Neurotech Phase II/III Autism Trial Successfully Meets Primary Endpoint

Highlights:

- **NTIASD2 Phase II/III clinical trial met the primary endpoint of a statistically significant improvement in severity of illness (CGI-S) at 8 weeks between NTI164 and placebo (p<0.001)**
- **Children in NTI164 group re-classified from markedly-severely ill (CGI-S: 5.54) at baseline to mild-moderately ill (CGI-S: 3.77) at 8 weeks, a very strong improvement**
- **Key Secondary endpoints examining adaptive behaviour improvements (Vineland™-3) (p=0.024), CGI-Improvement (p<0.001) social responsiveness (p=0.028), were met with strong treatment-related benefits over placebo**
- **No serious adverse events recorded, no changes to kidney/liver function over the 8-week period noted, no treatment-related diarrhoea and nausea/vomiting rate lower for NTI164 arm**
- **Neurotech to accelerate registration-related regulatory discussions given strength of data**
- **NDIS spend of $6.73 billion to participants with Autism highlights dire need for a safe and effective therapeutic intervention to improve ASD symptoms and reduce healthcare costs[i]**

The Company will host an investor conference call at 12.00pm AEST today with Dr Thomas Duthy, Executive Director. Details below.

Neurotech International Limited (ASX: NTI) ("Neurotech" or "the Company"), a clinical-stage biopharmaceutical development company focused predominately on paediatric neurological disorders, today is pleased to announce significant, positive results for the Phase II/III NTIASD2 clinical trial for children with Autism Spectrum Disorder (ASD). The trial recruited a total of 54 patients with Level 2 (requiring substantial support) and Level 3 (requiring very substantial support) autism. All patients were enrolled at the Paediatric Neurology Unit at Monash Medical Centre, through the trial's Principal Investigator Professor Michael Fahey. The study met the primary endpoint and key secondary endpoints. Further data analysis and interpretation remains ongoing with the full results to be published on ASX and in a leading scientific journal.

Professor Michael Fahey, Head of the Paediatric Neurology Unit at Monash Medical Centre and the Chief Investigator of the NTIASD2 Trial*, has shared his thoughts on the clinical trial. He said "The analysis so far of the trial, which compared NTI164 to placebo over 8 weeks of daily treatment, have demonstrated statistically significant and clinically meaningful improvements in the severity of illness and adaptive behaviours such as communication and socialisation without any significant side effects. Currently, there are no FDA or TGA-approved treatments that show clinically significant improvements in one or more of autism's three core symptom domains: communication, impaired social interaction, and restricted behaviours. Therefore, the NTIASD2 clinical trial data look promising, given the substantial unmet market need for safe and effective therapies for autism, like NTI164."*

Dr Thomas Duthy, Executive Director of Neurotech *said "These results absolutely and unequivocally confirm our earlier clinical findings for NTI164 in ASD and again demonstrate substantial clinical benefits in these children across multiple measures. We are exceptionally thankful to Prof. Fahey and his clinical team, patients and their caregivers for their participation in this important clinical trial that has provided strong evidence of improvement in ASD patients in a well-controlled manner that allows Neurotech to aggressively explore our commercialisation options in light of the significant market need and patient/caregiver pull for new safe and effective interventions to improve these children's lives."*

NTIASD2 was a randomised, double-blind, placebo-controlled, Phase II/III clinical trial that recruited 54 patients with ASD to determine the efficacy and safety of NTI164 versus placebo. The study comprised an 8-week treatment period followed by an 8-week open-label maintenance period followed by a 2-week wash-out period. Participants who choose to continue receiving NTI164 beyond the duration of the study may do so for an additional 38 weeks. They will undergo the 2-week down-titration phase at the end of their extension phase.

