MINERVA
NEUROSCIENCES, INC.

From Unmet Need to Reality

Roluperidone is potentially the first treatment for negative symptoms of schizophrenia

Corporate deck I Spring 2026

Updated: 2026.06.02

Forward-Looking Statement

This presentation contains forward-looking statements which are subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts, reflect management's expectations as of the date of this presentation, and involve certain risks and uncertainties. These statements may be identified by words such as "aims," "anticipates," "believes," "could," "estimates," "expects," "forecasts," "goal," "intends," "may," "plans," "possible," "potential," "seeks," "will" and variations of these words or similar expressions that are intended to identify forward-looking statements, although not all forward-looking statements contain these words. Forward-looking statements in this presentation include, but are not limited to, statements with respect to the clinical development of roluperidone; the potential therapeutic benefits and market opportunities of roluperidone; Minerva's expectations regarding the confirmatory clinical trial of roluperidone and related regulatory developments; Minerva's belief that it has reached alignment with the U.S. Food and Drug Administration ("FDA") on the Phase 3 confirmatory trial of roluperidone for the treatment of negative symptoms of schizophrenia; the timeline and results of the Phase 3 confirmatory trial; regulatory review and approval of roluperidone to be marketed in the United States and elsewhere; and management's ability to successfully achieve its goals. These forward-looking statements are based on our current expectations and may differ materially from actual results due to a variety of factors including, without limitation, trials and studies may be delayed and may not have satisfactory outcomes, and earlier trials and studies may not be predictive of later trials and studies; the design and rate of enrollment for clinical trials, including the current design of the Phase 3 confirmatory trial evaluating roluperidone may not enable successful completion of the trial(s); the commercial opportunity for roluperidone in negative symptoms of schizophrenia may be smaller than anticipated; Minerva may be unable to obtain and maintain regulatory approvals; Minerva may experience uncertainties inherent in the initiation and completion of clinical trials and clinical development; the need to align with collaborators or partners may hamper or delay development and regulatory efforts or increase costs; uncertainties of patent protection and litigation; and general economic conditions. Other factors that may cause our actual results to differ from those expressed or implied in the forward-looking statements in this presentation are identified under the caption "Risk Factors" in our filings with the Securities and Exchange Commission (the "SEC"), including our Annual Report on Form 10-K for the year ended December 31, 2025, filed with the SEC on March 11, 2026, as may be updated by subsequent 10-Qs. Copies of reports filed with the SEC are posted on our website at www.minervaneurosciences.com. The forward-looking statements in this presentation are based on information available to us as of the date hereof, and we expressly disclaim any obligation to update any forward-looking statements, except as required by law.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Neither we nor any other person makes any representation as to the accuracy or completeness of such data or undertakes any obligation to update such data after the date of this presentation. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

De-risked path to first approved therapy for negative symptoms of schizophrenia

Unmet need	Negative symptoms drive profound, lifelong disability and remain untreated, with no FDA-approved therapies and clinical practice focused primarily on positive symptoms
Clinical evidence	Roluperidone had meaningful improvement in negative symptoms in two registrational trials (C03 & C07 studies)
Only therapy of its kind	Roluperidone is only late-stage drug in development targeting primary negative symptoms of schizophrenia
De-risked execution	Confirmatory Phase 3 (C19 study) trial design following extensive FDA engagement
Near-term value	C19 study actively enrolling, with topline 12-week efficacy data expected in 2H 2027
Financial strength	$200 million financing in October 2025 led by Vivo Capital with other top-tier investors,* fully funds through C19 study data and NDA submission

MINERVA NEUROSCIENCES, INC.

*Led by Vivo Capital LLC, with participation from new and existing investors including Janus Henderson, Federated Hermes Kaufmann Funds, Farallon Capital, Coastlands Capital, Balyasny Asset Mgmt, Logos Capital, BSQUARED Capital, Trails Edge Capital Partners, Ally Bridge Group, Foresite Capital and Spruce Street Capital as well as several healthcare-focused funds, with Jefferies LLC acting as sole placement agent; $200 million consists of (i) $80 million up front, (ii) up to an additional $80 million subject to the full exercise of Tranche A warrants and (iii) a further $40 million that may be received in connection with cash exercise of Tranche B warrants contingent upon achievement of milestone event.

Large US patient population — roluperidone addresses a significant unmet need

~3.1M
US adults

~1.6M
US adults

~954k
US adults

~650k
US adults

Estimated Schizophrenia prevalence (US)

1.17% age-adjusted prevalence
(Krasa et al., JAMA Psychiatry 2026)

Treated patients

~50% of prevalent cases receive treatment (IQVIA NDTI 2017)

Negative symptoms (≥60%)

60% of treated patients have clinically relevant Negative Symptoms (Correll & Schooler, 2020)

Stable (roluperidone target)

68.8% stable; ~41% of treated
(Starzer et al., World Psychiatry 2023)

Current market[1]

~$4.2B — **US schizophrenia drugs market**

2025 (North America ~63% of global)
Growing at ~6–7% CAGR

~$8.7B — **Global schizophrenia market**

2025 — projected $14–22B by 2035
depending on novel therapy approvals

$0 — **Negative symptoms — no approved treatments in US**

No FDA-approved therapy for primary negative symptoms — first-mover opportunity

Market opportunity[2]

>$2B — **Roluperidone peak net sales potential**

Annual net sales potential
(Minerva Neurosciences estimate)

MINERVA NEUROSCIENCES, INC.

