# Improving Lives

Neurotech International

## Investor Presentation:

### Autism Phase II/III Clinical Trial Results
### Rett Syndrome Phase I/II Clinical Trial Top-Line Results
### Capital Raise

**Dr Tom Duthy**
Executive Director

17 April 2024

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# Autism Spectrum Disorder (ASD) Goals

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***"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]

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. (Comparative Effectiveness Review, No. 137.) Introduction.

# Autism Spectrum Disorder (ASD)

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## Market

**PREVALENCE OF ASD**

**~1 in 44 children in the US[1]**

- Prevalence of ASD in Australia est. 1 in 50
- 40-fold increase in 20 years[5]

## Current Treatment

**TREATMENT MARKET SIZE**

**US$2.0bn[2]**


2 Approved Drugs
(* limited use)
Risperidone,
Aripiprazole

## Clinical Trial

**ASD is a serious <u>neuro inflammatory</u> developmental disorder that impairs the ability to communicate & interact**

Common symptoms; behavioural issues, agitation, repetitive movements, inability to focus & compulsive neurological patterns

**Huge unmet medical need - patients need better treatment**

Current drugs have numerous side effects; weight gain, breast tissue development, nausea, dry mouth, anxiety, irritability, insomnia, stomach pain & movement disorders

**Initial Focus of NTI164 – A full spectrum, oral cannabinoid biopharmaceutical product**

**Initial Phase I/II data positive at 4 weeks, 20 weeks and 52 weeks…safety past 90 weeks**

No FDA-approved drugs for the core symptoms of ASD (i.e. social communication, social interaction, restricted behaviours)
**SIGNIFICANT UNMET MEDICAL NEED**

1. www.cdc.gov/ncbddd/autism/addm.html
2. https://www.fortunebusinessinsights.com/industry-reports/autism-spectrum-disorder-therapeutics-market-101207-CAGR-of-7-4.html

# ASD and the NDIS

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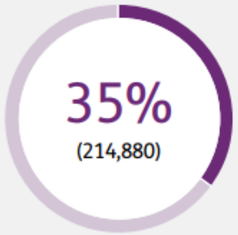
**The National Disability Insurance Scheme (NDIS) provides assistance to people with a disability, as well as their families and carers**

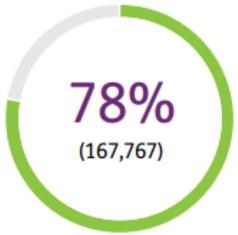
***There is a strong market need for an effective therapeutic intervention such as NTI164 to improve ASD symptoms & reduce healthcare costs***

## $35.5 Billion

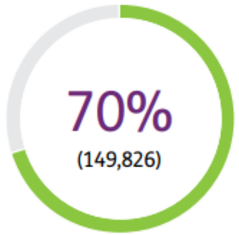
**Cost of NDIS in 2022, to increase to $52 billion by 2026, $100 billion by 2033[1]**




of the **610,502** active NDIS participants have a **primary disability of autism**, making it the **most common disability for NDIS participants.**

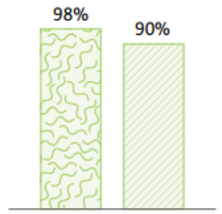



of participants with autism **are aged 18 years and under**, with **112,565 (52%) participants aged 7 to 14 years.**



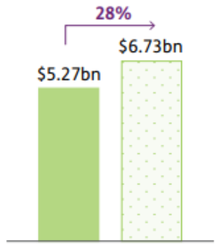

of participants with autism **are male.**

**In the year ending 30 June 2023:**



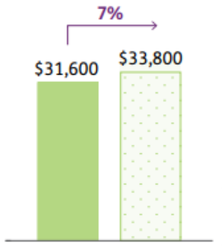

**98%**

of access decisions for applicants with autism **aged 18 years and under** resulted in the applicant joining the Scheme, compared to 90% for those aged over 18 years.




**$6.73 billion**

of paid supports were provided to participants with autism, compared to **$5.27bn** in the previous year, an increase of 28%.




**$33,800**

was the average payment for a participant with autism, an increase of 7% compared to the previous year.

The majority of participants with autism are aged 7 to 14 years (52%) and 15 to 18 years (16%)

**230,119 as at 31 December 2023**

1. The Australian, 25 October, 2022- https://www.afr.com/politics/federal/how-the-ndis-will-blow-out-to-50b-in-four-charts-20221019-p5br1c

Source: NDIS data 30 June 2023

# NTI164 ASD Program Highlights



## The Program

### First in human Phase I/II ASD paediatric study (open-label n=14)

Commenced in May 2021 at Monash Children's Hospital led by A/Prof. Michael Fahey

- 28 Day Data Released 8 July 2022
- 20 Week Data Released 26 October 2022
- 52 Week Data Released 17 March 2023
- 90 Week Safety Data Released 7 Feb 2024

*Strength of data facilitated a cap raise of $9.0m to fund a larger study*

### Phase II/III ASD paediatric study (double-blind) n=54

Commenced in December 2022 at Monash Children's Hospital led by A/Prof. Michael Fahey