The primary endpoint of the trial was Clinical Global Impression - Severity of Illness (CGI-S). Key Secondary Endpoints include Change in Vineland Adaptive Behaviour Scales, Third Edition (Vineland™-3), Change in Social Responsiveness Scale, 2nd Edition (SRS-2), Change in Clinical Global Impression Scale -Improvement (CGI-I), Change in Anxiety, Depression and Mood Scale (ADAMS) and safety. ADAMS is the only secondary endpoint not yet available.

Baseline Patient Characteristics

A total of fifty four (n=54) patients completed daily treatment of NTI164 /placebo for the full duration of the eight (8) week trial period required for primary endpoint analysis with n=26 patients in the NTI64 arm and n=28 patients in the placebo arm available for analysis. The average age was 12.4 years (NTI164 arm) and 12.0 years placebo arm (p=0.442). 54% of patients in both arms were male and 46% female (p=0.982). At baseline, the mean CGI-S score for the NTI164 arm was slightly higher (i.e. patient's severity was worse) at 5.54 versus 5.21 in the placebo arm, which was not statistically significant (p=0.106). Accordingly, the two arms of the trial were well-balanced at baseline.

Safety

No serious adverse events were reported during the 8 week randomisation period in either the NTI164 arm or the placebo arm. At 8 weeks a total of 11 adverse events across 7 patients for both arms were recorded. None of these adverse events were serious and were not considered to significantly interfere with the patient's functioning.

In the NTI164 arm, 0 patients (0%) reported diarrhoea versus two patients (8%) in the placebo arm. Nausea/vomiting occurred in two patients (8%) in the NTI164 arm versus three patients (11%) in the placebo arm. None of the adverse events required any additional medications (i.e. anti-nausea, anti-diarrhoea).

Measurements pertaining to kidney and liver function along with blood chemistries and vital signs were normal over the 8 weeks for both arms. No reportable events occurred. In conclusion, for a chronically administered (daily) oral intervention, NTI164 exhibits an excellent safety profile and minimal patient-specific side-effects.

This aligns with previous clinical experience, with NTI164 recording excellent safety and tolerability out to 90 weeks of daily oral treatment in ASD patients participating in the extension study from the original Phase I/II clinical trial reported in 2022 (n=11).

Clinical Results - Efficacy

Primary Endpoint: Clinical Global Impression -Severity of Illness (CGI-S)

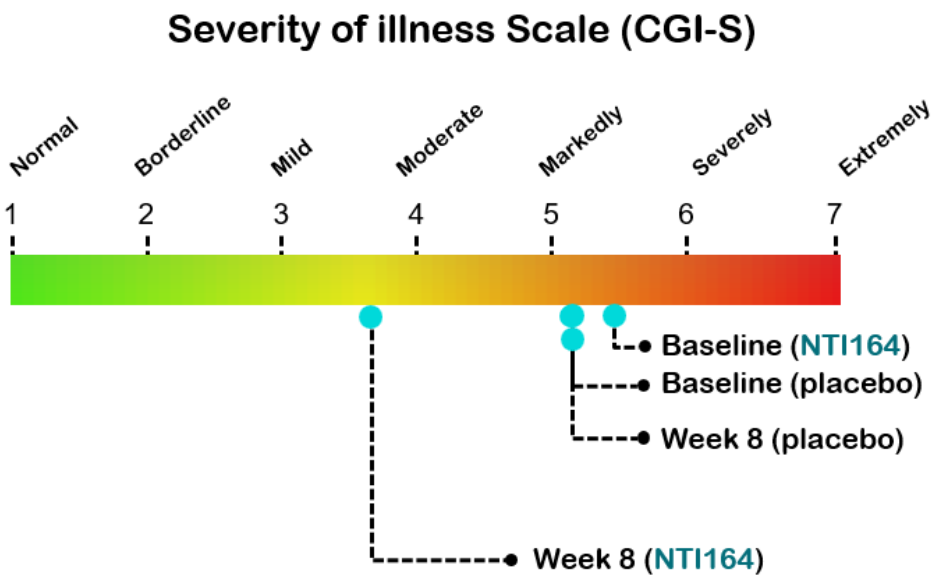
CGI-S reflects clinician's impression of severity of illness on a 7-point scale ranging from 1=not at all to 7=among the most extremely ill.

