

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

# FORM 10-Q

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

**For the quarterly period ended September 30, 2023**

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

**Commission file number: 1-16467**

**RESPIRERX PHARMACEUTICALS INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**33-0303583**  
(I.R.S. Employer  
Identification Number)

**126 Valley Road, Suite C**  
**Glen Rock, New Jersey 07452**  
 (Address of principal executive offices)

**(917) 834-7206**  
(Registrant's telephone number, including area code)

Not applicable  
(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
N/A	N/A	N/A

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐

Accelerated filer ☐

Non-accelerated filer ☒Smaller reporting company ☒Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

As of November 14, 2023, the Company had 365,418,647, shares of common stock, \$0.001 par value, issued and outstanding.

RESPIRERX PHARMACEUTICALS INC.  
AND SUBSIDIARY

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In this Quarterly Report on Form 10-Q, the terms the “Company,” “we,” “us” and “our” refer to RespireRx Pharmaceuticals Inc. a Delaware corporation (“RespireRx”), and, unless the context indicates otherwise, its consolidated subsidiaries, ResolutionRx Ltd (“ResolutionRx”) and Pier Pharmaceuticals, Inc. (“Pier”).

## INTRODUCTORY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q of RespireRx Pharmaceuticals Inc., referred to herein as our “Q3 2023 Quarterly Report” (“RespireRx” and together with RespireRx’s wholly-owned subsidiaries, ResolutionRx Ltd (“ResolutionRx”) and Pier Pharmaceuticals, Inc. (“Pier”), the “Company,” “we,” or “our,” unless the context indicates otherwise) contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the Company intends that such forward-looking statements be subject to the safe harbor created thereby. These might include statements regarding the Company’s future plans, targets, estimates, assumptions, financial position, business strategy and other plans and objectives for future operations, and assumptions and predictions about research and development efforts, including, but not limited to, preclinical and clinical research design, execution, timing, costs and results, future product demand, supply, manufacturing, costs, marketing and pricing factors.

In some cases, forward-looking statements may be identified by words including “assumes,” “could,” “ongoing,” “potential,” “predicts,” “projects,” “should,” “will,” “would,” “anticipates,” “believes,” “intends,” “estimates,” “expects,” “plans,” “contemplates,” “targets,” “continues,” “budgets,” “may,” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words, and such statements may include, but are not limited to, statements regarding (i) future research plans, expenditures and results, (ii) potential collaborative arrangements, (iii) the potential utility of the Company’s products candidates, (iv) reorganization plans, and (v) the need for, and availability of additional financing. Forward-looking statements are based on information available at the time the statements are made and involve known and unknown risks, uncertainties and other factors that may cause our results, levels of activity, performance or achievements to be materially different from the information expressed or implied by the forward-looking statements in this Q3 2023 Quarterly Report.

These factors include but are not limited to, regulatory policies or changes thereto, available cash, research and development results, issuance of patents, competition from other similar businesses, interest of third parties in collaborations with us, and market and general economic factors, and other risk factors disclosed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 as filed with the SEC on April 17, 2023 (the “2022 Form 10-K”) and as may be included in this Q3 2023 Quarterly Report.

You should read these risk factors and the other cautionary statements made in the Company’s filings as being applicable to all related forward-looking statements wherever they appear in this Q3 2023 Quarterly Report. We cannot assure you that the forward-looking statements in this Q3 2023 Quarterly Report or in our 2022 Form 10-K will prove to be accurate and therefore prospective investors are encouraged not to place undue reliance on forward-looking statements. You should read this Q3 2023 Quarterly Report completely. Other than as required by law, we undertake no obligation to update or revise these forward-looking statements, even though our situation may change in the future.

We caution investors not to place undue reliance on any forward-looking statement that speaks only as of the date made and to recognize that forward-looking statements are predictions of future results, which may not occur as anticipated. Actual results could differ materially from those anticipated in the forward-looking statements and from historical results, due to the risks and uncertainties described in this Q3 2023 Quarterly Report and our 2022 Form 10-K, as well as others that we may consider immaterial or do not anticipate at this time. These forward-looking statements are based on assumptions regarding the Company’s business and technology, which involve judgments with respect to, among other things, future scientific, economic, regulatory and competitive conditions, collaborations with third parties, and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond the Company’s control. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we do not know whether our expectations will prove correct. Our expectations reflected in our forward-looking statements can be affected by inaccurate assumptions that we might make or by known or unknown risks and uncertainties, including those described in this Q3 2023 Quarterly Report and 2022 Form 10-K. These risks and uncertainties are not exclusive and further information concerning us and our business, including factors that potentially could materially affect our financial results or condition, may emerge from time to time.

Forward-looking statements speak only as of the date they are made. The Company does not undertake and specifically declines any obligation to update any forward-looking statements or to publicly announce the results of any revisions to any statements to reflect new information or future events or developments.

**PART I - FINANCIAL INFORMATION**

**ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**

**RESPIRERX PHARMACEUTICALS INC.  
AND SUBSIDIARIES**

**CONDENSED CONSOLIDATED BALANCE SHEETS**

	<b>September 30, 2023</b>	<b>December 31, 2022</b>
	<u>(unaudited)</u>	
<b>Current assets:</b>		
Cash and cash equivalents	\$ 6,362	\$ 88
Deferred financing costs	6,457	-
Prepaid research and development	48,568	-
Prepaid expenses	<u>47,277</u>	<u>22,693</u>
<b>Total current assets</b>	<u>108,664</u>	<u>22,781</u>
<b>Total assets</b>	<u><u>\$ 108,664</u></u>	<u><u>\$ 22,781</u></u>
<b>LIABILITIES AND STOCKHOLDERS' DEFICIENCY</b>		
<b>Current liabilities:</b>		
Accounts payable and accrued expenses, including amounts owed to related parties (Note 5)	\$ 6,627,788	\$ 5,724,390
Accrued compensation and related expenses	2,652,336	3,296,008
Convertible notes payable, currently due and payable on demand, including accrued interest of \$387,032 and \$327,881 at September 30, 2023 and December 31, 2022, respectively (Note 4)	1,215,088	1,258,315
Note payable to SY Corporation, including accrued interest of \$543,343 and \$507,330 at September 30, 2023 and December 31, 2022, respectively, payment obligation currently in default (Note 4)	809,625	833,463
Notes and advances payable to officers and affiliates, including accrued interest (Notes 4 and 7)	487,342	375,334
Notes payable to former officer, including accrued interest (Note 4)	242,628	225,744
Other short-term notes payable	<u>26,311</u>	<u>15,847</u>
<b>Total current liabilities</b>	<u>12,061,118</u>	<u>11,729,101</u>
<b>Long-term liabilities</b>		
Long-term accounts payable associated with payment settlement agreements, all long-term at September 30, 2023 and net of current portion included in accounts payable at December 31, 2022 (Note 5)	<u>344,000</u>	<u>174,000</u>
<b>Total long-term liabilities</b>	<u>344,000</u>	<u>174,000</u>
<b>Total liabilities</b>	<u>12,405,118</u>	<u>11,903,101</u>
<b>Commitments and contingencies (Note 8)</b>		
<b>Stockholders' deficiency: (Note 6)</b>		
Series B convertible preferred stock, \$0.001 par value; \$0.6667 per share liquidation preference; aggregate liquidation preference \$25,001; shares authorized: 37,500; shares issued and outstanding: 37,500; common shares issuable upon conversion at 0.000030 common shares per Series B share: 1	21,703	21,703
Series I 8% Redeemable Preferred Stock, par value \$0.001, stated value \$100.00, 3,500 shares authorized, 1,730 shares issued and outstanding at September 30, 2023	173,037	-
Series J 8% Voting, Participating, Redeemable Preferred Stock, par value \$0.001, stated value \$100.00, 15,000 shares authorized, 6,164 shares issued and outstanding at September 30, 2023	616,391	-
Common stock, \$0.001 par value; shares authorized: 2,000,000,000; shares issued and outstanding: 298,328,647 outstanding at September 30, 2023 and 125,544,276 at December 31, 2022, respectively	298,329	125,544
Additional paid-in capital	164,158,537	164,030,289
Accumulated deficit	<u>(177,564,451)</u>	<u>(176,057,856)</u>
<b>Total stockholders' deficiency</b>	<u>(12,296,454)</u>	<u>(11,880,320)</u>
<b>Total liabilities and stockholders' deficiency</b>	<u><u>\$ 108,664</u></u>	<u><u>\$ 22,781</u></u>

See accompanying notes to condensed consolidated financial statements (unaudited).

**RESPIRERX PHARMACEUTICALS INC.  
AND SUBSIDIARIES**

**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
**(Unaudited)**

	<b>Three-Months Ended</b>		<b>Nine-Months Ended</b>	
	<b>September 30,</b>		<b>September 30,</b>	
	<b>2023</b>	<b>2022</b>	<b>2023</b>	<b>2022</b>
Operating expenses:				
General and administrative, including related parties	\$ 245,129	\$ 250,916	\$ 902,866	\$ 958,086
Research and development, including related parties	87,380	138,050	284,020	400,307
Total operating expenses	<u>332,509</u>	<u>388,966</u>	<u>1,186,886</u>	<u>1,358,393</u>
Loss from operations	(332,509)	(388,966)	(1,186,886)	(1,358,393)
Loss on extinguishment or settlement or modification of debt and other liabilities	-	(71,161)	-	(71,161)
Interest expense, including related parties	(73,408)	(94,643)	(365,729)	(533,812)
Foreign currency transaction gain	<u>10,415</u>	<u>82,192</u>	<u>46,020</u>	<u>150,337</u>
Net loss	\$ (395,502)	\$ (472,578)	\$ (1,506,595)	\$ (1,813,029)
Deemed dividend associated with paid-in-kind dividends on preferred stock for the three-months and nine-months periods ending September 30, 2023 and most favored nation provisions of convertible notes for the three-months and nine-months periods ending September 30, 2022	<u>\$ (13,667)</u>	<u>\$ (1,168,594)</u>	<u>\$ (24,427)</u>	<u>\$ (1,520,332)</u>
Net loss attributable to common stockholders	<u>\$ (409,169)</u>	<u>\$ (1,641,172)</u>	<u>\$ (1,531,022)</u>	<u>\$ (3,333,361)</u>
Net loss per common share attributable to common stockholders - basic and diluted	<u>\$ (0.002)</u>	<u>\$ (0.014)</u>	<u>\$ (0.008)</u>	<u>\$ (0.031)</u>
Weighted average common shares outstanding - basic and diluted	<u>267,732,995</u>	<u>119,264,928</u>	<u>191,241,348</u>	<u>107,816,034</u>

See accompanying notes to condensed consolidated financial statements (unaudited).

