

## PANDAS/PANS Paediatric Patients Show Continued Clinical Improvement at 24 weeks

### Key Points:

- NTIPANS1 was the first ever clinical trial to show highly significant clinical improvements in PANDAS/PANS patients (n=15) with a broad-spectrum cannabinoid drug therapy (NTI164) with excellent safety at 12 weeks
- Neurotech today provides further evidence of the clinical utility of NTI164 in PANDAS/PANS with further improvements at 24 weeks v baseline relating to the gold-standard validated measure of anxiety/depression, RCADS-P (39% improvement,  $p=0.0008$  v 30%,  $p=0.016$  at week 12)
- Severity of illness (CGI-S) continued to improve with patients down-staged from markedly ill at baseline to mildly ill at 24 weeks (32% improvement,  $p=0.00007$ ), which was a further improvement from 12 weeks versus baseline (18%,  $p=0.0005$ )
- The Company intends to seek early dialogue with regulatory bodies relating to the clinical and regulatory development opportunities in PANDAS/PANS for NTI164
- There are no approved treatments for PANDAS/PANS, which is an orphan disease and represents an addressable market of US\$1.4 billion annually in the US<sup>1</sup>

**Neurotech International Limited (ASX: NTI)** ("Neurotech" or "the Company"), a clinical-stage biopharmaceutical development company focused predominately on paediatric neurological disorders, today announces an update on the open-label Phase I/II clinical trial of NTI164 in children diagnosed with Paediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS) and Paediatric Acute-Onset Neuropsychiatric Syndrome (PANS), with all 15 patients entering into the 54 week extension phase of the trial in late August 2023. As previously reported, NTIPANS1 showed a statistically significant and clinically meaningful improvement shown across a range of gold-standard, clinically validated assessments over 12 weeks of NTI164 treatment. Data analysis undertaken at 24 weeks has shown continued improvements in patients with no adverse or serious adverse events recorded from 12-24 weeks.

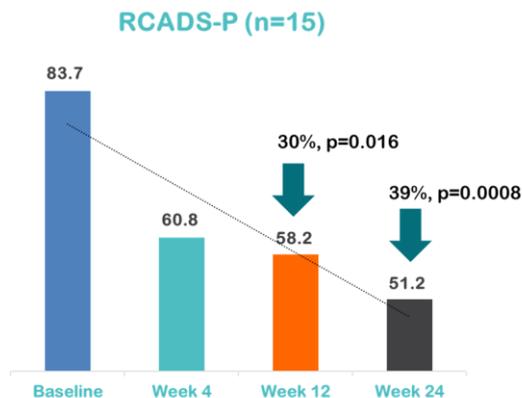
**Professor Russell Dale, Professor of Paediatric Neurology, University of Sydney and Children's Hospital at Westmead and Co-Principal investigator of the NTIPANS1 trial said:** "Following a minimum of 12 weeks of daily oral administration of NTI164, our patients diagnosed with PANDAS/PANS experienced notable enhancements in their clinical functionality, coupled with an absence of safety concerns. Consequently, these patients opted to prolong their treatment into the extension phase of the trial for an additional year. This extension has afforded us the opportunity to delve deeper into both safety profiles and clinical outcomes beyond the initial study duration, revealing continued substantial clinical advantages compared to baseline, along with marked enhancements in anxiety, depression, and overall illness severity. Noteworthy improvements have also been observed in measures of tic severity and obsessive-compulsive behaviours, all of which exhibit statistical significance when juxtaposed with baseline data. These findings consistently bolster the case for the prolonged usage of NTI164 within this challenging-to-treat patient cohort, showcasing benefits across various critical and validated clinical metrics. We eagerly anticipate disseminating these pivotal scientific insights through publication in a leading medical journal."

**Dr Thomas Duthy, Executive Director of Neurotech commented** "We are very pleased with the progress of our PANDAS/PANS patients under the extension phase of the NTIPANS1 clinical trial. The original 12 week trial demonstrated a statistically significant and clinically meaningful beneficial impact on these children's symptoms. The results of today's data release at 24 weeks highlights the durability of treatment with NTI164

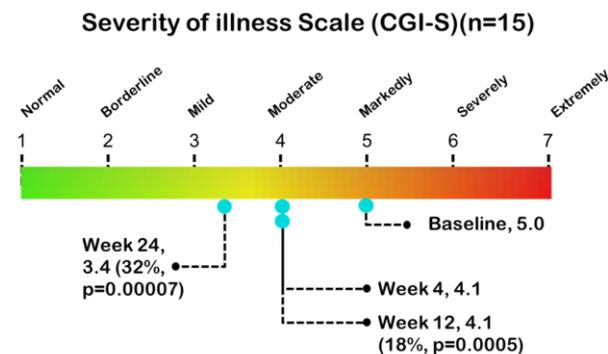
<sup>1</sup> Neurotech estimates from November 2023 AGM presentation

with patients recording further clinical improvements and importantly, such benefits did not come at the cost of safety, with NTI164 continuing to demonstrate an attractive safety profile, devoid of any serious events, which has traditionally hampered the acceptability of paediatric neurological drugs by the medical community."