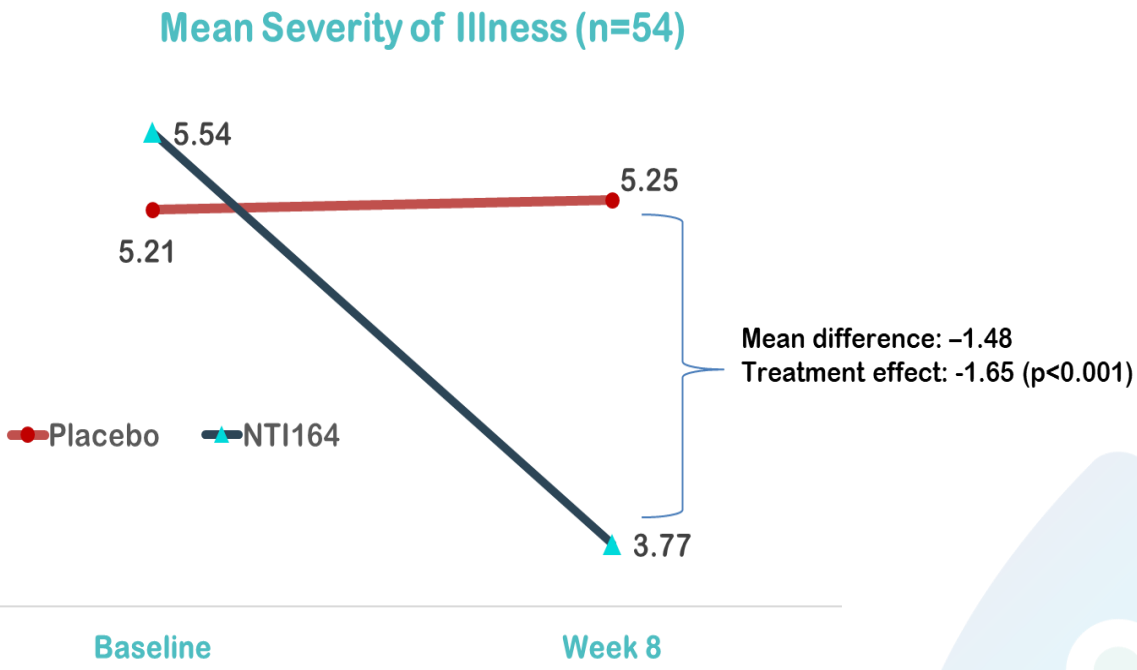
There was a very strong treatment effect/benefit of -1.65 observed using the CGI-S scale (95% Confidence Interval (CI); -2.3, -1.00) in the NTI164 arm versus placebo at 8 weeks, which was highly significant (p=<0.001).

At 8 weeks of treatment, the mean CGI-S was 3.77 in the NTI64 arm versus 5.54 at baseline (mean change -1.77, 32% improvement) and versus 5.25 in the placebo arm (mean change -1.48, 28% improvement).

The placebo group essentially showed no improvement at week 8 (1.8% worse), indicating limited to no placebo effects on CGI-S, which can occur in ASD clinical trials.

There was significant down-staging of a patient's illness severity noted with 88% of patients classified as markedly/severely ill at baseline in the NTI164 arm.





Neurotech International Ltd
Suite 5 CPC, 145 Stirling Highway
Nedlands, Western Australia 6009

T: +61 (8) 9389 3130
E: info@neurotechinternational.com
W: neurotechinternational.com

ABN: 73 610 205 402
ASX: NTI

Key Secondary Endpoints: Vineland-3, Clinical Global Impression - Improvement (CGI-I), Social Responsiveness Scale (SRS)

Vineland™-3 is internationally recognised as a leading instrument for supporting the diagnosis of intellectual and developmental disabilities in ASD; specifically adaptive behaviour. Adaptive functioning, which are skills people need to function independently at home, at school and in the community is an important factor in predicting long-term outcomes for people with ASD. Improving adaptive abilities in patients is therefore a desirable treatment goal. The adaptive behaviour composite consists of (a) communication, (b) daily living skills & (c) socialisation. Vineland-3™ has excellent test, re-test reliability & between rater (clinician, parent).