RESPIRERX PHARMACEUTICALS INC.  
AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIENCY  
(Unaudited)

Three-months and Nine-months Ended September 30, 2023

	Series B Convertible Preferred Stock		Series I 8% Preferred Stock		Series J 8% Preferred Stock		Common Stock		Additional Paid-in	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Par Value	Capital	Deficit	Deficiency
Balance, December 31, 2022	37,500	\$21,703	-	\$-	-	\$-	125,544,276	\$125,544	\$164,030,289	\$(176,057,856)	\$(11,880,320)
Common Stock issued upon cashless warrant exercises	-	-	-	-	-	-	18,782,396	18,783	(18,783)	-	-
Net loss	-	-	-	-	-	-	-	-	-	(430,063)	(430,063)
Balance, March 31, 2023	37,500	\$21,703	-	\$-	-	\$-	144,326,672	\$144,327	\$164,011,506	\$(176,487,919)	\$(12,310,383)
Issuance of Series I Preferred Stock	-	-	700	70,000	-	-	-	-	-	-	70,000
Accrued dividends on Series I Preferred Stock	-	-	9	891	-	-	-	-	(891)	-	-
Issuance of Series J Preferred Stock	-	-	-	-	5,700	570,000	-	-	-	-	570,000
Accrued dividends on Series J Preferred Stock	-	-	-	-	99	9,870	-	-	(9,870)	-	-
Issuance of common stock upon convertible notes conversions	-	-	-	-	-	-	56,039,999	56,040	28,021	-	84,061
Issuance of common stock upon cashless exercise of warrants	-	-	-	-	-	-	20,361,976	20,362	(20,362)	-	-
Warrant issuances with respect to Demand Promissory Notes	-	-	-	-	-	-	-	-	125,000	-	125,000
Net loss	-	-	-	-	-	-	-	-	-	(681,030)	(681,030)
Balance, June 30, 2023	37,500	21,703	709	70,891	5,799	579,870	220,728,647	220,729	164,133,404	(177,168,949)	(12,142,352)
Issuance of Series I Preferred Stock	-	-	1,000	100,000	-	-	-	-	-	-	100,000
Accrued dividends on Series I Preferred Stock	-	-	21	2,146	-	-	-	-	(2,146)	-	-

Issuance of Series J Preferred Stock	-	-	-	-	250	25,000	-	-	-	-	25,000
Accrued dividends on Series J Preferred Stock	-	-	-	-	115	11,521	-	-	(11,521)	-	-
Issuance of common stock upon convertible notes conversions	-	-	-	-	-	-	77,600,000	77,600	38,800	-	116,400
Net loss	-	-	-	-	-	-	-	-	-	(395,502)	(395,502)
Balance September 30, 2023	<u>37,500</u>	<u>\$21,703</u>	<u>1,730</u>	<u>\$173,037</u>	<u>6,164</u>	<u>\$616,391</u>	<u>298,328,647</u>	<u>\$298,329</u>	<u>\$164,158,537</u>	<u>\$(177,564,451)</u>	<u>\$(12,296,454)</u>

Three-months and Nine-months Ended September 30, 2022

	Series B Convertible Preferred Stock		Series I 8% Preferred Stock		Series J 8% Preferred Stock		Common Stock		Additional Paid-in	Accumulated	Total Stockholders'
							Par		Capital	Deficit	Deficiency
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Value			
Balance, December 31, 2021	37,500	\$21,703	-	\$-	-	\$-	97,894,276	\$ 97,894	\$163,827,781	\$(173,955,136)	\$(10,007,758)
Net loss	-	-	-	-	-	-	-	-	-	(860,163)	(860,163)
Balance, March 31, 2022	37,500	21,703	-	-	-	-	97,894,276	97,894	163,827,781	(174,815,299)	(10,867,921)
Warrant value for issuance of convertible note	-	-	-	-	-	-	-	-	25,000	-	25,000
Issuance of common stock upon convertible notes conversions	-	-	-	-	-	-	19,175,000	19,175	172,575	-	191,750
Net loss	-	-	-	-	-	-	-	-	-	(480,288)	(480,288)
Balance, June 30, 2022	37,500	21,703	-	-	-	-	117,069,276	117,069	164,025,356	(175,295,587)	(11,131,459)
Issuance of common stock upon convertible note conversion	-	-	-	-	-	-	2,525,000	2,525	22,725	-	25,250
Issuance of convertible notes	-	-	-	-	-	-	-	-	(11,842)	-	(11,842)
Net loss	-	-	-	-	-	-	-	-	-	(472,578)	(472,578)
Balance, September 30, 2022	<u>37,500</u>	<u>\$21,703</u>	<u>-</u>	<u>\$-</u>	<u>-</u>	<u>\$-</u>	<u>119,594,276</u>	<u>\$119,594</u>	<u>\$164,036,239</u>	<u>\$(175,768,165)</u>	<u>\$(11,590,629)</u>

See accompanying notes to condensed consolidated financial statements (unaudited).

**RESPIRERX PHARMACEUTICALS INC.  
AND SUBSIDIARIES**

**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(Unaudited)**

	<b>Nine-months Ended September 30,</b>	
	<b>2023</b>	<b>2022</b>
Cash flows from operating activities:		
Net loss	\$ (1,506,595)	\$ (1,813,029)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of original issue discount, capitalized note costs and debt discounts to interest expense	136,077	382,377
Stock-based compensation included in -		
Equity-based conversion fees	-	2,000
Loss on modification of convertible notes	-	71,161
Foreign currency transaction (gain) loss	(46,020)	(150,337)
Changes in operating assets and liabilities:		
Increase (decrease) in cash from		
Deferred financing costs	6,457	177,883
Prepaid expenses and prepaid research and development	73,152	74,764
Fees paid with shares of Common Stock	-	-
Accounts payable and accrued expenses	801,167	438,950
Accrued compensation and related expenses	(433,672)	522,000
Officer and affiliate liabilities, including accrued interest	311,081	-
Accrued interest payable and notes payable	399,627	139,170
Net cash used in operating activities	<u>(258,726 )</u>	<u>(155,061)</u>
Cash flows from financing activities:		
Proceeds from convertible note borrowings	-	120,000
Proceeds from sale of preferred stock	170,000	-
Proceeds from demand promissory notes	95,000	-
Borrowings on short-term notes payable, net of repayments	-	(75,689)
Proceeds from or repayment of officer advance	-	109,412
Net cash provided by financing activities	<u>265,000</u>	<u>153,723</u>
Cash and cash equivalents:		
Net (decrease)/increase	6,274	(1,338)
Balance at beginning of period	<u>88</u>	<u>1,398</u>
Balance at end of period	<u><u>\$ 6,362</u></u>	<u><u>\$ 60</u></u>

(Continued)



RESPIRERX PHARMACEUTICALS INC.  
AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(Unaudited)

(Continued)

	Nine-months Ended September30,	
	2023	2022
Supplemental disclosures of cash flow information:		
Cash paid for -		
Interest	\$ 8,222	\$ 10,308
Income taxes	\$ -	\$ -
Non-cash financing activities:		
Reclassification of short-term liabilities to long-term liabilities	\$ 270,000	\$ -
Reclassification of long-term liabilities to short-term liabilities	\$ -	\$ 90,000
Insurance policies	\$ 96,470	\$ 95,850
Conversion of accounts payable to officer to notes payable to officer	\$ -	\$ 13,659
Commitment shares/warrants issued with debt financing	\$ -	\$ 13,158
Shares issued with conversion of debt	\$ 200,460	\$ 217,000
Accrued compensation, accounts payable and other liabilities exchanged or settled for equity	\$ 620,000	\$ -
Issuance of warrants as deemed dividends associated with most-favored nation provisions of convertible notes	\$ -	\$ 1,623,054
Issuance of preferred stock as deemed dividends associated with paid-in-kind dividends on Series I and Series J preferred stock	\$ 24,427	\$ -
Debt discounts established for convertible debt	\$ -	\$ 13,334
Cashless warrant exercises	\$ 39,145	\$ -

See accompanying notes to condensed consolidated financial statements (unaudited).

**RESPIRERX PHARMACEUTICALS INC.  
AND SUBSIDIARIES**

**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
(Unaudited)**

**1. Organization and Basis of Presentation**

**Organization**

RespireRx Pharmaceuticals Inc. (“RespireRx”) was formed in 1987 under the name Cortex Pharmaceuticals, Inc. to engage in the discovery, development and commercialization of innovative pharmaceuticals for the treatment of neurological and psychiatric disorders. Currently RespireRx and its subsidiaries are focusing and emphasizing their historical efforts on data mining, re-discovery and re-purposing of known drugs and drug candidates to reduce risks and costs associated with drug development. On December 16, 2015, RespireRx filed a Certificate of Amendment to its Second Restated Certificate of Incorporation (as amended, the “Certificate of Incorporation”) with the Secretary of State of the State of Delaware to amend its Second Restated Certificate of Incorporation to change its name from Cortex Pharmaceuticals, Inc. to RespireRx Pharmaceuticals Inc. In August 2012, RespireRx acquired Pier Pharmaceuticals, Inc. (“Pier”), which is now a wholly-owned subsidiary. Pier was a clinical stage biopharmaceutical company developing a pharmacologic treatment for obstructive sleep apnea (“OSA”) and had been engaged in research and clinical development activities which activities are now in RespireRx’s wholly-owned subsidiary ResolutionRx Ltd (“ResolutionRx”). Pier is currently inactive. On January 11, 2023, RespireRx formed as a wholly-owned subsidiary, ResolutionRx, an unlisted public company in Australia, into which RespireRx, as of August 3, 2023, has contributed its cannabinoid platform described below.

**Basis of Presentation**

The condensed consolidated financial statements are of RespireRx and its wholly-owned subsidiaries, Pier and ResolutionRx (collectively referred to herein, along with its business unit, EndeavourRx, as the “Company,” the “RespireRx Group”, “we” or “our,” unless the context indicates otherwise).

The condensed consolidated financial statements and related notes are unaudited and have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). Accordingly, certain information and note disclosures normally included in financial statements prepared in accordance with United States generally accepted accounting principles (“GAAP”) have been omitted pursuant to such rules and regulations. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and other information included in the Company’s Annual Report in our Form 10-K for the fiscal year ended December 31, 2022 as filed with the SEC on April 17, 2023 (“2022 Form 10-K”).

2. Business

*Mission*

The mission of the RespireRx Group, is to develop innovative and revolutionary treatments to combat disorders caused by disruption of neuronal signaling at reduced risk and cost. In pursuit of this goal, we have (i) used data mining to identify and acquire new GABA<sub>A</sub>kinines, a family of compounds that have displayed a high degree of efficacy in a wide range of animal studies and are undergoing preclinical safety studies; (ii) re-discovered the safety of our low impact AMPAkinines, a class of compounds that have been under- or unrecognized, and have advanced their clinical development and (iii) have re-purposed dronabinol, an already approved drug, and developed it forward into late stage clinical status for use as a new proprietary treatment. We have focused on treatment options that address conditions affecting millions of people, but for which there are limited or poor treatment options, including OSA, attention deficit hyperactivity disorder (“ADHD”), epilepsy, acute and chronic pain, including inflammatory and neuropathic pain, recovery from spinal cord injury (“SCI”) and certain orphan disorders. As we move forward, we may also consider developing treatment options for other conditions based on results of preclinical and clinical studies to date. To achieve these goals, the Company has determined that some or all of these opportunities should be licensed, sub-licensed, joint ventured or even sold and has initiated efforts to do so.

*Strategy*

It is generally agreed that drug research and development (“R&D”) programs can cost hundreds of millions of dollars, take years if not decades to complete and carry considerable risk to successfully complete. While large, well-funded companies can undertake such ventures, smaller companies must seek out other creative and disruptive approaches to compete in the drug discovery and development process. We believe we have identified three basic methods that, when utilized, allow us to reduce risk, minimize costs and create considerable value.

*Data-mining* - a process whereby value can be found by data-mining published literature using artificial intelligence (“AI”) and our extensive knowledge and experience to identify validated neuronal targets and acquire known drugs and drug candidates. This approach can dramatically reduce much of the costs, time and risks involved.

*Re-Discovery* - a process whereby value can be found by (a) identifying and acquiring drug(s) with appropriate mechanism(s) of action on a newly discovered identified target; (b) acquiring drug(s) that have strong preclinical data demonstrating efficacy and safety and preferably be ready to begin IND enabling studies in preparation for clinical trials; and/or (c) clinical studies demonstrating safety (Phase 1) and, optimally, efficacy (Phase 2).

*Re-Purposing* - a process whereby value can be found by (a) determining that an identified neuronal substrate is involved in an undiscovered, little known or orphan therapeutic area; (b) demonstrate that acquired drugs targeting that neuronal substrate demonstrate efficacy in predictive animal tests; and (c) acquire drugs that have successfully demonstrated safety in Phase 1 clinical studies and target engagement of the desired neuronal substrate.

