



NRx Pharmaceuticals, Inc.

Q4 inline. Key NRX-101 Phase 3 trial progressing well. We believe expected positive milestones and clinical data over the next year to be strong catalysts for stock. Raising P/T to \$4.75.

Q4 inline: NRx recently (on March 30) reported its Q4 2022 (ending December) results. Net loss was \$10.3 million or EPS of \$(0.15) compared with our and consensus estimates of \$(0.14) - (0.15). There was no guidance. NRx is a clinical stage drug development company so it generates no revenue.

Operating expenses: Operating expenses were \$10.1 million, up from Q3 2022's \$9.1 million on higher clinical activities.

No guidance: Management did not provide forward guidance.

Adjusting estimates: We are slightly adjusting our 2023 EPS estimate to \$(0.53) from \$(0.56).

Focused on Bipolar Disorder: Its main drug is NRX-101 (D-cycloserine/Lurasidone) for the treatment of bipolar depression in patients with suicidality (the risk of suicide). NRX-101 aims to be the first oral therapeutic for the treatment of Bipolar Depression in patients with Acute Suicidal Ideation and Behavior ("ASIB") and Sub-Acute Suicidal Ideation and Behavior ("SSIB").

NRX-101: NRX-101 is a dual-targeted therapy regimen consisting of an initial treatment with NRX-100 (intravenous ketamine) followed by 6-week treatment with NRX-101 (combined DCS and lurasidone). Ketamine is a generic drug and has been widely used for a long time as an antidepressant, although its effect does not last long (usually about a week). NRX-101 is designed to extend ketamine's proven anti-suicidal and antidepressant benefits without its drawbacks.

Large market potential: There is no medicine approved to treat patients with bipolar depression suffering suicidal ideation. According to the NIH, an estimated 2.8% of the U.S. adult population had bipolar disorder in the past 12 months, and the lifetime prevalence is 4.4% of adults in the U.S. Lifetime suicide behavior occurs in 25% to 56% of people with bipolar depression.

Clinical trials data expected in Q4 2023: In Q2 2022, enrollment was initiated in its Phase 2 trial of NRX-101 in patients with Bipolar Depression and Sub-Acute Suicidal Ideation & Behavior (SSIB) (not requiring hospitalization). In March, the DSMB (Data and Safety Monitoring Board) examined unblinded study data to assess the study for safety and potential utility and recommended continuation of patient enrollment as planned. This trial has been upgraded to a Phase 2b/3 study that may be used for a registrational filing. Top-line data from this trial is expected in Q4 2023.

Phase 3 started: In January, a registration trial (Phase 3) was initiated for NRX-101 in patients with Bipolar Depression and acute suicidal ideation and behavior (ASIB) (requiring hospitalization). If the trials are successful, the company may be able to file a new drug application (NDA) with the FDA for NRX-101 by late 2023 or early 2024, with commercialization starting in 2024.

Consolidation of study: Based on guidance from the FDA and the DSMB, the company is seeking to consolidate patients in the ASIB study into the currently enrolling Phase 2b/3 trial. This would potentially allow registration of NRX-101 for Suicidal Treatment-Resistant Bipolar Depression, regardless of the mechanism of stabilization. This broader indication may also offer significant advantages in commercialization.

Balance sheet: As of Q4, the company has \$20 million in cash and \$11 million in debt. It recently (in the just completed Q1) raised \$3 million in stock (3.8 million shares at \$0.75/share). We believe the company has enough cash into 2024.

Clinical data can be catalyst: We believe achieving key milestones and strong positive data over the next year will likely be catalysts for the stock. NRx's main drugs still have long development roads left and the high risks of clinical trials failures, but we believe the ~billion dollars market potential presents high rewards for the risks.

Current valuation attractive: We are maintaining our BUY rating, but raising our 12-month price target to \$4.75 from \$4.50 based on a NPV analysis. This represents significant upside from the current share price and we believe this valuation appropriately balances out the high risks with large upside opportunities.

Company Description

NRx Pharmaceuticals, based in Wilmington, DE, is a clinical stage biopharmaceutical company developing drugs to treat mental health disorders.

United States
Healthcare

April 5, 2023

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COMPANY UPDATE

Rating: BUY

Ticker: NRXP

Price: \$0.55

Target: \$4.75
(from \$4.50)

Stock Data

Exchange:	NasdaqGM
52-week Range:	0.49 – 2.45
Shares Outstanding (million):	72
Market cap (\$million):	\$40
EV (\$million):	\$31
Debt (\$million):	\$11
Cash (\$million):	\$20
Avg. Daily Trading Vol. (\$million):	\$0.2
Float (million shares):	41
Short Interest (million shares):	1
Dividend, annual (yield):	\$0 (NA%)

Revenues (US\$ million)

	<u>2023E</u> <u>(Cur.)</u>	<u>2023E</u> <u>(Old)</u>	<u>2024E</u> <u>(Cur.)</u>	<u>2024E</u> <u>(Old)</u>
Q1 Mar	0E		0E	
Q2 Jun	0E		0E	
Q3 Sep	0E		0E	
Q4 Dec	<u>0E</u>		<u>0E</u>	
Total	0E		0E	
EV/Revs	N/A		N/A	

Earnings per Share (pro forma)