1. Future Market Insights, Schizophrenia Treatment Market (2025); Market Research Future, Schizophrenia Market Size & Share (2025). 2. Based on estimates including Minerva Neurosciences estimates of TAM, market share, pricing and adoption including input from 2024 Payer survey conducted by Lumanity Inc.

MINERVA
NEUROSCIENCES, INC.

Negative symptoms of schizophrenia drive lifelong disability and remain untreated

Current treatment options improve positive symptoms, but negative symptoms remain untreated and drive long-term disability

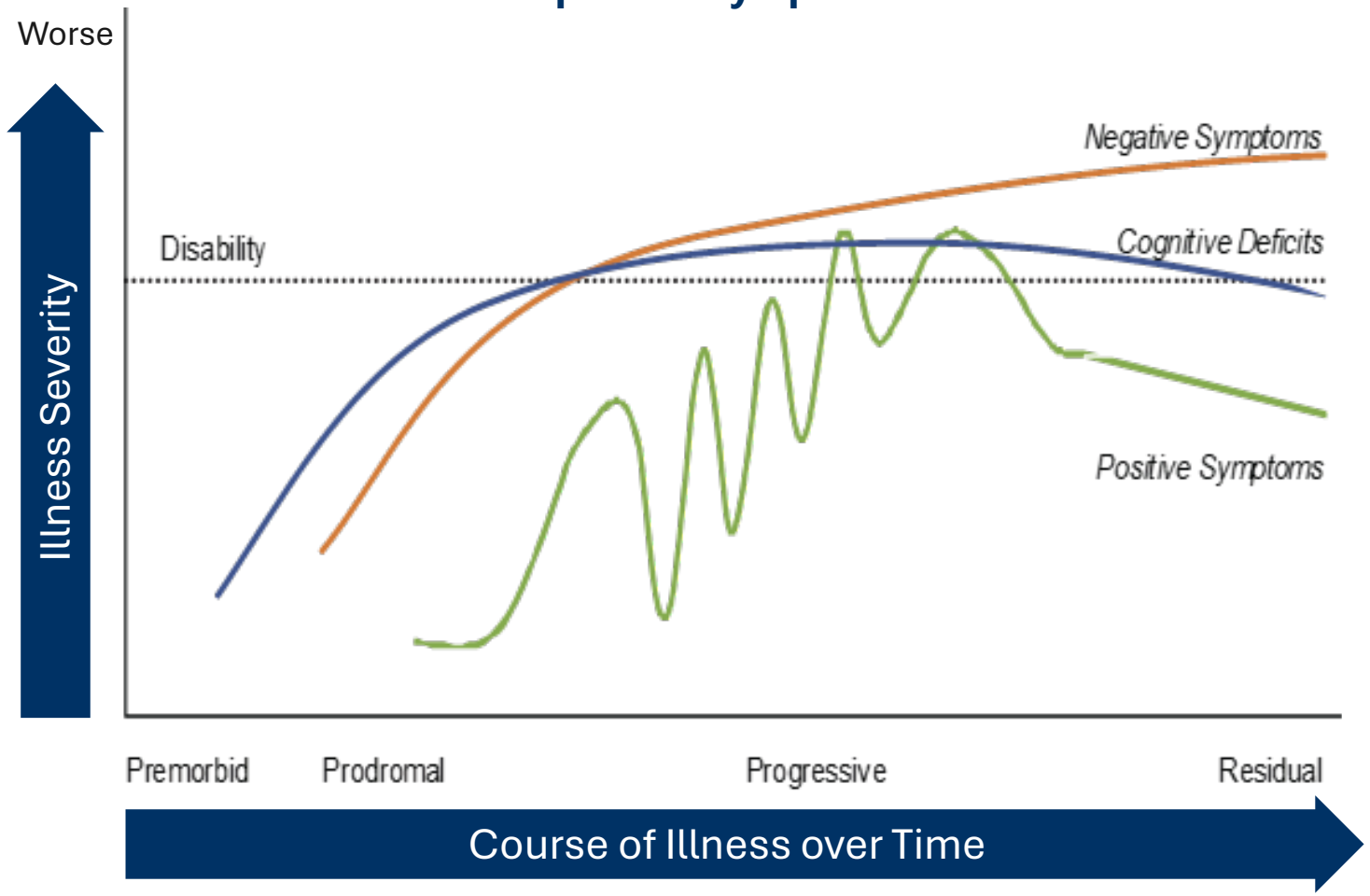
Schizophrenia has three symptom domains

1) **Positive Symptoms** - delusions, hallucinations, disorganized behavior

2) **Negative Symptoms** - diminution or absence of normal behaviors related to motivation and interest