*Implementation*

In order to facilitate our business activities and product development and to set up our programs for partnering or sale, the Company has implemented an internal restructuring plan based upon our two research platforms: drugs that act directly upon endocannabinoid receptors and drugs that act as neuromodulators at AMPA glutamate and GABA<sub>A</sub> receptors, the major excitatory and inhibitory neurotransmitters in the brain, respectively. ResolutionRx is the subsidiary focused on dronabinol for obstructive sleep apnea and EndeavourRx is the business unit focused on neuromodulators is referred to as EndeavourRx. It is anticipated that the Company will use, at least initially, its management personnel to provide management, operational and oversight services to these two business units as well as contracting firms to conduct specific R&D projects.

- (i) ResolutionRx, our repurposing platform is developing dronabinol initially for the treatment of OSA and later for other indications. Dronabinol is already approved by the U.S. FDA and other national regulatory agencies for other indications, allowing for a more rapid route to approval.
- (ii) EndeavourRx, our neuromodulators rediscovery platform is made up of two programs: (a) our AMPAkinines program, which is developing proprietary compounds that act as positive allosteric modulators (“PAMs”) of AMPA-type glutamate receptors to promote neuronal function and (b) our GABA<sub>A</sub>kinines program, which is developing proprietary compounds that act as PAMs of GABA<sub>A</sub> receptors, and which was established pursuant to our entry into a patent license agreement (the “UWMRF Patent License Agreement”) with the University of Wisconsin-Milwaukee Research Foundation, Inc., an affiliate of the University of Wisconsin-Milwaukee (“UWMRF”).

ResolutionRx, was organized January 11, 2023 as a wholly-owned subsidiary of RespireRx. We are also evaluating whether to organize our EndeavourRx business unit, in part or in whole, into one or more subsidiaries that would conduct R&D of our neuromodulator platform, including either or both of the AMPAkinine and GABA<sub>A</sub>kinine programs and their related tangible and intangible assets and certain of their liabilities.

The RespireRx Group, comprised of RespireRx, ResolutionRx and EndeavourRx (and Pier, which is inactive), believes that there are advantages to separating these platforms formally into newly formed subsidiaries, including but not limited to optimizing their asset values by making them attractive to separate financing and strategic partnering channels.

The Company's business development efforts (licensing, sub-licensing, joint venture and other commercial structures), if successful, would represent strategic and operational infrastructure additions, as well as cash and in-kind funding opportunities. These efforts have focused on, but have not been limited to, transacting with brand and generic pharmaceutical and biopharmaceutical companies as well as companies with potentially useful clinical development, formulation or manufacturing capabilities, significant subject matter expertise and financial resources. No assurance can be given that any transaction will come to fruition and that, if it does, the terms will be favorable to the Company.

### ***Financing our Platforms***

Our major challenge has been to raise substantial equity or equity-linked financing to support research and development plans for our cannabinoid and neuromodulator platforms, while minimizing the dilutive effect to pre-existing stockholders. At present, we believe that we are hindered primarily by our public corporate structure, our OTC Pink Market listing and our low market capitalization as a result of our low stock price as well as the weakness of our balance sheet.

For this reason, the Company has affected an internal restructuring plan described above that we believe will further the aims of RespireRx, ResolutionRx and EndeavourRx, and may make it possible, through separate finance channels, to unlock the unrealized asset values of each and set up its programs for partnering or sale.

We believe that some or all of our assets should be licensed, sub-licensed, joint ventured or even sold and have initiated efforts to do so. No assurance can be given that any transaction will come to fruition and that if it does, that the terms will be favorable to the Company.

ResolutionRx is eligible to participate in the Australian R&D Tax Incentive ("R&DTI"), which is a tax rebate by the Australian government for qualified R&D expenditures. In the case of ResolutionRx, the R&DTI is expected to be 43.5% of qualified R&D. On January 27, 2023, ResolutionRx entered into a Letter of Intent and a term sheet with Radium Capital pursuant to which Radium Capital will finance in accordance with a debt facility, 80% of ResolutionRx's of 43.5% tax rebate on an ongoing application basis similar to a line of credit.

On May 18, 2023, ResolutionRx entered into a Letter of Intent with Cantheon Capital ("Cantheon" and "Cantheon LOI") that describes an intended investment of US\$3,125,000 by Cantheon in Australian Series A Preference Shares to be issued by ResolutionRx to support clinical trial research and development over the R&D period equal to 25% of the clinical trial costs of the cannabinoid program that are the subject of the Australian CRO Agreement with iNGENu. While the Letter of Intent is binding, subject to the commencement of human clinical trials, funding has not yet taken place.

On May 11, 2023, RespireRx entered into a Letter Agreement ("Letter Agreement") with Viridian Capital Advisors ("VCA") pursuant to which, VCA would perform the following services ("Valuation Services"): (i) review the Company's intellectual property assets and licensing agreements as they relate to Company's cannabinoid program, net of any associated liabilities, (ii) review the Company's financial models and forecasts as they relate to the Company's cannabinoid program and (iii) prepare the data, analytics and Company valuation analysis ("Valuation Analysis") specifically with respect to the Company's cannabinoid program. The Letter Agreement became effective on May 22, 2023. The Company entered this Letter Agreement as part of the process that began with the establishment of ResolutionRx, into which the net assets of the Company's cannabinoid program have been contributed via license and sublicense in exchange for 25,000,000 Ordinary Shares of ResolutionRx, all as of August 3, 2023. RespireRx received the final Valuation Analysis on August 7, 2023.

On February 27, 2023, ResolutionRx entered into a Services Agreement with iNGENu CRO Pty Ltd - See Note 8. Commitments and Contingencies-*Significant Agreements and Contracts* – Services Agreement with iNGENu CRO Pty Ltd. The initial deposit was paid and services have commenced.

On August 3, 2023, RespireRx entered into a License Agreement with ResolutionRx - See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts* - *License Agreement with ResolutionRx Ltd.*

On August 3, 2023, RespireRx entered into a Sublicense Agreement with ResolutionRx - See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts* - Sublicense Agreement with ResolutionRx Ltd.

On August 3, 2023, RespireRx entered into a Stock Transfer Agreement with ResolutionRx - See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts* - Stock Transfer Agreement with ResolutionRx Ltd.

On August 3, 2023, RespireRx entered into a Master Intercompany Services Agreement with ResolutionRx – See Note 8. Commitments and Contingencies – *Significant Agreements and Contracts* – Master Intercompany Services Agreement with ResolutionRx.

On October 9, 2023, ResolutionRx entered into a Master Services Agreement ("MSA") with Ab Initio Pharma Pty Ltd, ("Ab Initio") an Australian company under which Ab Initio will manufacture, formulate, test and supply ResolutionRx with therapeutic drugs based on lipid nanoparticle technology licensed from RespireRx - See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts* –Master Services Agreement with Ab Initio Pharma Pty Ltd.

### ***Going Concern***

The Company's condensed consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has incurred net losses and net losses attributable to common stockholders of \$395,502 and \$409,169 for the three-months September 30, 2023, respectively and net losses and net losses attributable to common stockholders of \$1,506,595 and \$1,531,022 for the nine-months September 30, 2023, respectively. The 2023 net losses attributable to common stockholders was after accounting for dividends on the Series I Preferred Stock and Series J Preferred Stock. The Company incurred a net a loss of \$472,578 and \$1,813,029 for the three-months and nine-months ended September 30, 2022, respectively and a net loss attributable to common stockholders of \$1,641,172 and \$3,333,361 for the three-months and nine-months ended September 30, 2022 after accounting for deemed dividends associated with most-favored nation provisions of convertible notes, and a total net loss of \$3,972,993 for the fiscal year ended December 31, 2022, as well as negative operating cash flows of \$258,726 for the nine-months ended September 30, 2023 and \$143,905 for the fiscal year ended December 31, 2022. The Company also had a stockholders' deficiency of \$12,296,454 at September 30, 2023 and expects to continue to incur net losses and negative operating cash flows for at least the next few years. Additionally, as of September 30, 2023, the Company has, with respect to fourteen similar convertible notes outstanding after 7 partial conversions of principal or interest during the three-months and 18 partial conversions of principal and interest during the nine-months ended September 30, 2023, \$1,215,088 maturity amount inclusive of accrued interest which have matured, but for which no notices of default have been received, which must be paid or converted. See Note 4. Notes Payable. The Company will seek to have maturity dates extended in order to avoid a default on such convertible notes, which the Company has achieved in the past, but with respect to which, the Company can provide no assurance. The Company has also not met its payment obligations to the UWM Research Foundation ("UWMRF") of the University of Wisconsin-Milwaukee but has not received a notice of default and is in regular communication with the UWMRF regarding the establishment of a payment schedule. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern, and the Company's independent registered public accounting firm, in its report on the Company's consolidated financial statements for the year ended December 31, 2022, expressed substantial doubt about the Company's ability to continue as a going concern.

The Company is currently, and has for some time, been in significant financial distress. It has extremely limited cash resources and current assets and has no ongoing source of sustainable revenue. Management is continuing to address various aspects of the Company's operations and obligations, including, without limitation, debt obligations, financing requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has taken steps to continue to raise new debt and equity capital to fund the Company's business activities from both related and unrelated parties.

The Company is continuing its efforts to raise additional capital in order to be able to pay its liabilities and fund its business activities on a going forward basis, including the pursuit of the Company's planned research and development activities. Such activities have commenced with iNGENu with ResolutionRx and certain R&D activities are taking place at collaborating academic institutions. The Company regularly evaluates various measures to satisfy the Company's liquidity needs, including development and other agreements with collaborative partners and, when necessary, seeking to exchange or restructure the Company's outstanding securities and liabilities. The Company is evaluating certain changes to its operations and structure to facilitate raising capital from sources that may be interested in financing only discrete aspects of the Company's development programs and, in that regard, has formed an Australian subsidiary, ResolutionRx. In addition to the formation of ResolutionRx, such changes could include additional significant reorganizations, which may include the formation of one or more additional subsidiaries into which one or more programs may be contributed. As a result of the Company's current financial situation, the Company has limited access to external sources of debt and equity financing. Accordingly, there can be no assurances that the Company will be able to secure additional financing in the amounts necessary to fully fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources, the Company may be forced to discontinue its operations entirely and liquidate.

As an example of its efforts to address outstanding accounts payable, on September 26, 2023, the Company entered into a Second Amendment to Consulting Agreement and a Settlement and Exchange Agreement with DNA Healthlink Inc. pursuant which \$50,000 of amounts owed by RespireRx were exchanged for \$25,000 Series I 8% Redeemable Preferred Stock and \$25,000 of Series J 8% Voting, Participating, Redeemable Preferred Stock and the payment due date of the remaining liability was extended to May 31, 2025. If no Eligible Payment Event had occurred by May 31, 2025, then the remaining amount will be due and payable in seven equal monthly installment beginning on June 1, 2025. See Note 5. Settlement and Payment Agreements.

The Company is continuing its efforts to raise additional capital in order to be able to pay its liabilities and fund its business activities on a going forward basis, including the pursuit of the Company's planned R&D activities. The Company regularly evaluates various measures to satisfy the Company's liquidity needs, including development and other agreements with collaborative partners and, when necessary, seeking to exchange or restructure the Company's outstanding securities. The Company is evaluating certain changes to its operations and structure to facilitate raising capital from sources that may be interested in financing only discrete aspects of the Company's development programs. In addition to the formation of ResolutionRx, such changes could include additional significant reorganizations, which may include the formation of one or more additional subsidiaries into which one or more programs may be contributed. As a result of the Company's current financial situation, the Company has limited access to external sources of debt and equity financing. Accordingly, there can be no assurances that the Company will be able to secure additional financing in the amounts necessary to fully fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources, the Company may be forced to discontinue its operations entirely and liquidate.