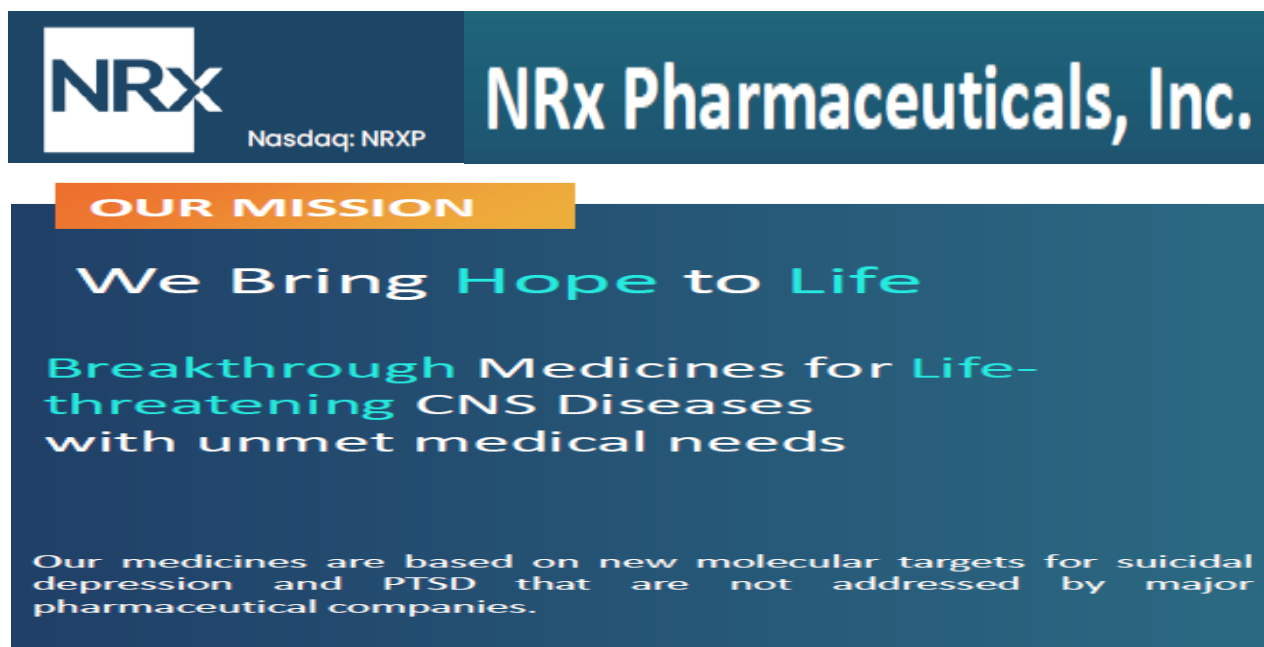
	<u>2023E</u> <u>(Cur.)</u>	<u>2023E</u> <u>(Old)</u>	<u>2024E</u> <u>(Cur.)</u>	<u>2024E</u> <u>(Old)</u>
Q1 Mar	(0.13)E	(0.14)E	(0.13)E	
Q2 Jun	(0.13)E	(0.14)E	(0.13)E	
Q3 Sep	(0.13)E	(0.14)E	(0.13)E	
Q4 Dec	<u>(0.13)E</u>	<u>(0.14)E</u>	<u>(0.13)E</u>	
Total	<u>(0.53)E</u>	<u>(0.56)E</u>	<u>(0.52)E</u>	
P/E	N/A		N/A	

Important Disclosures

Ascendant Capital Markets LLC seeks to do business with companies covered by its research team. Consequently, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making an investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report, beginning on page 16.

Exhibit 1: NRx Pharmaceuticals, Inc. Corporate Overview



NRx
Nasdaq: NRXP

NRx Pharmaceuticals, Inc.

OUR MISSION


We Bring Hope to Life

Breakthrough Medicines for Life-threatening CNS Diseases with unmet medical needs

Our medicines are based on new molecular targets for suicidal depression and PTSD that are not addressed by major pharmaceutical companies.

Source: Company reports.

Exhibit 2: NRx's Investment Summary



INVESTMENT THESIS

- First drug to enter FDA trials for Suicidal Bipolar Depression
- Positive Phase 2 data*. Phase 2b/3 data expected in 2023
- Awarded Fast Track Designation, Breakthrough Therapy Designation and a Special Protocol Agreement by the FDA with an agreed upon path to NDA in 2023
- Composition of Matter Patent and Method Patents for treatment of both depression and PTSD with more than 90 issued and pending patents around the world
- Potential for commercial launch in 2024

Source: Company reports.

Exhibit 3: NRX-101

NRX-101

The first oral, non-addictive medicine in development to treat Bipolar Depression in Patients with ASIB* and SSIB**



*ASIB - requiring hospitalization
**SSIB - not requiring hospitalization

NRX-101[™] For Suicidal Treatment-Resistant Bipolar Depression

First oral medicine in development for Suicidal Treatment-Resistant Bipolar Depression

- Non-addictive
- Non-neurotoxic
- Non-hallucinogenic

NRX-101 blocks the psychedelic effects of NMDA antagonists with evidence that the antidepressant and anti-suicidal properties can be preserved

Source: Company reports.

Exhibit 4: NRx's Product Pipeline

NRx Research Pipeline

Our pipeline includes the first drug in development to treat Bipolar Depression in Patients with Acute and Sub-Acute Suicidal Ideation & Behavior (ASIB & SSIB).

NRx R&D Pipeline: Multi-Billion Dollar Potential in Psychiatry and Chronic Pain

Indication	Compound	Preclinical	Phase 1	Phase 2	Phase 3	Status
<u>Bipolar Depression & Suicidal Ideation</u>						
Severe Bipolar Depression with Recently Suicidal Patients post stabilization	NRX-100™ / NRX-101™	FDA SPA, Breakthrough Therapy, Biomarker letter of Support				Integrating with P2b/3
Treatment of Suicidal Treatment-Resistant Bipolar Depression	NRX-101™	Currently Enrolling Phase 2b/3				Data expected Q4 2023
Expanded Access / Safety Study	NRX-101™	1500 Expected by Q2 2024				
<u>Post-Traumatic Stress Disorder (PTSD) with Depression & Suicidality</u>						
PTSD in patients with Depression & Suicidality	NRX-101™	Enrollment pending				Data readout expected in 2023
<u>Chronic Pain with depression</u>						
Depression in patients with chronic pain	NRX-101™	Planning				Data readout expected in 2024

Source: Company reports.