3) **Cognitive Deficits**

Functional disability closely correlates with negative symptoms rather than positive symptoms over time

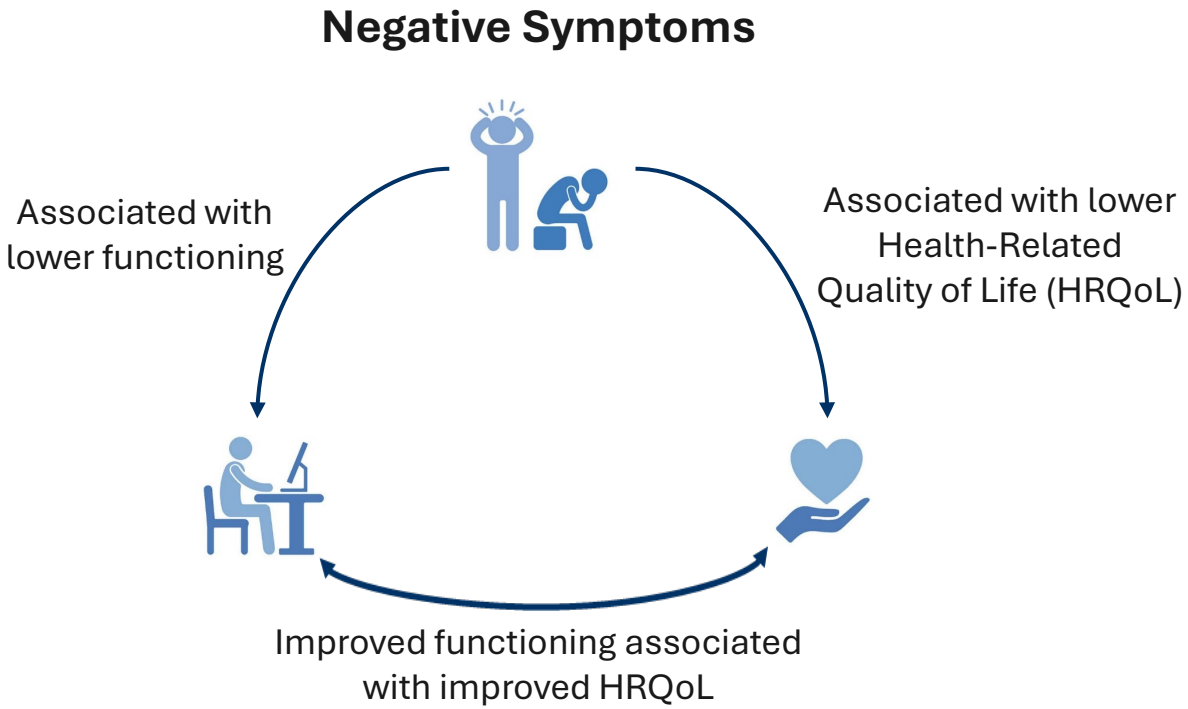


Source: Correll and Schooler, 2020

MINERVA NEUROSCIENCES, INC.

The profound impact and unmet need driven by negative symptoms

"While positive symptoms are often the most recognized features of schizophrenia due to their external observation of distorted normal function, ***negative symptoms*** *are the lack of normal functions that* ***differentially affect schizophrenia treatment and prognosis****."*



80%–90% of people with schizophrenia are **unemployed**

vs. ~4–5% in the general population

Negative symptoms; not positive symptoms drive unemployment in schizophrenia

Consistent finding across >25 studies; yet no approved treatment targets negative symptoms

Adapted From: Chan A et al., Schizophrenia Research. 2026

References: (1) Evensen S et al. Schizophr Bull. 2016;42(2):476–483. (2) Holm M et al. Acta Psychiatr Scand. 2021;143(3):241–255. (3) Rosenheck R et al. Am J Psychiatry. 2006;163(3):411–419. (4) Üçok A et al. Schizophr Res. 2011;129(2–3):154–158. (5) Chan A et al. Schizophrenia Research. 2026;288:95-103. (6) Minerva Neurosciences IR/KOL materials, 2025–2026.