Completed recruitment in December 2023

Last patient, last visit in April 2024

# ASD Trial Design (NTIASD2)



## Primary Endpoint

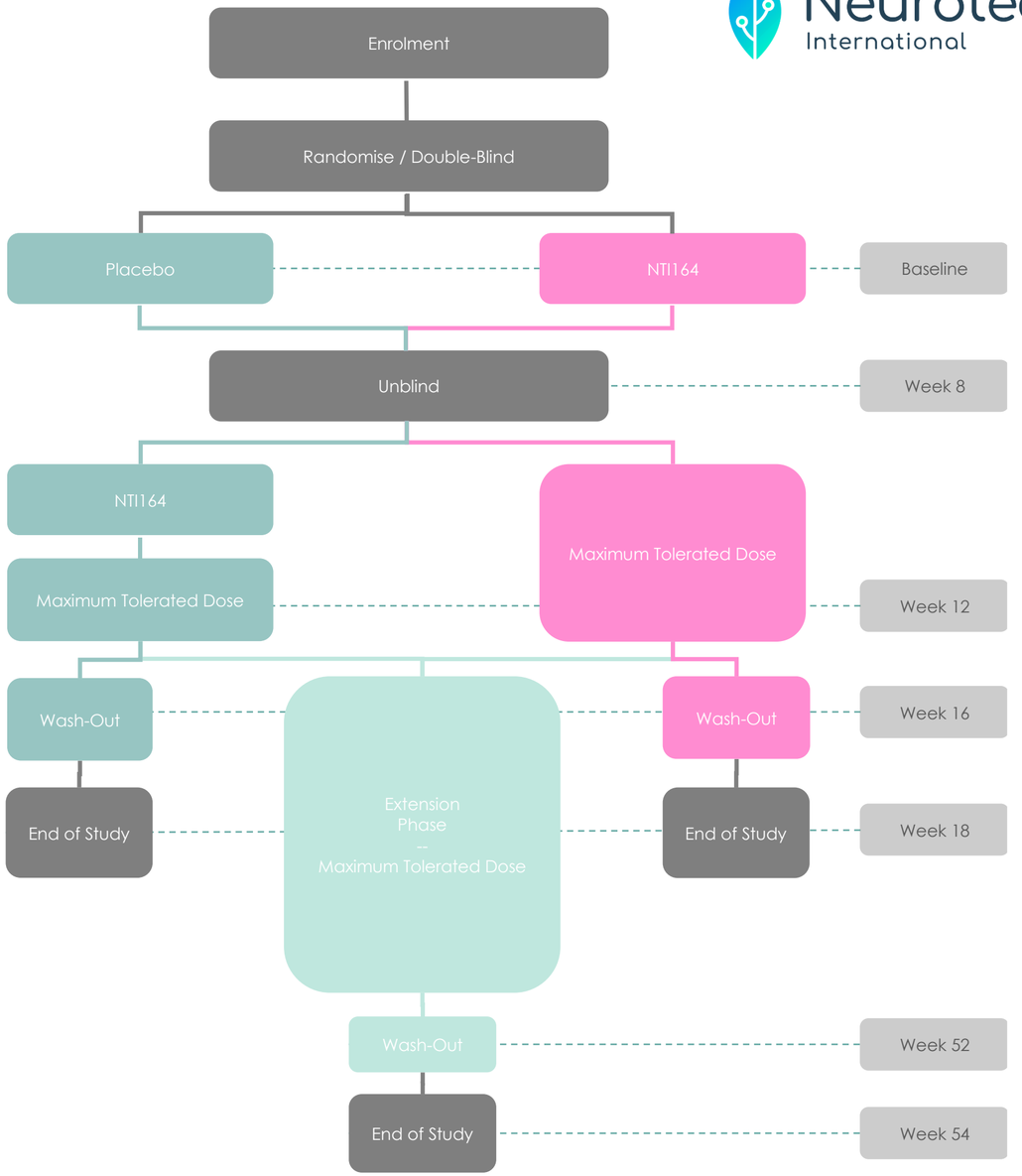
- Clinical Global Impression – Severity of illness (CGI-S)

## Secondary Endpoints

- Vineland™-3 (adaptive behaviours measure)
- Clinical Global Impression – Improvement (CGI-I)
- Social Responsiveness Scale, 2nd Edition (SRS-2),
- Safety
- Change in Anxiety, Depression and Mood Scale (ADAMS)[2]

**High potency, Broad Spectrum Cannabinoid Formulation in Oil, *C. sativa L.* (Plant Derived)**

- Entourage Effect
- Neuroprotective
- Anti- Neuroinflammatory




1. DAYBUE is a trademark of Acadia Pharmaceuticals Inc
2. Pending data

# Baseline Patient Characteristics



| Characteristic | | Number (%) / Mean | | |
|---|---|---|---|---|
| | | NTI164 (n=26) | Placebo (n=28) | P Value |
| Age | | 12.4 years | 12.0 years | 0.442 |
| Sex | Male | 14 (54%) | 15 (54%) | 0.982 |
| | Female | 12 (46%) | 13 (46%) | |
| CGI-S[1] | Overall Score | 5.54 (100%) | 5.21 (100%) | 0.106 |
| | Mild Pts | 1 (4%) | 1 (4%) | N/A |
| | Moderate Pts | 2 (8%) | 9 (32%) | N/A |
| | Marked Pts | 11 (42%) | 5 (18%) | N/A |
| | Severe Pts | 12 (46%) | 13 (46%) | N/A |

