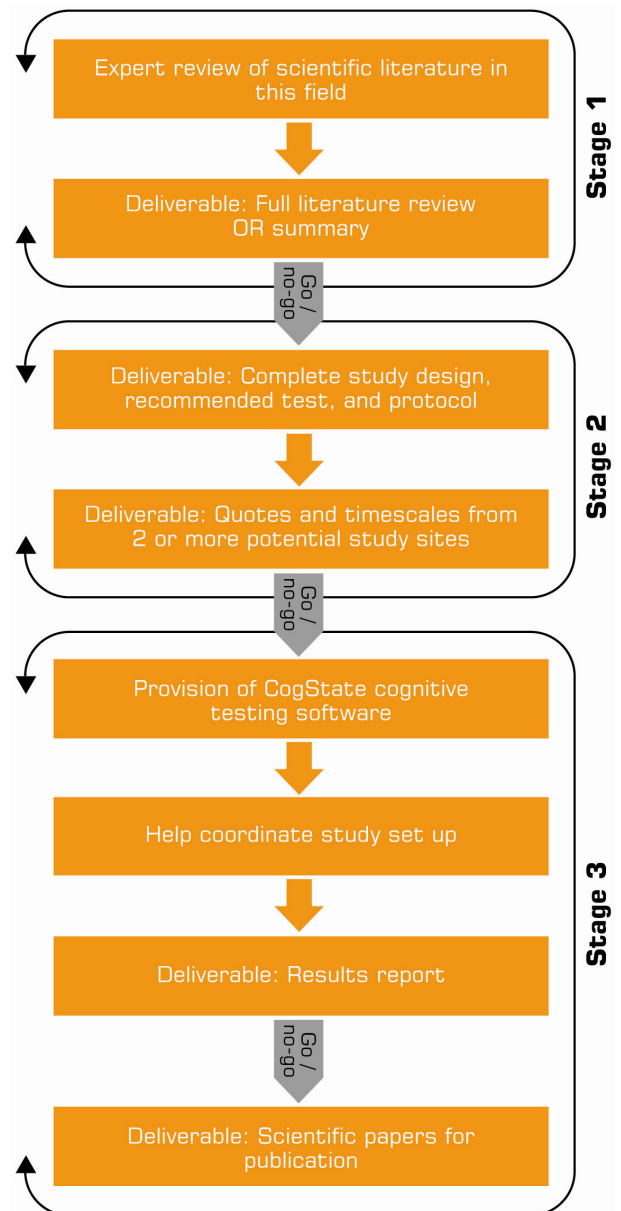
Our expert neurophysiologists can perform a review of the scientific literature in this field, advise on which cognitive tests are most appropriate, write your protocol and perform a full statistical analysis of the data.

A dedicated project manager will provide you with the CogState software together with training materials and technical assistance throughout the study.

We have built relationships with experienced clinical research units and can help coordinate set up of your study at one of these centers if required.

### Why choose Us?

- Our world class scientists are available to design and analyze studies quickly and effectively, and will be accessible to you throughout the trial.
- We offer a faster and more efficient service than an academic institution and complete confidentiality is assured if required.
- Our tests are extremely sensitive—meaning that fewer study participants are required (which lowers cost) and a smaller effect can be observed (so you are more likely to find a benefit if there is one).
- Staged process reduces your risk and offers you flexibility.
- We are experienced—our business is built around supplying products and services to blue-chip pharmaceutical companies conducting clinical trials.



