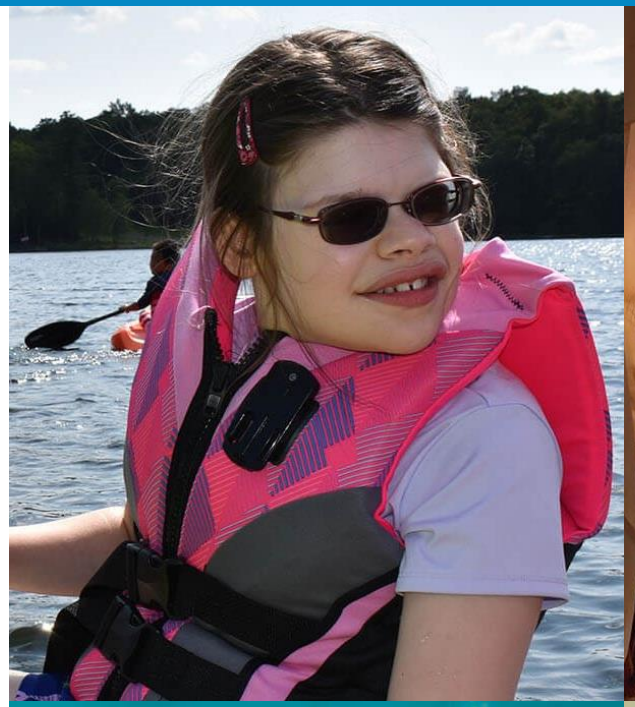
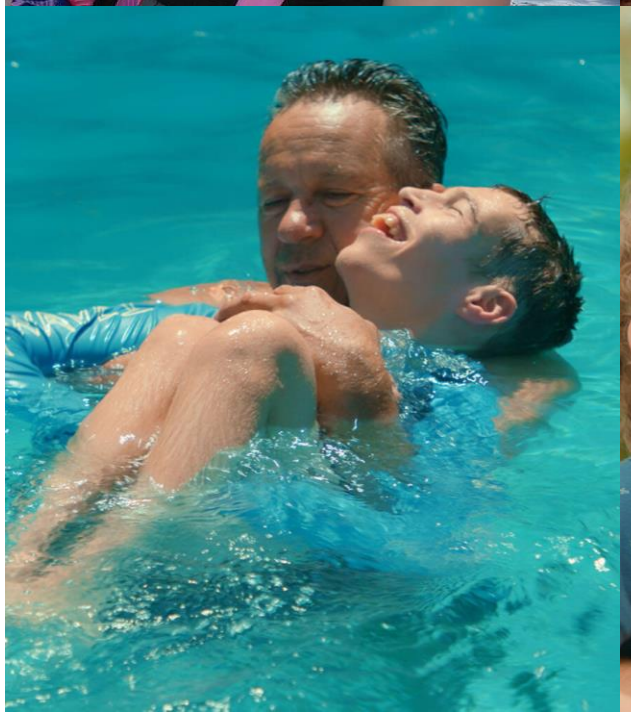
neuren pharmaceuticals

Investor Roadshow Presentation

19 Aug 2024

IMPROVING THE LIVES OF PEOPLE WITH NEURODEVELOPMENTAL DISABILITIES





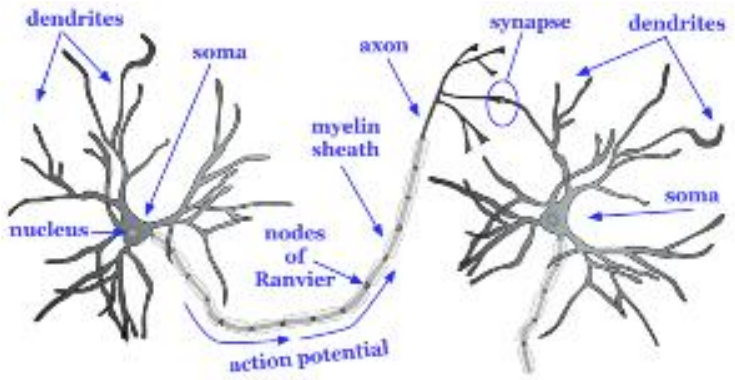

Forward looking statements

This presentation contains forward looking statements that involve risks and uncertainties. Although we believe that the expectations reflected in the forward looking statements are reasonable at this time, Neuren can give no assurance that these expectations will prove to be correct. Actual results could differ materially from those anticipated. Reasons may include risks associated with drug development and manufacture, risks inherent in the regulatory processes, delays in clinical trials, risks associated with patent protection, future capital needs or other general risks or factors.

neuren
pharmaceuticals

Seeking a ground-breaking impact on neurodevelopmental disorders

Rett	Fragile X	Phelan-McDermid	Angelman	Pitt Hopkins	Prader-Willi
MECP2	*FMR1*	*SHANK3*	*UBE3A*	*TCF4*	*15q11-q13*



Impaired communication between neurons, abnormal formation/pruning of dendrites & chronic inflammation