Exhibit 5: Targeting Suicidal Bipolar Depression Risks

Why target Suicidal Bipolar Depression?

Suicide kills ~50,000 Americans annually* - suicide is particularly high in bipolar disorder

Selected Unmet Needs for New Antidepressants

EFFICACY

- Higher % responders
- Faster Onset

WARNING: INCREASED MORTALITY IN ELDERLY PATIENTS WITH DEMENTIA-RELATED PSYCHOSIS, and SUICIDAL THOUGHTS AND BEHAVIORS

SAFETY/ TOLERABILITY

- Decrease or no increase in Suicidality
- Lower Side Effects

Source: Company reports.

Exhibit 6: Bipolar Depression Suicide Market Opportunities

NRX-101 Market Opportunity in Bipolar Depression

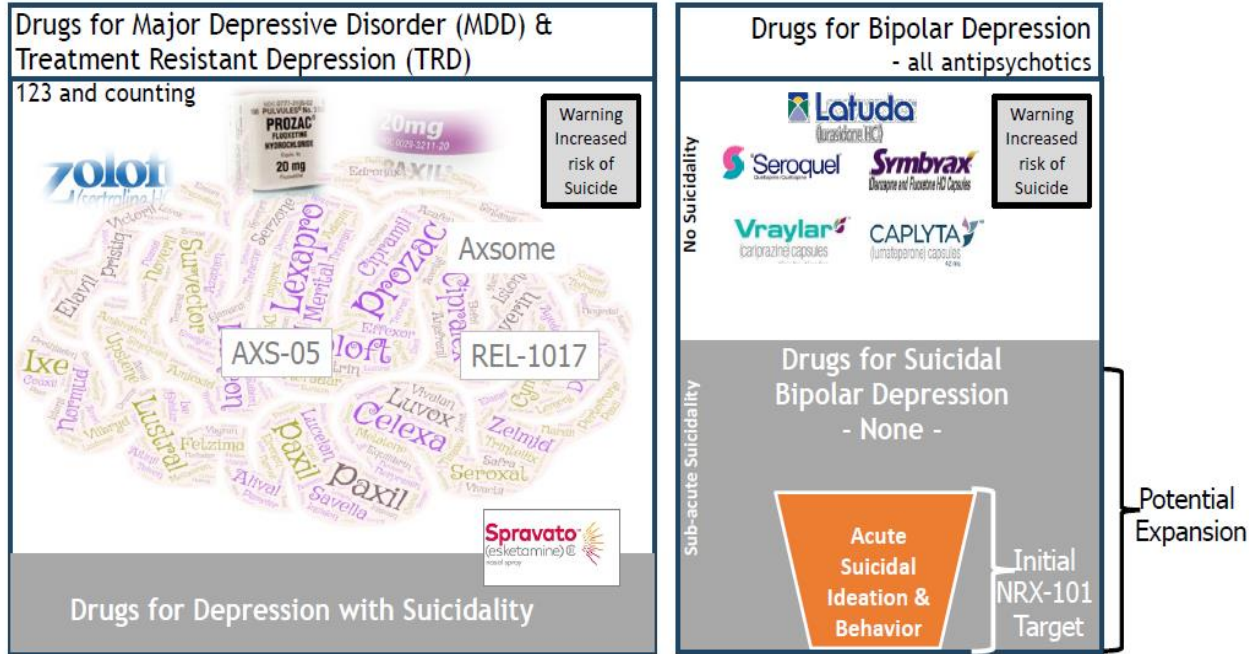
Patients in clinics and outpatient being treated for Bipolar Depression with Suicidality



Source: Company reports.

Exhibit 7: Unmet Need for Bipolar Depression Suicidality

Though numerous drugs have been approved for MDD and Bipolar Depression, faster, more robust response, and reduction of suicidality remain the unmet need



Source: Company reports.

Exhibit 8: Science of Depression and Suicidality

The Emerging Science of Depression and Suicidality

Depression and Suicidality – though overlapping is not the same

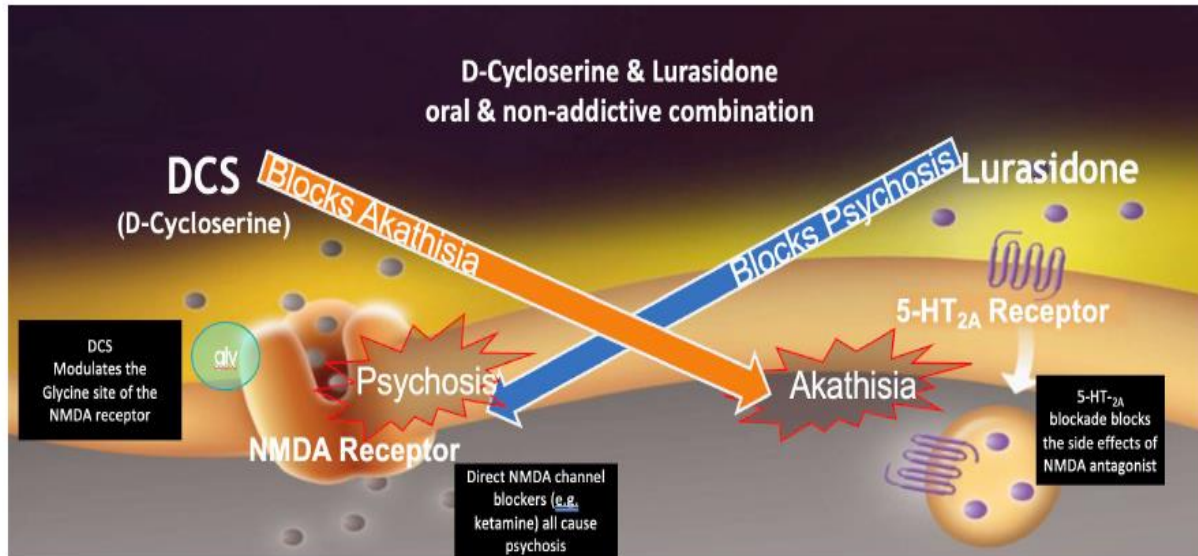
Depression with Suicidality	Implications for Bipolar Depression with Suicidality
<ul style="list-style-type: none"> • Antidepressants (5HT2a / SSRIs) can increase suicidality – suicidality routinely an exclusion in depression studies • NMDA antagonists (ketamine) can stabilize depression and suicidality – <ul style="list-style-type: none"> • Suicidality improvement not strictly a function of improvements in depression • Ketamine can create hallucinations, may be highly addictive, requires supervised administration 	<ul style="list-style-type: none"> • Highest suicidality of depressive disorders ~ 50% attempt suicide • Available drugs improve depression but can increase suicidality • Drug abuse and overdose of great concern – addictive agents may require REMS
<p>Development of Depression drugs has mostly avoided addressing Suicidality</p>	

