

THE SPECIALIST IN CNS DRUG DEVELOPMENT - INNOVATIVE TREATMENTS TO IMPROVE QUALITY OF LIFE

Stefan Weber, CEO
Investora Zürich 2021
September 16, 2021





Disclaimer

RESTRICTED SCOPE; EXCLUSION OF LIABILITY; CONFIDENTIALITY

This document has been prepared by Newron Pharmaceuticals S.p.A. ("Newron") solely for your information. The information contained herein has not been independently verified. No representation or warranty, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the information or opinions contained herein. Newron does not undertake any obligation to up-date or revise any information contained in this presentation. None of Newron, its advisors or any of their respective representatives or affiliates shall have any liability whatsoever (in negligence or otherwise) for any loss howsoever arising from any use of this document or its contents or otherwise arising in connection with this document.

None of Jefferies International Limited ("Jefferies"), Kempen & Co N.V. ("Kempen") or Kepler Cheuvreux S.A. ("Kepler") or any of their respective directors, officers, employees, advisers and agents accept any responsibility or liability whatsoever for/ or makes any representation or warranty, express or implied, as to the truth, fullness, accuracy or completeness of the information in this document (or whether any information has been omitted from the document) or any other information relating to Newron or its associated companies, whether written, oral or in a visual or electronic form, and howsoever transmitted or made available or for any loss howsoever arising from any use of this document or its contents or otherwise arising in connection therewith.

None of Newron, Jefferies, Kempen, Kepler or any of their respective directors, officers, employees, agents, affiliates or advisers is under any obligation to update, complete, revise or keep current the information contained in this document to which it relates or to provide the recipient of with access to any additional information that may arise in connection with it.

Jefferies, which is authorised and regulated in the United Kingdom by the Financial Conduct Authority, is acting exclusively for Newron and no one else in connection with this document or any future transaction in connection with it. Jefferies will not regard any other person (whether or not a recipient of this document) as a client or will be responsible to anyone other than Newron for providing the protections afforded to its clients or for the giving of advice in relation to the contents of this document or any transaction, matter or arrangement referred to in this document.

This copy of the presentation is strictly confidential and personal to the recipient. It may not be (i) used for any purpose other than in connection with the purpose of this presentation, (ii) reproduced or published, (iii) circulated to any person other than to whom it has been provided at this presentation.

FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements, including (without limitation) about (1) Newron's ability to develop and expand its business, successfully complete development of its current product candidates and current and future collaborations for the development and commercialisation of its product candidates and reduce costs (including staff costs), (2) the market for drugs to treat CNS diseases and pain conditions, (3) Newron's anticipated future revenues, capital expenditures and financial resources, and (4) assumptions underlying any such statements. In some cases these statements and assumptions can be identified by the fact that they use words such as "will", "anticipate", "estimate", "expect", "project", "intend", "plan", "believe", "target", and other words and terms of similar meaning. All statements, other than historical facts, contained herein regarding Newron's strategy, goals, plans, future financial position, projected revenues and costs and prospects are forward-looking statements.

By their very nature, such statements and assumptions involve inherent risks and uncertainties, both general and specific, and risks exist that predictions, forecasts, projections and other outcomes described, assumed or implied therein will not be achieved. Future events and actual results could differ materially from those set out in, contemplated by or underlying the forward-looking statements due to a number of important factors. These factors include (without limitation) (1) uncertainties in the discovery, development or marketing of products, including without limitation negative results of clinical trials or research projects or unexpected side effects, (2) delay or inability in obtaining regulatory approvals or bringing products to market, (3) future market acceptance of products, (4) loss of or inability to obtain adequate protection for intellectual property rights, (5) inability to raise additional funds, (6) success of existing and entry into future collaborations and licensing agreements, (7) litigation, (8) loss of key executive or other employees, (9) adverse publicity and news coverage, and (10) competition, regulatory, legislative and judicial developments or changes in market and/or overall economic conditions.

Newron may not actually achieve the plans, intentions or expectations disclosed in forward-looking statements and assumptions underlying any such statements may prove wrong. Investors should therefore not place undue reliance on them. There can be no assurance that actual results of Newron's research programmes, development activities, commercialisation plans, collaborations and operations will not differ materially from the expectations set out in such forward-looking statements or underlying assumptions.