**A total of 54 patients evaluable for Primary Endpoint**

1. Clinical Global Impression (CGI)- is a physician/observer-rated scale synthesizing the clinician's impression of the global state of an individual & frequently employed in clinical trials for neuropsychiatric disorders. 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. N/A – not available

# Summary of Efficacy Measures



**Primary Endpoint**

- **CGI-S** — Significant treatment effect -1.65 (95% CI; -2.3, -1.0) versus placebo at 8 weeks (p<0.001)

**Key Secondary Endpoints**

- **Vineland-3™** — Significant treatment effect 3.23 (95% CI; 0.44, 6.0) versus placebo at 8 weeks (p=0.024)
- **CGI-I** — Significant treatment effect -1.42 (95% CI; -2.0, -0.82) versus placebo at 8 weeks (p<0.001)
- **SRS** — Significant treatment effect -3.064 (95% CI; -5.781, -0.348) versus placebo at 8 weeks (p=0.028)

Clinical Global Impression- Severity of Illness (CGI-S)CGI-S is a single-item, 7-point scale by clinicians designed to assess global impression of severity (1=normal, 7 = severely ill). 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. 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, Social Responsiveness Scale (SRS™-2) is internationally recognised as a leading instrument (65 items) for identifying the presence and severity of social impairment within the Autism spectrum

# Expert Interpretation of Results



## Professor Michael Fahey – Lead Investigator

***"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."***

1. www.cdc.gov/ncbddd/autism/addm.html
2. https://www.fortunebusinessinsights.com/industry-reports/autism-spectrum-disorder-therapeutics-market-101207-CAGR-of-7-4.html

# 8 Week Safety Data

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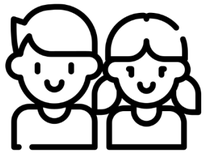
**NTI164 Exhibits Excellent Safety Over 8 Weeks**

A total of 54 patients evaluable at 8 weeks



**No serious adverse events (SAEs) recorded** for NTI164 & placebo, across entire period (8 weeks)

**Adverse Events (AEs) were tolerated and manageable (total of 11 AEs across 7 patients for both arms)**

**Nausea/Vomiting**

- 2 pts (8%) (NTI164)
- 3 pts (11%) (Placebo)

**Diarrhoea**

- 0 pts (0%) (NTI164)
- 2 pts (8%) (Placebo)