Targeting avolition improves entire constellation of symptoms & functional outcomes

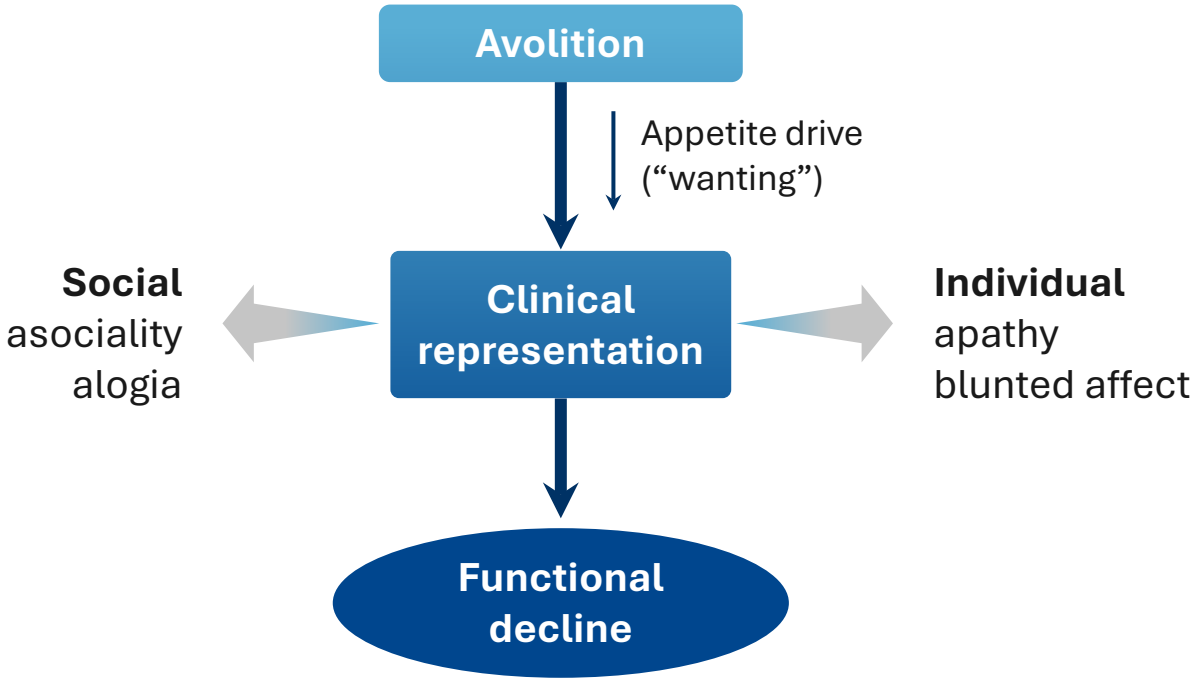
Avolition (lack of motivation)

Significantly impacts other domains

- anhedonia (pleasure loss)
- asociality (social withdrawal)
- blunted affect (reduced emotional expression)
- alogia (poverty of speech)

Disrupts goal-directed behavior and reward processing

Avolition is a determinant of poor functional outcome



Adapted from: Foussias & Remington, Schizophr Bulletin 2010

MINERVA
NEUROSCIENCES, INC.

Roluperidone for negative symptoms of schizophrenia

Clinical data that matters

C03 & C07 Studies: similar designs and significant results – guiding C19 confirmatory trial

		C03 (MIN101C03) · Phase 2b	C07 (MIN101C07) · Phase 3
Design	**Design and number of patients**	**244 patients** randomized 1:1:1 (monotherapy) Placebo · 32 mg · 64 mg PO, QD	**515 patients** randomized 1:1:1 (monotherapy) Placebo · 32 mg · 64 mg PO, QD
Design	**Duration**	12-wk efficacy (DB) → 24-wk safety (OLE)	12-wk efficacy (DB) → 40-wk safety (OLE)
Results	**PANSS Marder NSFS*** Change from baseline to Week 12	**p ≤ 0.001 ✓ Statistically significant** (64 mg) Significant improvement in negative symptoms	**p ≤ 0.043 ✓ Nominally significant** (64 mg) Nominally statistically significant improvement in negative symptoms** †
Results	**PSP Total Score** (Personal & Social Performance — functional endpoint)	**p ≤ 0.002 ✓ Statistically significant** (64 mg) Improvement in patient functioning as measured by PSP Total Score	**p ≤ 0.016 ✓ Statistically significant** (64 mg) Improvement in patient functioning as measured by PSP Total Score†
Results	**Positive Symptoms**	**Stable throughout** Positive symptoms stable over 12-week double-blind + 24-week open-label extension	**Stable throughout** Positive symptoms stable over 12-week double-blind + 36-week open-label extension
Results	**Relapse Rate (positive symptoms)**	**14%** After 12-week DB + 24-week OL; comparable to antipsychotic-treated comparator (CATIE 15%)	**9%** After 12-week DB + 40-week OL; markedly lower than antipsychotic-treated comparator (CATIE 18%)