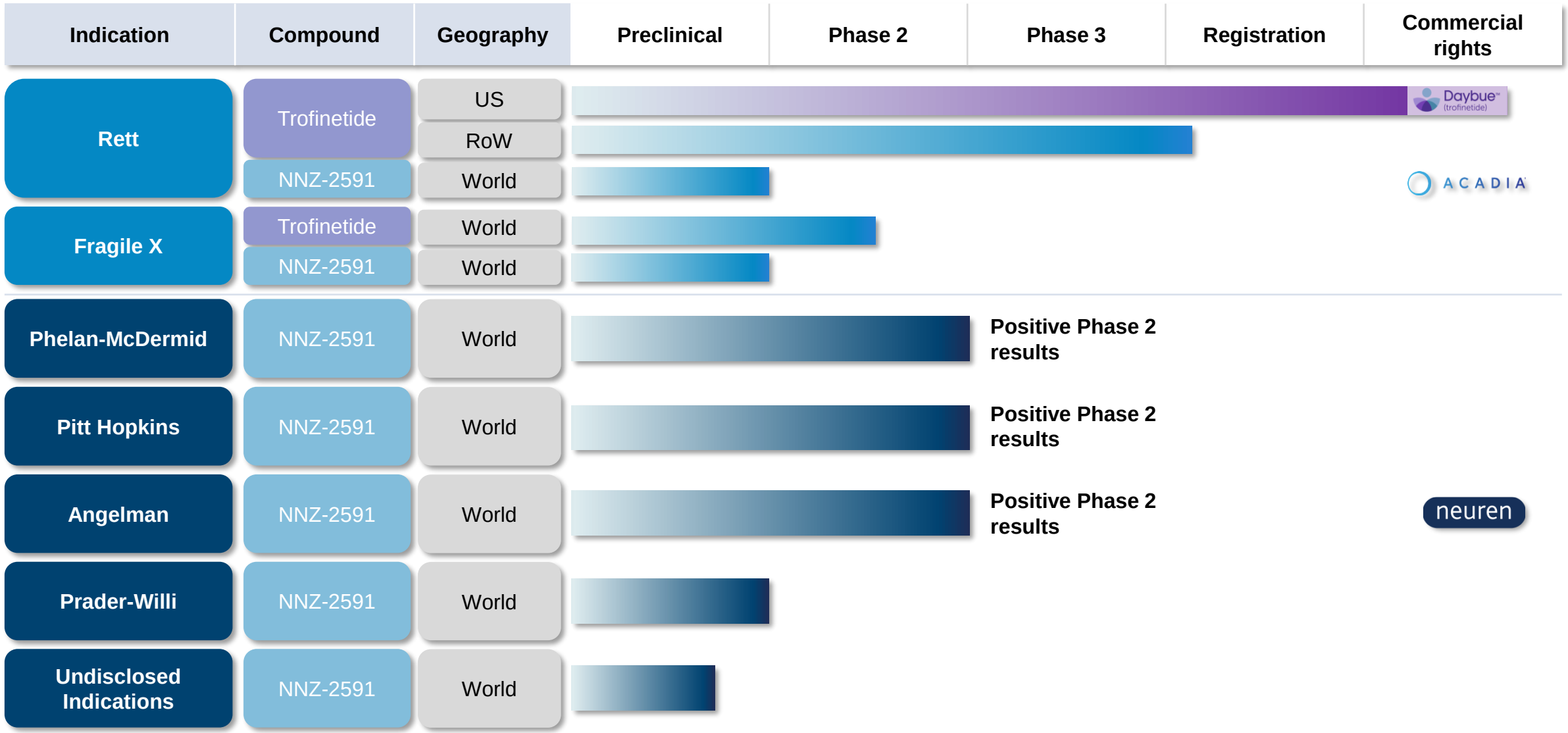
Neuren's drugs

target the critical role of IGF-1 in this upstream process, using analogs of peptides that can be taken orally as liquids

Severe impact on nearly every aspect of life		
walking and balance issues	anxiety and hyperactivity	seizures
Impaired communication	intellectual disability	Impaired social interaction
impaired hand use	sleep disturbance	gastrointestinal problems