### **3. Summary of Significant Accounting Policies**

#### ***Principles of Consolidation***

The accompanying condensed consolidated financial statements (unaudited) are prepared in accordance with GAAP and include the financial statements of RespireRx and its wholly-owned subsidiaries, Pier and ResolutionRx. Intercompany balances and transactions have been eliminated in consolidation.

#### ***Use of Estimates***

The preparation of condensed financial statements in conformity with GAAP requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates include, among other things, accounting for potential liabilities, and the assumptions used in valuing stock-based compensation issued for services. Actual amounts may differ from those estimates.

***Concentration of Credit Risk***

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company limits its exposure to credit risk by investing its cash with high quality financial institutions. The Company’s cash balances may periodically exceed federally insured limits. The Company has not experienced a loss in such accounts to date.

***Value of Financial Instruments***

The authoritative guidance with respect to value of financial instruments established a value hierarchy that prioritizes the inputs to valuation techniques used to measure value into three levels and requires that assets and liabilities carried at value be classified and disclosed in one of three categories, as presented below. Disclosure as to transfers into and out of Levels 1 and 2, and activity in Level 3 value measurements, is also required.

Level 1. Observable inputs such as quoted prices in active markets for an identical asset or liability that the Company has the ability to access as of the measurement date. Financial assets and liabilities utilizing Level 1 inputs include active-exchange traded securities and exchange-based derivatives.

Level 2. Inputs, other than quoted prices included within Level 1, which are directly observable for the asset or liability or indirectly observable through corroboration with observable market data. Financial assets and liabilities utilizing Level 2 inputs include fixed income securities, non-exchange based derivatives, mutual funds, and fair-value hedges.

Level 3. Unobservable inputs in which there is little or no market data for the asset or liability which requires the reporting entity to develop its own assumptions. Financial assets and liabilities utilizing Level 3 inputs include infrequently traded, non-exchange-based derivatives and commingled investment funds, and are measured using present value pricing models.

The Company determines the level in the value hierarchy within which each value measurement falls in its entirety, based on the lowest level input that is significant to the value measurement in its entirety. In determining the appropriate levels, the Company performs an analysis of the assets and liabilities at each reporting period end.

The carrying amounts of financial instruments (consisting of cash, cash equivalents, and accounts payable and accrued expenses) are considered by the Company to be representative of the respective values of these instruments due to the short-term nature of those instruments. With respect to the note payable to SY Corporation Co., Ltd. (“SY Corporation”) and the convertible notes payable, management does not believe that the credit markets have materially changed for these types of borrowings since the original borrowing date for companies like the Company. The Company considers the carrying amounts of the notes payable to officers, inclusive of accrued interest, to be representative of the respective values of such instruments due to the short-term nature of those instruments and their terms.

***Capitalized Financing Costs***

The Company presents debt issuance costs related to debt obligations in its condensed consolidated balance sheet as a direct deduction from the carrying amount of that debt obligation, consistent with the presentation for debt discounts.

### ***Convertible Notes Payable***

Convertible notes are evaluated to determine if they should be recorded at amortized cost. To the extent that there are associated warrants, commitment shares of Common Stock, the convertible notes and equity or equity-linked securities are evaluated to determine if there are embedded derivatives to be identified, bifurcated and valued in connection with and at the time of such financing.

### ***Debt and Other Liability Exchanges***

In cases where debt or other liabilities are exchanged for equity, the Company compares the carrying value of debt, inclusive of accrued interest, if applicable, being exchanged, to the fair value of the equity issued and records any loss or gain as a result of such exchange. See Note 4. Notes Payable.

### ***Extinguishment of Debt and Settlement of Liabilities***

The Company accounts for the extinguishment of debt and settlement of liabilities by comparing the carrying value of the debt or liability to the value of consideration paid or assets given up and recognizing a loss or gain in the condensed consolidated statement of operations in the amount of the difference in the period in which such transaction occurs.

### ***Prepaid Insurance***

Prepaid insurance represents the premium that was due in March 2023 for directors and officers insurance. The amounts of prepaid insurance amortizable in the ensuing twelve-month period are recorded as prepaid insurance in the Company's consolidated balance sheet at each reporting date and amortized to the Company's consolidated statement of operations for each reporting period.

### ***Stock-Based Awards***

The Company periodically issues common stock, stock options and phantom stock (collectively, "Stock-Based Awards") to officers, directors, Scientific Advisory Board members, consultants and vendors for services rendered. Such issuances vest and expire according to terms established at the issuance date of each grant.

The Company accounts for stock-based payments to officers, directors, outside consultants and vendors by measuring the cost of services received in exchange for equity awards based on the grant date fair value of the awards, with the cost recognized as compensation expense on the straight-line basis in the Company's consolidated or condensed consolidated financial statements over the vesting period of the awards.

Stock grants, which are sometimes subject to time-based vesting, are measured at the grant date fair value of the common stock and charged to operations ratably over the vesting period.

Stock options granted to members of the Company's outside consultants and other vendors are valued on the grant date. As the stock options vest, the Company recognizes this expense over the period in which the services are provided.

The value of stock options granted as stock-based payments is determined utilizing the Black-Scholes option-pricing model, and is affected by several variables, the most significant of which are the life of the equity award, the exercise price of the stock option as compared to the fair market value of the common stock on the grant date, and the estimated volatility of the common stock over the term of the equity award. Estimated volatility is based on the historical volatility of the Company's common stock. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. The fair market value of common stock is determined by reference to the quoted market price of the Company's common stock.

Stock and stock option grants and warrants issued to non-employees as compensation for services to be provided to the Company or in settlement of debt are accounted for based upon the fair value of the services provided or the estimated fair value of the stock option or warrant, whichever can be more clearly determined. Management uses the Black-Scholes option-pricing model to determine the fair value of the stock options and warrants issued by the Company. The Company recognizes this expense over the period in which the services are provided.

Phantom stock awards, which are sometimes subject to time-based vesting, are measured at the award date fair value, if measurable. As the phantom stock awards vest, the Company recognizes the expense, if measurable, upon vesting. To the extent that the value of phantom stock awards is not measurable on the award date, measurement only being possible on the satisfaction of certain contingent events that may not be predictable and measurable at the time of the award, the Company recognizes the expense as a change in an estimate as of the date on which the contingent event becomes predictable and measurable.



The Company recognizes the value of stock-based payments in general and administrative costs and in research and development costs, as appropriate, in the Company's consolidated or condensed consolidated statements of operations, as appropriate. The Company issues new shares of Common Stock to satisfy stock option and warrant exercises.

There were no stock or stock option grants during the three-months or nine-months ended September 30, 2023 and 2022.

There were no stock options exercised during the three-months or nine-months ended September 30, 2023 and 2022.

There were no warrants issued as compensation or for services during the three-months and nine-months ended September 30, 2023 and 2022. There were warrants exercisable into 83,333,333 shares of the RespireRx's Common Stock issued on May 22, 2023 with respect to the issuance of \$250,000 of demand promissory notes to an affiliate of an officer and another affiliate. Warrants, if issued for services, are typically issued to placement agents or brokers for fund raising services, or to lenders, and are not issued from any of the Company's stock and option plans, from which options issued to non-employees for services are typically issued.

### ***Income Taxes***

The Company accounts for income taxes under an asset and liability approach for financial accounting and reporting for income taxes. Accordingly, the Company recognizes deferred tax assets and liabilities for the expected impact of differences between the financial statements and the tax basis of assets and liabilities.

The Company records a valuation allowance to reduce its deferred tax assets to the amount that is more likely than not to be realized. In the event the Company was to determine that it would be able to realize its deferred tax assets in the future in excess of its recorded amount, an adjustment to the deferred tax assets would be credited to operations in the period such determination was made. Likewise, should the Company determine that it would not be able to realize all or part of its deferred tax assets in the future, an adjustment to the deferred tax assets would be charged to operations in the period such determination was made.

Pursuant to Internal Revenue Code Sections 382 and 383, use of the Company's net operating loss and credit carryforwards may be limited if a cumulative change in ownership of more than 50% occurs within any three-year period since the last ownership change. The Company may have had a change in control under these Sections. However, management does not anticipate performing a complete analysis of the limitation on the annual use of the net operating loss and tax credit carryforwards until the time that it anticipates it will be able to utilize these tax attributes.

As of September 30, 2023, the Company did not have any unrecognized tax benefits related to various federal and state income tax matters and does not anticipate any material amount of unrecognized tax benefits within the next 12 months.

The Company is subject to U.S. federal income taxes and income taxes of various state tax jurisdictions. As the Company's net operating losses have yet to be utilized, all previous tax years remain open to examination by Federal authorities and other jurisdictions in which the Company currently operates or has operated in the past.

The Company accounts for uncertainties in income tax law under a comprehensive model for the financial statement recognition, measurement, presentation and disclosure of uncertain tax positions taken or expected to be taken in income tax returns as prescribed by GAAP. The tax effects of a position are recognized only if it is "more-likely-than-not" to be sustained by the taxing authority as of the reporting date. If the tax position is not considered "more-likely-than-not" to be sustained, then no benefits of the position are recognized. As of September 30, 2023 and December 31, 2022, the Company had not recorded any liability for uncertain tax positions. In subsequent periods, any interest and penalties related to uncertain tax positions will be recognized as a component of income tax expense.

### ***Foreign Currency Transactions***

The note payable to SY Corporation, which is denominated in a foreign currency (the South Korean Won), is translated into the Company's functional currency (the United States Dollar) at the exchange rate on the balance sheet date. The accounts for ResolutionRx are maintained in Australian dollars and are converted to U.S. dollars at the exchange rate on the balance sheet. In both cases, the foreign currency exchange gain or loss resulting from translation is recognized in the related condensed consolidated statements of operations.

**Research and Development**

Research and development costs include compensation paid to management directing the Company’s R&D activities, including but not limited to compensation paid to our Chief Scientific Officer who is also our Executive Chairman, Interim President and Interim Chief Executive Officer, and who has similar roles at ResolutionRx, and fees paid to consultants and outside service providers and organizations (including research institutes at universities), and other expenses relating to the acquisition, design, research, development and clinical testing of the Company’s treatments and product candidates.

**License Agreements**

Obligations incurred with respect to mandatory payments provided for in-license agreements are recognized ratably over the appropriate term, as specified in the underlying license agreement, and are recorded as liabilities in the Company’s condensed consolidated balance sheet, with a corresponding charge to research and development costs in the Company’s condensed consolidated statement of operations. Obligations incurred with respect to milestone payments provided for in-license agreements are recognized when it is probable that such milestone will be reached and are recorded as liabilities in the Company’s condensed consolidated balance sheet, with a corresponding charge to research and development expenses in the Company’s condensed consolidated statement of operations.

**Patent Costs**

Due to the significant uncertainty associated with the successful development of one or more commercially viable products based on the Company’s research efforts and any related patent applications, all patent costs, including patent-related legal and filing fees, are expensed as incurred and recorded as general and administrative expenses.

**Earnings (Loss) per Share**

The Company’s computation of earnings (loss) per common share (“EPS”) includes basic and diluted EPS. Basic EPS is measured as the income (loss) attributable to common stockholders divided by the weighted average common shares outstanding for the period. Diluted EPS is similar to basic EPS but presents the dilutive effect on a per share basis of potential common shares (e.g., warrants and options) as if they had been converted at the beginning of the periods presented, or issuance date, if later. Potential common shares that have an anti-dilutive effect (i.e., those that increase income per share or decrease loss per share) are excluded from the calculation of diluted EPS.

Net loss attributable to common stockholders consists of net loss, as adjusted for actual and deemed stock dividends declared, accrued, amortized or accumulated.