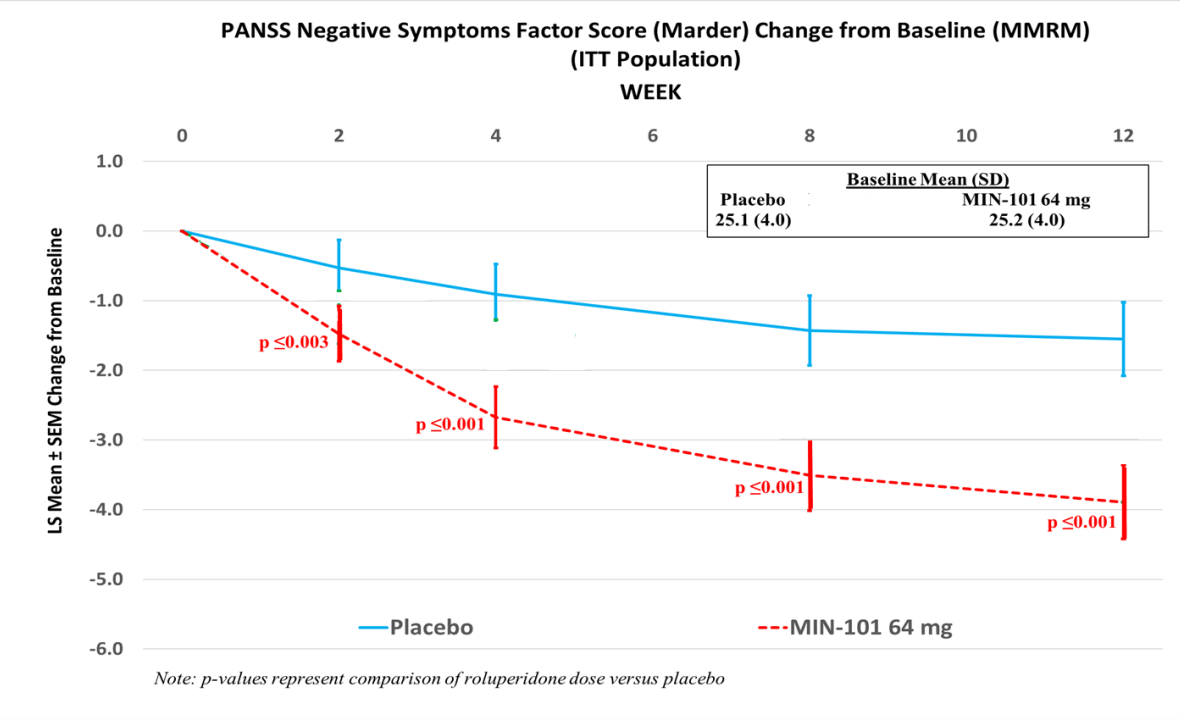
*PANSS Marder NSFS was not primary endpoint of C03 study but is shown here because it is the primary endpoint agreed with FDA for the ongoing C19 confirmatory study (the primary endpoint of the C03 study was the PANSS Pentagonal-NFS, which also showed a statistically significant improvement (0.004 for 64 mg); **C07 study's primary endpoint met only on nominal basis (p ≤ 0.043) due to statistical plan's use of Hochberg Type I correction; †mITT population (excludes 1 site for reasons of implausible data).

PO: oral dose. **QD**: once daily dose. **DB:** double-blind. **OLE:** open-label extension. **NSFS:** Marder Negative Symptoms Factor Score. **PSP:** Personal and Social Performance scale. Source: Minerva Neurosciences.

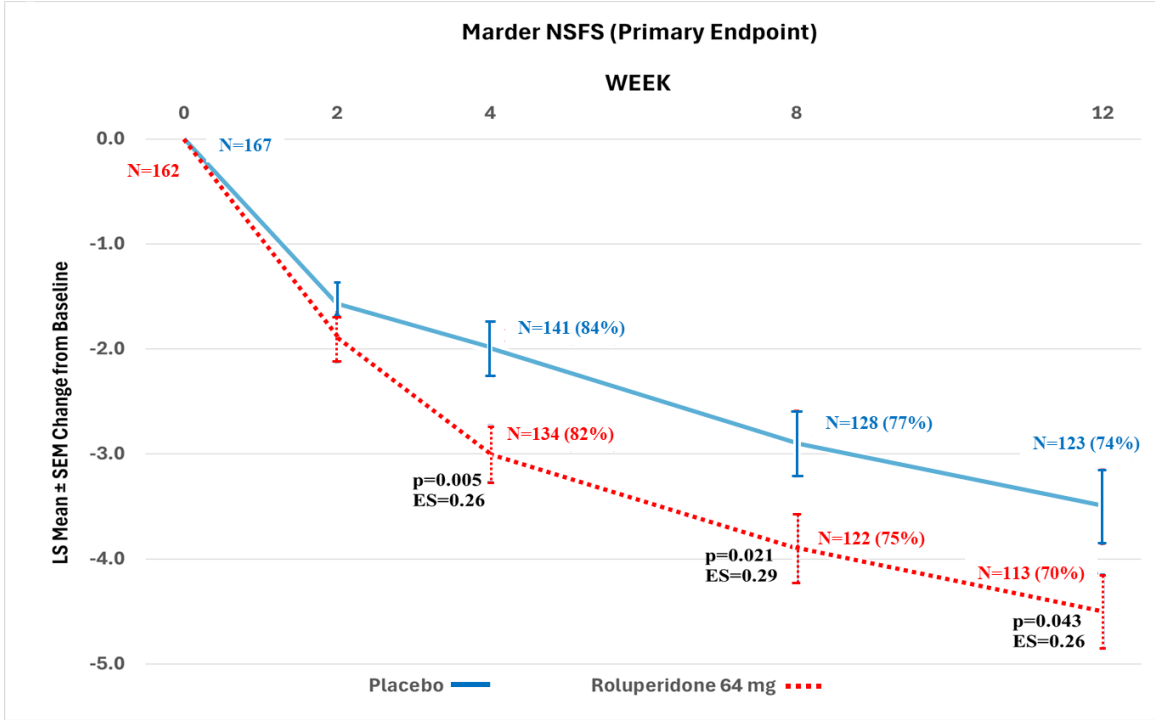
MINERVA NEUROSCIENCES, INC.

