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NRx Pharmaceuticals, Inc. (NRXP) – Buy
“This is the first time, to our knowledge, that patients with suicidal ideation have been welcomed in a clinical trial of an oral antidepressant.”

March 31, 2023

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Management reported full year 2022 results. The company spent \$44M in operations and reported a net loss of \$39M, closing the period with \$20M in cash and equivalents excluding a \$2.9M raise in March. We do assume the company raises additional capital this year, with that said, we are not concerned as we see steady progress in the company’s efforts to deliver an acute pharmacological therapy to address suicidal ideation. We view this as an unmet medical need. Several positives on the call include the current trial upgrading to a P2b/3 study.

Investment Highlights

Recall that the company initiated a Phase 3 registrational clinical trial for NRX-101 in patients suffering from severe bipolar depression with acute suicidality. At about the same time, the company received an encouraging DSMB readout for a second trial in the broader indication of Suicidal Treatment-Resistant Bipolar Depression.

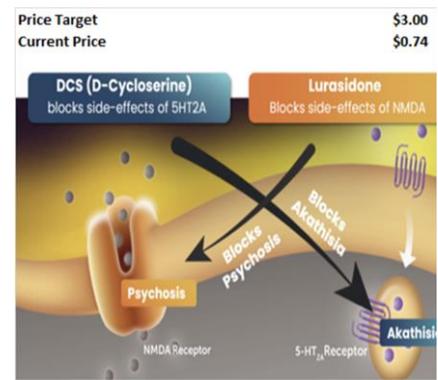
Management, following guidance from FDA, intends to broaden the indication to the large population of patients treated in the outpatient setting who do not require acute stabilization with ketamine. The design of this study has effectively converged with the ongoing Phase 2b/3 outpatient trial. Management stated: “This is the first time, to our knowledge, that patients with suicidal ideation have been welcomed in a clinical trial of an oral antidepressant”. Currently, the only approved treatment for patients with suicidality in depression is electroshock therapy, with its known complications.

Press Release 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.
- 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

Valuation: We project our model out to 2033. We apply a 30% risk cut to our projected revenues in our product model in addition to our 30% risk rate applied in our Free Cash Flow to the Firm (FCFF), discounted EPS (dEPS), and Sum-of-the-Parts (SOP) models. We do assume additional capital raises. For conservatism we do not assume the company repurchases stock in its outyears. Upon a successful pivotal trial, we expect to revisit this assumption. The result is equal-weighted and averaged and rounded to the nearest whole number to derive our 12-month projected price target of \$3.0.

Risks to our thesis include: 1. Regulatory Approvals; 2. Clinical Science 3. Intellectual Capital 4. Dilution.



Price Target \$3.00
Current Price \$0.74

Source: NRx Pharmaceuticals

Stock Data	
52-Week Range	\$0.49 - \$2.49
Shares Outstanding (mil.)	71.5
Market Capitalization (mil.)	\$53
Enterprise Value (mil.)	\$33
Debt to Capital	0%
Book Value/Share	\$7.69
Price/Book	10.0
Average Three Months Trading Volume (K)	248
Insider Ownership	42.0%
Institutional Ownership	4.7%
Short interest (mil.)	2.0%
Dividend / Yield	\$0.00/0.0%



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- **Regulatory Approvals.** The company's products require regulatory approvals, and there can be no assurances that the requirements to achieve these approvals can be met. Furthermore, even if a drug product is approved, the regulators may impose limitations on the use or marketing of such product.
- **Clinical Science:** The company will need to demonstrate to its "sophisticated" clients (doctors and other physicians) that the product is effective, reliable, accessible, and marketable.
- **The Competitive Landscape & IP.** The company does have intellectual properties and knows how to protect the utility of its drugs; however, our patent position is highly uncertain.
- **Dilution:** The company is likely to incur losses for the foreseeable future until it is able to generate sufficient revenue from product sales. Our model assumes a rising share count. There can be no assurances that the company can successfully raise the capital required to execute its business strategy.