**Kidney/Liver Function**

**Vital Signs**

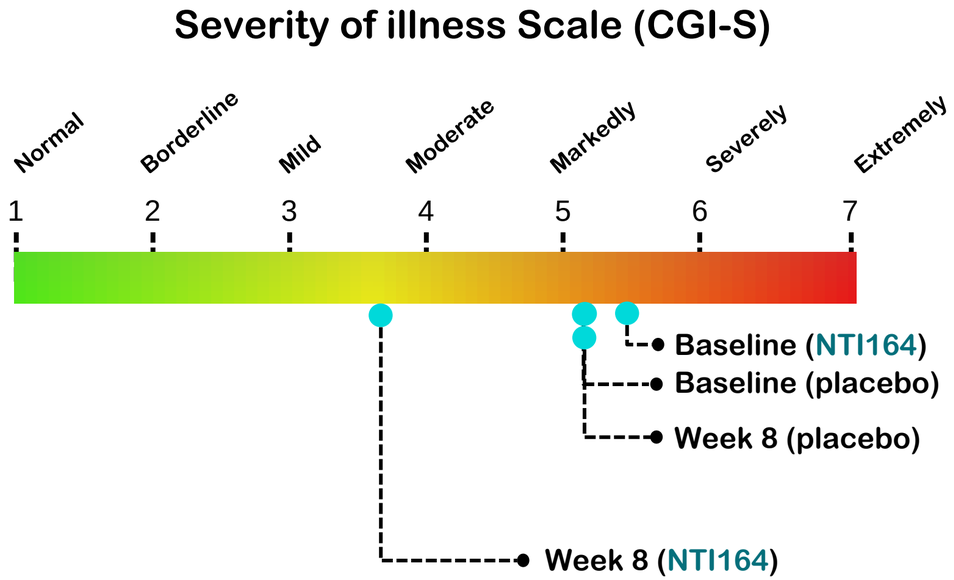
**Blood Chemistry**

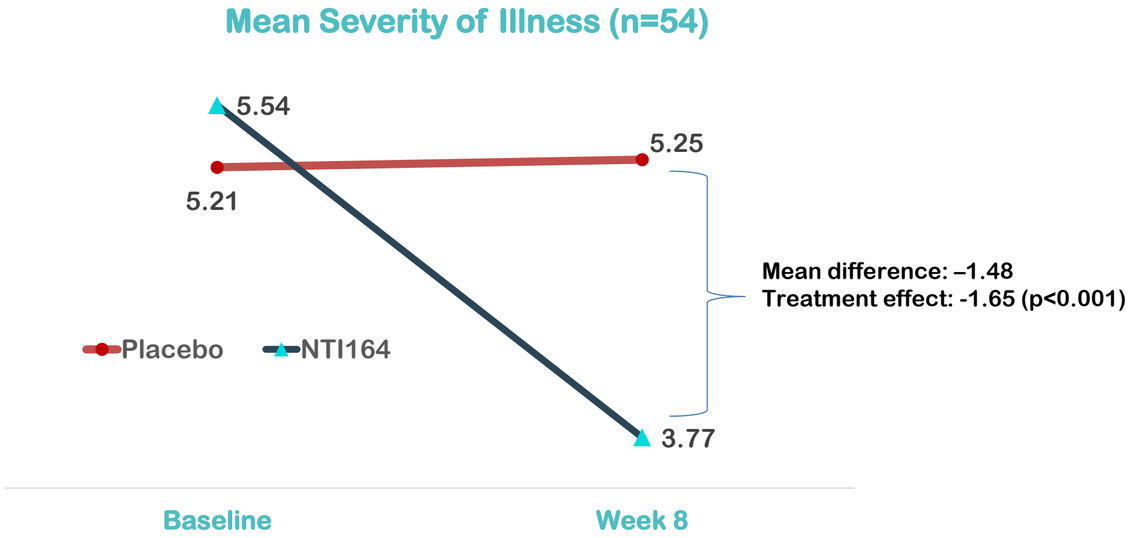
**Normal**

**Conclusion**: NTI164 exhibits an excellent safety profile and minimal patient-specific side-effects

# Primary Endpoint: CGI-S






**CGI-Severity of illness versus placebo at 8 weeks[1] (p <0.001)**

## Clinical Interpretation

- Placebo group showed no improvement at week 8 (1.8% worse)
- 28% improvement for NTI164 v placebo at 8 weeks, 32% v baseline
- Significant down-staging of patient's illness severity – 88% pts markedly/severely ill at baseline in the NTI164 arm

1. Clinical Global Impression (CGI)- is a physician/observer-rated scale synthesizing the clinician's impression of the global state of an individual & frequently employed in clinical trials for neuropsychiatric disorders. CGI-S reflects the clinician's impression of severity of illness on a 7-point scale ranging from 1=Normal to 7=among the most extremely ill.

# Secondary Endpoint: CGI-I

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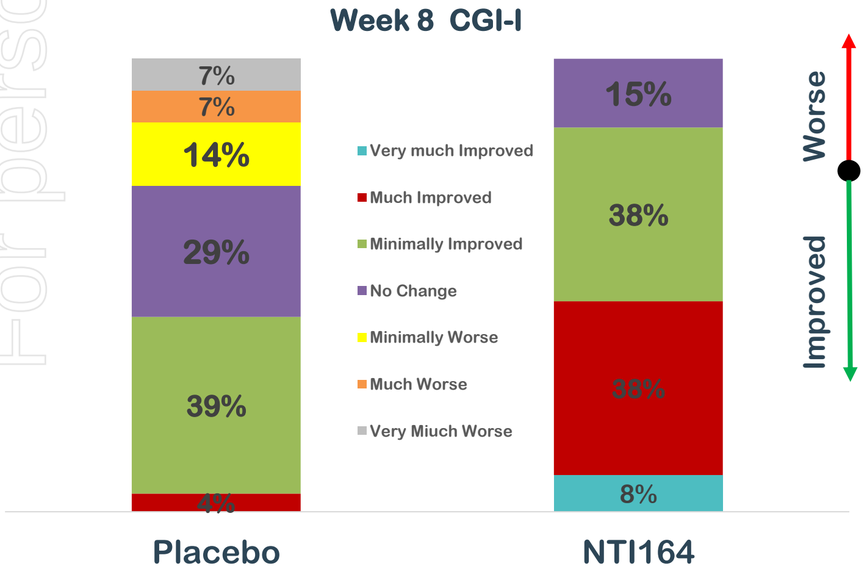
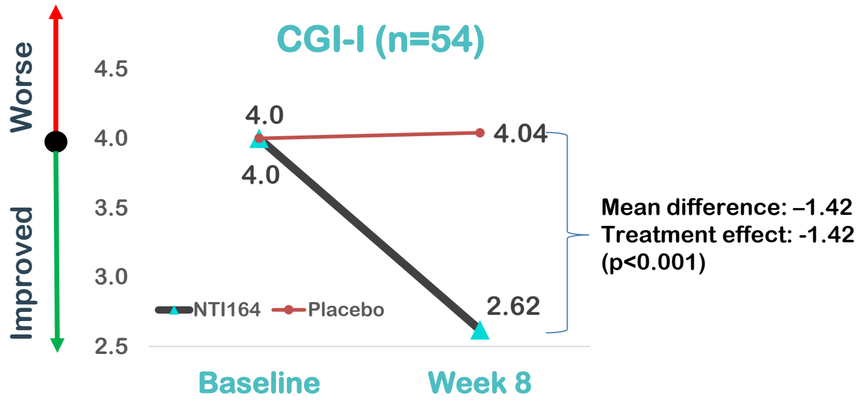
Clinical Global Impression – Improvement (CGI-I) is a 7−point scale that reflects experts' clinical judgment of the patient based on the clinician's total experience with the ASD population graded from 1 (very much improved) to 7 (very much worse). A decrease in CGI-I score indicates improvement.

| | 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%) | - | - | - |




## Clinical Interpretation

- 1.42 mean improvement between NTI164 and placebo at 8 weeks (36%)
- 46% of NTI164 patients very much or much improved v 4% for placebo

**CGI-I at 8 weeks (p<0.001)**

1. Clinical Global Impression (CGI) - is a physician/observer-rated scale synthesizing the clinician's impression of the global state of an individual & frequently employed in clinical trials for neuropsychiatric disorders. 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.