NO OFFER OR INVITATION; NO PROSPECTUS

This document does not contain or constitute an offer or invitation to purchase or subscribe for any securities of Newron and no part of it shall form the basis of or be relied upon in connection with any contract or commitment whatsoever.

This document is not a prospectus within the meaning of art. 652a of the Swiss Code of Obligations or article 32 of the SIX Swiss Exchange Listing Rules. In making a decision to purchase or sell securities of Newron, investors must rely (and they will be deemed to have relied) solely on their own independent examination of Newron.

The securities of Newron have not been registered under the US Securities Act of 1933 as amended (the "Securities Act") and may not be offered or sold in the United States unless registered under the Securities Act or pursuant to an exemption from such registration. Newron does not intend to register any securities it may offer under the Securities Act.

This document is only being distributed to and is only directed at (1) persons who are outside the United Kingdom or (2) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), (3) high net worth companies, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order, or (4) qualified investors, pursuant to article 100 of Legislative decree 58/98, as amended (all such persons in (1) to (4) above together being referred to as "relevant persons"). Any person who is not a relevant person should not act or rely on this document or any of its contents.

ACCEPTANCE OF DISCLAIMER

By accepting this document, you acknowledge and agree to each of the foregoing disclaimer.

> Company Highlights



Unique portfolio of innovative CNS product candidates

- Xadago® for Parkinson's disease – Global approvals validate Newron's development capabilities from research to market
- Evenamide – New concept in treating inadequate/non-response in schizophrenia
- Ongoing search for strategically relevant assets

Significant near-term value drivers for both candidates

Management team with extensive experience and proven track record in drug development and commercialization

Fully funded beyond key value inflection points

- Cash balance of approx. € 31.3 million (Dec. 31, 2020)
- Access to long term funding facility of up to € 15 million (European Investment Bank)
- Royalty income, R&D tax credit





DEVELOPING UNIQUELY DIFFERENTIATED DRUGS FOR CNS TARGETS

Xadago® (safinamide)

Commercialized by partners in 15 European markets, the US, Canada and other markets for Parkinson's disease ("PD")



Newron receives milestone and royalty payments from sales of safinamide in PD; > € 55 million received to date












Evenamide (NW-3509)

Phase IIa trial demonstrated efficacy; potential first mechanistically validated treatment for poor/non-responding patients with schizophrenia



First pivotal study started Sept. 2021, as part of Phase III program in two indications. Opportunities for commercialization by Newron (TRS population) and partnering (major indication)

➤ Innovative Clinical Pipeline with Near-Term Catalysts

PRODUCTS		Phase I	Phase II	Phase III	Market	Commercial Rights	
Xadago® (safinamide) ¹	 Adjunctive therapy in PD						Zambon
	 Adjunctive therapy in PD						Zambon/Supernus
	 Adjunctive therapy in PD						Meiji Seika/Eisai
	 Levodopa Induced Dyskinesia (PD LID)						Zambon/Supernus
Evenamide (NW-3509)¹	Adjunctive therapy in Schizophrenia						Newron
	Adjunctive therapy in TRS						
Ralfinamide¹	Orphan indication in neuropathic pain						Newron

➤➤ Expected Milestones



Xadago®:

Preparations for study in patients with Levodopa Induced Dyskinesia (PD LID) ongoing, study expected to start early 2022



Evenamide:

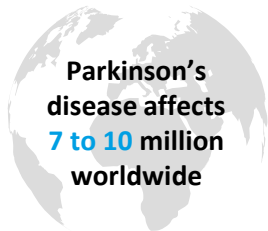
Minimally 200 pts phase II/III study started Sept. 6, 2021, results expected by QIV 2022, further pivotal studies to initiate in 2022



Ongoing search for strategically relevant assets

¹ Safinamide, Evenamide and Ralfinamide all developed from Newron's ion-channel based research

Xadago®: 1st New Chemical Entity Approved in a Decade for Parkinson's Disease



Parkinson's
disease affects
7 to 10 million
worldwide

A progressive disorder, no cure available yet

- 2nd most common chronic progressive neurodegenerative disorder in the elderly
- Affecting 1-2% of individuals aged ≥ 65 years worldwide
 - 20% to 30% in early stage
 - 70% to 80% percent in mid to late stage
 - >\$4 billion worldwide market