"The goals of treatment for ASD are to improve core deficits in social communication and social interactions and minimize the impact of restricted behaviours, with an overarching goal to help children develop greater functional skills and independence."[1]

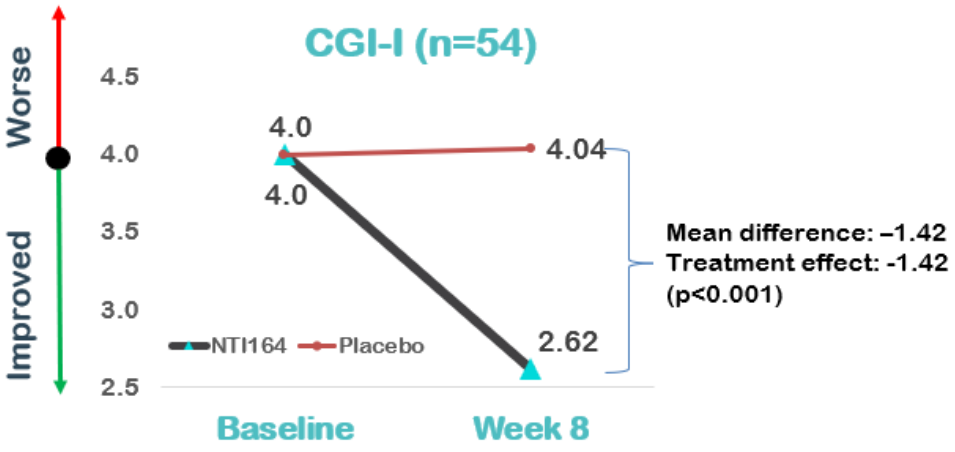
At 8 weeks, the patients' adaptive behaviours as measured by the Vineland™-3 adaptive behaviour scores, showed a significant, clinically meaningful treatment effect/benefit of 3.23 (95% CI; 0.44, 6.02) versus placebo at 8 weeks, which was statistically significant (p=0.024).

Adaptive behaviour is an important factor in predicting long-term outcomes for people with ASD and improving this behaviour is a goal of any treatment intervention in ASD.

Examining the three sub-domains of Vineland™-3, all showed clinically important treatment benefits for NTI164 across communication (2.92, p=0.0467), daily living skills (3.56, p=0.0213) and socialisation (3.47, p=0.0475) all of which were statistically significant.

Clinical Global Impression – Improvement (CGI-I) is a 7−point scale that reflects experts' clinical judgment of the patient based on the clinician's total experience with the ASD population graded from 1 (very much improved) to 7 (very much worse). A decrease in CGI-I score indicates improvement.

There was a strong treatment effect/benefit observed of -1.42 (95% CI; -2.0, -0.82) in the NTI164 group versus placebo at 8 weeks, which was highly statistically significant (p<0.001).



[1] Weitlauf AS, McPheeters ML, Peters B, et al. Therapies for Children With Autism Spectrum Disorder: Behavioural Interventions Update. Rockville (MD): Agency for Healthcare Research and Quality (US); 2014 Aug. (

At 8 weeks of treatment, the mean CGI-I difference between the NTI164 group and placebo was -1.42, which represents an absolute improvement of 36%. Following 8 weeks of daily treatment with NTI164, 88% of patients showed improvement (versus 43% in the placebo arm) and 46% of NTI164 patients were very much or much improved vs 4% for placebo.

