

19 October 2026

TRP-8803 clinical data presented at 39th ECNP Congress showed rapid & consistent psychedelic effects in Binge Eating Disorder patients

- **Two TRP-8803 posters were presented at the 39th European College of Neuropsychopharmacology (ECNP) Congress in Munich**
- **Data presented showed favourable safety and tolerability across 12 dosing sessions in six BED patients, with no serious adverse events or treatment discontinuations**
- **A rapid and consistent psychedelic experience was observed, with peak intensity achieved within 20 minutes and a mean peak intensity of 9.4/10**
- **Nine of 12 treatment sessions reached maximum 10/10 intensity and five of six patients achieved the same peak intensity across both treatment sessions**
- **The median duration (at maximum) was ~100 minutes**
- **Exploratory EEG analysis showed measurable changes in brain activity approximately 11 minutes after infusion commencement**
- **Brain activity effects were maintained during TRP-8803 acute dosing period and returning towards baseline following treatment**
- **Findings provide further insight into the 140-minute TRP-8803 regimen and support the evaluation of a 60-minute infusion protocol in Cohort 2 of the Binge Eating Disorder (BED) program**

Melbourne, Australia – Entropy Neurodynamics Limited (**'Entropy'** or the **'Company'**) (**ASX: ENP**), a clinical-stage biotechnology company developing precision-controlled psychedelic therapies, is pleased to advise that new clinical and neurophysiological findings from its ongoing clinical program evaluating TRP-8803 (IV-infused psilocin) in patients with Binge Eating Disorder (BED) were presented at the 39th European College of Neuropsychopharmacology (ECNP) Congress in Munich, Germany, from 10 to 13 October 2026.

In summary, the posters highlighted TRP-8803's favourable safety and tolerability profile across the 12 TRP-8803 dosing sessions observed in the first six patients enrolled in the Company's BED clinical program, as well as rapid and consistent psychedelic effects and measurable changes in brain activity, providing considerable supporting evidence for the Company's precision-controlled IV-psilocin approach.

The first poster, titled *"Intravenous psilocin for binge eating disorder: preliminary safety and psychedelic intensity from a Phase 1 open-label trial"*, showed favourable safety and tolerability, with no serious adverse events or treatment discontinuations reported.



This poster presentation illustrated how TRP-8803 produces a rapid and consistent psychedelic experience. Peak psychedelic intensity was reached within 20 minutes of infusion commencement in seven of the 12 dosing sessions, with a mean peak intensity rating of 9.4 out of 10. Nine of the 12 sessions reached maximum 10/10 intensity, while five of the six patients achieved the same maximum intensity across both treatment sessions.

Among sessions that reached maximum psychedelic intensity, a median duration at maximum intensity of approximately 100 minutes was recorded, further demonstrating TRP-8803's ability to rapidly establish and maintain the psychedelic state.

A second poster, titled *"Temporal mapping of EEG dynamics during intravenous psilocin administration in binge eating disorder"*, presented exploratory electroencephalography (EEG) analysis evaluating the changes in brain activity observed during and after TRP-8803 administration.

In this single-patient analysis, measurable changes in brain activity were observed ~11 minutes after infusion commencement. Changes developed during the acute dosing period and returned towards the patient's pre-dose baseline on treatment conclusion.

While preliminary, the findings provide an early objective neurophysiological correlate to the rapid subjective onset and reversible effects observed with TRP-8803. Broader analysis of EEG data across the clinical dataset is ongoing.

The ECNP findings provide further insight into TRP-8803's original 140-minute infusion protocol (Cohort 1), with Entropy now evaluating a shorter 60-minute infusion regimen in Cohort 2 of its BED study.

Cohort 2 is underway and designed to evaluate whether the controlled psychedelic experience and clinical outcomes observed with a 140-minute regimen can be maintained within a 60-minute treatment regimen. If successful, the shorter treatment duration could improve patient throughput and support future commercial scalability.

Collectively, the findings reinforce the Company's TRP-8803 development strategy and provide further supporting evidence for the potential advantages of intravenous administration, including rapid onset, consistent treatment intensity and the ability to control the duration of drug delivery.

Management commentary:

CEO, Mr Jason Carroll, said: *"These poster presentations add another important layer to our understanding of TRP-8803. Across 12 dosing sessions, intravenous administration produced a rapid and remarkably consistent psychedelic experience, with a mean peak intensity of 9.4 out of 10 and five of six patients reaching the same maximum intensity across both of their treatment sessions."*

"Importantly, the EEG work begins to provide an objective neurophysiological correlate to what we are observing clinically. Measurable changes in brain activity were evident approximately 11 minutes after infusion commenced in this initial analysis and returned towards baseline following treatment."



“Together, these findings help explain why we believe precision-controlled IV-psilocin has the potential to overcome the limitations associated with conventional psychedelic administration. TRP-8803 is designed to rapidly establish the psychedelic state, maintain drug delivery for a predetermined period and then cease administration.

“The next question is whether we can preserve that experience and the clinical outcomes observed in Cohort 1 within a materially shorter treatment window. This is exactly what we are now evaluating with the 60-minute TRP-8803 regimen in Cohort 2.