neuren pharmaceuticals

Commercial and late-stage pipeline



neuren pharmaceuticals

Three key drivers transforming near term value

1 Realise Neuren's share of **trofinetide value in the US** through Acadia's successful commercialization of

2 Realise Neuren's share of **trofinetide ex-US** value through expanded global partnership with Acadia

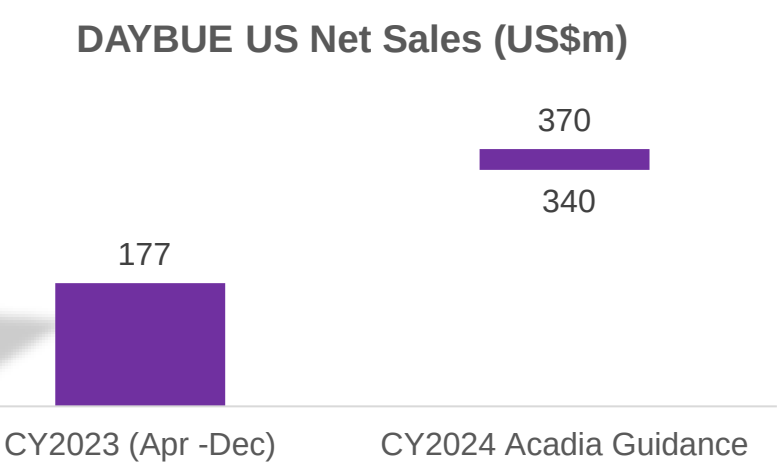
3

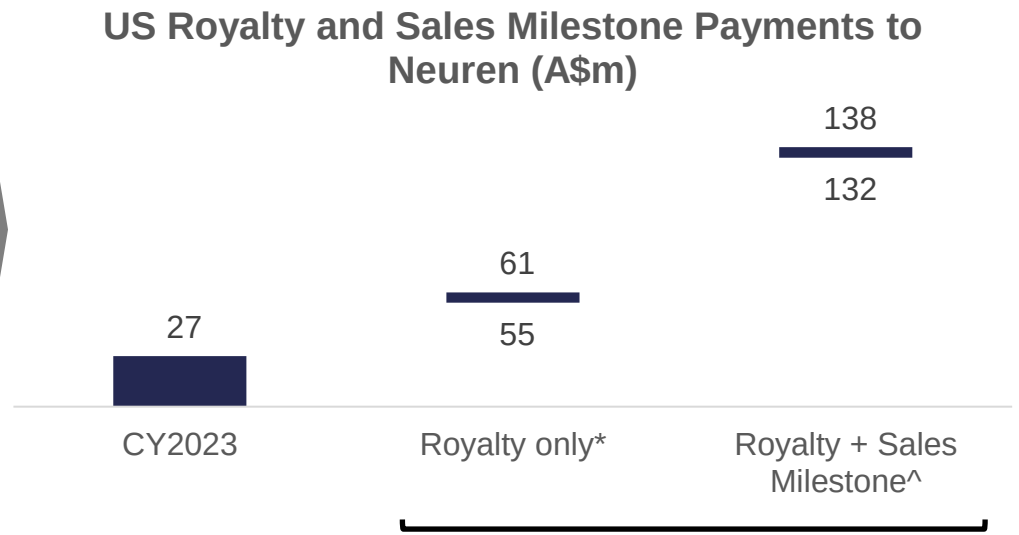
Confirm efficacy of **NNZ-2591** in Phase 2 trials for multiple indications, with global rights retained by Neuren

- ✓ Positive top-line results for **Phelan-McDermid syndrome**
- ✓ Positive top-line results for **Pitt Hopkins syndrome**
- ✓ Positive top-line results for **Angelman syndrome**

Growing sustainable income from DAYBUE™ (trofinetide)

	US	Canada	Europe	Japan
Potential Rett patients	6,000 - 9,000[1]	600 - 900[1]	9,000 - 14,000[1]	1,000 - 2,000[1]
	Launch in April 2023	NDS accepted for priority review	PIP accepted, MAA filing in Q1 2025	Initial guidance received from PMDA





[1] Acadia estimates
* Based on 10% of DAYBUE net sales up to US$250m and 12% of DAYBUE net sales between US$250m and US$500m, and AUDUSD of 0.65
^ Neuren will be entitled to US$50m sales milestones (receivable in Q1 2025) if CY2024 DAYBUE net sales reaches US$250m; assumes AUDUSD of 0.65

neuren pharmaceuticals

Economics to Neuren

North America

✓	**US$10m**	**upfront in 2018**
✓	**US$10m**	**in 2022 following acceptance of NDA for review**
✓	**US$40m**	**in Q2 2023 following 1st commercial sale in the US**
	US$33m	one third share of Priority Review Voucher awarded to Acadia (assuming market value US$100m)
	US$55m	Milestone payments related to Fragile X

Tiered Royalty Rates (% of net sales)

Annual Net Sales	Rates
≤US$250m	**10%**
>US$250m, ≤US$500m	**12%**
>US$500m, ≤US$750m	**14%**
>US$750m	**15%**

Sales Milestones

Net Sales in one calendar year	US$m
≥US$250m	**50**
≥US$500m	**50**
≥US$750m	**100**
≥US$1bn	**150**

Outside North America

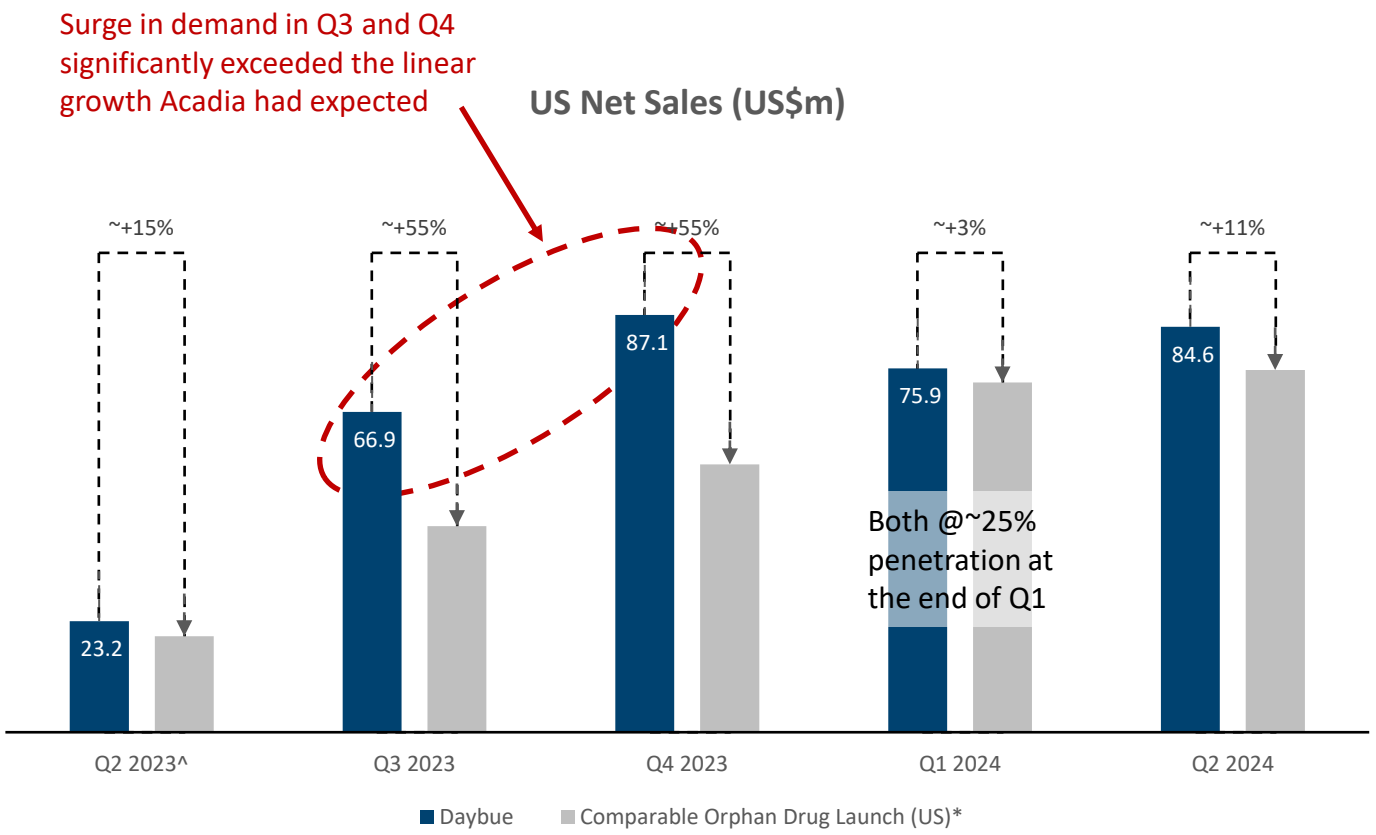
✓	**US$100m**	**upfront**
	US$35m	following 1st commercial sale in Europe
	US$15m	following 1st commercial sale in Japan
	US$10m	following 1st commercial sale of a 2nd indication Europe
	US$4m	following 1st commercial sale of a 2nd indication Japan