	Very Much Improved	Much Improved	Minimally Improved	No Change	Minimally Worse	Much Worse	Very Much Worse
Scale	1	2	3	4	5	6	7
Placebo (week 8)	-	1(4%)	11 (39%)	8 (29%)	4 (14%)	2 (7%)	2 (7%)
NTI164 (week 8)	2 (8%)	10 (38%)	10 (38%)	4 (15%)	-	-	-

The Social Responsive Scale, 2nd Edition (SRS-2) is an internationally recognised tool used to identify social impairment associated with ASD and quantifies its severity using a Total score plus six sub-scales (Social Awareness, Social Cognition, Social Communication, Social Motivation, Restricted Interest and Repetitive Behaviour and Social Communication and Interaction).

There was a significant treatment effect in SRS-2 patients between the NTI164 group and placebo at 8 weeks (mean difference of -3.064, 95% CI = -5.781, -0.348, p value =0.028). This reinforces the positive impacts of NTI164 on an important core symptom of ASD; namely social behaviours, including communication.

Conclusions

NTI64 has demonstrated a statistically significant and clinically meaningful improvement in ASD across multiple measures of assessments relating to severity of illness, drug-related improvement (CGI-I), adaptive behaviours and socialisation. All patients in the placebo arm of the trial are now eligible to receive NTI164 for a further eight weeks, with all patients able to elect to receive treatment for 52 weeks if they so chose.

Neurotech intends to accelerate registration-related regulatory discussions given the strength of data with the Therapeutic Goods Administration in Australia initially. There is a high unmet medical need for treatments like NTI64 that are safe, effective and treat the underlying core symptoms in ASD relating to communication, socialisation and restricted behaviours. Neurotech thanks Professor Fahey and his patients for their commitment to the Company's autism program.

Conference Call / Webinar

The Company will host an interactive investor webinar at 12.00pm AEST today with Dr Thomas Duthy, Executive Director. Shareholders, investors and interested parties are encouraged to register to attend the presentation at the following link:

https://us02web.zoom.us/webinar/register/WN_emXuxVP_RP6tOAwA9WzwFQ

A recording will be available at the above link shortly after the conclusion of the live session, and the replay will also be available via the Company's website and social media channels.

Questions can be submitted in advance to matt@nwrcommunications.com.au

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

Further Information
Dr Thomas Duthy
Executive Director
td@neurotechinternational.com
+61 (0)402 493 727

About Neurotech

Neurotech International Limited (ASX:NTI)) is a clinical-stage biopharmaceutical development company focused predominately on paediatric neurological disorders with a broad-spectrum oral cannabinoid drug therapy called NTI164. Neurotech has completed a Phase II/III randomised, double-blind, placebo-controlled clinical trial in Autism Spectrum Disorder (ASD) with clinically meaningful and statistically significant benefits reported across a number of clinically-validated measures and excellent safety. In addition, Neurotech has completed and reported statistically significant and clinically meaningful Phase I/II trials in ASD and Paediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS) and Paediatric Acute-Onset Neuropsychiatric Syndrome (PANS), collectively PANDAS/PANS along with Rett Syndrome. Neurotech has received human ethics committee clearance for a Phase I/II clinical trial in spastic cerebral palsy.