“We will build on this growing body of clinical evidence as we progress our BED program and advance the broader development of TRP-8803 across our basket-design study and additional programs.”

This announcement has been authorised by the Board of Entropy Neurodynamics Limited.

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INVESTOR & MEDIA CONTACT

Jason Carroll

Chief Executive Officer
Entropy Neurodynamics Limited
jcarroll@tryptherapeutics.com

Henry Jordan

Six Degrees Investor Relations
+61 (0) 431 271 538
henry.jordan@sdir.com.au

About Entropy Neurodynamics Limited

Entropy 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 several 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 provided encouraging evidence of the potential 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 the Automic Group investor portal. This also provides shareholders with the opportunity to elect communication methods to electronic only. This can be done via the following steps:

- *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 selecting '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 a 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 announcement 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 as of the date of this announcement, 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; 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 announcement are made as of the date of this announcement, 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.

Intravenous psilocin for binge eating disorder: preliminary safety and psychedelic intensity from a Phase 1 open-label trial

Sean Carruthers¹, Claire Finkelstein¹, Tram Nguyen¹, Angus Miller¹, Ella Byrne¹, Martin Pena¹, Jennifer Pincombe¹, Ravi Iyer¹, Holly Pedersen¹, David White¹, Jonathon Starke¹, Emily Tunks¹, Josh West¹, Carol Silberberg¹, David J. Castle^{3,4,5}, Susan L. Rossell^{1,2}

¹Centre for Mental Health and Brain Sciences, Swinburne University of Technology, Melbourne, VIC, Australia; ²InsideOut Institute, University of Sydney and Sydney Local Health District, Sydney, NSW, Australia; ³Psychological Sciences, University of Tasmania, Hobart, Australia; ⁴Centre for Mental Health Innovation, Hobart, Tasmania, Australia; ⁵Statewide Mental Health Service, Hobart, Tasmania, Australia

01 Background & aim

- Binge eating disorder (BED) is a prevalent eating disorder characterised by recurrent episodes of consuming large quantities of food in a short period, accompanied by a sense of loss of control and marked distress.
- Despite the availability of pharmacological and psychological treatments, many individuals with BED experience limited or incomplete remission with current approaches, underscoring a need for innovative therapeutic strategies.
- Psilocybin shows early promise in disordered eating, but **oral dosing** is constrained by variable bioavailability, unpredictable onset and duration, and no capacity to pause or stop the dosing in real time.
- Intravenous **psilocin** — the active metabolite of psilocybin — delivers the same active compound that oral psilocybin ultimately produces but bypasses gastrointestinal absorption entirely. This yields more rapid onset, eliminates inter-individual variability in absorption to produce more consistent and predictable plasma concentrations, and affords greater control over the dosing session, including the ability to pause or stop dosing in case of medical emergent events that do not respond to therapeutic support.
- Safety and tolerability of IV administration in this population are unknown; this Phase 1 trial addresses that gap first.

Aim: To establish the safety and tolerability of IV psilocin infusion (TRP-8803) in adults with BED, and to characterise the intensity and duration of the psychedelic experience it produces.

02 Methods

DESIGN Phase 1, open-label, single-site

PARTICIPANTS Six adults aged **18–65**, confirmed diagnosis of BED of at least two years duration, four or more binge eating episodes per week, BMI $\geq$ 25

INTERVENTION Three preparation psychotherapy sessions, two dosing sessions, two weeks apart, supported by five post-dose integration session; two following Dose 1, three following Dose 2.

DOSE An initial loading dose of 5 mg of psilocin (TRP-8803) infused over 20 minutes, followed by a maintenance dose of 5 mg over 120 minutes; Total 10 mg / 140 minutes.