Source: Company reports.

Exhibit 9: NRx Discovery

The NRx Discovery

Simultaneous Blockade of NMDA and 5-HT_{2A}



D-Cycloserine acts as an NMDA antagonist above certain dosages

Studies have shown that DCS + 5HT2a increases the antidepressant response and reduces suicidality

Understanding the NMDA Receptor

The NMDA receptor is an ION Channel on the surface of Brain Cells

At high levels of NMDA activity (i.e. the channel is wide open) thoughts are slowed substantially, patients ruminate on negative, frequently suicidal thoughts. Brain cells stop making new connections to neighboring cells.

NMDA antagonists decrease symptoms of depression.

NMDA antagonists block the akathisia caused by SSRI antidepressants in nonclinical studies.

NMDA antagonists “rewire” the brain by stimulating new connections between brain cells.

NMDA RECEPTOR REGULATES SPEED OF THOUGHTS

TOO FAST and thoughts race uncontrollably (mania)
TOO SLOW and negative, self-destructive thoughts drive suicide

TURNING A DIMMER

Daily oral NRx-101 (a proprietary formulation of D-cycloserine and Lurasidone) modulates NMDA receptors at the glycine site.

FLIPPING THE SWITCH

A single infusion of injected Ketamine by pump initiates therapy; Blocks brain NMDA receptors at the “channel” site.

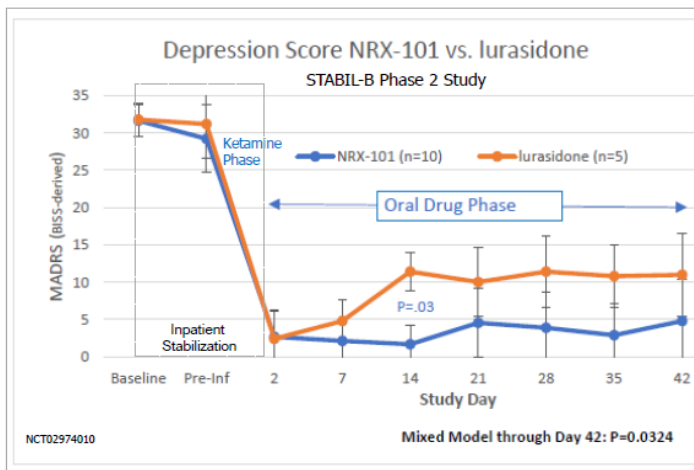
Source: Company reports.

Exhibit 10: Phase 2 Study of D-Cycloserine in Depression / Suicidality Conclusions

Phase 2 Study showed effect of D-Cycloserine in Depression / Suicidality

If Phase 2 results are replicated in Phase 3, this will meet criteria for FDA approval

- Primary endpoint is mean MADRS score over 42 days
- A clinically and statistically significant difference (p=.03) was seen on the mixed model through day 42. The mean 7.7 point difference on MADRS is similar to or larger than that seen with Esketamine
- 40% relapse in control group, no relapse in NRX-101 group
- Patients who would otherwise have been in the hospital for 1 week plus were discharged after 1-2 days

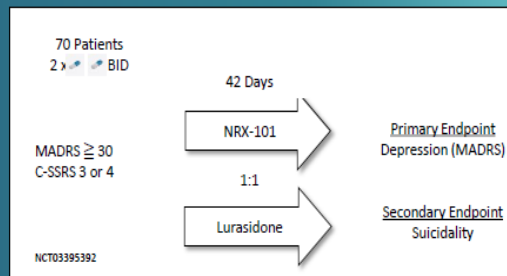


Source: Company reports.

Exhibit 11: Current NRX-101 Clinical Trial Program (SSIB & ASIB)

Phase 2b/3 Trial for Expansion to Suicidal Treatment-Resistant Bipolar Depression

- Patients who have symptoms of Severe Depression and Suicidal Ideation despite treatment with currently approved drugs
- No pre-treatment with ketamine or other stabilization is required
- NRX-101 vs. lurasidone comparator is administered 2x daily at home
- First known trial of a novel antidepressant in which patients with active suicidal ideation have successfully been enrolled
- 76% completion rate among the first 50 participants, prior to expansion



Source: Company reports.

Exhibit 12: NRX-101 Advantages and Objectives

NRX-101 offers a differentiated profile for Suicidal Bipolar Depression with an FDA agreed upon path to NDA

Phase 3 with FDA Breakthrough Therapy designation

NMDA – A Validated Mechanism

- Depression & Suicidality
- Esketamine, NRX-101 Phase 2, etc.

