13 January 2026

TRP-8802 Phase 2a trial shows rapid and sustained reduction of binge eating episodes in 100% of BED patients

- **Phase 2a results published in peer-reviewed Journal of Eating Disorders validate TRP-8802 (oral psilocybin) utility and are highly supportive of the use of TRP-8803 (IV-infused psilocin) in Binge Eating Disorder (BED) patients**
- **Results showed a sustained reduction in binge-eating episodes of 80% across all BED patients, with the clinical benefit maintained through the 14-week follow up period**
- **Severe BED was eliminated by Week 6 post dosing – declined from 40% of patients at baseline to 0%, with 80% of patients reported as none-to-mild BED by Week 14**
- **Compelling secondary benefits observed, including reductions in anxiety, depression and psychological inflexibility**
- **80% of patients recorded a waist circumference reduction at 6 weeks post treatment with two patients recording greater than 6cm waist size decrease**
- **Results provide important validation of the clinical rationale for the ongoing trial of IV-infused psilocin (TRP-8803) in BED patients with Swinburne University**

Melbourne, Australia – Entropy Neurodynamics Limited ('**Entropy Neurodynamics**', '**ENP**' or the '**Company**') (**ASX: ENP**), a clinical-stage biotechnology company, is pleased to report publication of results from its Phase 2a clinical trial conducted at the University of Florida, evaluating TRP-8802 (oral psilocybin) for the treatment of Binge Eating Disorder (BED).

The results, published in the peer-reviewed *Journal of Eating Disorders*, demonstrate rapid and sustained reductions in binge-eating behaviour across all patients treated with TRP-8802. These improvements were maintained through the 14-week follow-up period, along with improvements across key secondary outcomes including reductions in anxiety, depression, psychological inflexibility, and waist-circumference.

The publication of these results represent a major milestone for the Company, validating the therapeutic rationale underpinning Entropy Neurodynamics' lead asset, TRP-8803 (IV-infused psilocin).

Clinical trial results overview:

The Phase 2a study enrolled six patients and involved therapy sessions prior to a single dose of TRP-8802 (oral psilocybin), followed by structured supportive therapy. TRP-8802 was well tolerated, with no serious safety concerns reported. Of the six patients enrolled, five were available for data evaluation.

In a major milestone, mean binge-eating episodes in 100% of evaluable patients were reduced, with a 80% reduction sustained through to Week 14 post-treatment. The proportion of patients classified with severe BED declined from 40% at baseline to 0% by Week 6, with four of five participants classified as none-to-mild BED by Week 14.

Four of five (80%) of patients recording wait circumference reduction at Week 6 post dose, including two patients achieving reductions greater than 6cm, suggesting a potential impact on abdominal obesity (Figure 1).

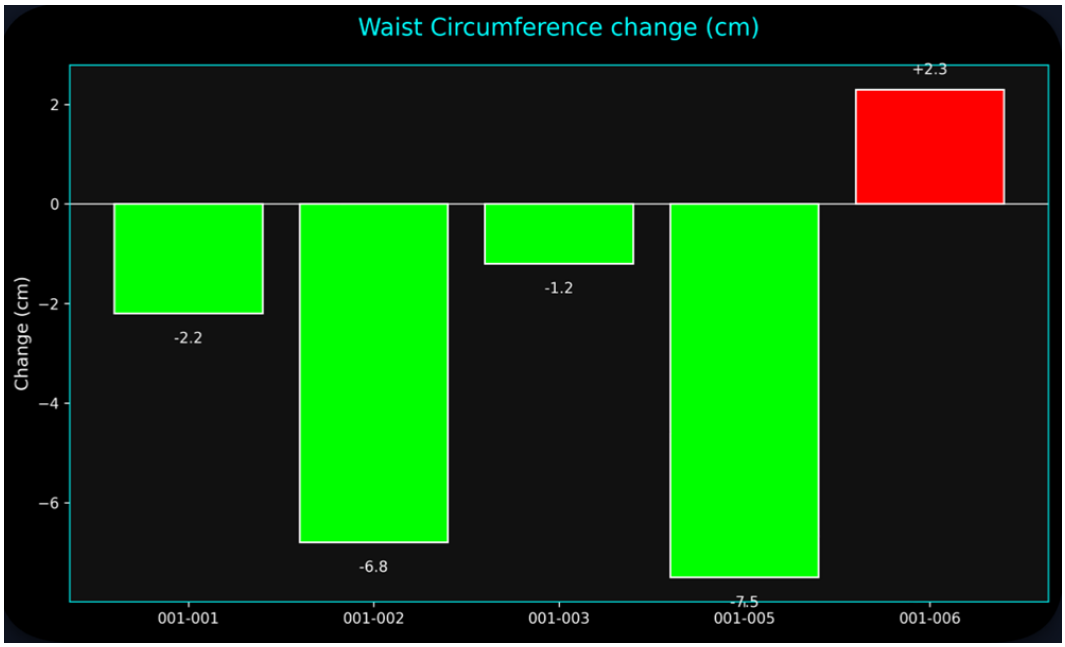

Figure 1: Reduction in waist circumference from baseline through Week 6 for each evaluable patient.