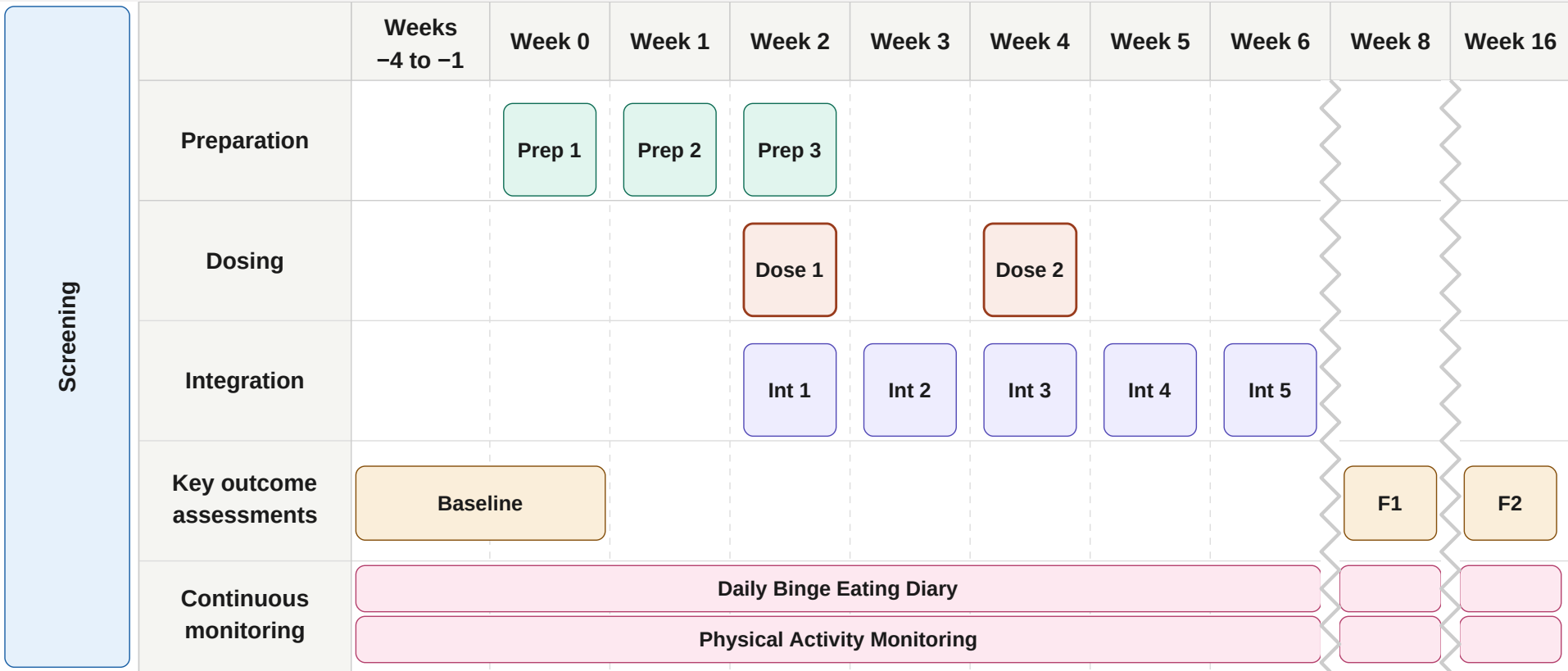


Figure 1. Study design

03 Safety & tolerability

6 PARTICIPANTS DOSED	12 DOSES ADMINISTERED	6 (100%) WITH $\geq$ 1 Adverse Reaction	1 GRADE $\geq$ 3 EVENTS	0 SERIOUS AES / DISCONTINUATIONS
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SYSTEM ORGAN CLASS PREFERRED TERM	TOTAL COUNT BY		PARTICIPANT COUNTS BY MAX SEVERITY		
	Instance	Participant	Grade 1–2	Grade 3	Grade $\geq$ 4
Psychiatric disorders					
Perceptual disturbance	7	3 (50.0%)	3 (100%)	—	—
Anxiety	6	4 (66.7%)	4 (100%)	—	—
Depressed mood	5	1 (16.7%)	1 (100%)	—	—
Depersonalisation / derealisation disorder	3	3 (50.0%)	3 (100%)	—	—
Confusional state	2	2 (33.3%)	2 (100%)	—	—
Intrusive thoughts	2	2 (33.3%)	2 (100%)	—	—
Derealisation	1	1 (16.7%)	1 (100%)	—	—
Disturbance in attention	1	1 (16.7%)	1 (100%)	—	—
Disorientation	1	1 (16.7%)	1 (100%)	—	—
Feelings of worthlessness	1	1 (16.7%)	1 (100%)	—	—
Restlessness	1	1 (16.7%)	1 (100%)	—	—
Suicide ideation	1	1 (16.7%)	—	1 (100%)	—
General disorders and administration site conditions					
Fatigue	13	6 (100%)	—	—	—
Feeling cold	2	2 (33.3%)	—	—	—
Feeling hot	2	2 (33.3%)	—	—	—
Infusion site pain	2	2 (33.3%)	—	—	—
Chest discomfort	1	1 (16.7%)	—	—	—
Reduced appetite	1	1 (16.7%)	—	—	—

SYSTEM ORGAN CLASS PREFERRED TERM	TOTAL COUNT BY		PARTICIPANT COUNTS BY MAX SEVERITY		
	Instance	Participant	Grade 1–2	Grade 3	Grade $\geq$ 4 n
Nervous system disorders					
Headache	8	4 (66.7%)	4 (100%)	—	—
Insomnia	5	4 (66.7%)	4 (100%)	—	—
Mental impairment (confusion)	2	1 (16.7%)	1 (100%)	—	—
Dizziness	2	2 (33.3%)	2 (100%)	—	—
Tremor	1	1 (16.7%)	1 (100%)	—	—
Gastrointestinal disorders					
Nausea	8	4 (66.7%)	4 (100%)	—	—
Diarrhoea	2	2 (33.3%)	2 (100%)	—	—
Abdominal distension	1	1 (16.7%)	1 (100%)	—	—
Skin and subcutaneous tissue disorders					
Hyperhidrosis	3	3 (50%)	3 (100%)	—	—
Injection site bruising	1	1 (16.7%)	1 (100%)	—	—
Musculoskeletal and connective tissue disorders					
Myalgia	1	1 (16.7%)	1 (100%)	—	—
Vascular disorders					
Blood pressure increased	2	1 (16.7%)	1 (100%)	—	—
Any Adverse Reaction	88	6	87	1	0

- No serious Adverse Reactions, Suspected Unexpected Serious Adverse Reactions, Deaths or discontinuations/withdraws due to an Adverse Reaction.