Fast and sustained efficacy, well tolerated

MID- TO LATE-STAGE PD PATIENTS –
add-on to L-Dopa dopamine replacement

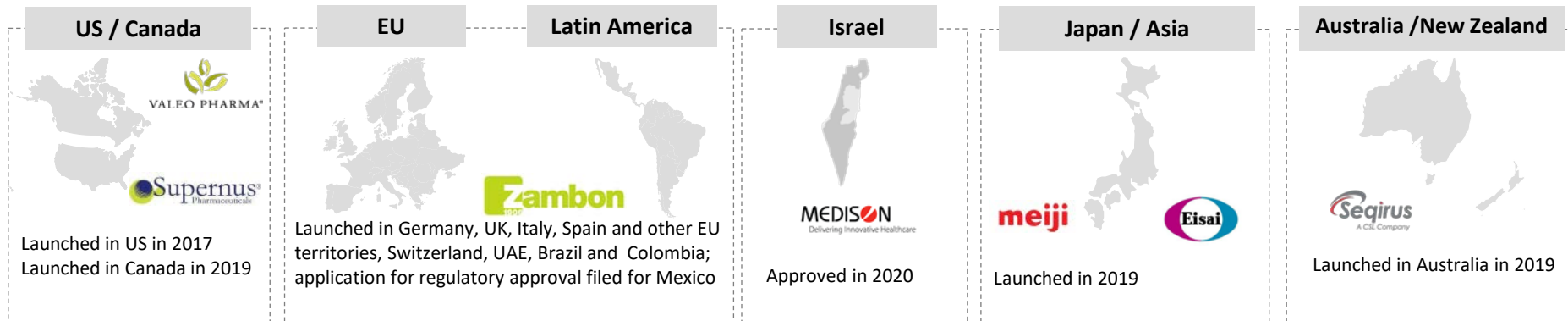
- Significant improvement of
 - ON Time/OFF Time – regulatory endpoint
 - UPDRS II – activities of daily living
 - UPDRS III – motor function
 - CGI (clinical global impression) – severity and improvement
- Additional ON Time without any increase in any dyskinesia



Xadago®: New Label Study in Patients with Levodopa Induced Dyskinesia

- Zambon previously discussed with the US Food and Drug Administration (FDA) the design of a potentially pivotal efficacy study to evaluate the effects of Xadago®/safinamide in patients with PD LID
 - Intention is to perform the study in the US, Europe and Asia/Australia
- Given Newron's experience in the development of Xadago, Newron to conduct the study
 - Zambon remains associated with the study
- Newron and Zambon to share study cost, equally, in return, Newron to qualify for a one-time milestone payment and a greater share of royalties should the study lead to a label extension
- Evidence indicating Xadago's anti-dyskinetic effect:
 - Mechanism, i.e. glutamate release inhibition
 - LID models in rats and monkeys
 - PD patient data: significant reduction of dyskinesia in 223 dyskinetic (Dyskinesia Rating Scale) PD patients in a 2-year, placebo-controlled study
- Agreement executed March 2021
- Preparations for study initiation ongoing
- Study expected to start early 2022

Significant Commercial Opportunity in Xadago® (Safinamide)



➤ Parkinson's disease affects 7 to 10 million people worldwide

➤ Long period of Xadago® market exclusivity (patent life: 2029 in EU, 2031 in the US); ANDAs filed Q1/2021

➤ Milestone and royalty revenues to Newron since 2012

Schizophrenia: No Effective Treatment for the Last 20 Years to Reduce Burden of Disease



Globally over 4 million patients

- Disease onset in 20s, need for life-long treatment
- Cost to society (direct cost US only): \$63bn p.a.

» Efficacy of current treatment options is insufficient

Onset of disease occurs in early adulthood affecting 1% of the population worldwide