# Secondary Endpoint: Vineland™-3



## Vineland™-3[1]

Standardised measure of adaptive behaviour

Norm-based: adaptive functioning compared to others of same age

Excellent test, re-test reliability & between rater (clinician, parent)

| Vineland-3 Domain<br>8 week measure | Treatment Effect | P-value |
|---|---|---|
| **Adaptive behaviour composite** | **3.23** | **0.0240** |
| **Communication** | 2.92 | 0.0467 |
| **Daily living skills** | 3.56 | 0.0213 |
| **Socialisation** | 3.47 | 0.0475 |

## Clinical Interpretation

- No Secondary endpoints were statistically powered for this trial
- Adaptive behaviour improvement is a treatment goal in ASD
- Statistical significance reached for adaptive behaviour composite **and** all three sub-domains

1. 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.

# Data Comparison & Context - Risperidone

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| | RISPERIDONE | NTI164 Phase I/II (n=11) | NTI164 Phase II/III (n=54) |
|---|---|---|---|
| **CGI-Severity of illness** | • (n=96): -1.0 from baseline at 12 months[1]<br>• (n=38): -0.7 from baseline at 48 weeks[2] | • -1.1 change at 20 weeks (p=0.005), 26% improvement<br>• -1.3 change at 52 weeks (p=0.032)<br>• ~40% of subjects markedly or severely ill at baseline – 0% from week 4 onwards<br>• At 20 weeks, mean result: 100% mildly ill | • -1.48 change v placebo at 8 weeks, 28% improvement<br>• Treatment effect of -1.6 (p<0.001)<br>• 88% of subjects markedly or severely ill at baseline – 27% at 8 weeks<br>• 19% borderline ill at 8 weeks |
| **CGI- Improvement** | • (n=15): CGI-I changes after 8 weeks from baseline[3]<br>  • 27% - very much improved<br>  • 47% - much improved<br>  • 20% - minimal improved<br>  • 6.6% - no change | • 100% of active patients showed improvement after 20 weeks of daily treatment with NTI164<br>• 100% patients much Improved at 20 weeks<br>• 90% of patients much Improved at 52 weeks 10% very much improved) | • 86% of patients showed improvement at 8 weeks of daily treatment with NTI164 v 43% placebo<br>• 46% of NTI164 patients very much or much improved v 4% for placebo |
| **Vineland™-3** | • Near absence of RCTs examining Vineland noted in the medical literature<br>• No impact on social interaction and communication[4] | • Adaptive behaviour mean difference of 3.8 (p=0.0005) at 20 weeks and mean difference 6.4 at 52 weeks (p=0.028)<br>• Highly significant improvement<br>• Highly significant improvements also in domains of communication, daily living, socialisation at 20 weeks and 52 weeks (ex-socialisation) | • Adaptive behaviour treatment effect 3.23 v placebo (p=0.024)<br>• Highly significant improvement<br>• Highly significant improvements also in domains of communication, daily living, socialisation by 8 weeks |
| **Safety** | • Significant weight gain Increase in BMI by 0.62[1]<br>• Weight gain[2]<br>• Increase in appetite, sedation[3] | • No change to weight<br>• No change to appetite<br>• Mild nausea, stomach pain | • Nausea / Vomiting (8% pts)<br>• No diarrhoea |

*"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."*

RCT- randomised controlled trial; BMI – Body Mass index

1. Kent, et al. Risperidone Dosing in Children and Adolescents with Autistic Disorder: A Double-Blind, Placebo-Controlled Study. Journal of autism and developmental disorders. 2012. 43. 10.1007
2. A Study to Evaluate the Efficacy and Safety of Risperidone (R064766) in Children and Adolescents With Irritability Associated With Autistic Disorder, 2015
3. Ghaeli P et al. Effects of risperidone on core symptoms of autistic disorder based on childhood autism rating scale: an open label study. Indian J Psychol Med. 2014 Jan;36(1):66-70.
4. McDougle CJ, et al.. Risperidone for the core symptom domains of autism: results from the study by the autism network of the research units on pediatric psychopharmacology. Am J Psychiatry. 2005 Jun;162(6):1142-8

# Secondary Endpoint: SRS



**SRS™-2[1]**

***Children with autism spectrum disorder have difficulty with social interaction behaviours, including establishing and maintaining relationships, reciprocating social interaction, and communicating with others. SRS-2 is a validated measurement tool of assessing these factors***

| SRS-2 Domain (8 week measure) | Treatment Effect | P-value |
|---|---|---|
| Total Score | -3.064 | 0.028 |

## Clinical Interpretation

- Clinically meaningful and statistically significant treatment effect at 8 weeks
- Reinforces positive impacts of NTI164 on an important core symptom of ASD - social behaviours, including communication