04 Psychedelic intensity

7 of 12 ACHIEVED PEAK INTENSITY BY 20 MINUTES POST INFUSION COMMENCEMENT	9.4 / 10 MEAN PEAK INTENSITY RATING ACROSS ALL SESSIONS	9 of 12 SESSIONS ACHIEVING MAXIMUM PSYCHEDELIC INTENSITY
100 minute MEDIAN DURATION AT MAXIMUM (10/10) PSYCHEDELIC INTENSITY	240 minute MEDIAN DURATION OF PSYCHEDELIC EFFECTS FROM INFUSION COMMENCEMENT	5 of 6 PARTICIPANTS REACHED THE SAME MAXIMUM PSYCHEDELIC INTENSITY ACROSS BOTH DOSING SESSIONS

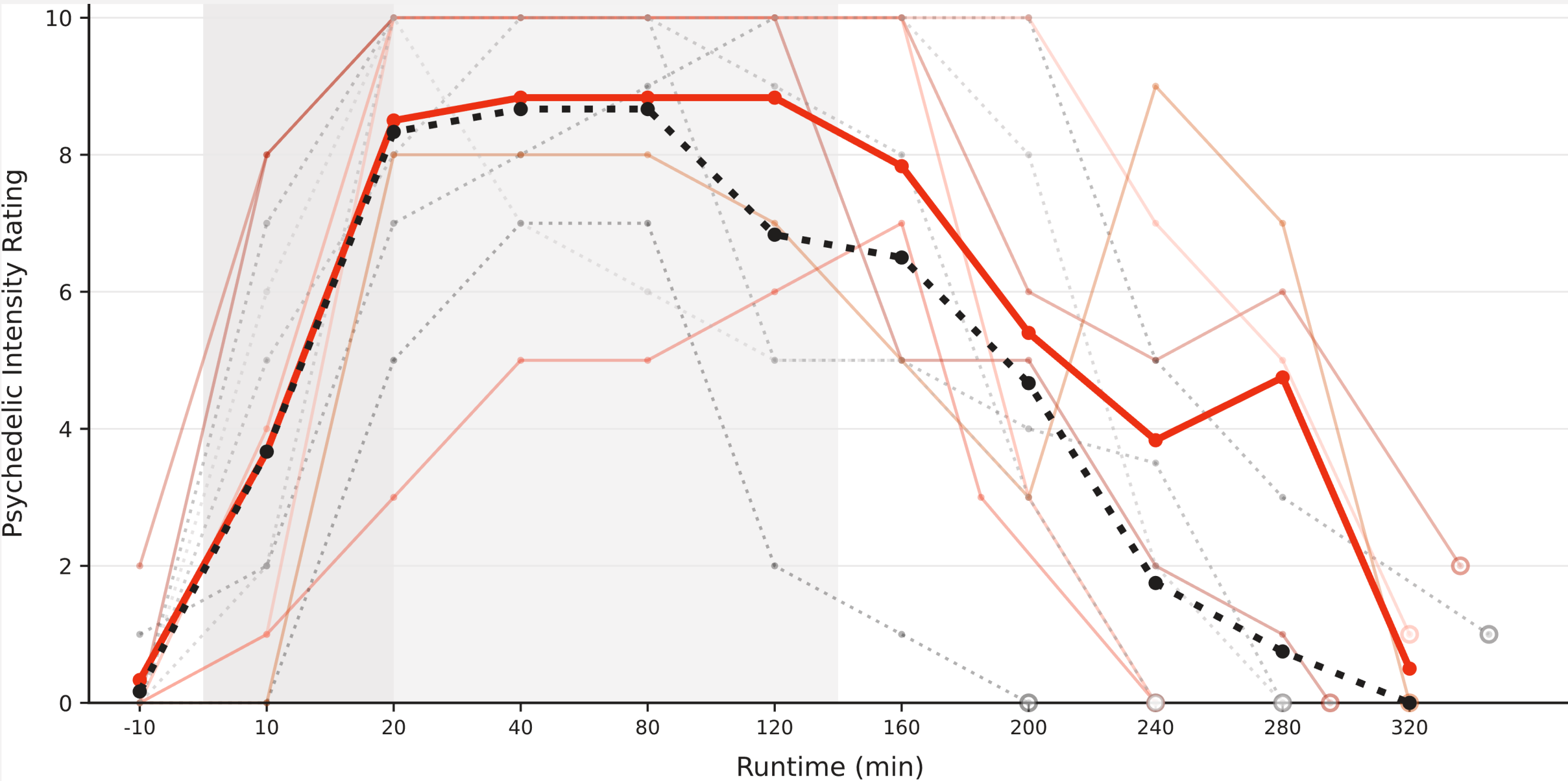


Figure 2. Psychedelic intensity over time; Bold lines = group mean; Faded lines = individual participants; Dose 1: Solid-red, Dose 2: Dotted-Black; 0 = session end

05 Conclusions

Two intravenously administered doses of psilocin (TRP-8803) was safe and well tolerated in adults with binge eating disorder: all but one adverse reaction was rated as mild (Grade 1) or moderate (Grade 2) with severe (Grade 3) rating. The infusion produced a rapid-onset, controllable psychedelic experience of approximately 2.5 hours, supporting progression to a Phase 2 efficacy trial of IV psilocin in BED.