Sales milestones	On achievement of escalating annual net sales thresholds: Europe: up to **US$170m** Japan: up to **US$110m** RoW: up to **US$83m**
Tiered royalties	**Mid-teens to low-20s %** of net sales

neuren pharmaceuticals

US launch highlights

Successful DAYBUE launch in the US



DAYBUE metrics as at Acadia Q2 2024 earnings[1]

- ~30% of 5,000 diagnosed patients have initiated DAYBUE therapy
- 900 active patients on therapy as of 1 August
- Believe diagnosed & addressable population can expand to prevalence of 6,000-9,000
- 700+ unique prescribers (surveyed clinicians expect to increase prescription to >70% of their eligible patients over the next 24 months)
- >80% of payors have written policies in place and ~90% conversion to paid over time
- Persistency tracking 10% above trial experience (real-world persistency rate at 9 months remains at 58%)

^ Partial quarter for both Daybue and Comparable Orphan Drug
* For illustrative purposes only. Comparable Orphan Drug has different patient/clinician experience, approval and distribution/logistical dynamics
[1] Provided by Acadia at Second Quarter 2024 Earnings presentation on 6 Aug 2024

neuren pharmaceuticals

Growing real-world evidence supporting long term growth

Presentations and Publications

LOTUS real-world study[3]

- >2/3 caregivers reported improvements after 1 month; non-verbal communication, alertness and social interaction/ connectedness most consistently reported
- Found evidence of significant variation in approach to titration and diarrhea management suggesting room for continued improvement in patient experience

LILAC-1 and LILAC-2 trials[1,2]

- Long-term treatment continued to improve symptoms, without evidence of new safety concerns
- 96% of caregivers said they were satisfied or very satisfied with treatment efficacy
- Over half said they had changes in their daily lives due to their child's improvement

Real-World Experience

Stories from caregivers show the benefits observed in the real-world are consistent with the clinical trial experience

GI Management Insights

Growing body of evidence suggesting diarrhea is more manageable in real-world practice than in clinical trials

- Increase **penetration**
- Expand **diagnosed population** to prevalence
- Expand **prescriber base**
- Improve **persistency**

As of Acadia Second Quarter 2024 Earnings Call presentation in August 2024

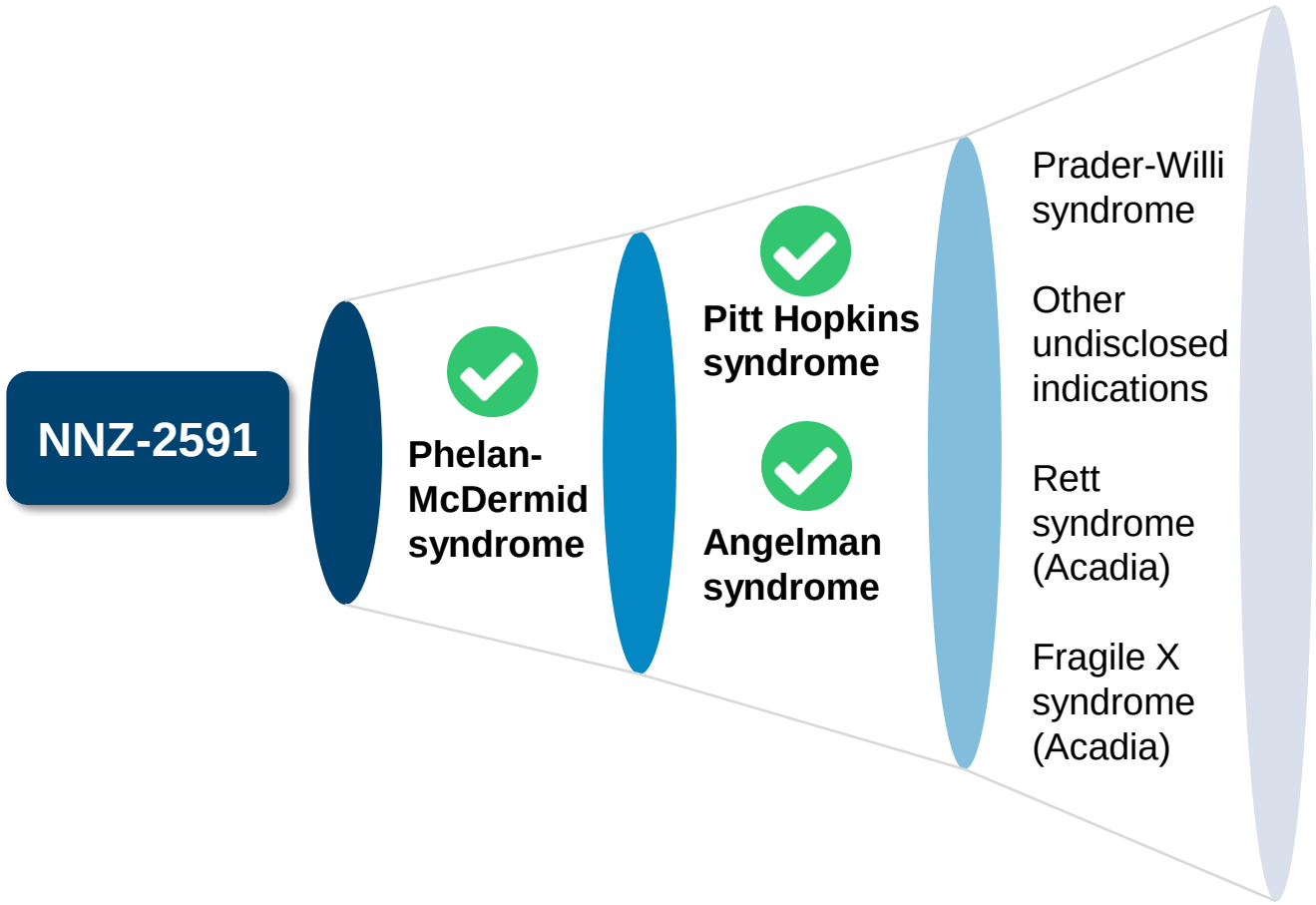
[1] Trofinetide for the treatment of Rett syndrome: Results from the open-label extension LILAC study. Percy et al, Med, June 24, 2024