FDA Agreed Upon Regulatory Path

- Special Protocol Agreement, Breakthrough Therapy designation: Treatment of Severe Bipolar Depression in Patients with ASIB after initial stabilization with ketamine or other effective therapy

Addresses High Unmet Need

- Treats depression and suicidality (bipolar space)
- Oral, not addictive (not scheduled), avoids hallucinations
- Outpatient

Efficient Clinical Development Path to NDA

- Seeking to replicate P2 study
- NRX-100 (144 pts.) NRX-101 (~80 pts.) pivotal study (severely depressed and acutely suicidal) to start 2H22
- Path to NDA filing in 2023

Path to NDA

Composition of Matter Patent

- NRx has a composition of matter patent for NRX-101 and an array of NMDA+5HT2A compounds,
- Five patent families, 60+ applications, 30+ issued patents

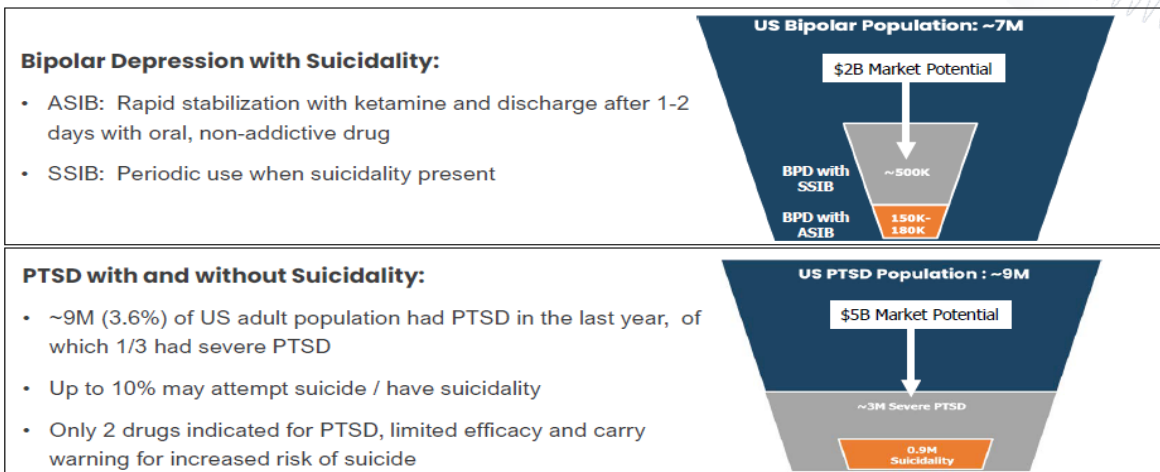
Exploring expansion in earlier population

- NRX-101 Phase 2 trial (Bipolar Depression in sub-acute suicidality) initiated 2Q 2022

Source: Company reports.

Exhibit 13: NRX-101 Market Opportunities

NRX-101 could be a potential Paradigm Shift in the Treatment of High Unmet Psychiatric Conditions – especially those with Suicidality



Source: Company reports.

Exhibit 14: NRX-101 DSMB and FDA recommendations (as of March 2023)

Phase 2b/3 Trial for Suicidal Treatment-Resistant Bipolar Depression

The DSMB recommended that enrollment in the trial continue

- The DSMB has reviewed unblinded interim data from the trial
- The Board found no futility signal at this stage of the trial; the failure to identify futility requires that an advantage, though not yet a statistically significant advantage, be seen
- Similarly, no safety signals were identified in association with NRX-101
- The DSMB will continue to monitor safety and efficacy in the trial
- *Trial has been upgraded to a Phase 2b/3 study that may be used for a registrational filing should safety and efficacy be documented*

FDA Approval Roadmap – Integrated Phase 2b/3 for Suicidal Treatment-Resistant Bipolar Depression (1)

Given the guidance from FDA regarding a broader indication, the company plans further discussion with FDA on this pathway in a Breakthrough Therapy Designation meeting, planned for 2Q2023

This indication will effectively converge the initiated (not enrolling) Phase 3 Acute trial into the ongoing P2b/3 trial in Suicidal Treatment-Resistant Bipolar Depression

The company is evaluating changes to its registrational program for NRX-101 and will seek to consolidate patients originally expected to enroll in the in the ASIB study into the currently enrolling Phase 2b/3 trial.

Agreed upon path
to submit
rolling review

NDA in 2023

FDA Approval Roadmap – Integrated Phase 2b/3 for Suicidal Treatment-Resistant Bipolar Depression (2)

This pathway would potentially allow registration of NRX-101 for Suicidal Treatment-Resistant Bipolar Depression, regardless of the mechanism of stabilization.

This broader indication may also offer significant advantages in commercialization of the product

Pathway would negate the need for a separate NDA for ketamine in Suicidal stabilization.

Data from the integrated trial are expected by 4Q 2023.

Agreed upon path
to submit
rolling review

NDA in 2023

Source: Company reports.

Exhibit 15: Q4 2022 and Recent Business Highlights

- Over the past 12 months, the Company reinitiated its psychiatry development program post pandemic, transferred manufacturing of NRX-101 to the US, and initiated a clinical trial in suicidal treatment-resistant bipolar depression, which was recently reviewed by the independent Data Safety Monitoring Board (DSMB)
- The DSMB identified no safety or futility signals in the first 50 patients with Suicidal Treatment-Resistant Bipolar Depression enrolled in the trial; enrollment to continue as planned
- The current trial has been upgraded to a Phase 2b/3 study that may be used for a registrational filing; on track to report topline clinical data in 4Q 2023
- Initiated registrational Phase 3 clinical trial of NRX-101 in patients with bipolar depression with acute suicidal ideation and behavior (ASIB) and held Type B meeting with U.S. FDA in 1Q 2023, which provided important input to the NRX-101 program
- Ended 2022 with \$20.1 million in cash and cash equivalents and announced subsequent \$2.9 million registered direct offering in March 2023 to support pipeline of life-saving therapeutics.
- Two international leaders in Psychiatry, Prof. Andrew Nierenberg of Harvard Medical School and Prof. Marion Leboyer, of INSERM, Paris have joined the NRx Advisory Board