Temporal mapping of EEG dynamics during intravenous psilocin administration in binge eating disorder

Holly Pedersen¹, Sean Carruthers¹, Claire Finkelstein¹, Tram Nguyen¹, Angus Miller¹, Ella Byrne¹, Martin Pena¹, Jennifer Pincombe¹, Ravi Iyer¹, David White¹, Jonathan Starke¹, Emily Tunks¹, Josh West¹, Carol Silberberg¹, David J. Castle^{3,4,5}, Susan L. Rossell^{1,2}

¹Centre for Mental Health and Brain Sciences, Swinburne University of Technology, Melbourne, VIC, Australia; ²InsideOut Institute, University of Sydney and Sydney Local Health District, Sydney, NSW, Australia; ³Psychological Sciences, University of Tasmania, Hobart, Australia; ⁴Centre for Mental Health Innovation, Hobart, Tasmania, Australia; ⁵Statewide Mental Health Service, Hobart, Tasmania, Australia

39TH ECNP CONGRESS

Munich, Germany · 10–13 October 2026

Trial registration [ACTRN 12625000330448](#)

PS02–2062

Background

- Psilocybin shows early promise in disordered eating, but **oral dosing** is constrained by variable bioavailability, unpredictable onset and duration, and no capacity to pause or stop the dosing in real time.
- Temporal mapping of **EEG dynamics** of the psychedelic experience **during dosing** has been constrained by the pharmacokinetic variability of oral administration
- Intravenous **psilocin** — the active metabolite of psilocybin — delivers the same active compound that oral psilocybin ultimately produces but bypasses gastrointestinal absorption entirely. This yields more rapid onset, eliminates inter-individual variability in absorption to produce more consistent and predictable plasma concentrations and timelines.
- The predicable onset and duration makes the acute neural trajectory tractable to continuous recording.

Aim

To characterise the temporal profile of EEG changes during IV psilocin (TRP-8803) administration in a participant with Binge Eating Disorder.

Methods

A. Dosing

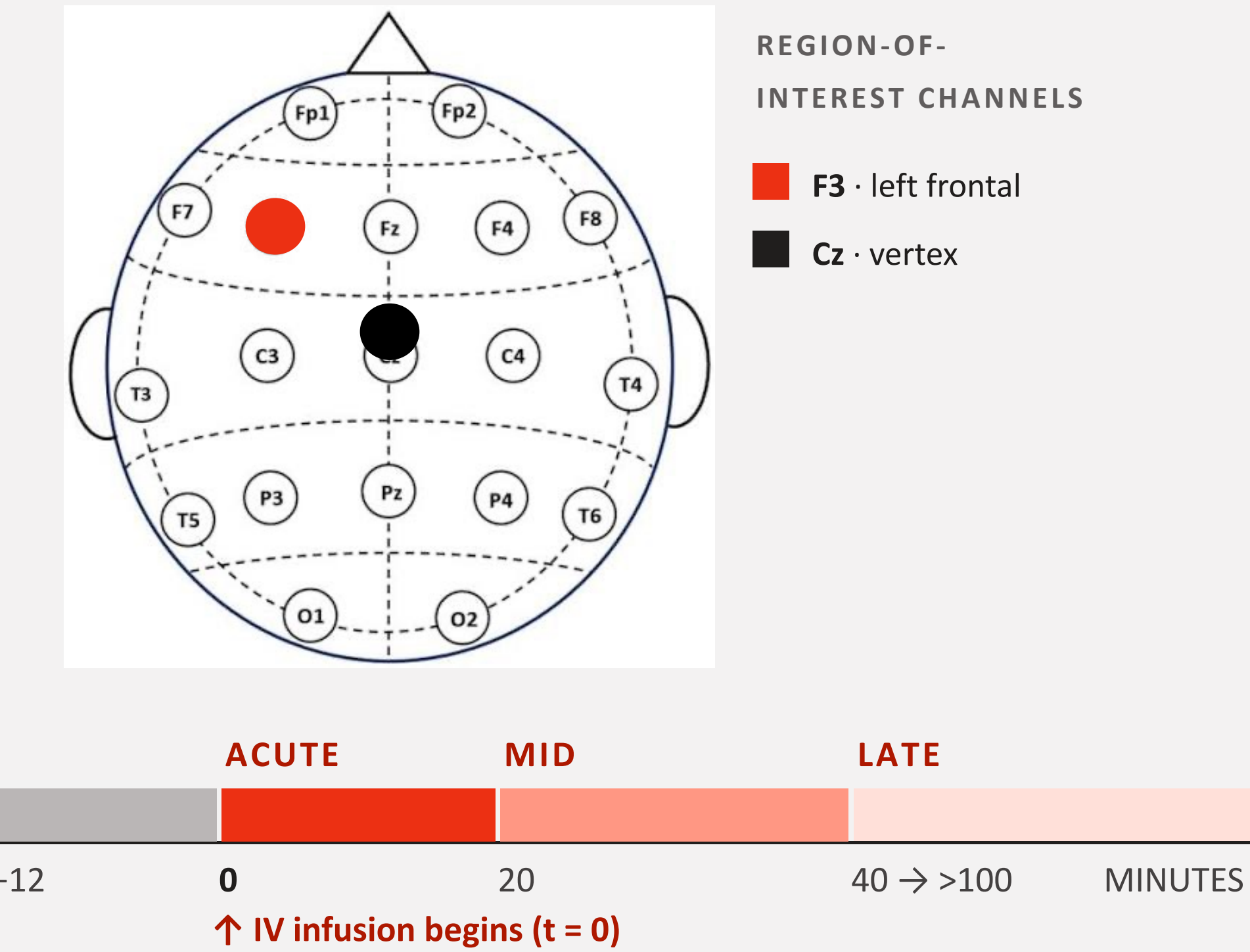
- An initial loading dose of 5 mg of psilocin (TRP-8803) infused over 20 minutes, followed by a maintenance dose of 5 mg over 120 minutes; Total 10 mg / 140 minutes.