[2] Trofinetide for the treatment of Rett syndrome: Long-term safety and efficacy results of the 32-month, open-label LILAC-2 study, Percy et al, Med, July 17, 2024

[3] Real-World Benefits and Tolerability of Trofinetide for the Treatment of Rett Syndrome: The LOTUS Study; Louise Cosand, Victor Abler, Haya Mayman, Jenny Downs et al , Presented at the 2024 IRSF Rett Syndrome Scientific Meeting, June 18–19, 2024, Westminster, CO, USA

neuren pharmaceuticals

Multiple indications opportunity for NNZ-2591



- **Positive results from Phelan McDermid syndrome, Pitt Hopkins syndrome and Angelman syndrome Phase 2 trials**
- **End of Phase 2 meeting with FDA for Phelan McDermid syndrome scheduled for September 2024**
- US IND open for Prader-Willi syndrome
- Advancing non-clinical studies in multiple undisclosed indications
- Rett and Fragile X syndromes are licensed to Acadia, with same economics to Neuren as trofinetide; Neuren retains worldwide rights to all other indications

neuren pharmaceuticals

Phase 2 trial results validating multi-indication platform

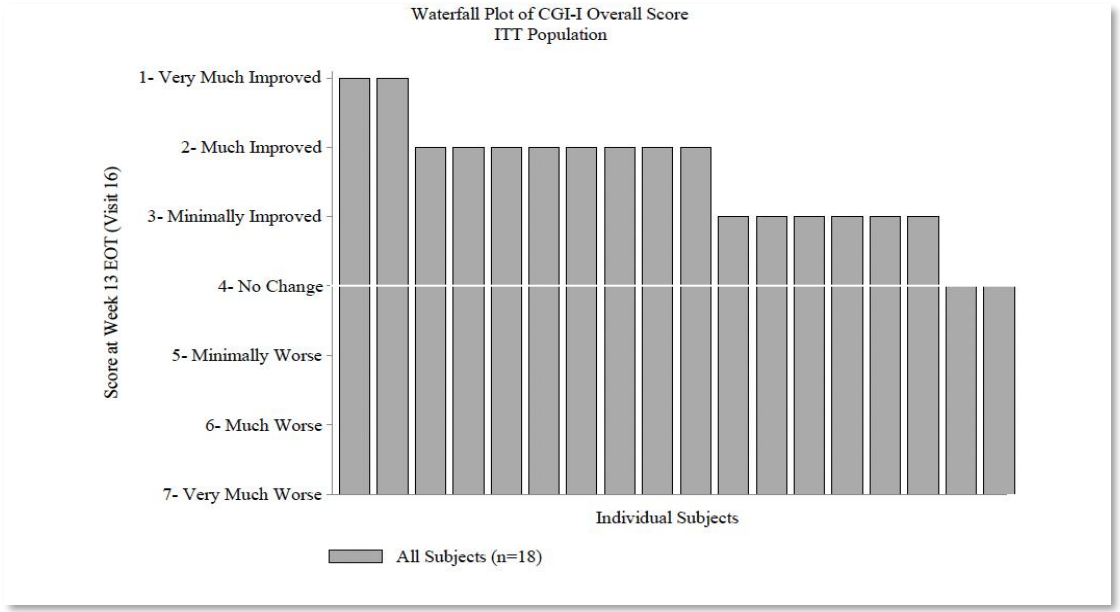
	Phelan-McDermid syndrome (PMS) N=18, 13 weeks	Pitt Hopkins syndrome (PTHS) N=11, 13 weeks	Angelman syndrome (AS) N=13, 13 weeks	
General safety & tolerability	Safe and well tolerated, with no meaningful trends in laboratory values or other safety parameters during treatment	Safe and well tolerated, with no meaningful trends in laboratory values or other safety parameters during treatment	Safe and well tolerated, with no meaningful trends in laboratory values or other safety parameters during treatment	
Serious TEAEs	1 unrelated to drug	0	0	
Mean CGI-I (% shown improvement)	2.4 (89%)	2.6 (82%)	*All* 3.0 (85%)	*3-12 yr old* 2.8 (100%)
Mean CIC (% shown improvement)	2.7 (83%)	3.0 (73%)	*All* 3.2 (67%)	*3-12 yr old* 2.6 (100%)
# patients had CGI-S improvement of 1 (% of patients)	7 (39%)	6 (55%)	4 (31%)	
Consistent improvement in clinically important aspects	Communication, behavior, cognition, social	Communication, social, cognition, motor	Communication, behavior, cognition, motor	