*The process for designing and performing studies in order to make claims regarding your products and brain function. We can perform as much or as little of this process as you require.*

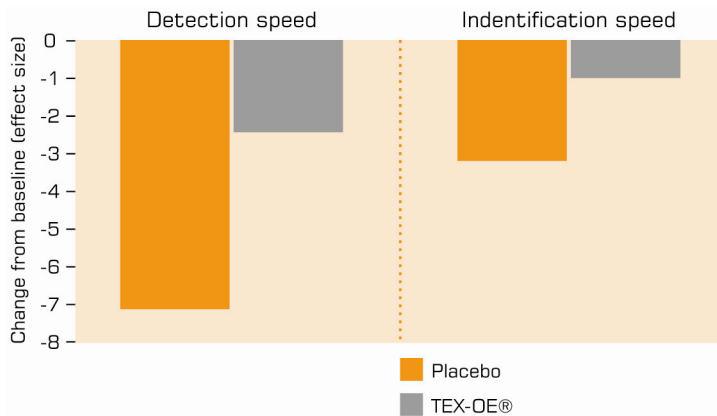
## Case Studies

### Case Study 1: TEX-OE® mitigates acute cognitive effects of alcohol.

The Institute of Cellular Pharmacology (ICP Ltd.) in Malta markets TEX-OE®, which is a patented extract from the prickly pear plant. ICP used CogState tests to measure whether cognitive impairments caused by alcohol consumption could be reduced by pre-treatment with TEX-OE®.

In the study, 16 adults consumed sufficient amounts of alcohol to elevate their mean blood alcohol concentration (BAC) to above 0.22% - roughly equivalent to drinking more than half a bottle of vodka. The study was placebo controlled and employed a cross-over design.

For the alcohol + placebo condition, large cognitive detriments were observed. For example, a 7.1 standard-deviation slowing of simple reaction time was found in the CogState detection task 3 hours from the start of the experiment. For the alcohol + TEX-OE® pre-treatment condition, this slowing was reduced to 2.3 standard deviations. The TEX-OE® did not alter the blood-alcohol concentration. Measurements on other CogState tasks also demonstrated large and significant differences between the conditions, with TEX-OE® consistently mitigating the cognitive detriments caused by alcohol. Some of these measurements are shown in the figure below.



*Cognitive detriments (effect size as standardized change from baseline) observed 3 hours from start of experiment in two CogState tasks according to treatment condition: alcohol + placebo vs. alcohol + TEX-OE®*

This study was presented in a poster [Baluci et al. 2005] at a scientific meeting. It has allowed ICP to extend the claims it makes for its product. Further studies are planned.

### Case Study 2: European Food Manufacturer

Belgian company Barry-Callebaut is the second largest manufacturer of chocolate in the world. It enlisted us to review literature and then to design, manage and report on the cognitive benefits of a chocolate that they had developed to be high in anti-oxidants. The study is complete, but results have not yet been published.

### Case Study 3: New Zealand Horticulture Research Institute

The Horticulture and Food Research Institute of New Zealand used CogState tests to conduct a study looking for cognitive benefits from consumption of concentrated fruit extracts in people aged 65 and above. We advised on the study design and provided tests for use in the study. The study itself was run by the Institute.

### Current trials

We are currently conducting two major nutraceutical trials—a 250 subject study involving children and 75 subject study involving adults.

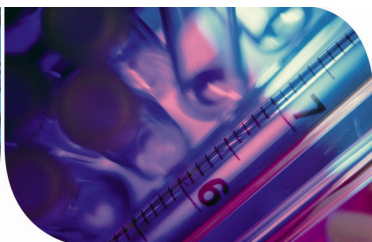
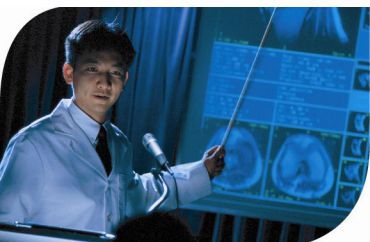
### References

The CogState Master Reference List is available at [www.cogstate.com](http://www.cogstate.com) for details of the scientific references in this document.

TEX-OE® is a registered trademark of ICP Ltd.

### Contact Us

Contact one of our experienced scientists for more information by e-mailing [info@cogstate.com](mailto:info@cogstate.com) or by calling one of the telephone numbers below. We look forward to hearing from you.



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