B. EEG Recording

- Continuous EEG recording performed with the wireless, 19-channel dry-electrode Zeto WR19 system.
- Baseline:** 20-minute recording, 5 weeks prior to dosing.
- Dosing:** Continuous EEG recording from 12-minutes prior to infusion commencement until 180 post.
- Post:** 20-minute recording, same day as dosing, prior to discharge.
- W16:** 20-minute recording, 12 weeks post to dosing.

C. Preprocessing & metric calculation

- Raw EEG
- Filter — high-pass 1 Hz, notch 50 Hz
- ICLabel and ICA artefact removal
- 1-minute non-overlapping epochs
- Automated quality control
- Metric extraction, *foof* correction



Results

Figure 1: During-dosing metrics

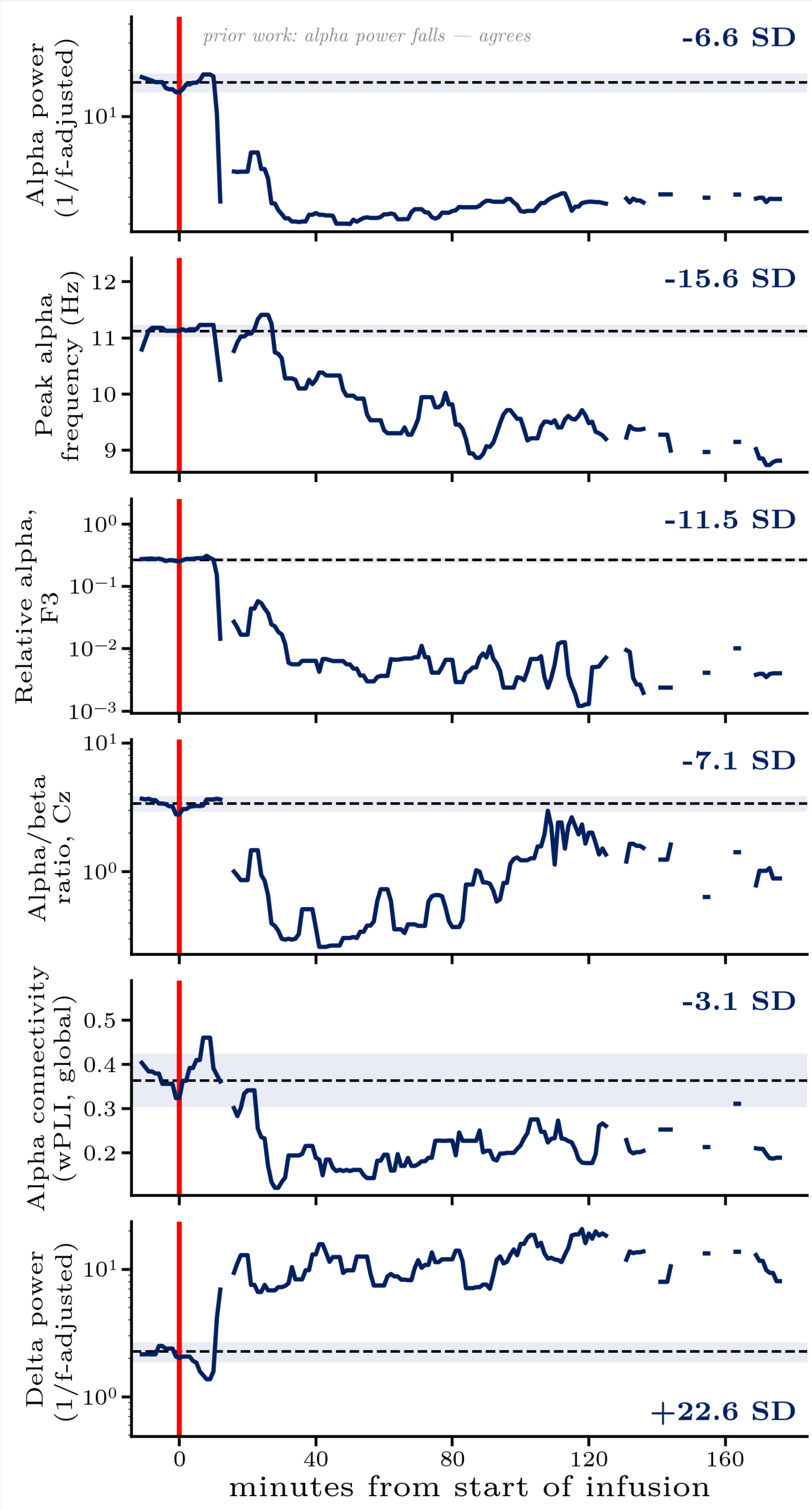


Figure 2: Change by dosing stage

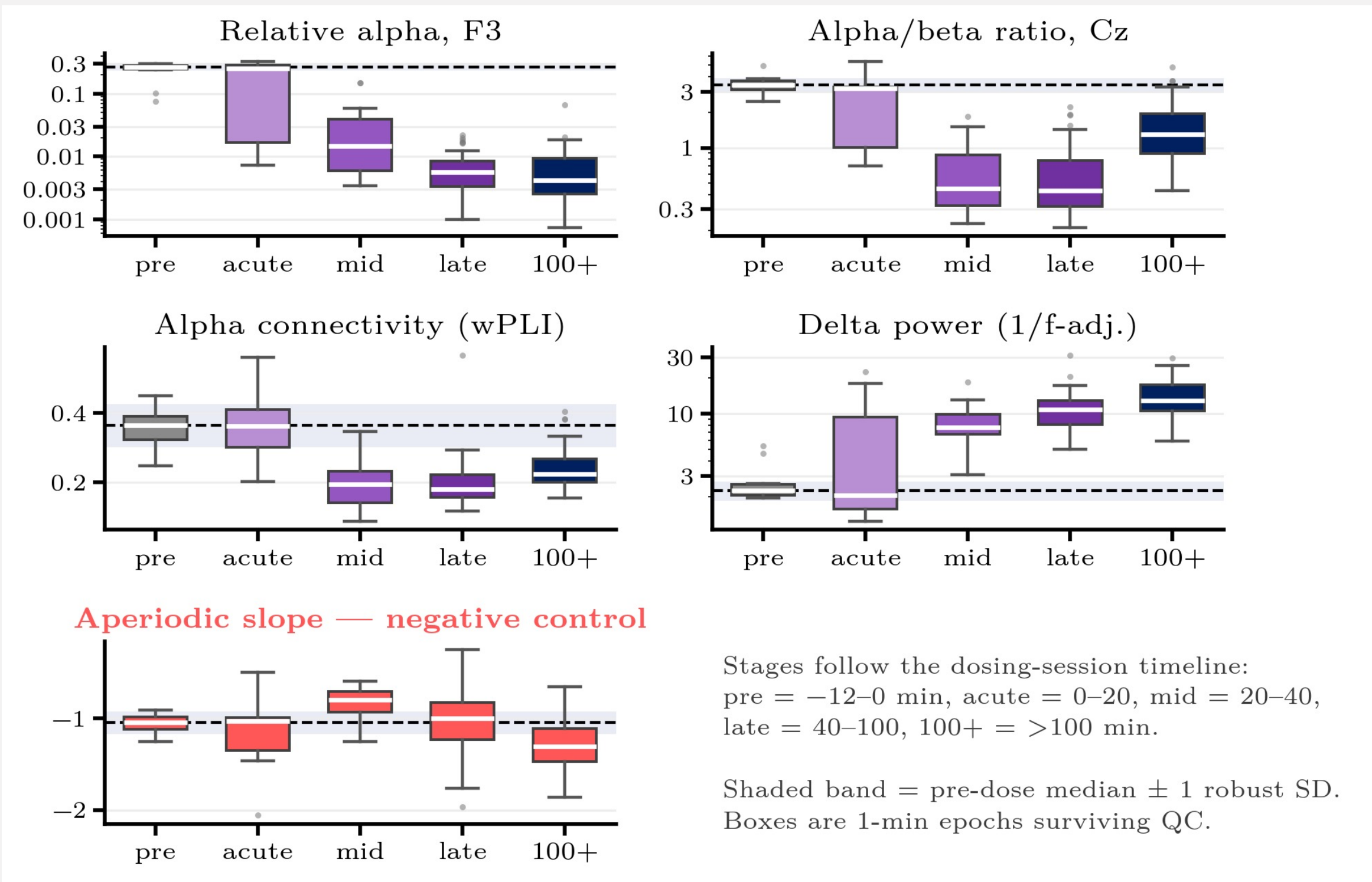
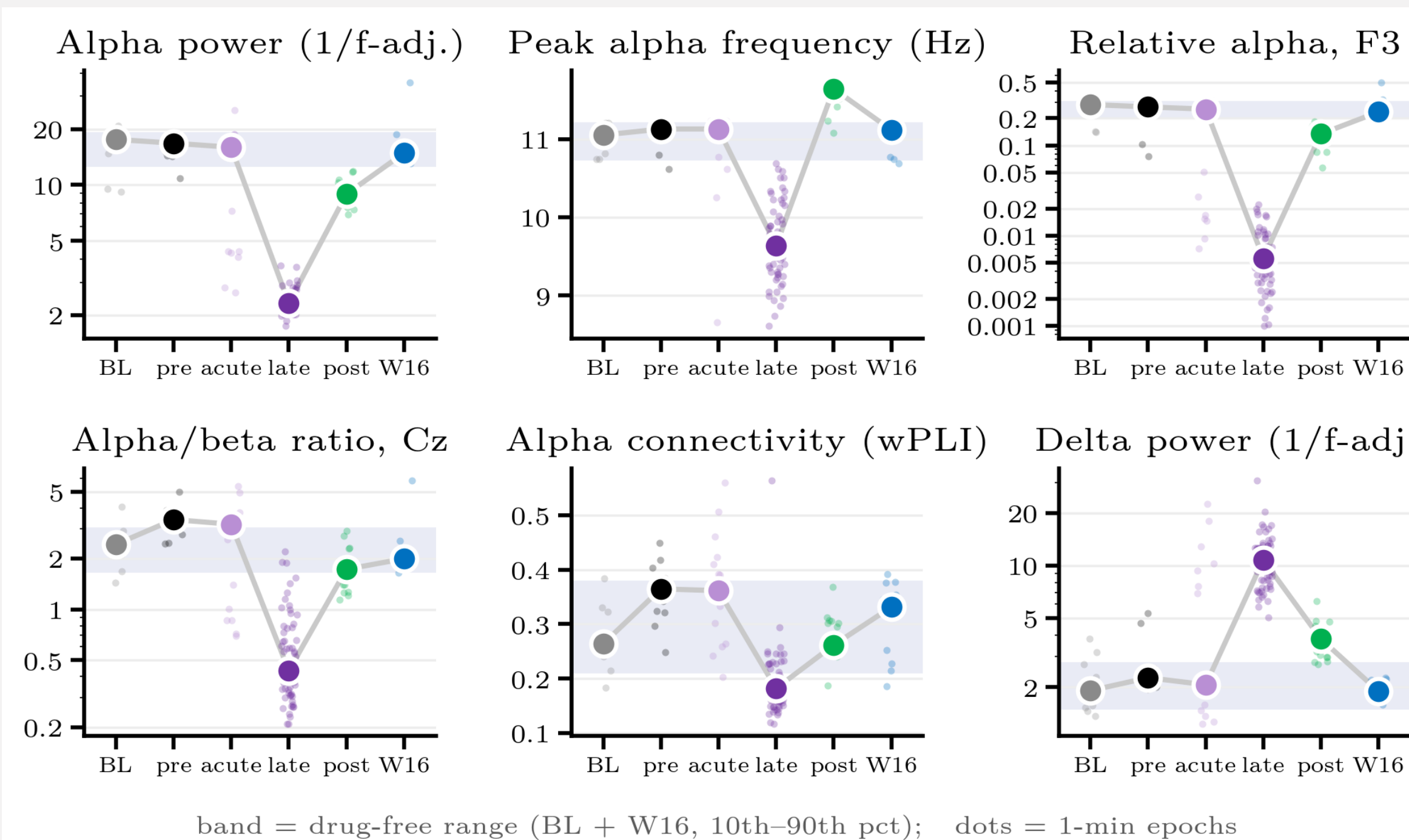