neuren pharmaceuticals

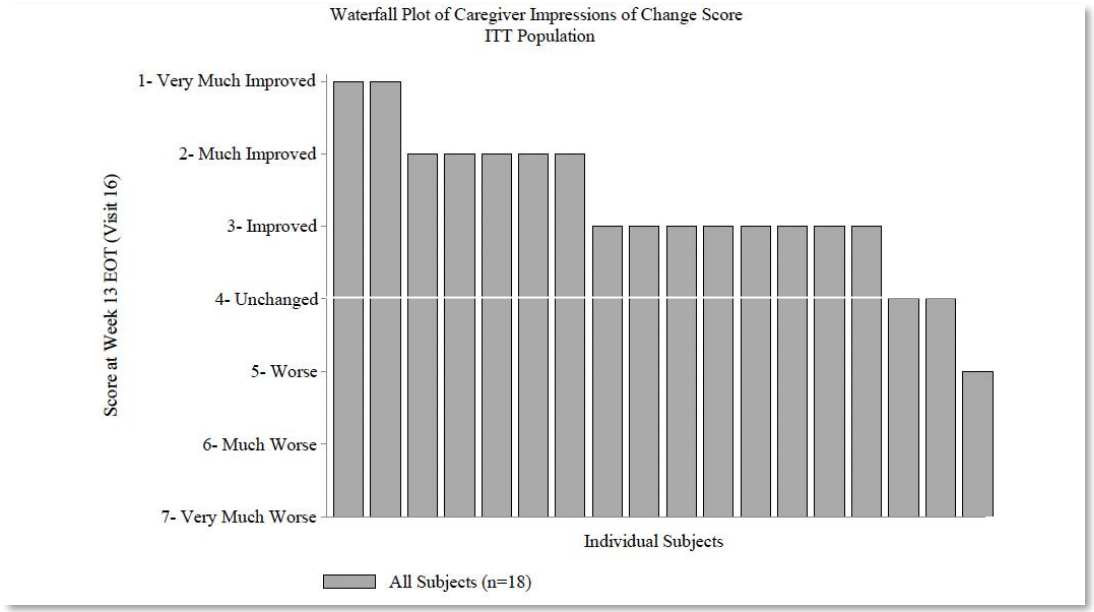
Significant improvement assessed by both clinicians and caregivers - PMS

Clinician and caregiver global efficacy measures showed a level of improvement typically considered clinically meaningful

Mean PMS CGI-I score of 2.4 (p<0.0001) with 16 out of 18 children showing improvement



Mean PMS CIC score of 2.7 (p=0.0003) with 15 out of 18 children showing improvement