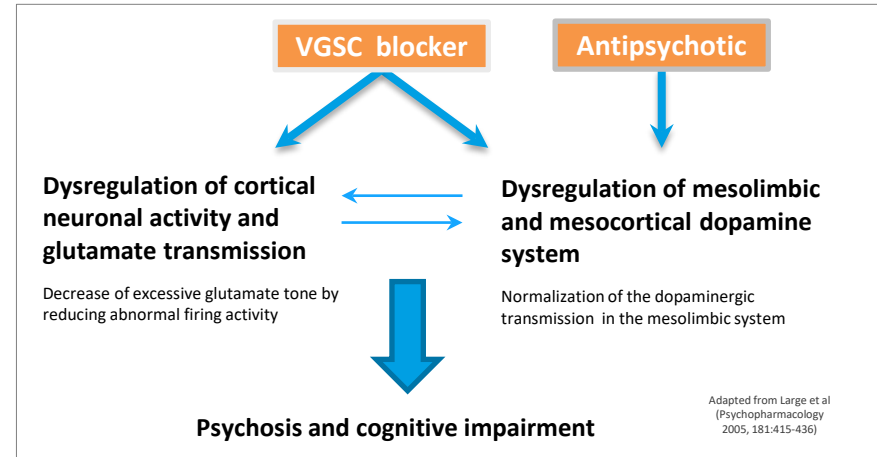
- Most patients with schizophrenia demonstrate reduced response to typical and atypical antipsychotics after few years of treatment
- 64-82% of chronically treated patients switch treatments but without additional benefits, no significant reduction in side-effects
- Treatment-resistant schizophrenia (TRS)
 - Min. 30% of patients after 3-5 years are TRS: only clozapine shows efficacy
 - 30-50% of these patients show resistance to clozapine; no therapeutic option left
- New data indicate far worse prognosis than current concepts:
 - Outcome after one year for young US patients on treatment following first episode: 24 times greater mortality than age matched (16-30 years old) controls (Schoenbaum, 2017)



Evenamide Novel MoA: Synergistic with Marketed Antipsychotics

- Evenamide, a Voltage-Gated Sodium Channels (VGSC) blocker has the potential to target the abnormal neuronal activity and glutamate transmission in patients with schizophrenia
- Evenamide may add to or synergize with antipsychotic drugs to bring about a combined therapeutic effect on glutamate and dopamine systems
 - Effects seen in combination with haloperidol, risperidone and aripiprazole
- Composition of matter in all key territories, patent life 2033 incl. extension

Voltage-Gated Sodium Channels (VGSC) blockers may act synergistically with antipsychotics in schizophrenia therapy



Evenamide's Unique MOA Demonstrated

Selectively blocks native sodium channels, showing no off-target effect on >130 CNS receptors, enzymes, transporters, etc.

Selectively blocks VGSCs in a voltage- and use-dependent manner

Modulates sustained repetitive firing without inducing impairment of the normal neuronal excitability

Inhibits Glutamate Release

Inhibition of native sodium channels expressed in rat cortical neurons

K_{rest} (μM)

25

K_{inact} (μM)

0.4

High frequency firing

Control

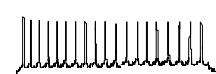


Evenamide 1 μM

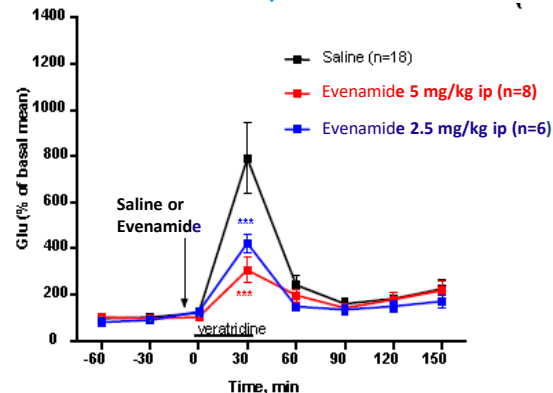


Low frequency firing

Control



Evenamide 1 μM



Evenamide is Active in a Wide Range of Schizophrenia and Psychiatric Animal Models as a Monotherapy and as an Add-on to Existing Antipsychotics

		Monotherapy	Add-on
Information Processing Deficit	Pre-pulse inhibition (PPI) disrupted by dopamine activation (amphetamine -rat)	✓	✓
	Pre-pulse inhibition (PPI) disrupted by NMDA antagonists (MK-801, PCP, -rat)	✓	
	Pre-pulse inhibition (PPI) disrupted by natural stimuli (sleep deprivation -rat)	✓	
	Pre-pulse inhibition spontaneous deficit (C57 mice)	✓*	✓
	Pre-pulse inhibition (PPI) disrupted by Ketamine in rat	✓	✓
Negative Symptoms	PCP-induced deficit in Social Interaction in the rat	✓	✓
	<i>Saccharin preference test (anhedonia) in prenatal poly:IC exposed mice (ongoing)</i>	✓	
	<i>Three-chamber sociability test in prenatal poly:IC exposed mice (ongoing)</i>	✓	
	<i>Forced swimming test (avolition) in prenatal poly:IC exposed mice (ongoing)</i>	✓	
Psychosis and Mania	Amphetamine induced hyperactivity in mice	✓	✓
	Amphetamine plus Chlordiazepoxide induced hyperactivity in mice	✓	✓
Cognitive Impairment	Novel object recognition in the rat: short term scopolamine impairment	✓	
	Novel object recognition in the rat: long term 24 hr natural forgetting	✓	
Impulse Control and Mood Symptoms	Resident–Intruder test in mice (Impulsivity)	✓	
	Tail suspension test in mice (Depression)	✓	
	Marble burying test in mice (Obsessive Compulsive Disorders)	✓	