Figure 3: Reversibility



t = 0

ENSURES PSYCHEDELIC ONSET IS
TIMED PRECISELY

~11 minutes

FROM INFUSION START TO
MEASURABLE CHANGE

Change builds

THROUGH THE ACUTE DOSING PHASE
AND HOLDS FOR DURATION OF DRUG
EFFECT PERIOD

Reversible

TO BASELINE / PRE DOSE LEVELS
PRIOR TO DISCHARGE

Conclusion

- IV Psilocin delivers a rapid, predictable and consistent onset, duration and offset – effects arrive within the first 20 minutes and hold for a predictable window – EEG can be recorded against the time course of the drug effects rather than around it.
- Fixed pharmacokinetic frame gives a continuous view of the temporal dynamics of psychedelic action on the brain – unattainable with the pre/post or ad hoc mid-session recordings that oral dosing forces.
- Every epoch is anchored to a known t = 0, making the trajectory of neural change comparable across participants and aligned with subjective intensity as it rises and resolves.

Next steps

- Expand EEG analyses.
- Replicate analyses across entire sample (N=12).
- Compare against subjective psychedelic intensity.
- Test against oral dosing.

FUNDING, ETHICS & DISCLOSURES

Trial funded by Entropy Neurodynamics. Approved by the Swinburne University Human Research Ethics Committee

CONTACT

Sean Carruthers · Centre for Mental Health and Brain Sciences, Swinburne University of Technology scarruthers@swin.edu.au