C03 & C07 Studies: Negative Symptom Factor Score (64 mg roluperidone)*

C03 Study (Phase 2b)



C07 Study (Phase 3)**



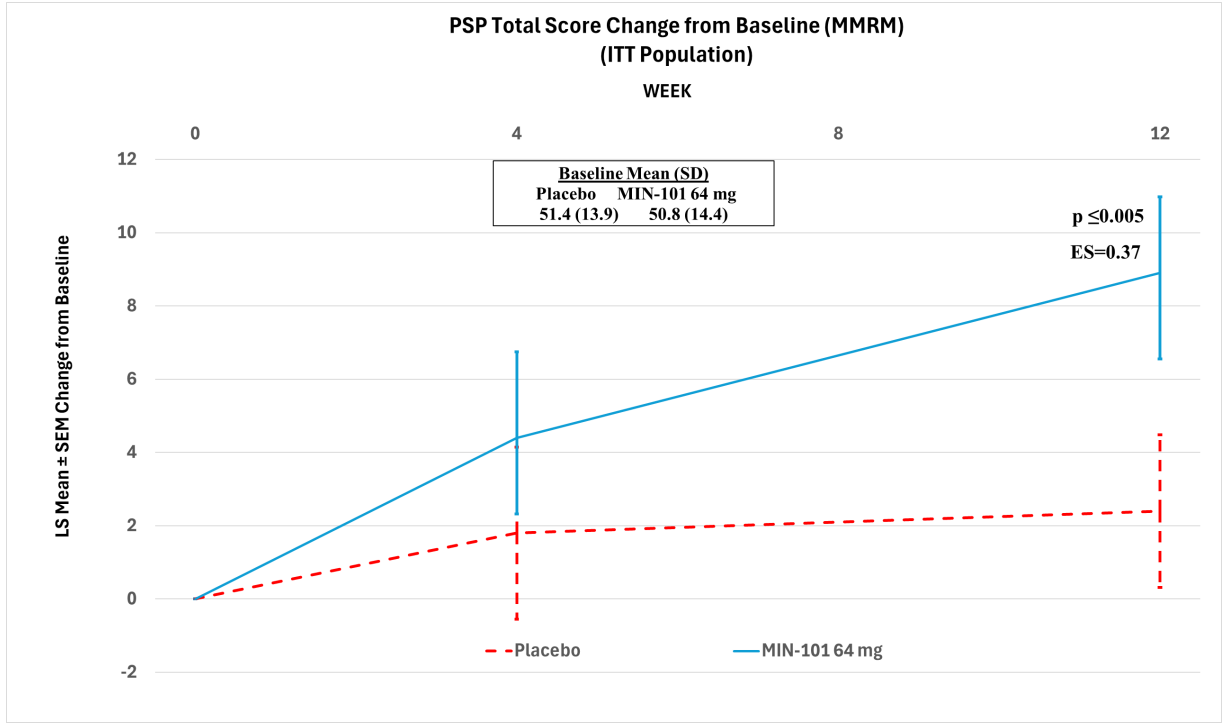
* NSFS: Negative Symptom Factor Score calculated from PANSS scale (Marder et al., 1997)