Loss per common share is computed by dividing net loss by the weighted average number of shares of common stock outstanding during the respective periods. Basic and diluted loss per common share is the same for all periods presented because all warrants and stock options outstanding are anti-dilutive.

At September 30, 2023 and 2022 the Company excluded the outstanding securities summarized below, which entitle the holders thereof to acquire shares of common stock, from its calculation of earnings per share, as their effect would have been anti-dilutive.

	September 30,	
	2023	2022
Series B convertible preferred stock	1	1
Convertible notes payable	652,721,528	348,938,988
Common stock warrants	395,515,209	245,030,149
Common stock options	9,168,317	9,201,032
Total	1,057,405,055	603,170,170

**Reclassifications**

Certain comparative figures in 2022 have been reclassified to conform to the current quarter’s presentation. These reclassifications were immaterial, both individually and in the aggregate.

**4. Notes Payable**

**Convertible Notes Payable**

The table below summarizes all convertible notes outstanding as of September 30, 2023. Those with similar characteristics outstanding as of September 30, 2023 are grouped separately. The following abbreviations are used in the column headings: DIC is Debt Issuance Cost, OID is Original Issue Discount, Wts are warrants, CNC is Capitalized Note Cost and BCF is Beneficial Conversion Feature. Also included are repayments by conversion, exchange or otherwise during or prior to the three-month and nine-month periods ended September 30, 2023:

The table below summarizes the convertible notes outstanding during the nine- months ended and as of September 30, 2023. There were several partial repayments made by conversion during the nine-months ended September 30, 2023:

Inception Date	Maturity date	Original Principal Amount	Interest rate	Original aggregate DIC, OID, Wts, CNC and BCF	Cumulative amortization of DIC, OID, Wts, CNC and BCF	Accrued coupon interest	Repayment by conversion, increase in principal amount, net where appropriate	Consolidated balance sheet carrying amount at September 30, 2023 inclusive of accrued interest
November 5, 2014	September 15, 2016 <sup>1</sup>	\$ 25,000	10%	\$ -	\$ -	\$ 34,066	\$ -	\$ 59,066
November 5, 2014	September 15, 2016 <sup>1</sup>	25,000	10%	-	-	34,066	-	59,066
November 5, 2014	September 15, 2016 <sup>1</sup>	<u>25,000</u>	12%	<u>-</u>	<u>-</u>	<u>44,806</u>	<u>-</u>	<u>69,806</u>
Sub-total		75,000		-	-	112,938	-	187,938
December 31, 2018	February 28, 2019 <sup>2</sup>	25,000	10%	-	-	19,261	-	44,261
January 2, 2019	February 28, 2019 <sup>2</sup>	<u>10,000</u>	10%	<u>-</u>	<u>-</u>	<u>7,768</u>	<u>-</u>	<u>17,768</u>
Sub-total		35,000		-	-	27,029	-	62,029
May 17, 2019	May 17, 2020 <sup>3</sup>	50,000	10.00%	(50,000)	50,000	2,748	(50,000)	2,748
July 28, 2020	June 30, 2022 <sup>3</sup>	53,000	8.00%	(13,000)	13,000	11,937	(16,247)	48,690
February 17, 2021	June 17, 2022 <sup>3</sup>	112,000	10.00%	(112,000)	112,000	14,289	(98,000)	28,289
April 1, 2021	July 31, 2022 <sup>3</sup>	112,500	24.00%	(112,500)	112,500	39,775	(61,525)	90,750
May 3, 2021	July 31, 2022 <sup>3</sup>	150,000	10.00%	(150,000)	150,000	-	(150,000)	-
May 10, 2021	August 10, 2022 <sup>3</sup>	150,000	10.00%	(150,000)	150,000	30,295	(28,213)	152,082
June 30, 2021	June 29, 2022 <sup>3</sup>	115,000	24.00%	(115,000)	115,000	42,030	-	157,030
August 31, 2021	August 31, 2022 <sup>3</sup>	115,000	10.00%	(109,675)	109,675	23,946	-	138,946
October 7, 2021	October 7, 2022 <sup>3</sup>	115,000	10.00%	(96,705)	96,705	22,779	-	137,779
December 23, 2021	June 21, 2022 <sup>3</sup>	87,000	24.00%	(36,301)	36,301	43,934	(54,060)	76,874
April 14, 2022	April 14, 2023 <sup>3</sup>	27,778	10.00%	(15,936)	15,936	4,064	-	31,842
August 22, 2022	May 31, 2023 <sup>3</sup>	66,667	10.00%	(6,667)	6,667	7,379	-	74,046
August 22, 2022	May 31, 2023 <sup>3</sup>	22,222	10.00%	(2,222)	2,222	2,460	-	24,682
August 22, 2022	May 31, 2023 <sup>3</sup>	<u>16,667</u>	10.00%	<u>(1,667)</u>	<u>1,434</u>	<u>1,429</u>	<u>(16,500)</u>	<u>1,363</u>
Sub-total		1,192,834		(971,673)	971,440	247,065	(474,545)	965,121
Total		<u>\$ 1,302,834</u>		<u>\$ (971,673)</u>	<u>\$ 971,440</u>	<u>\$ 387,032</u>	<u>\$ (474,545)</u>	<u>\$ 1,215,088</u>

1 These convertible notes were sold to investors in 2014 and 2015 (“Original Convertible Notes) and have a fixed interest rate of 10% per annum and in the case of the one note for which a notice of default has been received, 12%. The Original Convertible Notes have no reset rights or other protections based on subsequent equity transactions, equity-linked transactions or other events and are convertible into an aggregate of 1,560 shares of Common Stock as of September 30, 2023. As of September 30, 2023, principal and accrued interest on the Original Convertible Note that is subject to a default notice totaled \$69,806, of which \$25,000 was principal and \$44,806 was accrued interest.

2 On December 31, 2018 and January 2, 2019, the Company issued convertible notes to a single investor totaling \$35,000 of maturity amount with accrued interest of \$27,029 as of September 30, 2023. The number of shares of common stock (or preferred stock) into which these notes may convert is not determinable.

3    These fourteen outstanding convertible notes were issued between May 17, 2019 and August 22, 2022. They all currently have similar terms including conversion prices that generally are or are likely to be \$0.0015 per share of Common Stock. All such notes matured prior to September 30, 2023. The Company has initiated discussions with all note holders regarding maturity date extensions. The Company has not received any notices of default with respect to these notes. Certain notes are accruing interest at the default interest rates even though no notices of default have been received. These notes contain, among other provisions, most favored nation provisions, reserve requirements and default interest rates.

***Note Payable to SY Corporation Co., Ltd.***

On June 25, 2012, the Company borrowed 465,000,000 Won (the currency of South Korea, equivalent to \$399,774 United States Dollars as of that date) from and executed a secured note payable to SY Corporation Co., Ltd., (“SY Corporation”). The note accrues simple interest at the rate of 12% per annum and had a maturity date of June 25, 2013. The Company has not made any payments on the promissory note. At September 30, 2013 and subsequently, the promissory note was outstanding and in default, although SY Corporation has not issued a notice of default or a demand for repayment. Management believes that SY Corporation is in default of its obligations under its January 2012 license agreement, as amended, with the Company, but the Company has not yet issued a notice of default. The Company has in the past made several efforts towards a comprehensive resolution of the aforementioned matters involving SY Corporation. During the nine-months ended September 30, 2023, there were no further communications between the Company and SY Corporation.

The promissory note is secured by collateral that represents a lien on certain patents owned by the Company, dating back to January, August and September 2007, including composition of matter patents for certain of the Company’s high impact ampakine compounds and the low impact ampakine compounds CX2007 and CX2076, and other related compounds that the Company is no longer developing and where patent rights date back to January, August and September 2007. The security interest does not extend to the Company’s patents for its ampakine compounds CX1739 and CX1942 or certain related method of use patents.

The note payable to SY Corporation consists of the following at September 30, 2023 and December 31, 2022:

	September 30, 2023	December 31, 2022
Principal amount of note payable	\$ 399,774	\$ 399,774
Accrued interest payable	543,343	507,330
Foreign currency transaction adjustment	(133,492)	(73,641)
	<u>\$ 809,625</u>	<u>\$ 833,463</u>

Interest expense with respect to this promissory note was \$12,092 for the three-months ended September 30, 2023 and 2022, and \$36,013 and \$35,881 for the nine-months ended September 30, 2023 and 2022, respectively.

***Notes Payable to Officers and Affiliates***

For the three-months ended September 30, 2023 and 2022, \$3,753 and \$3,412 was charged to interest expense with respect to Dr. Arnold S. Lippa’s notes, respectively. For the nine-months ended September 30, 2023 and 2022, \$11,136 and \$10,124 was charged to interest expense with respect to Dr. Lippa’s notes, respectively. In May 2023, an affiliate of Dr. Lippa provided \$225,000 and was issued a demand promissory note of like amount and warrants as described in more detail below. At September 30, 2023, amounts owed to Dr. Lippa and his affiliates, including notes payable, a demand promissory note, advances and accrued interest were \$446,305.

In addition, Dr. Lippa periodically makes advances to the Company which are re-payable upon demand, do not accrue interest and are included in the total of notes payable to Officers.

On May 22, 2023, RespireRx issued a demand promissory note in the principal amount of \$225,000 which bears interest at 10% per year to an affiliate of Dr. Arnold Lippa. In connection with the issuance of the demand promissory note and on the same date, RespireRx issued a Warrant to purchase 75,000,000 shares of the Company’s Common Stock at an exercise price of \$0.0015 per share of Common Stock, exercisable at any time until the date that is five years from the initial exercise date of May 22, 2023. The Warrant had a fair value of \$112,500 calculated using the Black-Scholes option pricing model utilizing an estimated one-year volatility calculated based on RespireRx’s historical Common Stock prices, the risk free rate based on U.S Treasury yield curve in effect on the issue date, the exercise period which in this case is five years and the fair value of the stock which is considered the closing price on the issue date and the exercise price. The calculated value was charged to interest expense as it is required to be amortized over the life of the note and the note is payable on demand. The Warrant also has cashless exercise provisions. Coupon interest of \$5,671 and \$8,075 was charged to interest expense for the three-months and nine-months ended September 30, 2023, respectively. Since neither the demand promissory note nor the Warrant existed during the three-month and nine-month periods ended September 30, 2022, no such coupon interest or Warrant value interest was charged to interest expense during those periods.

On May 22, 2023, RespireRx issued a demand promissory note in the principal amount of \$25,000 which bears interest at 10% per year to an affiliate that is not an officer or director of the Company. In connection with the issuance of the demand promissory note and on the same date, RespireRx issued a Warrant to purchase 83,333,333 shares of the Company’s Common Stock at an exercise price of \$0.0015 per share of Common Stock, exercisable at any time until the date that is five years from the initial exercise date of May 22, 2023. The Warrant had a fair value of \$12,500 calculated using the Black-Scholes option pricing model utilizing an estimated one-year volatility calculated based on RespireRx’s historical Common Stock prices, the risk free rate based on the U.S Treasury yield curve in effect on the issue date, the exercise period which in this case is five years and the fair value of the stock which is considered the closing price on the issue date and the exercise price. The calculated value was charged to interest expense as it is required to be amortized over the life of the note and the note is payable on demand. The Warrant also has cashless exercise provisions. Coupon interest of \$630 and \$897 was charged to interest expense for the three-month and nine-month periods ended September 30, 2023, respectively. Since neither the demand promissory note nor the Warrant existed during the three-month and nine-month periods ended September 30, 2022, no such coupon interest or Warrant value was charged to interest expense during those periods.

***Notes Payable to Former Officer***

For the three-months ended September 30, 2023 and 2022, \$5,689 and \$5,173, respectively, was charged to interest expense with respect to former executive officer, Dr. James S. Manuso’s notes. For the nine-months ended September 30, 2023 and 2022, \$16,884 and \$15,349, respectively, was charged to interest expense with respect to Dr. Manuso’s notes. At September 30, 2023, amounts owed to Dr. Manuso, associated with two notes payable and accrued interest were \$242,628. At December 31, 2022, amounts owed to Dr. Manuso with respect to the same two notes were \$225,744.