Importantly, improvements in key psychological factors were also observed, including reductions in anxiety, depression and psychological inflexibility which is a recognised transdiagnostic driver of eating disorders (Figure 2). Exploratory neuroimaging findings were consistent with enhanced cognitive control and reorganisation of salience and default mode neural networks.

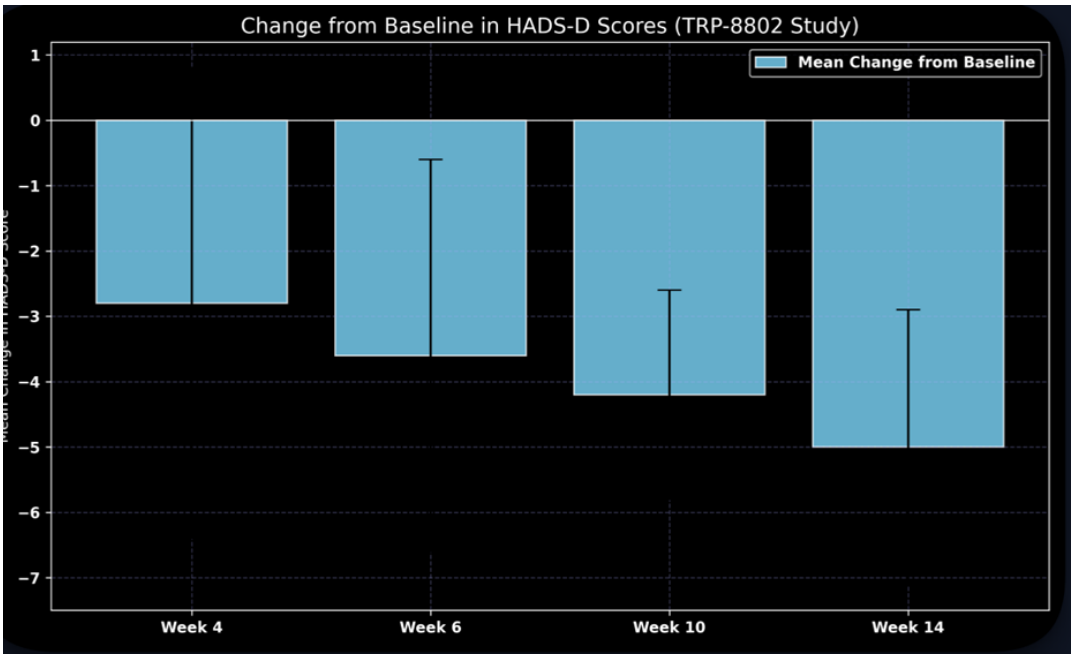

Figure 2: Reduction in Hospital Anxiety and Depression Score (HADS-D) in evaluable patients.

The publication of TRP-8802 BED program further underscore the scientific and therapeutic rationale underpinning lead asset, TRP-8803 (IV-infused psilocin) with a particular focus on the Company's ongoing BED trial with Swinburne University. The consistency of outcomes across binge-eating behaviour, psychiatric symptoms and neurobiological measures supports the Company's approach of combining precision psychedelic therapy with structured clinical support. TRP-8803 has been purpose-built on these findings to enable greater control of dosing, onset and duration, with the potential to improve safety, reproducibility and scalability as the program advances through clinical development.