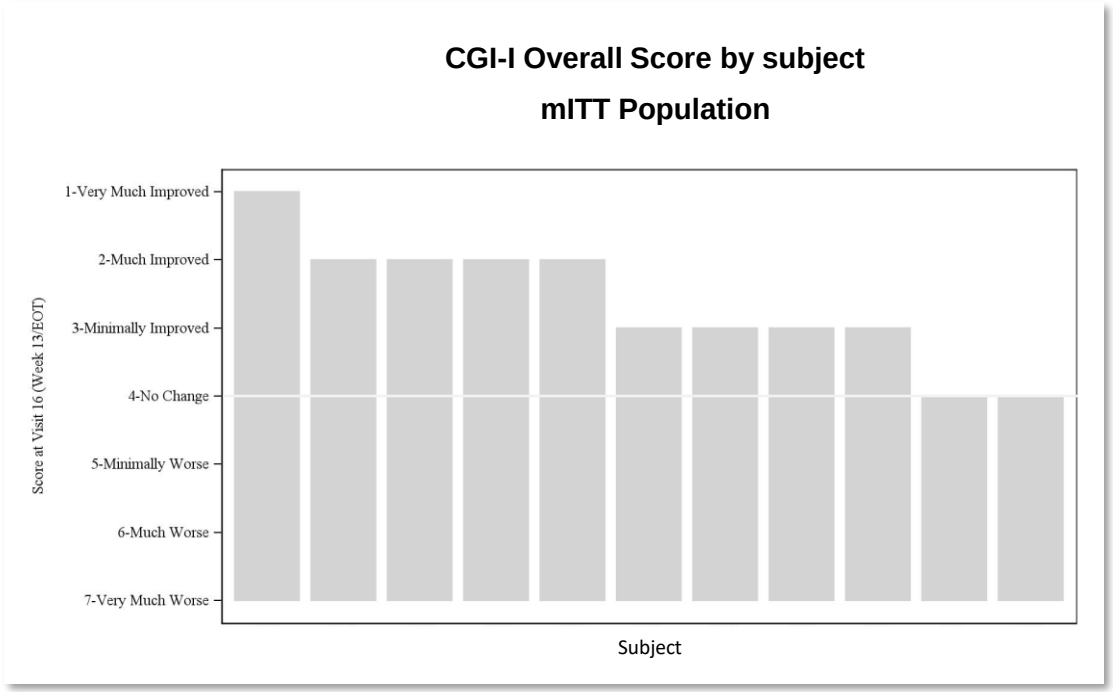


neuren pharmaceuticals

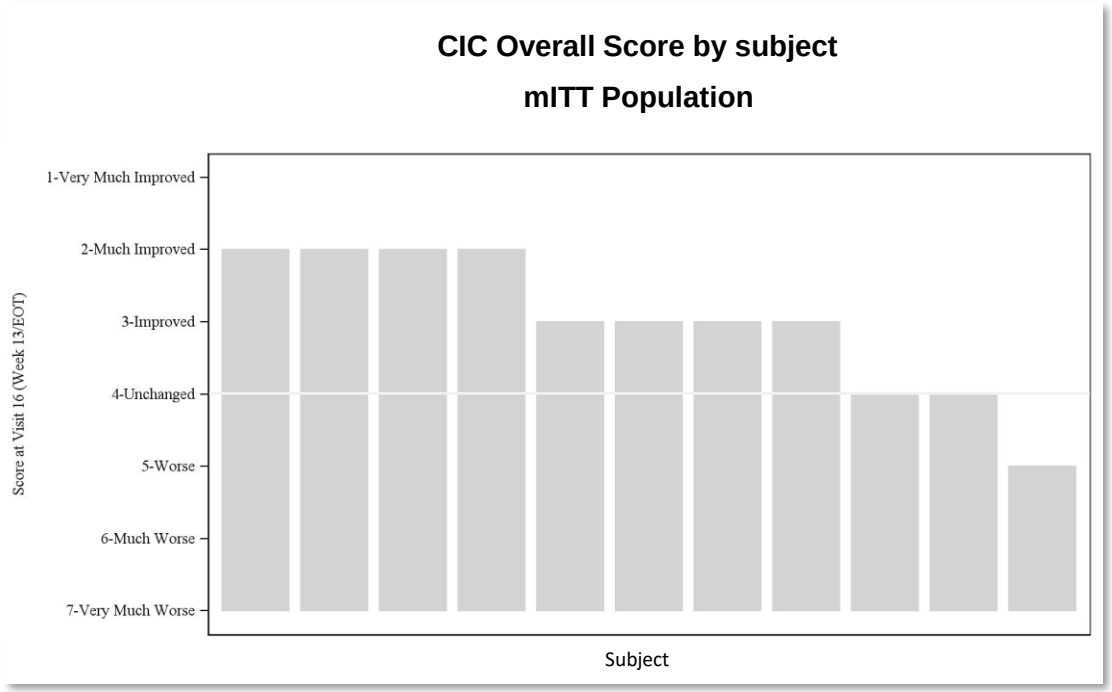
Significant improvement assessed by both clinicians and caregivers - PTHS

Clinician and caregiver global efficacy measures showed a level of improvement typically considered clinically meaningful

Mean PTHS CGI-I score of 2.6 (p=0.0039) with 9 out of 11 children showing improvement



Mean PTHS CIC score of 3.0 (p=0.0234) with 8 out of 11 children showing improvement