### ***Other Short-Term Notes Payable***

Other short-term notes payable at September 30, 2023 and December 31, 2022 consisted primarily of premium financing agreements with respect to the Company’s directors and officers liability insurance policies. At September 30, 2023, a premium financing agreement was payable in the initial amount of \$96,408 (prior to payment of a deposit of \$19,228 which was paid in May 2023), with interest at 8.99% per annum, in nine monthly installments of \$8,900. At September 30, 2023 and December 31, 2022, the aggregate amount of the short-term notes payable was \$26,311 and \$15,847 respectively.

### **5. Settlement and Payment Agreements**

On September 26, 2023, RespireRx entered into a Settlement and Exchange Agreement (“DNA Healthlink Agreement”) with DNA Healthlink, Inc. (“DNA Healthlink”), a vendor that provides the Company with the services of RespireRx’s Senior Vice President of Research and Development, Richard Purcell. Also on September 26, 2023, the Company and DNA Healthlink entered into the Second Amendment to Consulting Agreement (“Consulting Amendment”).

Pursuant to the terms of the Settlement Agreement, the parties agreed that the Company owed DNA Healthlink \$394,000 and that in settlement of \$50,000 of the \$394,000 owed, DNA Healthlink would be issued 250 shares of Series I 8% Redeemable Preferred Stock (“Series I Preferred Stock”) and 250 shares of Series J 8% Voting, Participating, Redeemable Preferred Stock (“Series J Preferred Stock”) and the amount owed would be reduced to \$344,000. The remaining amount of \$344,000 is payable upon the completion of an Eligible Payment Event as defined in the Certificate of Designation, Preferences, Rights and Limitations of the Series I Preferred Stock. If no Eligible Payment Event has occurred by May 31, 2025, then the remaining amount of \$344,000 less any amounts previously paid will be due and payable in seven equal monthly installments beginning June 1, 2025.

Pursuant to the terms of the Amendment, the RespireRx and DNA Healthlink agreed to amend the First Amendment to the Consulting Agreement dated October 15, 2014. The Consulting Amendment calls for RespireRx to prepay on a cash retainer basis, in installments of \$5,000 or other amounts agreed by both parties, against invoices to be rendered for work performed. An hourly rate of \$250 per hour is to be invoiced by DNA Healthlink no less frequently than monthly at which time such invoices will be deemed paid in whole or in part, as appropriate, until the \$5,000 prepayment has been applied against such invoices at which time an additional \$5,000 retainer will be remitted by the Company and the process will repeat.

The scope of the work is to be mutually agreed in advance in writing on a regular and as needed basis.

In addition, the Consulting Amendment defined the term to be one-year and shall be automatically renewed for one-year renewal periods unless notice of cancellation is provided by either party within 30 days of September 26, 2024 or within 30 days of the end of any renewal period.

Effective December 15, 2022, the Company and the Board of Trustees of the University of Illinois (“UIL”) entered into the Second Amendment to RespireRx -University of Illinois Exclusive License Agreement. The parties entered into the Second Amendment in order to eliminate accrued financial obligations to UIL and reduce future obligations. Annual \$100,000 payments by the Company to UIL were eliminated and the unpaid amounts totaling \$200,000 for calendar years 2021 and 2022 are no longer due and payable. Among other changes, the \$75,000 payment that was due after the dosing of the 1<sup>st</sup> patient in a Phase II study anywhere in the world is now reduced to \$10,000 and UIL has been given an extension in the term of the License and a deferred compensation obligation of RespireRx including the 4% royalty on net sales due to UIL has been extended for up to 8 years after the original patent rights expire by including a royalty on the net sales protected by a patent application submitted by the Company describing a new formulation of dronabinol. On August 3, 2023, the 2014 License Agreement inclusive of both amendments was sublicensed to RespireRx’s wholly-owned subsidiary, ResolutionRx. See Note 8. Commitments and Contingencies-Significant Agreements and Contracts-University of Illinois Exclusive License Agreement for more details.

Effective August 1, 2022, the Company and the Company’s former legal counsel, entered into a payment settlement agreement and release pursuant to which the Company and its former legal counsel agreed that the Company owed \$2,608,914 to such counsel and that under the terms of the agreement the amount owed and payable by wire transfer on or before December 30, 2022 was \$250,000. If that amount was paid on or before December 30, 2022, certain mutual releases would become effective and no further amounts would be due. If the \$250,000 amount was not paid by December 30, 2022, the section of the agreement related to mutual releases would be null and void ab initio and the amount immediately due and payable by the Company to its former counsel would be adjusted to \$2,608,914 less any amounts paid on or after the date of the agreement. The amount due by December 30, 2022 was not paid and the payment settlement agreement was amended to call for a payment of \$350,000 by February 15, 2023, which amount was also not paid. The Company and its former legal counsel are in discussions regarding further revised payment settlement terms. The amount due to the Company and its former legal counsel included in accounts payable as of September 30, 2023 is \$2,608,914.

Effective January 31, 2022, the Company’s former President and Chief Executive Officer and Member of the Board of Directors, Timothy Jones, resigned his officer positions as well as from the Board of Directors pursuant to an Employment Agreement Termination and Separation Agreement (“SA”) dated February 8, 2022. Pursuant to the terms of the SA, the Company has agreed to pay Mr. Jones up to a maximum of \$789,267 in accordance with a schedule set forth in the SA based on amounts of funding raised by the Company, all in payment for Mr. Jones’ service to the Company as President and Chief Executive Officer prior to January 31, 2022. All such amounts are included in accrued compensation as of September 30, 2023 and December 31, 2022. Mr. Jones did not resign because of any disagreement with the Company relating to the Company’s operations, policies or practices.

On April 29, 2021, RespireRx agreed to a payment and settlement agreement with the University of California Innovation and Entrepreneurship (“UIC”) with respect to accounts payable in an amount that was not in dispute and is reflected in accounts payable and accrued expenses in the Company’s condensed consolidated financial statements as of December 31, 2022 and June 30, 2023. The total amount due was \$234,657. The agreed payment schedule is for the Company to pay \$10,000 on each of July 1, 2021, September 1, 2021, November 1, 2021, January 1, 2022 and March 31, 2022. If RespireRx paid an aggregate of \$175,000 on or before March 31, 2022, the amounts would have been considered paid in full with no further amounts due. RespireRx has not made any payments after the September, 2021 payment. According to the terms of the agreement, if an aggregate of \$175,000 was not paid by March 31, 2022, the remaining unpaid amount up to an aggregate of the original amount of \$234,657 less any payments previously made would be due and payable. Payment was not made and the original amount of \$234,657 less the payments made up to September, 2021 have been recorded in accounts payable at September 30, 2023. The Company remains in discussions with an agent on behalf of UIC to establish a new payment settlement schedule.

On February 21, 2020, Sharp Clinical Services, Inc. (“Sharp”), a vendor of the Company, filed a complaint against the Company in the Superior Court of New Jersey Law Division, Bergen County related to a December 16, 2019 demand for payment of past due invoices inclusive of late fees totaling \$103,890. On May 29, 2020, a default was entered against the Company, and on September 4, 2020, a final judgment was entered against the Company in the amount of \$104,217. On March 3, 2021, we executed a settlement agreement with Sharp (the “Sharp Settlement Agreement”), and on March 9, 2021, Sharp requested of the Bergen (NJ) County Sheriff, the return of the Writ of Execution which resulted in a release of the lien in favor of Sharp. The Sharp Settlement Agreement calls for a payment schedule of ten \$10,000 payments due on April 1, 2021 and every other month thereafter, and permitted early settlement at \$75,000 if the Company had paid Sharp that lower total by August 1, 2021. The Company did not pay Sharp that lower amount by that date. The Company has recorded a liability to Sharp of \$53,568 as of September 30, 2023 after payments totaling \$30,000 pursuant to the Sharp Settlement Agreement in August, October and December 2021. The Company has not made the any of the payments due on or after October 1, 2021. On March 3, 2022, Company’s then counsel received a default notice from counsel to Sharp with respect to the Sharp Settlement Agreement, which stated that Sharp may exercise its remedies. Company’s then counsel communicated with counsel to Sharp. On March 28, 2022, one of the Company’s bank accounts was debited \$415 inclusive of fees for the benefit of Sharp.

By letter dated February 5, 2016, the Company received a demand from a law firm representing Salamandra, LLC (“Salamandra”) alleging an amount due and owing for unpaid services rendered. On January 18, 2017, following an arbitration proceeding, an arbitrator awarded Salamandra the full amount sought in arbitration of \$146,082. Additionally, the arbitrator granted Salamandra attorneys’ fees and costs of \$47,937. All such amounts have been accrued as of September 30, 2023, including accrued interest at 4.5% annually from February 26, 2018, the date of the judgment, through September 30, 2023, totaling \$43,376. The Company had previously entered into a settlement agreement with Salamandra that is no longer in effect. The Company believes that a lien with respect to the amounts owed is in effect.

By email dated July 21, 2016, the Company received a demand from an investment banking consulting firm that represented the Company in 2012 in conjunction with the Pier transaction alleging that \$225,000 is due and payable for investment banking services rendered. Such amount has been included in accrued expenses at September 30, 2023 and December 31, 2022.

The Company is periodically the subject of various pending and threatened legal actions and claims. In the opinion of management of the Company, adequate provision has been made in the Company’s condensed consolidated financial statements (unaudited) as of September 30, 2023 and consolidated financial statements as of December 31, 2022 with respect to such matters, including, specifically, the matters noted above. The Company intends to vigorously defend itself if any of the matters described above results in the filing of a lawsuit or formal claim.

## 6. Stockholders' Deficiency

### *Preferred Stock*

RespireRx has authorized a total of 5,000,000 shares of preferred stock, par value \$0.001 per share. As of September 30, 2023 and December 31, 2022, 37,500 shares were designated as Series B Convertible Preferred Stock (non-voting, "Series B Preferred Stock").

Series B Preferred Stock outstanding as of September 30, 2023 and December 31, 2022 consisted of 37,500 shares issued in a May 1991 private placement. The shares of Series B Preferred Stock are convertible into 1 share of common stock. RespireRx may redeem the Series B Preferred Stock for \$25,001 at any time upon 30 days prior notice.

As of September 30, 2023, there were 1,376 shares of Series H Preferred Stock designated and available for issuance.

On April 3, 2023, RespireRx authorized 3,500 shares of Series I 8% Redeemable Preferred Stock ("Series I Preferred Shares"), par value \$0.001 and stated value \$100.00. The Series I Preferred Shares pay an 8% dividend in-kind, are non-voting, redeemable and non-convertible. The Series I Preferred Stock is redeemable upon the occurrence of certain event(s). The redemption amount which is defined as the Eligible Payment is calculated as the Maximum Appreciated Price (unless a lesser price is agreed by RespireRx and the holder) which is \$0.02 multiplied by the number of shares of Common Stock corresponding to the number of Series I Preferred Shares divided by the Base Measurement Price of \$0.0015 multiplied by the stated amount. An Eligible Payment becomes payable upon the occurrence of an Eligible Payment Event. An Eligible Payment Event is caused by (i) any license, sublicense, joint venture or similar transaction resulting in an upfront payment of at least \$15,000,000, or (ii) any milestone payment with respect to research and development of at least \$15,000,000, or (iii) receipt of royalties in any one year of at least \$15,000,000 or (iv) any event resulting in RespireRx's receipt of an amount deemed by RespireRx's Board of Directors to establish an Eligible Payment Event. A Fundamental Event as defined in the Certificate of Designation, Preferences, Rights and Limitations of the Series I 8% Redeemable Preferred Stock may cause an Eligible Payment Event. Series I Preferred Shares have certain restrictions on transfer. Between April 5, 2023 and September 26, 2023, RespireRx sold or settled liabilities and issued 1,700 Series I Preferred Shares for \$170,000 which accrued \$3,037 of dividends in-kind through September 30, 2023, resulting in the issuance of an additional 30 Series I Preference Shares. Therefore, as of September 30, 2023, there were 1,730 Series I Preferred Shares outstanding and 1,770 Series I Preferred Shares available for issuance.