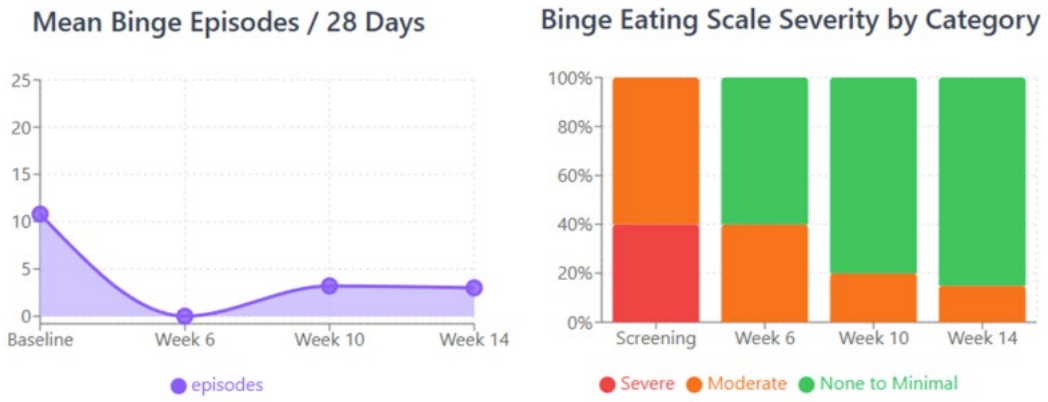

Figure 3: Reduction in Mean Binge Eating Episodes (left) and Binge Eating Scale Severity by Category (right)

Management commentary:

Professor Jessie Dallery, Ph.D., University of Florida's lead psychologist said: *"These results from a single dose of psilocybin combined with therapy are clinically meaningful and highly promising. The magnitude of change for most participants in Binge Eating, anxiety and depression is dramatic."*

CEO, Mr Jason Carroll said: *"These results sit against a backdrop where most innovation in obesity and eating disorders is being driven by GLP-1 therapies, which focus on weight loss but often fail to address the underlying psychiatric drivers of BED. The results show that psychedelic-assisted therapy and TRP-8803 has the potential to offer a fundamentally different approach by targeting compulsive eating behaviours alongside the emotional and cognitive factors that sustain the condition."*

"While the data are early, the magnitude and consistency of the responses we've observed give us confidence in what lies ahead for our BED trial utilising TRP-8803 and how it may unlock an opportunity for patients' to change how compulsive eating, mood symptoms and cognitive rigidity are treated together, rather than in isolation."

Q&A

What were the key findings from the TRP-8802 Phase 2a trial?

The study demonstrated an 80% sustained reduction in binge-eating episodes across all patients, elimination of severe BED by Week 6 and improvements in anxiety, depression, psychological inflexibility and waist circumference.

How many patients were included in the analysis?

Six patients were enrolled and five were able to be evaluated.

How durable were the BED improvements?

Reductions in binge-eating behaviour were maintained through Week 14, demonstrating sustained benefit from a single dose of TRP-8802 combined with therapy.

Were there any safety concerns found in the study?

TRP-8802 was well tolerated, with no serious adverse events reported.

What key secondary outcomes improved in patients?

Patients showed reductions in anxiety, depression and psychological inflexibility, all of which are core drivers of BED.

What metabolic changes were observed?

At Week 6, 80% of patients showed reductions in waist circumference, including two patients with >6 cm decreases, suggesting potential impact on abdominal obesity.

What did the neuroimaging discover?

Exploratory fMRI results indicated enhanced cognitive control and reorganisation of salience and default mode networks, consistent with improved regulation of compulsive eating behaviours.

How common is BED in Australia?

BED affects an estimated 1–3% of Australians, making it the most prevalent eating disorder in the country.

How common is BED in the United States?

In the US, BED affects approximately 3–5% of adults, representing millions of patients and making it more common than anorexia and bulimia combined.

Why is BED considered a major unmet medical need?

BED is strongly associated with obesity, depression, anxiety, metabolic disease and impaired quality of life, yet current treatments often fail to address the underlying psychiatric drivers.

How does BED relate to the current GLP-1 obesity drug landscape?

GLP-1 therapies target weight loss, but they do not treat compulsive eating, mood symptoms or cognitive rigidity — the core drivers of BED.

What is TRP-8802?

TRP-8802 is oral psilocybin used in early-stage clinical trials to explore psychedelic-assisted therapy in BED and other conditions.

Why is TRP-8803 the lead drug candidate instead of TRP-8802?

TRP-8803 is a proprietary IV-infused psilocin formulation designed to overcome the serious limitations of oral psilocybin, including variable onset, unpredictable absorption and long session duration.

How does TRP-8803 improve on oral psilocybin?

TRP-8803 offers precise control of dosing, onset, depth and duration, enabling a shorter, more predictable and scalable therapeutic experience.

How do the TRP-8802 results support the clinical development TRP-8803?

The Phase 2a outcomes validate the mechanism of action, demonstrating that psilocin-based therapy can meaningfully impact binge eating, mood, cognition and metabolic markers.

What does publication in the Journal of Eating Disorders signify?

Peer-reviewed publication provides independent validation, enhances scientific credibility and strengthens the case for TRP-8803's ongoing development.

How does this position Entropy Neurodynamics in the BED treatment landscape?