*Trend
Blank cells = not evaluated





Evenamide: Proof of Concept in Patients with Schizophrenia Demonstrated

- 4-week, placebo-controlled, add-on study of evenamide (15-25mg BID/day) in 89 patients on stable doses of aripiprazole or risperidone showing signs of worsening when compared to standard of care, at every assessment during the study (starting day 8)
 - **Significant improvement of**
 - PANSS positive, both mean change AND responder rate
 - CGI-C
 - **Superior benefit on**
 - PANSS total
 - LOF total
 - CGI-S
 - Glutamatergic MoA seems to improve symptoms of psychosis in patients not responding to D2/5HT2 blockade
-



Evenamide: Regulatory Interactions and Phase III Clinical Development Plan

Health Authorities (Spain, Denmark, Sweden, Germany, UK, CHMP, US, Canada) in agreement with proposed Phase III plan

Newron completed additional informative studies as requested by the FDA prior to allowing Newron to initiate its Phase III development program

- Preclinical part of safety work has been successfully completed; no toxicity issues reported; submitted to FDA, already
- First clinical safety study initiated in July 2020 (Study 008)
 - Four-week, randomized, double-blind placebo-controlled study
 - To evaluate safety (tolerability and EEG effects) and preliminary efficacy of 7.5 mg and 15 mg BID
 - Outpatients suffering from chronic schizophrenia being treated with one of the leading anti-psychotics
 - 138 pts randomized in 13 study centers in the US and India
 - Primary objective of safety met on all safety variables (April 2021)

Evenamide: Regulatory Interactions and Phase III Clinical Development Plan

- Phase II/III safety and efficacy study 008A
 - Four-week, randomized, double-blind placebo-controlled study
 - To evaluate safety (tolerability and EEG effects) and preliminary efficacy of 30 mg BID
 - Outpatients suffering from chronic schizophrenia being treated with one of the leading anti-psychotics
 - Minimally 200 patients to be randomized in study centers in Europe, Asia and Latin America
 - Start of study September 6, 2021
 - Results expected by QIV 2022
- Remaining Phase III program will cover specific populations:
 - **Non-treatment resistant patients:** chronic schizophrenics experiencing inadequate benefit for symptoms of their psychosis, on current atypical antipsychotic monotherapy (risperidone, aripiprazole, paliperidone, olanzapine, or quetiapine)
 - **Treatment resistant schizophrenia:** Patients whose psychotic symptoms are not responding adequately to treatment



Company Highlights



Unique portfolio of innovative CNS product candidates

- Xadago® for Parkinson's disease – Global approvals validate Newron's development capabilities from research to market
- Evenamide – New concept in treating inadequate/non-response in schizophrenia
- Ongoing search for strategically relevant assets

Significant near-term value drivers for both candidates

Management team with extensive experience and proven track record in drug development and commercialization

Fully funded beyond key value inflection points

- Cash balance of approx. € 31.3 million (Dec. 31, 2020)
- Access to long term funding facility of up to € 15 million (European Investment Bank)
- Royalty income, R&D tax credit

CONTACT DETAILS

NEWRON

STEFAN WEBER – CEO

+39 02 6103 46 26

pr@newron.com

UK/EUROPE

JULIA PHILLIPS / NATALIE GARLAND-COLLINS, FTI CONSULTING

+44 20 3727 1000

SCnewron@fticonsulting.com

SWITZERLAND

VALENTIN HANDSCHIN

+41 43 244 81 54

handschin@irf-reputation.ch

GERMANY/EUROPE

ANNE HENNECKE/CAROLINE BERGMANN, MC SERVICES

+49 211 52925220

newron@mc-services.eu

USA

PAUL SAGAN, LAVOIEHEALTHSCIENCE

+1 617 374 8800, EXT. 112

psagan@lavoiehealthscience.com