On April 12, 2023, RespireRx authorized 15,000 shares of Series J 8% Voting, Participating, Redeemable Preferred Stock ("Series J Preferred Shares"), par value \$0.001 and stated value \$100.00. The Series J Preferred Shares pay an 8% dividend in-kind, are voting, participating, redeemable and non-convertible. The Series J Preferred Stock is redeemable upon the occurrence of certain event(s). The redemption amount which is defined as the Eligible Payment is calculated as the Maximum Appreciated Price (which is the closing price per share of RespireRx's Common Stock or its equivalent on the date that is the Trading Day on which the Eligible Payment Event is publicly announced prior to the opening of the financial markets on such date, or the Trading Day following the public announcement of the Eligible Payment Event if announced after the opening of the financial markets on the date of the Eligible Payment Event) multiplied by the number of shares of Common Stock corresponding to the number of Series J Preferred Shares divided by the Base Measurement Price of \$0.006 multiplied by the stated value. An Eligible Payment becomes payable upon the occurrence of an Eligible Payment Event. An Eligible Payment Event is caused by (i) any license, sublicense, joint venture or similar transaction resulting in an upfront payment of at least \$20,000,000, or (ii) any milestone payment with respect to research and development of at least \$20,000,000, or (iii) receipt of royalties in any one year of at least \$20,000,000 or (iv) any event resulting in RespireRx's receipt of an amount deemed by the Corporation's Board of Directors to establish an Eligible Payment Event. A Fundamental Event as defined in the Certificate of Designation, Preferences, Rights and Limitations of the Series J 8% Redeemable Preferred Stock may cause an Eligible Payment Event. Series J Preferred Shares have certain restrictions on transfer. On April 12, 2023, in connection with the signing of one Exchange Agreement and two Exchange and Settlement Agreements with two executive officers of RespireRx who are also directors and one vendor who is an affiliate, (collectively the "Exchangers"), the Exchangers exchanged \$570,000 of accrued compensation or other liabilities owed to them for 5,700 Series J Preferred Shares and immediately completed permitted transfers of such shares to family trusts or affiliates. On September 26, 2023, a vendor settled \$25,000 of liabilities and received 250 shares of Series J Preferred Stock. The aggregate of 5,950 Series J Preferred Shares originally issued between April 12, 2023 and September 26, 2023 accrued dividends of \$21,390 from April 12, 2023 to September 30, 2023 resulting in the issuance of an additional 214 shares of Series J Preferred Stock. Therefore, as of September 30, 2023, there were 6,164 Series J Preferred Shares issued and outstanding and 8,837 Series J Preferred Shares available for issuance. No gain or loss was recorded on the exchange and settlement of the accrued compensation or other liabilities for the Series J Preferred Shares issued.

Although other series of preferred stock have been designated, no other shares of preferred stock are outstanding. As of September 30, 2023, 3,484,537 shares of preferred stock were undesignated and may be issued with such rights and powers as the Board of Directors may designate. As of December 31, 2022, 3,504,424 shares of preferred stock were undesignated.

### *Common Stock*

RespireRx has authorized 2,000,000,000 (2 billion) shares of Common Stock, par value \$0.001 ("Common Stock"). There are 298,328,647 shares of the Company's Common Stock outstanding as of September 30, 2023. The issued and outstanding shares of Common Stock as of September 30, 2023 included 133,639,999 shares of Common Stock issued upon conversion of convertible notes and 39,144,372 shares of Common Stock issued upon cashless exercise of warrants during the nine-month period ended September 30, 2023. After reserving for conversions of convertible debt and convertible preferred stock, as well as exercises of common stock purchase options (granted and available for grant within the 2014 and 2015 stock and stock option plans) and warrants and the issuance of Pier contingent shares and before accounting for incremental contract excess reserves, there were 630,558,175 shares of the Company's Common Stock available for future issuances as of September 30, 2023. No options were exercised during the nine-month period ended September 30, 2023. Options exercisable into 31,039 shares of Common Stock expired during the nine-month period ended September 30, 2023. During the three-month and nine-month periods ended September 30, 2023, warrants exercisable into 0 and a total of 74,100,000 shares of Common Stock if exercised on a cash basis were exercised on a cashless basis resulting in the issuance of 0 shares of Common Stock during the three-month period ended September 30, 2023 and a total of 39,144,372 for the nine-month period ended September 30, 2023. Warrants exercisable into 33,401,107 shares of Common Stock expired during the nine-month period ended September 30, 2023. No options or warrants were exercised after September 30, 2023. After September 30, 2023, three convertible note holders of notes with substantially similar attributes converted \$96,712 of principal, \$2,923 of interest, \$1,000 of conversion fees for a total of \$100,635, into 67,090,000 shares of Common Stock at a conversion price, in each case of \$0.0015 per share of Common Stock.





Common Stock Warrants

A summary of warrant activity for the nine-months ended September 30, 2023 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Warrants outstanding at December 31, 2022	419,683,183	\$ 0.0074	3.38
Exercised	(74,100,000)	0.0015	-
Issued	83,333,333	-	4.65
Expired	(33,401,307)	-	-
Warrants outstanding and exercisable at September 30, 2023	395,515,209	\$ 0.0023	3.26

The exercise prices of common stock warrants outstanding and exercisable are as follows at September 30, 2023:

Exercise Price	Warrants Outstanding and Exercisable (Shares)	Expiration Date
\$ 0.0015	395,115,641	March 31, 2026-May 22, 2028
\$ 0.03890	208,227	May 10, 2026
\$ 0.0470	172,341	May 3, 2026
\$ 15.0000	19,000	December 30, 2023
	395,515,209	

Based on a value of \$0.0011 per share on September 30, 2023, there were no exercisable in-the-money common stock warrants as of September 30, 2023.

A summary of warrant activity for the nine-months ended September 30, 2022 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Warrants outstanding at December 31, 2021	59,420,298	\$ 0.0718	3.3300
Issued or repriced as a result of most favored nation provisions	187,927,001	0.0022	3.7392
Expired	(2,317,150)	(0.5121)	-
Warrants outstanding and exercisable at September 30, 2022	245,030,149	\$ 0.0130	3.6753

The exercise prices of common stock warrants outstanding and exercisable are as follows at September 30, 2022:

Exercise Price	Warrants Outstanding and Exercisable (Shares)	Expiration Date
\$ 0.0015	171,852,001	August 31, 2026-April 14, 2027
\$ 0.0100	46,450,000	September 30, 2023-April 14, 2027
\$ 0.0200	927,273	September 30, 2023
\$ 0.03890	208,227	May 10, 2026
\$ 0.0470	172,341	May 3, 2026
\$ 0.0700	25,377,426	September 30, 2023
\$ 15.0000 -15.7500	42,881	September 29, 2022-December 30, 2023
	<u>245,030,149</u>	

Based on a value of \$0.0088 per share on September 30, 2022, there were 171,852,001 exercisable in-the-money common stock warrants as of September 30, 2022.

Stock Options

On March 18, 2014, the stockholders of RespireRx holding a majority of the votes to be cast on the issue approved the adoption of RespireRx’s 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan (the “2014 Plan”), which had been previously adopted by the Board of Directors, subject to stockholder approval. The Plan permits the grant of options and restricted stock in addition to stock appreciation rights and phantom stock, to directors, officers, employees, consultants and other service providers of the Company. As of September 30, 2023, there are 6,325 shares available in the 2014 Plan.

The 2014 Plan has provisions for the issuance of stock appreciation rights and phantom stock. On June 7, 2023, phantom stock awards (“Phantom Stock Awards”) totaling 306,000,000 shares of phantom stock (“Phantom Stock”) were made to certain officer and directors and vendors, consultants and advisors. Shares of phantom stock are not convertible into Common Stock and therefore, no reserves were established for such awards. See Note 8. Commitments and Contingencies - *Phantom Stock* for a description of the phantom stock awarded on June 7, 2023.

On June 30, 2015, the Board of Directors adopted the 2015 Stock and Stock Option Plan (as amended, the “2015 Plan”). As of September 30, 2023, there are 13,701,149 shares available in the 2015 Plan. The Company has not and does not intend to present the 2015 Plan to stockholders for approval.

Information with respect to the Black-Scholes variables used in connection with the evaluation of the fair value of stock-based compensation costs and fees is provided at Note 3.

A summary of stock option activity for the nine-months ended September 30, 2023 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Options outstanding at December 31, 2022	9,199,356	\$ 0.592	3.74
Expired	(31,039)	11.200	-
Options outstanding and exercisable at September 30, 2023	<u>9,168,317</u>	<u>\$ 0.556</u>	<u>2.25</u>

The exercise prices of common stock options outstanding and exercisable were as follows at September 30, 2023:

Options Outstanding and Exercisable		
Exercise Price	(Shares)	Expiration Date
\$ 0.0190	2,194,444	December 31, 2026
\$ 0.0540	1,700,000	September 30, 2025
\$ 0.072	5,050,000	July 31, 2025
\$ 7.00-159.25	223,873	November 21, 2023 - December 9, 2027
	9,168,317	

There was no deferred compensation expense as there were no outstanding and unvested stock options at September 30, 2023.

Based on a fair value of \$0.0011 per share on September 30, 2023, there were no exercisable in-the-money common stock options as of September 30, 2023.

The exercise prices of common stock options outstanding and exercisable were as follows at September 30, 2022:

Options Outstanding and Exercisable		
Exercise Price	(Shares)	Expiration Date
\$ 0.0190	2,194,444	December 31, 2026
\$ 0.0540	1,700,000	September 30, 2025
\$ 0.072	5,050,000	July 31, 2025
\$ 7.00-\$159.25	256,588	December 7, 2022 - December 9, 2027
	9,201,032	

There was no deferred compensation expense for the outstanding and unvested stock options at September 30, 2022.

Based on a fair value of \$0.0088 per share on September 30, 2022, there were no exercisable in-the-money common stock options as of September 30, 2022.

***Reserved and Unreserved Shares of Common Stock***

As of September 30, 2023, there are 2,000,000,000 shares of Common Stock, par value \$0.001 authorized, of which 298,328,647 are issued and outstanding. As of September 30, 2023, there were outstanding options to purchase 9,168,317 shares of Common Stock and 6,325 and 13,701,149 shares available for issuance under the 2014 Plan and 2015 Plan respectively. There are 649 Pier contingent shares of Common Stock that may be issued under certain circumstances. As of September 30, 2023, there are 652,721,529 issuable upon conversion of convertible notes. As of September 30, 2023, there are 395,515,209 shares that may be issued upon exercise of outstanding warrants. As of September 30, 2023, the Series B Preferred Stock may convert into 1 share of Common Stock. Therefore, RespireRx is reserving 1,071,113,178 shares of Common Stock for future issuances with respect to conversions and exercises as well as for the Pier contingent shares. In addition, certain convertible notes and related warrants impose an additional contractual reserve requirement, above the number of shares into which such convertible notes and related warrants may convert or exercise respectively. Neither the Series I Preferred Shares nor the Series J Preferred Shares are convertible into Common Stock and therefore, no reserves have been created. Shares of Phantom Stock described above and in Note 8. Commitments and Contingencies- *Phantom Stock*, are not convertible into Common Stock and therefore, no reserves were established for such awards.