Corporate Updates

- In December 2022, NRx Pharmaceuticals and Relief Therapeutics announced the close of their definitive settlement agreements to resolve and dismiss their pending litigation. Per the terms of the settlement, NRx Pharmaceuticals transferred all of the assets it used in the NRx aviptadil development program to Relief Therapeutics, including the regulatory filings, patent applications, clinical data and the formulation of the aviptadil product it was previously developing. Relief Therapeutics now has the exclusive right and control going forward, with the obligation to use commercially reasonable efforts to develop and commercialize an aviptadil product. Pending commercial approval of an aviptadil product (whether for COVID-19 or any other indication), Relief will pay NRx Pharmaceuticals milestone payments and royalties based on a percentage of future sales of an aviptadil product, up to a maximum of \$30 million in royalties in the aggregate.
- In February 2023, the Company received notice of the issuance of a U.S. patent covering the lead formulation, NRX-101, a glycine site NMDA antagonist in clinical trials to treat bipolar depression with acute and subacute suicidality. This new patent covers the use of NRX-101 to treat patients suffering from depression, including bipolar depression or major depression (MDD) with or without suicidality and strengthens the Company's intellectual property position until at least 2033.
- In March 2023, the Company announced the close of a \$2.9 million registered direct offering. Participants were existing investors, and the Company anticipates using the proceeds to initiate its national treatment protocol and safety database for NRX-101 for treatment-resistant bipolar depression with risk of self-harm under an FDA expanded access protocol, and to advance its pipeline of life-saving therapeutics.

Source: Company reports.

Exhibit 16: NRx Pharmaceuticals, Inc. Stock Price (5-Years)

SPAC (Big Rock Partners Acquisition Corp.) IPO - 11/20/17

SPAC Merger Announcement (with NeuroRx, Inc.) - 12/14/20

SPAC Merger Completion (to form NRx Pharmaceuticals, Inc.) - 5/25/21



Source: <https://bigcharts.marketwatch.com/>

Exhibit 17: Consensus Expectations (as of March 30, 2023)

	Revenue (mil)			EPS	
	2022E	2023E		2022E	2023E
Q1 Mar	\$0A	\$0E	Q1 Mar	\$(0.21)A	\$(0.14)E
Q2 Jun	\$0A		Q2 Jun	\$(0.11)A	
Q3 Sep	\$0A		Q3 Sep	\$(0.14)A	
Q4 Dec	\$0E		Q4 Dec	\$(0.14)E	
Total	\$0E	\$0E	Total	\$(0.59)E	\$(0.59)E

*Quarterly estimates may not add to annual estimates due to variations in contributing estimates and rounding.

Source: Company report, Refinitiv, and Ascendant Capital Markets estimates

FINANCIAL MODEL

NRx Pharmaceuticals, Inc.

Income Statement (\$ mils)	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	Mar-23	Jun-23	Sep-23	Dec-23	2023	Mar-24	Jun-24	Sep-24	Dec-24	2024
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4A	FY-A	Q1E	Q2E	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E
Total Revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cost of Revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Profit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Research & development	2.9	4.7	6.3	6.4	20.3	5.5	3.0	4.1	4.5	17.0	4.0	4.0	4.0	4.0	16.0	4.3	4.3	4.3	4.3	17.0
General and administrative	2.1	12.5	13.8	46.6	74.9	10.2	6.6	5.0	5.5	27.4	5.0	5.0	5.0	5.0	20.0	5.0	5.0	5.0	5.0	20.0
Restructuring and other	20.6				20.6					0.0					0.0					0.0
Total operating expenses	25.6	17.1	20.1	53.0	115.8	15.7	9.6	9.1	10.0	44.4	9.0	9.0	9.0	9.0	36.0	9.3	9.3	9.3	9.3	37.0
Operating income (loss)	(25.6)	(17.1)	(20.1)	(53.0)	(115.8)	(15.7)	(9.6)	(9.1)	(10.0)	(44.4)	(9.0)	(9.0)	(9.0)	(9.0)	(36.0)	(9.3)	(9.3)	(9.3)	(9.3)	(37.0)
Interest income (expense)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	0.0	0.1	0.1	0.2	(0.4)	(0.4)	(0.4)	(0.4)	(1.5)	(0.4)	(0.4)	(0.4)	(0.4)	(1.5)
Other income (expense)	0.1	(238.8)	(0.7)	6.3	(233.1)	2.3	2.6	(0.0)	(0.5)	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income before income taxes	(25.5)	(255.9)	(20.8)	(46.7)	(348.9)	(13.4)	(7.0)	(9.1)	(10.3)	(39.8)	(9.4)	(9.4)	(9.4)	(9.4)	(37.5)	(9.6)	(9.6)	(9.6)	(9.6)	(38.5)
Income taxes					0.0					0.0					0.0					0.0
Net income (loss)	(25.5)	(255.9)	(20.8)	(46.7)	(348.9)	(13.4)	(7.0)	(9.1)	(10.3)	(39.8)	(9.4)	(9.4)	(9.4)	(9.4)	(37.5)	(9.6)	(9.6)	(9.6)	(9.6)	(38.5)
Nonrecurring/noncash adjustments		(12.5)			0.0					0.0					0.0					0.0
Net income (pro forma)	(25.5)	(268.4)	(20.8)	(46.7)	(348.9)	(13.4)	(7.0)	(9.1)	(10.3)	(39.8)	(9.4)	(9.4)	(9.4)	(9.4)	(37.5)	(9.6)	(9.6)	(9.6)	(9.6)	(38.5)
EBITDA																				
Shares, Basic	35.7	41.7	51.7	58.5	46.9	63.7	65.7	66.4	67.5	65.8	69.5	71.5	72.0	72.5	71.4	73.0	73.5	74.0	74.5	73.8
Shares, Diluted	35.7	42.5	51.7	58.5	46.9	63.7	65.7	66.4	67.5	65.8	69.5	71.5	72.0	72.5	71.4	73.0	73.5	74.0	74.5	73.8
EPS Basic (pro forma)	(\$0.71)	(\$6.43)	(\$0.40)	(\$0.80)	(\$7.44)	(\$0.21)	(\$0.11)	(\$0.14)	(\$0.15)	(\$0.61)	(\$0.13)	(\$0.13)	(\$0.13)	(\$0.13)	(\$0.53)	(\$0.13)	(\$0.13)	(\$0.13)	(\$0.13)	(\$0.52)
EPS Diluted (pro forma)	(\$0.71)	(\$6.32)	(\$0.40)	(\$0.80)	(\$7.44)	(\$0.21)	(\$0.11)	(\$0.14)	(\$0.15)	(\$0.61)	(\$0.13)	(\$0.13)	(\$0.13)	(\$0.13)	(\$0.53)	(\$0.13)	(\$0.13)	(\$0.13)	(\$0.13)	(\$0.52)
Margins																				
Gross margin																				
Research & development																				
General and administrative																				
Operating margin																				
Tax rate, GAAP																				
Net margin																				
Y/Y % change																				
Total Revenue																				
Gross margin					91%	88%	-37%	-34%	-31%	-16%	-27%	35%	-3%	-10%	-6%	6%	6%	6%	6%	6%
Research & development					555%	387%	-47%	-64%	-88%	-63%	-51%	-25%	0%	-9%	-27%	0%	0%	0%	0%	0%
General and administrative					125%	-39%	-44%	-55%	-81%	-62%	-43%	-6%	-2%	-10%	-19%	3%	3%	3%	3%	3%
Operating income (loss)					574%	-47%	-97%	-56%	-78%	-89%	-30%	34%	3%	-9%	-6%	3%	3%	3%	3%	3%
Net income (loss)					392%	-70%	-98%	-66%	-81%	-92%	-36%	23%	-5%	-15%	-13%	-2%	0%	0%	0%	-1%