1. Social Responsiveness Scale (SRS™-2) is internationally recognised as a leading instrument (65 items) for identifying the presence and severity of social impairment within the Autism spectrum and differentiates it from that which occurs in other disorders. The SRS-2 total score is the most reliable measure for social deficits related to ASD. SRS-2 is distinct from other measures in that it provides a continuous measure of social ability (from impaired to above average) instead of a categorical yes/no identification of ASD impairments. High scores are associated with more severe social impairments. SRS-2 is a valid and reliable quantitative measure of core ASD symptoms related to social impairment

# Conclusions



**Met Primary Endpoint**

**Met All Secondary Endpoints[1]**

***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, adaptive behaviours and socialisation***

**NTI164 Very Safe**

***No serious adverse events. Small number of adverse events, relating to nausea/vomiting (formulation-related) and no diarrhoea observed in NTI164 arm. None of these adverse events were serious and were not considered to significantly interfere with the patient's functioning and none of the adverse events required any additional medications (i.e. anti-nausea, anti-diarrhoea).***

**Huge Unmet Need**

***No FDA, TGA or EMA-approved drugs for the core symptoms of ASD (i.e. social communication, social interaction, restricted behaviours)***

1. Change in Anxiety, Depression and Mood Scale (ADAMS) not yet available

# Rett Syndrome Phase I/II Trial

*"Caregivers of children with RTT experience the illness as being like an "obstacle course", where they must continuously overcome hurdles. These include hindrances for finding responses to their symptoms and achieving a diagnosis, for managing the treatment and daily care, and for finding the essential financial resources to meet all the expenses generated by the illness."*[1]



1. Palacios-Ceña D, Famoso-Pérez P, Salom-Moreno J, Carrasco-Garrido P, Pérez-Corrales J, Paras-Bravo P, Güeita-Rodriguez J. "Living an Obstacle Course": A Qualitative Study Examining the Experiences of Caregivers of Children with Rett Syndrome. International Journal of Environmental Research and Public Health. 2019; 16(1):41

# About Rett Syndrome

Neurotech International



## About

- Rare genetic neurological and developmental disorder and is almost exclusively the result of a mutation(s) in the methyl CpG binding protein 2 (MECP2) gene located on the X chromosome: **impaired brain development and function**
- Currently there is no cure for people with Rett syndrome and classified as a “rare/orphan disease” (by definition, less than 200,000 affected individuals in the US) by the Office of Rare Diseases of the National Institutes of Health

## Neuroinflammation

- Numerous scientific reports support neuroinflammatory effects in Rett Syndrome
- NTI164 shown to exhibit anti-neuroinflammation and neuroprotective effects *in vitro*

MeCP2 deficiency exacerbates the neuroinflammatory setting and autoreactive response during an autoimmune challenge

M. I. Zalosnik[1,2], M. C. Fabio[3], M. L. Bertoldi[1,2], C. N. Castañares[3] & A. L. Degano[1,2]

Chapter 14

Microglia Involvement in Rett Syndrome

Noël C. Derecki, James C. Cronk, Jonathan Kipnis

## First Ever Approval

Daybue™ (trofinetide)

- Neuren Pharmaceuticals (ASX:NEU) / Acadia Pharmaceuticals (NASDAQ:ACAD): FDA Approval **10 March 2023**
- Sets benchmark for FDA accepted clinical endpoints, safety and tolerance

1. https://www.livewiremarkets.com/wires/a-de-risked-biotech-with-4x-upside
2. https://reverserett.org/about-rett-syndrome/

# Rett Syndrome Market Dynamics

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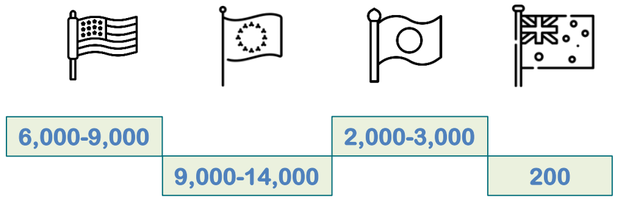
## Significant Market




- 17-26k patients in USA, Europe, Japan, Australia
- Est. US$2 billion annual market opportunity
- Narrow range of Rett specialist clinicians: focused prescriber group
- Concentrated market dynamics: 18 Rett Centres of Excellence in the US (3 in AU)
- No approved Rett drugs in Europe, Japan and Australia (USA:1)

## Single Approved Therapy

Daybue™ (trofinetide)

- First FDA approved therapy (March 2023)
- Est. drug cost to patient ~US$1,000 per day. US$87 million in Q4 CY2023 (US$177m in CY2023) net sales
- Q3: 800 patient starts (4,500 registered with Rett, ~18% penetration) – strong demand highlights urgent market need
- CY2024 sales est. US$370m – US$420m

## Valuation/Pricing Benchmarks

ACADIA™ neuren pharmaceuticals

- Neuren (ASX:NEU) license deal with Acadia (NASDAQ:ACAD) close to US$1 billion for trofinetide (*inc other indications)
- 80% covered lives for DAYBUE™ from US payers within 6 months – rapid reimbursement adoption
- Market approval via single Phase 3 clinical trial v placebo (“Lavender” – 187 pts), with open-label extension (“Lilac” – 154 pts)