The results position ENP as a potential first-mover in psychedelic-assisted therapy for BED, addressing both behavioural and psychiatric components of the disorder.

What is the significance of the Swinburne University trial?

The Swinburne trial is the first clinical evaluation of TRP-8803, designed to demonstrate precision dosing, safety and scalability in a controlled academic setting.

How might TRP-8803 integrate with existing obesity treatments, including GLP-1 therapies?

GLP-1 drugs such as semaglutide and tirzepatide are effective while patients remain on treatment, but recent evidence shows that many patients regain most or all of their lost weight after discontinuation. A 2026 systematic review of 37 studies (9,341 adults) found that after stopping GLP-1 therapy, patients regained weight at an average rate of 0.4 kg per month, with most returning to pre-treatment weight within 1.7 years and cardiometabolic improvements reversing within 1.4 years.

TRP-8803 aims to address the underlying psychiatric and behavioural drivers of compulsive eating — factors not targeted by GLP-1s — and may therefore complement, or offer an alternative to, GLP-1 therapy by treating the root causes of BED.

What are the next steps for the TRP-8803 program?

The Company will continue advancing the Swinburne trial, preparing for larger controlled studies and exploring regulatory pathways for BED and other neuropsychiatric indications.

This announcement has been authorised by the Board of Entropy Neurodynamics

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About Entropy Neurodynamics Limited

Entropy Neurodynamics is a clinical-stage biotechnology company focused on developing proprietary, novel formulations for the administration of psilocin in combination with psychotherapy to treat diseases with unmet medical needs. The Company's lead program, TRP-8803, is a proprietary formulation of IV-infused psilocin (the active metabolite of psilocybin) with potential to alleviate numerous shortcomings of oral psilocybin including: significantly reducing the time to onset of the psychedelic state, controlling the depth and duration of the psychedelic experience, and reducing the overall duration of the intervention to a commercially feasible timeframe.

Development of TRP-8803 follows a number of Phase 2a clinical trials using oral psilocybin for the treatment of Binge Eating Disorder, Irritable Bowel Syndrome and Fibromyalgia. Results from each of these trials demonstrated the clinical benefits of psychedelic therapy and will be used to further enhance the development of TRP-8803.

Register for updates

The Company encourages investors to register their details with Automic Group investor portal. This also provides shareholders with the opportunity to elect communication methods to electronic only. This can be done by:

- Go to investor.automic.com.au
- If you're an existing user, log in with your username and password
- If you're a new user, click 'register', select 'Entropy Neurodynamics Limited'. Enter your Holding Number and postcode of the registered address on your holding. If your address is outside Australia, select the country. Follow the prompts to set up a username and password.
- Once you have created your account, you will need to update your communication method by clicking 'my details' under the 'profile' section of the investor portal account, then navigating to 'communication preferences' and select 'electronic only'

Risks associated with Psilocin

All medicines carry risks and specialist prescribers, such as registered psychiatrists are best placed to assess the suitability of a new medication against a patient's individual circumstances and medical history before proceeding. Adverse effects of psilocybin and similar compounds, such as psilocin, can include temporary increase in blood pressure and a raised heart rate. There may be some risk of psychosis in predisposed individuals. These effects of psilocybin and its derivatives are unlikely at low doses and in the treatment regimen used in psychedelic-assisted psychotherapy and appropriately managed in a controlled environment with direct medical supervision.

Forward-Looking Information

Certain information in this news release, constitutes forward looking information. In some cases, but not necessarily in all cases, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "targets", "expects" or "does not expect", "is expected", "an opportunity exists", "is positioned", "estimates", "intends", "assumes", "anticipates" or "does not anticipate" or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might", "will" or "will be taken", "occur" or "be achieved". In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances contain forward-looking information. Statements containing forward-looking information are not historical facts but instead represent management's expectations, estimates and projections regarding future events. Forward-looking information is necessarily based on a number of opinions, assumptions and estimates that, while considered reasonable by Entropy Neurodynamics as of the date of this news release, are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause the actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward looking information, including but not limited to the factors described in greater detail in the "Risk Factors" section of the Company's Replacement Prospectus available at www.asx.com.au These factors are not intended to represent a complete list of the factors that could affect Entropy Neurodynamics; however, these factors should be considered carefully. There can be no assurance that such estimates and assumptions will prove to be correct. The forward-looking statements contained in this news release are made as of the date of this news release, and the Company expressly disclaims any obligation to update or alter statements containing any forward-looking information, or the factors or assumptions underlying them, whether as a result of new information, future events or otherwise, except as required by law.