### Significant Improvement in anxiety / depression



### Significant Improvement in Disease Severity



### RCADS-P<sup>1</sup>

### CGI-Severity of illness<sup>1</sup>

1. Revised Child Anxiety and Depression Scale – Parent Version (RCADS-P) - is a 47-item parent-report questionnaire of youth anxiety and depression (a scale of anxiety, social phobia, panic disorder, OCD, and low mood, a score below 65 represents low severity, scores between 65-70 represent medium severity and are on the borderline clinical threshold, and scores above 70 represent high severity and are above the clinical threshold). This test is completed at the site. CGI-S is a single-item, 7-point scale by clinicians designed to assess global impression of severity (1=normal, 7 = severely ill).

The NTIPANS1 clinical trial was designed to examine safety, and gold standard measures of clinical symptoms associated with PANDAS/PANS, relating to the severity of their condition, important measures relating to anxiety, depression, obsessive compulsive disorders and physical tic movements at 12 weeks compared to baseline measures. NTI164 showed significant and meaningful improvements in clinical function, with excellent safety and tolerability over 12 weeks of daily oral treatment. The Primary endpoint of anxiety and depression (RCADS-P) was met ( $p=0.016$ ) with a 30% improvement in overall symptoms from high severity at baseline to low severity from week 4 onwards. The second primary endpoint of severity of illness showed children were re-classified from markedly ill at baseline (CGI-S: 5.0) to moderately ill at 12 weeks (CGI-S: 4.1), an 18% improvement ( $p=0.0005$ ). At baseline, 60% of patients were classified under CGI-S were classified as markedly ill, 20% severely ill and 20% moderately ill.

#### Authority

This announcement has been authorised for release by the Board of Neurotech International Limited.

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#### About Neurotech

**Neurotech International Limited (ASX:NTI)** is a clinical-stage biopharmaceutical development company focused predominately on paediatric neurological disorders. Neurotech has completed a Phase I/II clinical

trial in Autism Spectrum Disorder (ASD), which demonstrated excellent safety and efficacy results at 28 days, 20 weeks and 52 weeks of treatment with NTI164. The Company commenced Phase II/III randomised, double-blind, placebo-controlled clinical trial in ASD in Q4 CY2022. Neurotech is also conducting additional Phase I/II trials in Paediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS) and Paediatric Acute-Onset Neuropsychiatric Syndrome (PANS), collectively PANDAS/PANS, along with Rett Syndrome and Cerebral Palsy during CY2023. Neurotech is also commercialising *Mente*, the world's first home therapy that is clinically proven to increase engagement and improve relaxation in autistic children with elevated Delta band brain activity.

For more information about Neurotech please visit <http://www.neurotechinternational.com>.

### **About NTI164**

NTI164 is a proprietary drug formulation derived from a unique cannabis strain with low THC ( $M < 0.3\%$ ) and a novel combination of cannabinoids including CBDA, CBC, CBDP, CBDB and CBN. NTI164 has been exclusively licenced for neurological applications globally. Pre-clinical studies have demonstrated a potent anti-proliferative, anti-oxidative, anti-inflammatory and neuro-protective effects in human neuronal and microglial cells. NTI164 is being developed as a therapeutic drug product for a range of neurological disorders in children where neuroinflammation is involved.

### **About PANDAS/PANS**

Paediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS) and Paediatric Acute-Onset Neuropsychiatric Syndrome (PANS), collectively PANDAS/PANS, is a clinical diagnosis given to children who have a dramatic (typically within one day) onset of neuropsychiatric symptoms including Obsessive-Compulsive Disorder (OCD) and/or restrictive eating. Children may exhibit repetitive tic movements, become moody, irritable/aggressive and anxious and have difficulty with schoolwork. The cause of PANS is unknown in the majority of cases; however, the disorder is hypothesised to be triggered by infections, metabolic disturbances, and other inflammatory reactions. PANDAS is considered a subset of PANS.

### **About Neurotech PANDAS/PANS Phase I/II Clinical Trial**

NTIPANS1 is a single-arm, open-label, Phase I/II clinical trial that recruited 15 paediatric patients with a clinical diagnosis of moderate to severe PANDAS/PANS to determine the efficacy and safety of orally administered NTI164 in these patients. The primary endpoints of the trial are the change from baseline at twelve (12) weeks for the Revised Children's Anxiety and Depression Scale-Parent-rated (RCADS-P) score and Clinical Global Impression (CGI) of severity (CGI-S) and improvement (CGI-I). Secondary clinical endpoints include other gold-standard, validated assessment tools: Yale Global Tic Severity Scale (YGTSS), Children's Yale-Brown Obsessive-Compulsive Scale, Conners Scale and EQ-5D-Y. Other secondary endpoints will examine the Safety and Tolerability of orally administered NTI164 (at 5, 10, 15 and 20 mg/kg/day). The trial enrolled children at two centres within Australia; the Children's Hospital at Westmead and the Paediatric Neurology Unit at Monash Medical Centre. The Phase I/II clinical trial has been registered on the Australian New Zealand Clinical Trials Registry (ANZCTR) under registration number: ACTRN12622001419752 or visit: <https://www.anzctr.org.au>