Source: Acadia Pharmaceuticals, Neuren Pharmaceuticals Nov 2023 Investor Presentation, International Rett Syndrome Foundation, Rett Syndrome Association of Australia, Livewire Markets, Company Analysis

# Safety Data of Interest



## Safety Over 12 Weeks: Key Focal Points

**Weight Loss**

Daybue™ (trofinetide)

**12% pts with >7% weight loss**

No significant weight change noted for Neurotech ASD & PANDAS/PANS Phase I/II trials

**Nausea/Vomiting**

Daybue™ (trofinetide)

**29% pts**

5% of pts for ASD (20 weeks) and 13% of pts for PANDAS/PANS (12 weeks) for NTI164
8% NTI164 v 11% placebo in Phase II/III ASD

**Diarrhoea**

Daybue™ (trofinetide)

**82% pts**

0% reported in Neurotech ASD Phase I/II and Phase II/III (placebo 8%) and PANDAS/ PANS trials

**Kidney/Liver Function**

**Vital Signs**

**Blood Chemistry**

All normal across Neurotech's previous ASD (90 weeks+) and PANDAS/PANS (24 weeks) Studies

1. DAYBUE data sourced from Acadia Pharmaceuticals Inc

# Rett Syndrome Trial Design (NTIRTT1)

Neurotech International



Enrolment (n=14)

NTI164 — Baseline

Maximum Tolerated Dose — Week 4

Primary Endpoint — Week 12

Wash Out

Extension Phase — Week 52

<u>All</u> patients completed 12 weeks
i.e. no adverse events requiring withdrawal from the study

High potency, Broad Spectrum Cannabinoid Formulation in Oil, *C. sativa L.* (Plant Derived)

Entourage Effect

Neuroprotective

Anti- Neuroinflammatory

* Pending

* Pending

## Primary Endpoint

* Available

- Clinical Global Impression – Improvement (CGI-I)

## Secondary Endpoints

- Rett Syndrome Behaviour Questionnaire (RSBQ)
- Rett Syndrome: Symptom Index Score (RTT-SIS)
- RTT- Clinician Domain Specific Concerns – Visual Analog Scale (RTT-DSC-VAS)
- Communication and Symbolic Behaviour Scales Developmental Profile™ Infant-Toddler Checklist (CSBS-DP-IT Social)
- Impact of Childhood Neurological Disability Scale (ICND)
- RTT Caregiver Burden Inventory (RTT-CBI)
- Overall Quality of Life Rating of the Impact of Childhood Neurological Disability Scale (ICND-QoL)
- CGI-severity of illness (CGI-S)
- Safety

* No participants received DAYBUE™ (trofinetide)[1]

1. DAYBUE is a trademark of Acadia Pharmaceuticals Inc & is not approved in Australia

# Top-Line Clinical Results



A total of 14 patients evaluable at 12 weeks

## CGI-I Primary Endpoint Significantly Improved

- **CGI-I versus baseline mean difference of -0.3 (95% CI -0.015, -0.56; p = 0.04)**
- **Data compares favourably to DAYBUE™ (trofinetide) Phase 3 data v placebo (mean difference -0.3, p=0.003)[1]**

  **[DAYBUE CGI-I reported – 61% of patients "Unchanged", 25% of patients "Minimally Improved", 13% of patients "Much Improved"]**

**Data analysis and interpretation remains ongoing for further primary endpoint analysis, reporting of secondary endpoints (inc. RSBQ) and safety/tolerability**

- **Neurotech on-track to report further clinical trial data in the next 2-4 weeks**

1. Neul, J.L. et al. Trofinetide for the treatment of Rett syndrome: a randomized phase 3 study. Nat Med 29, 1468–1475 (2023).

Clinical Global Impression (CGI) - is a physician/observer-rated scale synthesizing the clinician's impression of the global state of an individual & frequently employed in clinical trials for neuropsychiatric disorders. CGI- Improvement (CGI-I) is a 7-point scale that requires the clinician to assess how much the patient's illness has improved or worsened relative to a baseline state at the beginning of the intervention *(1 – "Very Much Improved" 2 - "Much Improved" 3 - "Minimally Improved" 4 - "No Change" 5 - "Minimally Worse" 6 - "Much Worse" 7 - "Very Much Worse")*.

# Capital Raise



# Pro-Forma Capital Structure



| PRO-FORMA CAPITAL STRUCTURE - $10 Million Placement | |
|---|---|
| Current Shares on Issue | 917.4M |
| New Shares | 100.0M |
| Pro-Forma Shares on Issue | 1017.4M |
| Pro-Forma Cash[1] | $15.5M |
| Pro-Forma Enterprise Value (undiluted)[2] | $86.2M |

1. *Cash at 31 December 2023 - $4.5 million, Option exercises - $1.5m; Placement of $10.0m minimum, transaction costs of $(0.5m)*
2. *Placement price shares on issue post placement less pro-forma net cash position post placement (no debt)*

# Timetable*



| Event | Date |
|---|---|
| Settlement of Placement Shares & Unlisted Options | 23 April 2024 |
| Allotment of Placement Shares on ASX & Commencement of Trading | 24 April 2024 |
| Allotment of Unlisted Options | 24 April 2024 |