Source: Company reports and Ascendant Capital Markets estimates.

NRx Pharmaceuticals, Inc.

Balance Sheet (\$ mils)	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1E	Q2E	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Assets																
Cash and cash equivalents	13.3	13.4	38.9	27.6	40.2	24.5	18.2	20.1	14.2	12.4	6.6	2.7	(6.3)	(20.4)	(29.5)	(33.6)
Short term investments									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Account receivable																
Deferred income taxes									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prepaid expenses and other	0.3	5.1	6.4	5.1	3.4	7.9	6.6	5.7	5.7	5.7	2.7	2.7	2.7	2.7	(0.3)	(0.3)
Total current assets	13.6	18.5	45.2	32.7	43.6	32.4	24.8	25.8	20.0	18.2	9.3	5.5	(3.6)	(17.7)	(29.8)	(33.9)
Property and equipment, net									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Intangibles, net									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred income tax									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total assets	13.6	18.5	45.3	32.7	43.6	32.4	24.8	25.8	20.0	18.2	9.3	5.5	(3.6)	(17.6)	(29.7)	(33.8)
Liabilities and stockholders' equity																
Accounts payable	4.4	6.3	5.6	3.7	4.3	3.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Accrued expenses	2.1	2.6	3.2	2.8	4.5	4.0	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Deferred income tax									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Warrant liabilities		0.5	0.8	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	25.9	26.3	4.6	2.5				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Short term debt	0.2	0.2	0.5	0.5	0.5			8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
Total current liabilities	6.7	35.5	36.3	11.9	11.9	7.1	8.0	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
Deferred income taxes									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Warrant liabilities									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long term liabilities									0.0	7.0	7.0	12.0	12.0	7.0	7.0	12.0
Long term debt	0.5	0.5						1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Total other liabilities	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.8	1.8	8.8	8.8	13.8	13.8	8.8	8.8	13.8
Common stock	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.1	1.7	2.2	2.8	3.3	3.9	4.4
Additional paid-in capital	122.0	114.2	161.4	204.0	228.3	229.0	229.5	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4	230.4
Retained earnings	(115.7)	(131.7)	(152.4)	(183.2)	(196.7)	(203.7)	(212.8)	(223.1)	(232.4)	(241.8)	(251.2)	(260.5)	(270.2)	(279.8)	(289.4)	(299.0)
Other									3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Accumulated other comprehensive income									0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total stockholders' equity	6.4	(17.4)	9.0	20.8	31.7	25.4	16.8	7.4	1.6	(7.2)	(16.1)	(24.9)	(34.0)	(43.1)	(52.1)	(61.2)
Total stockholders' equity and liabil	13.6	18.5	45.3	32.7	43.6	32.4	24.8	25.8	20.0	18.2	9.3	5.5	(3.6)	(17.6)	(26.7)	(30.8)

Balance Sheet Drivers

	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24
Book & Cash Value (per share)	Q1A	Q2A	Q3A	Q4A	Q1A	Q2A	Q3A	Q4A	Q1E	Q2E	Q3E	Q4E	Q1E	Q2E	Q3E	Q4E
Book Value per Share (diluted)	\$0.18	(\$0.41)	\$0.17	\$0.36	\$0.50	\$0.39	\$0.25	\$0.11	\$0.02	(\$0.10)	(\$0.22)	(\$0.34)	(\$0.47)	(\$0.59)	(\$0.70)	(\$0.82)
Cash per Share (diluted)	\$0.37	\$0.32	\$0.75	\$0.47	\$0.63	\$0.37	\$0.27	\$0.30	\$0.20	\$0.17	\$0.09	\$0.04	(\$0.09)	(\$0.28)	(\$0.40)	(\$0.45)
Net cash per Share (diluted)	\$0.35	\$0.30	\$0.74	\$0.46	\$0.62	\$0.37	\$0.27	\$0.14	\$0.05	\$0.03	(\$0.05)	(\$0.11)	(\$0.23)	(\$0.42)	(\$0.54)	(\$0.59)

Source: Company reports and Ascendant Capital Markets estimates

NRx Pharmaceuticals, Inc.