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

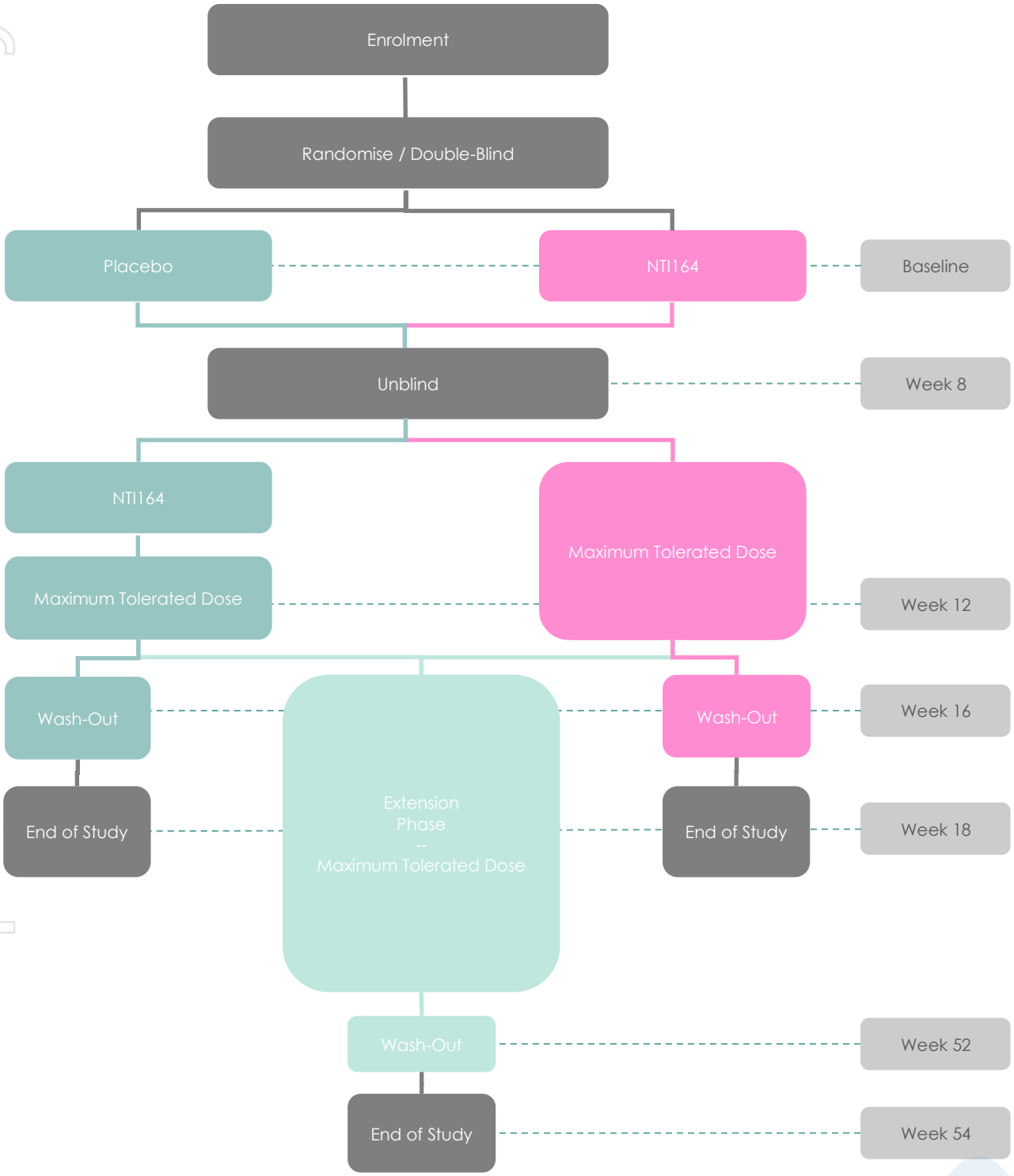
About NTI164

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 the ASD Phase II/III Clinical Trial

NTIASD2 is a Phase II/III Double-Blind, Randomised and Controlled-to-Open-Label Study to assess the efficacy of NTI164 up to 20mg/kg/day on the severity of spectrum disorder (ASD) in up to 54 patients aged 2-17 years (inclusive). The primary endpoint of the trial is Clinical Global Impression-Severity (CGI-S), which reflects clinician's impression of severity of illness on a 7-point scale ranging from 1=not at all to 7=among the most extremely ill [Timeframe: Baseline, Week 12].For more information on the trial, please visit the Australian New Zealand Clinical Trials Registry (ANZCTR) under Registration Number **ACTRN12622001398796** at: https://www.anzctr.org.au

Appendix 1 - NTIASD2 Clinical Trial Design



[i] Source: NDIS data 30 June 2023