* Timetable is indicative and subject to change

# Use of Funds



| EVENT | ALLOCATION OF FUNDS (PLACEMENT) |
|---|---|
| Further human clinical trials NTI164 (Rett, PANS, Other) | $5.5M |
| Regulatory Development | $0.5M |
| IND Enabling Toxicology | $2.4M |
| Manufacturing / Production Expansion | $1.0M |
| Offer Costs / Other | $0.6M |
| TOTAL | $10.0M |

* In addition, the Company is entitled to 43.5% to 48.5% of eligible R&D expenditure returned in cash through the Australian government R&D Tax Incentive

# Key Milestones – NTI164



## 1H CY2024

- HREC/TGA Approval Cerebral Palsy Phase I/II Clinical Trial
- 24-week PANDAS/PANS Phase I/II Clinical Trial Data
- Rett Syndrome Phase I/II (14 girls) 52-week Extension HREC Approval
- Results of ASD Phase II/III Clinical Trial
- Top-line Rett Syndrome Phase I/II Clinical Trial data
- Results of Rett Syndrome Phase I/II Clinical Trial – full data
- Meeting outcome – TGA[1] Regulatory Advice
- Publications for ASD Phase I/II + pre-clinical NTI164 results
- Metabologenomic data from Phase I/II PANDAS/PANS Clinical Trial

## 2H CY2024

- Orphan Drug Designation Europe – Rett Syndrome
- Orphan Drug Designation Europe – PANDAS/PANS
- Orphan Drug Designation USA – Rett Syndrome
- Orphan Drug Designation USA – PANDAS/PANS
- Commence Phase I/II Cerebral Palsy Clinical Trial
- FDA IND / EMA[2] toxicology
- Presentation of Phase I/II Rett Syndrome data at international Rett meeting

1. Therapeutic Goods Administration (TGA)
2. Food and Drug Administration (FDA), European Medicines Agency (EMA)

# ENDS



# Neurotech:
# Strategies, Pipeline, Milestones, Outlook



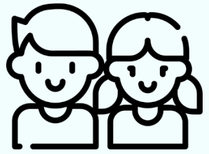
# Neurotech is a clinical-stage biopharmaceutical development company focused predominately on paediatric neurological disorders



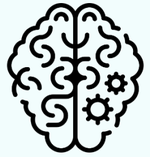
- NTI164 exclusive worldwide licence for neurological disorders
- Patents Pending – Use, Composition
- Novel oral biopharmaceutical cannabinoid platform (NTI164)
- Focus on Paediatric Patients
- Multiple Phase I/II and Phase II/III Clinical Trials
- Supportive Efficacy & Safety Data in Children

# Neurotech Four Core Strategies



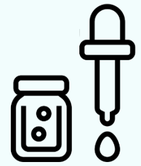


**Focus on Paediatric Patients**



**Focus On Rare Neurological Disorders with Neuroinflammation**

**Focus on Partnering with Key Opinion Leaders / Clinicians**



**Focus On Drug Product Development**

# Therapeutic Agent: NTI164




High potency, Broad Spectrum Cannabinoid Formulation in Oil, *C. sativa L.* (Plant Derived)

- THC < 0.3%
- Major constituent Cannabidiolic acid (CBDA)
- Minor constituents include other cannabinoids: CBD, CBG, CBGA, other + terpenes

Convenient 1x or 2x (split dose) oral formulation in oil, ideal format for pediatric patients 20mg/kg (CBDA)

**NTI164 is not a low dose CBD oil to be sold over-the-counter**

- Entourage Effect
- Neuroprotective
- Anti- Neuroinflammatory

# Our Target Markets

## Lack of effective therapies, significant unmet medical need

**Annual Drug Therapy Market opportunity**

| Autism Spectrum Disorder (ASD) | Rett Syndrome | PANDAS/PANS | Cerebral Palsy (CP) |
|---|---|---|---|
| US$2 billion* | US$2 billion | US$1.4 billion[1] | US$4.3 billion |
| ndis | Orphan | Orphan | |
| $6.1 Billion | | | |
| Implied annual cost of ASD to NDIS based on average ASD funding of $32,800 per annum e.g. physio, psychology, speech therapy, support workers | | | |
| • Prevalence of ~2.0M <18 yr. patients in the US<br>• 2 Approved Drugs (* limited use)<br>• Risperidone, Aripiprazole | • Prevalence of ~15,000 patients in the US<br>• 1 Approved Drug<br>• Trofinetide | • Incidence of ~6,000 patients <18 yr. in the US[1]<br>• No FDA/EMA Approved Drug | • Incidence of ~500,000 <18 yr. patients in the US<br>• 2 Approved Drugs for spastic CP<br>• Baclofen, Botox |

1. Neurotech Estimate based on: Wald ER, et al. Estimate of the incidence of PANDAS and PANS in 3 primary care populations. Front Pediatr. 2023 Sep 21; EU/UK: 8,000 pts / US: 6,000 pts <18 years based on annual intravenous immunoglobulin (IVIG) cost of ~US$100k (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8019941/)

Neurotech International

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*This presentation has been authorised by the Board of Neurotech International Limited

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