Exhibit 1. Income Statement

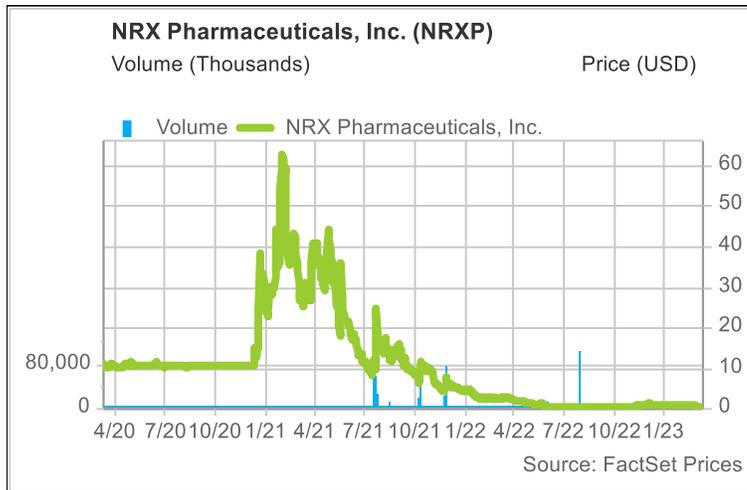
NRx Pharmaceuticals: Income Statement																
000 : YE December 31	2022A	1Q23E	2Q23E	3Q23E	4Q23E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Product sales	-	-	-	-	-	-	-	-	50,000	200,000	300,000	400,000	600,000	660,000	726,000	798,600
NRX-101 for BPD	-	-	-	-	-	-	-	-	-	100,000	200,000	300,000	420,000	588,000	646,800	711,480
NRX-101 for PTSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Product Sales	-	-	-	-	-	-	-	-	50,000	300,000	500,000	700,000	1,020,000	1,248,000	1,372,800	1,510,080
Expenses																
COGS	-	-	-	-	-	-	-	-	15,000	87,000	140,000	182,000	255,000	312,000	329,472	332,218
COGS %	0%	0%	0%	0%	0%	0%	0%	0%	30%	29%	28%	26%	25%	25%	24%	22%
Research and Development	17,027	4,904	5,108	5,108	5,312	20,432	24,519	29,423	23,538	18,830	19,019	20,921	25,105	30,126	30,427	30,731
General and Administrative	27,370	6,634	6,911	6,911	7,187	27,644	27,920	28,199	28,481	28,766	29,054	29,344	29,638	29,934	30,234	30,536
Settlement Expense	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reimbursement of expenses from Relief Therapeutics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	44,397	11,538	12,019	12,019	12,500	48,076	27,920	28,199	43,481	115,766	169,054	211,344	284,638	341,934	359,706	362,753
Loss from Operations	(44,397)	(11,538)	(12,019)	(12,019)	(12,500)	(48,076)	(27,920)	(28,199)	6,519	184,234	330,946	488,656	735,362	906,066	1,013,094	1,147,327
Other (income) Expenses																
Gain on extinguishment of debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest income	(249)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest expense - Convertible note	505	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in fair value of warrant liability	(255)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in fair value of Earnout Cash liability	(4,582)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total other (income) expense	(4,581)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net Loss	(39,816)	(11,538)	(12,019)	(12,019)	(12,500)	(48,076)	(27,920)	(28,199)	6,519	184,234	330,946	488,656	735,362	906,066	1,013,094	1,147,327
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	5%	8%	10%	18%	24%	28%	30%	31%
GAAP Net Income (loss)	(39,816)	(11,538)	(12,019)	(12,019)	(12,500)	(48,076)	(27,920)	(28,199)	6,193	169,495	297,852	400,698	558,875	652,367	709,166	791,655
GAAP-EPS	(0.61)	(0.15)	(0.13)	(0.11)	(0.10)	(0.48)	(0.19)	(0.15)	0.03	0.79	1.38	1.85	2.57	2.99	3.23	3.59
GAAP EPS (dil)	(0.61)	(0.14)	(0.12)	(0.10)	(0.08)	(0.42)	(0.16)	(0.12)	0.02	0.64	1.13	1.51	2.10	2.99	3.23	3.59
Wgtd Avg Shrs (Bas) '000	65,767	77,897	93,676	109,613	130,709	102,974	150,373	194,532	214,210	215,068	215,930	216,795	217,664	218,535	219,411	220,290
Wgtd Avg Shrs (Dil) '000	65,767	82,897	103,726	124,763	151,011	115,600	176,225	234,097	261,975	263,024	264,078	265,136	266,198	267,264	268,335	269,410

Source: Dawson James estimates, company reports

Companies mentioned in this report:

Important Disclosures:

Price Chart:



Price target and ratings changes over the past three years:

Initiated – Buy – March 17, 2023 – Price Target \$3.0
 Update Report – March 27, 2023 – Price Target \$3.0
 Update Report – March 31, 2023 – Price Target \$3.0

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- 1) **Buy:** The analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months.
- 2) **Neutral:** The analyst believes the price of the stock is fairly valued for the next 12-18 months.
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Current as of 17-Mar-23

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	25	69%	1	3%
Market Perform (Neutral)	11	31%	2	6%
Market Underperform (Sell)	0	0%	0	0%
Total	36	100%	3	9%

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