** mITT population (excludes 1 site for reasons of implausible data)

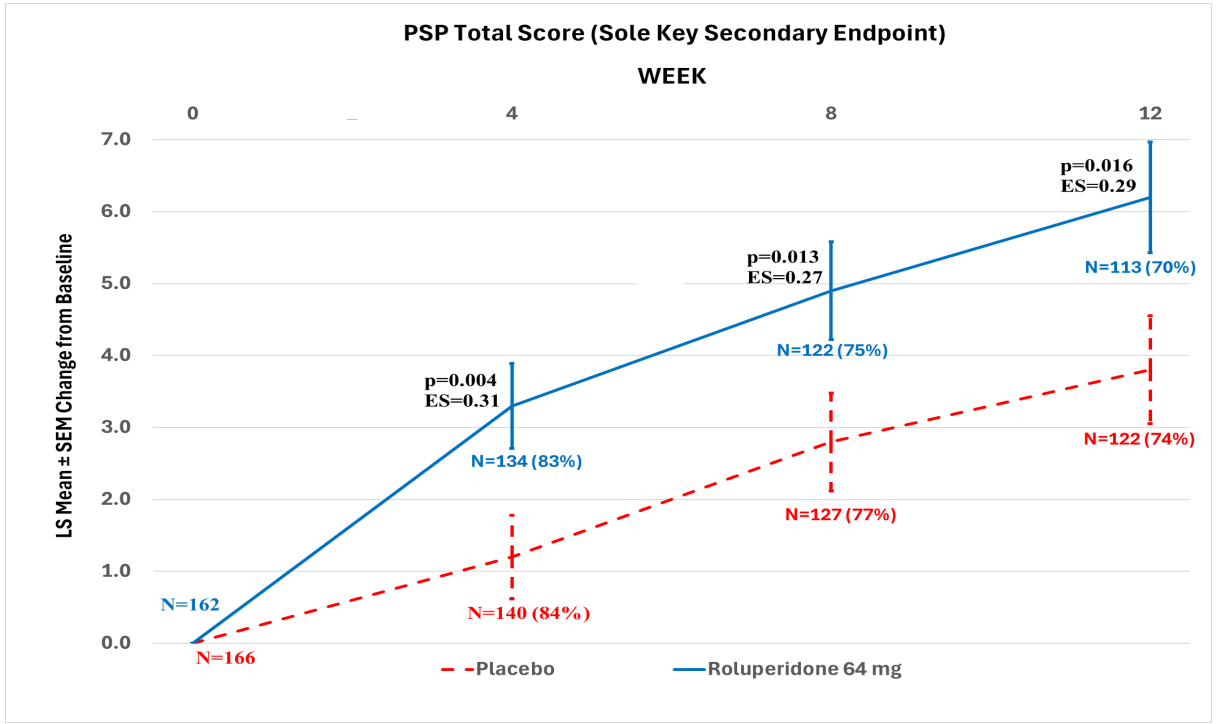
MINERVA NEUROSCIENCES, INC.

C03 & C07 Studies: Personal and Social Performance (PSP) Score (64 mg roluperidone)*

C03 Study (Phase 2b)



C07 Study (Phase 3)*



MINERVA NEUROSCIENCES, INC.

* mITT population (excludes 1 site for reasons of implausible data)

Conclusions from C03 and C07 Studies

Roluperidone demonstrated clear statistical significance on multiple efficacy endpoints:

- ✓ Improves primary negative symptoms
- ✓ Improves functioning
- ✓ Improves avolition
- ✓ Stable positive symptoms, with a low relapse rate

Roluperidone avoids well-known troubling sides effects seen with atypical antipsychotics:

- ✓ Metabolic syndrome
- ✓ Sedation
- ✓ Motor symptoms (extra pyramidal symptoms; EPS)
- ✓ Prolactin elevation
- ✓ Nausea (for muscarinic antipsychotics)

Unique pharmacological profile that drives the differentiated clinical benefits in previous clinical trials

MINERVA
NEUROSCIENCES, INC.

De-risked, execution-focused confirmatory C19 trial design

FDA Alignment on C19, confirmatory trial design: ***actively enrolling NCT07565428***

Alignment reached on design of a confirmatory Phase 3 study following extensive collaborative discussions with FDA throughout 2023-2024 and the findings of an FDA Public Meeting in August 2024:

Evaluating the Negative Symptoms of Schizophrenia in Clinical Trials[1]

Excerpts from FDA Meeting Minutes

- ***FDA acknowledges Minerva's position*** *that a population of people with schizophrenia can be identified* ***with high negative symptoms and a low risk of relapses*** *who can safely be withdrawn from antipsychotic treatment.*
- *The Division is willing to discuss an additional study that provides robust, controlled data about the efficacy and safety of long-term* ***monotherapy*** *with roluperidone in* ***subjects with negative symptoms of schizophrenia****.*
- *The Division agreed that it would consider a resubmission that included a double-blind, placebo- or active-controlled trial of roluperidone with a duration of at least 52 weeks.*
- *The Division does not object to a 12-week primary endpoint for negative symptom.*
- *To support a* ***monotherapy indication,*** *a comparison of relapse rates between patients on roluperidone monotherapy and similar patients maintained on antipsychotics would be important for regulatory decision making.*
- *[The approach]* ***would represent a new treatment paradigm.***

MINERVA NEUROSCIENCES, INC.