Cash Flow Statement (\$ mils)	Mar-21	Jun-21	Sep-21	Dec-21	2021	Mar-22	Jun-22	Sep-22	Dec-22	2022	Mar-23	Jun-23	Sep-23	Dec-23	2023	Mar-24	Jun-24	Sep-24	Dec-24	2024	
Fiscal Year End: December 31	Q1A	Q2A	Q3A	Q4A	FY-A	Q1A	Q2A	Q3A	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E	Q1E	Q2E	Q3E	Q4E	FY-E	
Cash flow from operating activities																					
Net income	(25.5)	(0.1)	(36.7)	(30.8)	(93.1)	(13.4)	(7.0)	(9.1)	(10.3)	(39.8)	(9.4)	(9.4)	(9.4)	(9.4)	(37.5)	(9.6)	(9.6)	(9.6)	(9.6)	(38.5)	
Depreciation		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Amortization					0.0					0.0					0.0					0.0	
Debt related amortization expen	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	0.0		0.0				0.0					0.0	0.0	
Stock comp	0.4	9.1	9.5	42.6	61.6	1.3	1.0	0.5	0.5	3.4	0.5	0.5	0.5	0.5	2.2	0.5	0.5	0.5	0.5	2.2	
Deferred income taxes					0.0					0.0					0.0					0.0	
Change in fair value of warrant liability	(17.4)	16.2	(0.5)	(1.7)	(1.7)	(0.2)	(0.1)	0.0		(0.2)				0.0					0.0	0.0	
Change in fair value of earnout cash liabil	0.4	0.4	(21.7)	(20.9)	(20.9)	(2.1)	(2.5)			(4.6)				0.0					0.0	0.0	
Writedowns and impairments					0.0					0.0					0.0					0.0	
Other gains/losses	(0.1)	0.0	(0.0)	(0.1)	(0.1)					0.0					0.0					0.0	
Other	21.4	(0.0)	0.0	21.4	21.4					0.0					0.0					0.0	
Changes in operating assets and liabilities:																					
Accounts receivable	0.8		0.0	(0.0)	0.8					0.0					0.0					0.0	
Prepaid expenses & other curre	(0.1)	(4.8)	(1.2)	1.2	(4.8)	1.7	(4.5)	1.3		(1.4)			3.0	3.0						0.0	
Income tax					0.0					0.0					0.0					0.0	
Other assets					0.0				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Accounts payable	1.2	1.3	(0.7)	(1.9)	(0.0)	0.6	(1.2)	(0.9)		(1.5)				0.0						0.0	
Accrued expenses	(1.2)	0.1	0.5	(0.3)	(0.9)	1.6	(0.5)	1.8		3.0				0.0						0.0	
<u>Other liabilities</u>					0.0				0.0	0.0	0.0	7.0	0.0	5.0	12.0	0.0	(5.0)	0.0	5.0	0.0	
Net cash (used in) provided by	(3.0)	(11.4)	(12.0)	(11.3)	(37.7)	(10.4)	(14.8)	(6.3)	(9.8)	(41.2)	(8.8)	(1.8)	(5.8)	(3.8)	(20.3)	(9.1)	(14.1)	(9.1)	(4.1)	(36.3)	
Cash flow from investing activities																					
Purchases of property and equipment		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	
Purchases of short-term investments					0.0					0.0					0.0					0.0	
Acquisitions					0.0					0.0					0.0					0.0	
<u>Other</u>					0.0					0.0					0.0					0.0	
Net cash used in investing acti	0.0	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	
Cash flow from financing activities																					
Issuance of debt					0.0				10.5	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Repayment of debt		(1.1)	(0.2)	0.0	(1.3)		(0.5)			(0.5)					0.0					0.0	
Issuance of stock	6.9	1.6	28.5	0.0	37.0	23.0	(0.3)	(0.0)	(0.5)	22.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Proceeds from stock option exe	7.5		9.2	(0.0)	16.7					0.0					0.0					0.0	
Other		11.1	(0.0)	0.0	11.1				1.6	1.6	3.0			3.0						3.0	
<u>Dividends and distributions</u>					0.0					0.0					0.0					0.0	
Cash provided by (used in) fina	14.4	11.5	37.5	0.0	63.5	23.0	(0.9)	(0.0)	11.6	33.7	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	
Effect of exchange rate on cash					0.0					0.0					0.0					0.0	
Net increase (decrease) in cash	11.4	0.1	25.5	(11.3)	25.7	12.6	(15.7)	(6.3)	1.8	(7.6)	(5.8)	(1.8)	(5.8)	(3.8)	(17.3)	(9.1)	(14.1)	(9.1)	(4.1)	(36.4)	
Beginning cash and equivalents	1.9	13.3	13.4	38.9	1.9	27.6	40.2	24.5	18.2	27.6	20.1	14.2	12.4	6.6	20.1	2.7	(6.3)	(20.4)	(29.5)	2.7	
Ending cash and equivalents	13.3	13.4	38.9	27.6	27.6	40.2	24.5	18.2	20.1	20.1	14.2	12.4	6.6	2.7	2.7	(6.3)	(20.4)	(29.5)	(33.6)	(33.6)	

Source: Company reports and Ascendant Capital Markets estimates

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NRx Pharmaceuticals, Inc.

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			Count	Percent
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