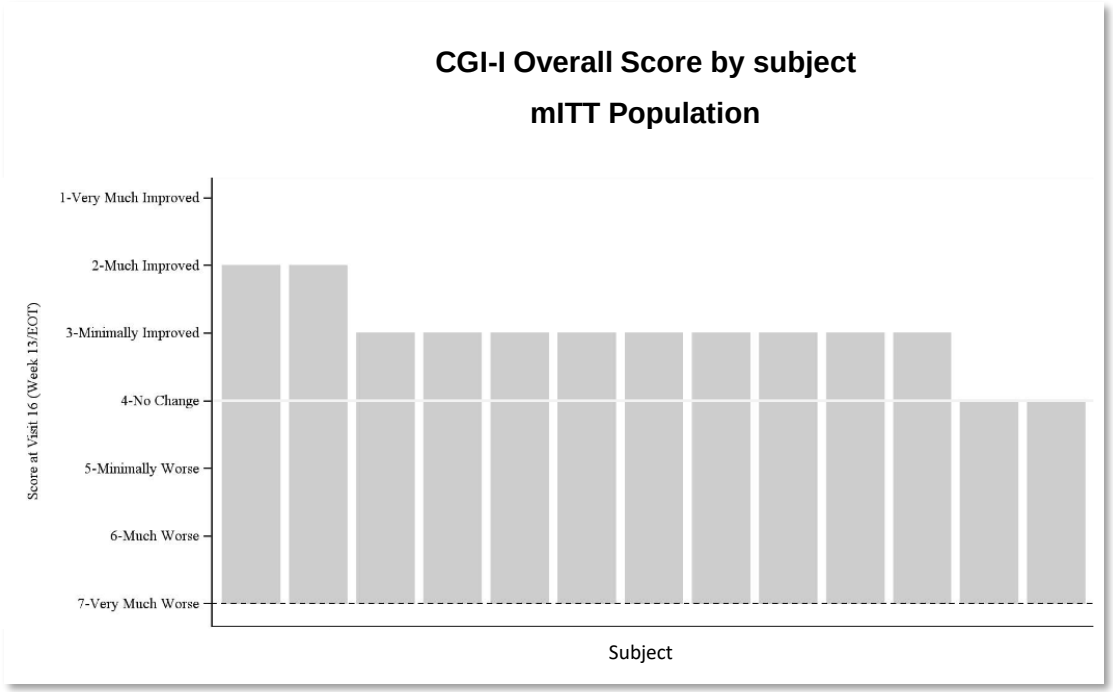


neuren pharmaceuticals

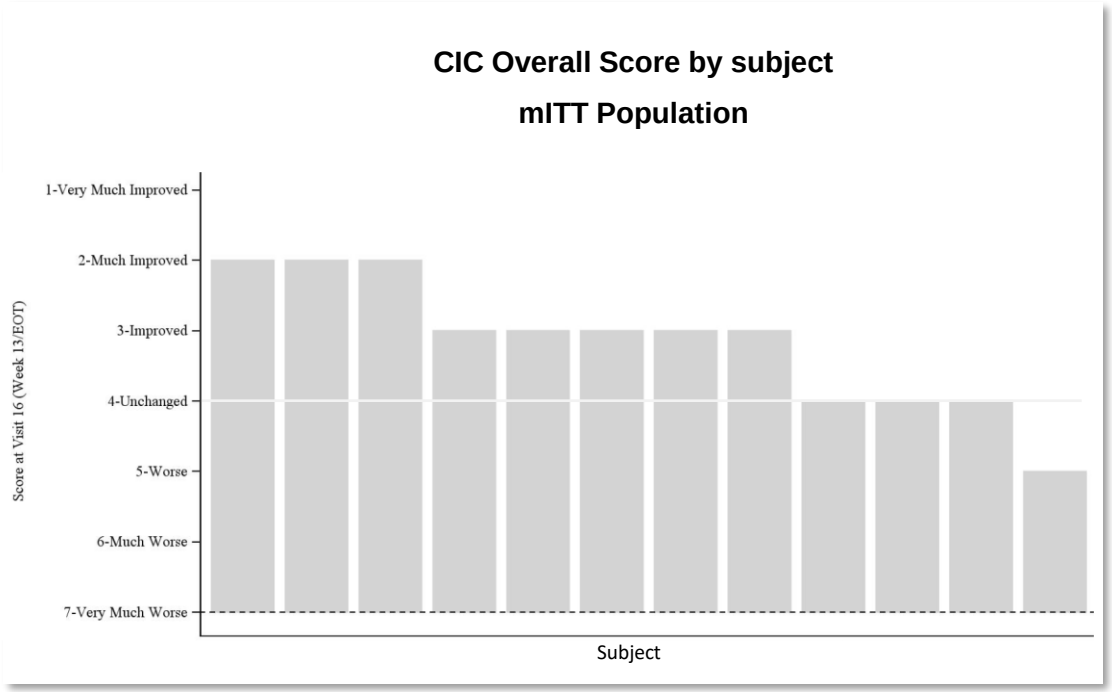
Significant improvement assessed by both clinicians and caregivers - AS

Clinician and caregiver global efficacy measures showed a level of improvement typically considered clinically meaningful

Mean AS CGI-I score of 3.0 (p=0.0010) with 11 out of 13 children showing improvement



Mean AS CIC score of 3.2 (p=0.0273) with 8 out of 12[1] children showing improvement



[1] Score for one subject inadvertently not completed by caregiver at site visit

neuren pharmaceuticals

Significant market opportunity

No approved treatment for PMS, PTHS or AS

	Competitive Position	Estimated Prevalence	Potential Patients in the US[4]
Phelan-McDermid syndrome (PMS)	Most advanced clinical program	1/8,000 to 1/15,000 males and females[1]	17,000 - 32,000
Pitt Hopkins syndrome (PTHS)	Most advanced clinical program	1/34,000 to 1/41,000 males and females[2]	6,000 - 7,000
Angelman syndrome (AS)	Two RNA therapies (spinal injections) commencing Phase 3	1/10,000 to 1/20,000 males and females[3]	12,000 - 25,000

[1] Phelan McDermid Syndrome Foundation (PMSF) (www.pmsf.org)
[2] Pitt Hopkins Research Foundation (PHRF) (pitthopkins.org)
[3] Angelman Syndrome Foundation (ASF) (www.angelman.org), Facts About Angelman Syndrome
[4] Estimates based on United Nations population data 2022, derived by applying the estimated prevalence range to the populations under 60 years

neuren pharmaceuticals

2024 milestones

Key Milestones Achieved

- ✓ Positive top-line results for Phelan-McDermid syndrome
- ✓ Positive top-line results for Pitt Hopkins syndrome
- ✓ Positive top-line results for Angelman syndrome
- ✓ 1H CY2024 DAYBUE sales of >US$160m in the US, generating ~A$24m royalties to Neuren
- ✓ Trofinetide NDS by Acadia accepted by Health Canada for priority review
- ✓ Trofinetide PIP by Acadia accepted by EMA

Upcoming Milestones

- End of Phase 2 meeting with FDA in September to discuss the remaining development program for Phelan-McDermid syndrome
- Confirm next steps in Phelan-McDermid and Pitt Hopkins syndromes
- Advance Prader-Willi syndrome and/or undisclosed indications
- CY2024E DAYBUE royalties and sales milestones to Neuren of A$132 – 138m[1]
- Potential approval and launch of trofinetide in Canada

1 Royalties based on 10% of DAYBUE net sales up to US$250m and 12% of DAYBUE net sales between US$250m and US$500m, and AUDUSD of 0.65; Neuren will be entitled to US$50m sales milestones (receivable in Q1 2025) if CY2024 DAYBUE net sales reaches US$250m; assumes AUDUSD of 0.65

neuren pharmaceuticals

Highlights

1. DAYBUE™ (trofinetide) approved by US FDA as the first and only treatment for Rett syndrome, launched by partner Acadia in Apr 2023

2. Total economics to Neuren from global trofinetide partnership with Acadia up to US$1bn[1] plus 10 to low 20s % royalties

3. Successful DAYBUE US launch, with 2023 net sales of US$177m and 2024E net sales of US$340-370m[2]

4. Accelerating Phase 2 development of NNZ-2591 in multiple indications. Positive results for Phelan-McDermid, Pitt Hopkins and Angelman syndromes

5. NNZ-2591 novel mechanism of action has many more potential applications, with Rett and Fragile X licensed to Acadia

6. A$213m cash at 30 Jun 2024 – well positioned to maximize the benefits of all value creating opportunities

[1] Including payments already received and future payments
[2] Acadia guidance provided in Second Quarter 2024 Financial Results announcement in August 2024

neuren pharmaceuticals

CONTACT

investorrelations@neurenpharma.com

Authorised by the CEO & Managing Director of Neuren Pharmaceuticals Limited, Suite 201, 697 Burke Road, Camberwell, VIC 3124