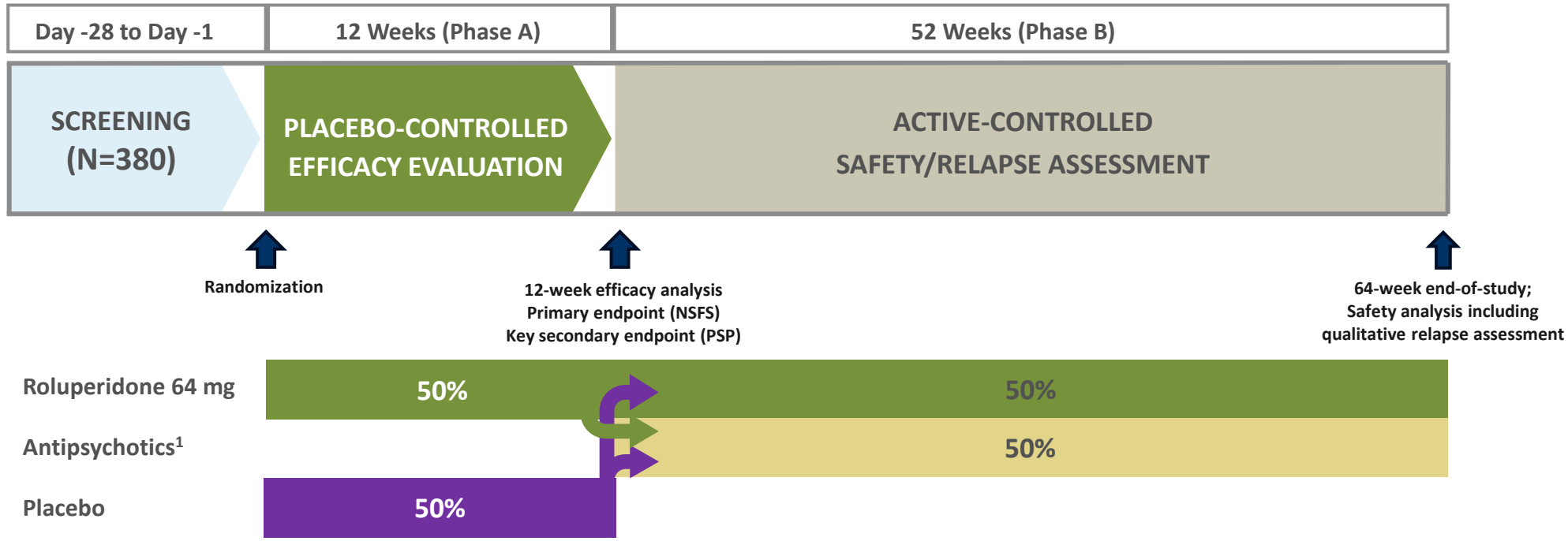
[1] *FDA Meeting August 16, 2024*

C19 trial design: ***trial actively enrolling***

Screening (28 days) – to ensure patients meet eligibility criteria for stable symptoms prior to randomization

Efficacy Assessment (12 weeks):
Two parallel treatment arms randomized (1:1) to roluperidone or placebo using a double-blind study design

Safety/Relapse Assessment (52 weeks following first 12 weeks):
Two parallel treatment arms re-randomized (1:1) to roluperidone or one of three antipsychotics using a double-dummy study design



[1] Patients re-randomized to either one of three atypical antipsychotics or roluperidone

Execution-focused trial maximizes probability of a clean, interpretable C19 Study outcome

Trial Design Improvements

- **64 mg of roluperidone** in treatment arm, the dose which showed greater symptom improve in C03 and C07 trials
- Single active dose (64 mg) versus placebo **eliminates need for Type I error correction** applied in C03 and C07 trials
- Single active dose (64 mg) versus placebo **reduces treatment expectation bias**, which inflates placebo response
- Fewer patient assessment visits to **limit the "nursing effect,"** which inflates placebo response in CNS trials
- Rigorous, systematized **inclusion and exclusion criteria** to ensure enrollment of appropriate patients

Scale, Monitoring and Data Quality Controls

- ~380 patients across ~40 sites in the U.S. (25–30%) and four European countries
- **Focused site footprint** reduces variability and supports statistical integrity; and selection accounts for **prior site performance** in C03 and C07 trials
- **Standardized training** in PANSS ratings; and **oversight to support patient selection consensus** between investigators and sponsor
- Independent expert **oversight of rating quality** with real-time monitoring
- **Centralized data collection** using electronic tablets with built-in prompts to reduce rater error

Summary: the Minerva confluence

Right Pharmacology and MOA

Only drug to date to demonstrate a significant and clinically relevant specific improvement on *primary* negative symptoms of schizophrenia

Right Phase 3 Trial Design

Previous experience with two statistically significant (one nominally) trials + upcoming ‘high touch’ confirmatory Phase 3 trial improves probability of success

Right Moment

FDA guidance on Phase 3 trial design + broad awareness of the unmet need in the psychiatry community + $200m investment from top tier investors

MINERVA
NEUROSCIENCES, INC.

From Unmet Need to Reality

Roluperidone is potentially the first treatment for negative symptoms of schizophrenia

Corporate deck I Spring 2026