## 7. Related Party Transactions

Dr. Arnold S. Lippa and Jeff E. Margolis, officers and directors of RespireRx since March 22, 2013, have indirect ownership and managing membership interests in Aurora Capital LLC (“Aurora”) through interests held in its members, and Jeff. E. Margolis is also an officer of Aurora. Aurora, was a boutique investment banking firm specializing in the life sciences sector that ceased its securities related activities in April 2021 and withdrew its membership with FINRA and its registration with the SEC in July 2021. Although Aurora has not provided services to RespireRx during the nine-months ended September 30, 2023 or the fiscal year ended December 31, 2022, Aurora had previously provided services to RespireRx and there remains \$96,000 owed to Aurora by RespireRx which amount is included in accounts payable and accrued expenses as September 30, 2023.

A description of advances and notes payable to officers is provided at Note 4. Notes Payable.

## 8. Commitments and Contingencies

### *Series I Preferred Stock*

See Note 6. Stockholders’ Deficiency – *Preferred Stock*.

### *Series J Preferred Stock*

See Note 6. Stockholders’ Deficiency – *Preferred Stock*.

### *Phantom Stock*

The features and terms of the Phantom Stock are delineated in Phantom Stock Award Agreements (“Phantom Stock Award Agreements”) which describe that the shares of Phantom Stock that were awarded are non-forfeitable but unvested on the award date which was June 7, 2023 and vest as to the economic value of 50% of the shares of Phantom Stock awarded on the first event payment date (“First Event Payment Date”) and as to the economic value of 50% of the shares of Phantom Stock awarded on the second event payment date (“Second Event Payment Date”). The Phantom Stock Award Agreements terminate on the earlier of the payment to the participant (“Participant”) as a result of the second event or the 15<sup>th</sup> anniversary of the Phantom Stock Award Agreement.

Shares of Phantom Stock are not convertible, exercisable or exchangeable into RespireRx’s Common Stock.

Upon the occurrence of a payment Event (“Payment Event”), RespireRx will incur a liability to each Participant that is to be remitted as a cash payment (“Payment”), subject to certain limitations as described below, equal to: (x) the number of vested shares of Phantom Stock held by such Participant, multiplied by (y) the fair market value which on any given day is the value of one share of Common Stock.

The Payment, subject to any limitations, shall be made within thirty (30) days after receipt of funds by RespireRx as a result of the Payment Event, and all of such Participant’s shares of Phantom stock that vested as a result of the Payment Date Event shall terminate and be cancelled upon the payment, and the Participant shall have no further rights in respect of that portion of Participant’s shares of Phantom Stock other than rights to receive any unpaid portion of the Payment that was limited by any limitations described below. Any Payment due to a Participant is subject to the execution and non-revocation of general release of claims, in a form provided by RespireRx, and continuous compliance with any restrictive covenant agreement, confidentiality agreement or other agreement entered into between the Participant and RespireRx or its subsidiaries and affiliates.

A Payment Event is a monetization event with an unrelated, unaffiliated third party, such as a sale of all or substantially all of an asset, the entering into a joint venture, license or sublicense or a similar transaction structure, that is not an equity or similar or debt investment in RespireRx or a subsidiary unless such equity or similar investment results in an unrelated, unaffiliated third party or group of parties acting together, resulting in such party or parties owning more than a 50% voting interest in RespireRx or a subsidiary and resulting in payments aggregating at least \$25,000,000 within a twelve month period to RespireRx. The Payment Event Date, as defined in the Phantom Stock Award Agreement is the first date within twelve months of receipt by RespireRx of cash resulting from a Payment Event, on which RespireRx has received, in the aggregate, at least \$25,000,000. The First Payment Event Date shall occur when the first Payment Event has achieved a Payment Event Date at which time a payment is due to the Participant. Similarly, the Second Payment Event Date occurs when the second Payment Event has reached a Payment Event Date at which time a payment is due to the Participant. If two or more of the Company’s assets or platforms or subsidiaries are the subject of a single transaction or series of related transactions, such transactions or series of transactions shall be deemed to represent two Payment Events and the payments to the Company within a twelve-month period as described above would be required to aggregate at least \$50,000,000.

If the calculation of the payment based on the definition of Fair Market Value, exceeds 50% the amount of cash received by RespireRx with respect to a Payment Event, an initial payment shall be limited to 50% of the cash received by RespireRx with respect to the Payment Event and the unpaid balance shall be carried as a liability due to the Participant to be added to the payment amount of the Second Payment Event, subject to the same limitation. Any remaining liability resulting from the payment amount limitation described in this section after the Second Payment Event shall be reduced to that amount agreed in good faith by the Participant and RespireRx and if no amount can be agreed within ninety (90) days, shall be determined by mediation.

Other than adjustments for stock splits, reverse stock splits, stock dividends and similar recapitalizations, the Phantom Stock Award Agreements do not provide for distributions or anti-dilution protections.

Nothing contained in the Phantom Stock Award Agreements or RespireRx’s 2014 Equity Plan shall prevent RespireRx from adopting or continuing in effect other compensation arrangements.

Jeff Margolis, and Arnold Lippa, each an officer and a director of RespireRx received awards of 120,000,000 and 70,000,000 shares of Phantom Stock, respectively. Our independent director, Joseph R. Siegelbaum was awarded 20,000,000 shares of Phantom Stock. The remaining 96,000,000 of shares of Phantom Stock awarded were awarded to five vendors, consultants, advisors or their designees, one of which is an affiliate. A total of 306,000,000 shares of Phantom Stock were awarded on June 7, 2023. Jeff Margolis and Arnold Lippa immediately transferred all of their shares of Phantom Stock to family trusts in accordance with the terms of the 2014 Plan.

The value of the Phantom Stock Awards cannot be determined at this time and can only be estimated or determined upon the occurrence of a Payment Event. Therefore, no amount has been recorded as a commitment or contingency. When or if a Payment Event occurs, an amount will be estimable or determinable and such amount will be recorded as a change in an estimate.

***Pending or Threatened Legal Action and Claims***

The Company is periodically the subject of various pending and threatened legal actions and claims. In the opinion of management of the Company, adequate provision has been made in the Company’s condensed consolidated financial statements (unaudited) as of September 30, 2023, consolidated financial statements as of December 31, 2022 and condensed consolidated financial statements (unaudited) as of September 30, 2022 with respect to such matters. See Note 5. Settlement and Payment Agreements for additional items and details.

***Significant Agreements and Contracts***

**Consulting Agreements**

Richard Purcell, RespireRx’s Senior Vice President of Research and Development since October 15, 2014, has provided his services to RespireRx on an at will and month-to-month basis. On September 26, 2023 RespireRx and DNA Heathlink into the Second Amendment to Consulting Agreement (“Second Consulting Amendment”) and a Payment and Settlement Agreement (“DNA Healthlink Payment and Settlement Agreement”).

Pursuant to the terms of the DNA Healthlink Payment and Settlement Agreement, the parties agreed that RespireRx owed DNA Healthlink \$394,000 and that in settlement of \$50,000 of the \$394,000 owed, DNA Healthlink would be issued 250 shares of Series I 8% Redeemable Preferred Stock (“Series I Preferred Stock”) and 250 shares of Series J 8% Voting, Participating, Redeemable Preferred Stock (“Series J Preferred Stock”) and the amount owed would be reduced to \$344,000. The remaining amount of \$344,000 is payable upon the completion of an Eligible Payment Event as defined in the Certificate of Designation, Preferences, Rights and Limitations of the Series I Preferred Stock. If no Eligible Payment Event has occurred by May 31, 2025, then the remaining amount of \$344,000 less any amounts previously paid will be due and payable in seven equal monthly installments beginning June 1, 2025.

Pursuant to the terms of the Second Consulting Amendment, the Company and DNA Healthlink agreed to amend the First Amendment to the Consulting Agreement dated October 15, 2014 by calling for the Company to prepay on a cash retainer basis, in installments of \$5,000 or other amounts agreed by both parties, against invoices to be rendered for work performed. An hourly rate of \$250 per hour is to be invoiced by DNA Healthlink no less frequently than monthly at which time such invoices will be deemed paid in whole or in part, as appropriate, until the \$5,000 prepayment has been applied against such invoices at which time an additional \$5,000 retainer will be remitted by the Company and the process will repeat.

The scope of the work is to be mutually agreed in advance in writing on a regular and as needed basis.

In addition, the Second Consulting Amendment established a term which was defined to be one-year and shall be automatically renewed for one-year renewal periods unless notice of cancellation is provided by either party within 30 days of September 26, 2024 or within 30 days of the end of any renewal period.

During the nine-month period ended September 30, 2023 and the year ended December 31, 2022, Mr. Purcell did not provide any services to RespireRx. With the Second Consulting Amendment and the DNA Healthlink Payment and Settlement Agreement, the Company anticipates that Mr. Purcell will provide services to the Company during the fiscal year ending December 31, 2023.

RespireRx entered into a consulting contract with David Dickason effective September 15, 2020 pursuant to which Mr. Dickason was appointed to and serves as RespireRx’s Senior Vice President of Pre-Clinical Product Development on an at-will basis at the rate of \$250 per hour. During the nine-month periods ended September 30, 2023 and 2022, Mr. Dickason did not provide any services to RespireRx.

### **Employment Agreements**

Effective on May 6, 2020, Timothy Jones was appointed as RespireRx’s President and Chief Executive Officer and entered into an employment agreement as of that date. Effective January 31 2022, Mr. Jones resigned as RespireRx’s President and Chief Executive Officer as well as a member of RespireRx’s Board of Directors pursuant to an Employment Agreement Termination and Separation Agreement dated February 8, 2022. See Note 5. Payment and Settlement Agreements.

Effective January 31, 2022, Dr. Lippa was appointed as RespireRx’s Interim President and Interim Chief Executive Officer (“CEO”). Dr. Lippa continues to serve as RespireRx’s Executive Chairman and as a member of the Board of Directors as well as the Company’s Chief Scientific Officer (“CSO”). Effective January 11, 2023, Dr. Lippa was appointed as ResolutionRx’s Co-CEO and CSO and is a director of ResolutionRx.

Jeff E. Margolis currently serves as RespireRx’s Senior Vice President, Chief Financial Officer, Treasurer and Secretary. Mr. Margolis also serves on RespireRx’s Board of Directors. Effective January 11, 2023, Mr. Margolis was appointed as ResolutionRx’s Co-CEO and Senior Financial Officer and is a director of ResolutionRx.

The table below summarized the current cash commitments to Dr. Lippa and Mr. Margolis through the next September 30<sup>th</sup> renewal date.

	Contract year ending September 30, 2024 Twelve months		
	Base Salary	Benefits	Total
Arnold S. Lippa	\$ 300,000	\$ 39,600	\$ 339,600
Jeff E. Margolis	300,000	21,600	321,600
	<u>\$ 600,000</u>	<u>\$ 61,200</u>	<u>\$ 661,200</u>

Under certain circumstances base salaries may be contractually increased or the executives may become eligible for additional benefits and base salaries may be increased at the discretion of the Board of Directors. All executives are eligible for stock and stock option and similar grants at the discretion of the Board or Directors.

The payment of certain amounts reflected in the table above have been voluntarily deferred indefinitely and payments against accrued compensation may be made based upon RespireRx’s ability to make such payments.

**ResolutionRx Services Agreement with iGENu CRO Pty Ltd**

On February 27, 2023, ResolutionRx entered into a services agreement (“Australian CRO Agreement) with iGENu CRO Pty Ltd (iGENu), a contract research organization (“CRO”), pursuant to which iGENu is to act as a full service CRO in support of ResolutionRx’s R&D program, including but not limited (a) preparing and (b) submitting regulatory documents and designing and conducting clinical trials. Under the Agreement, ResolutionRx was required to make a US\$50,000 deposit which was paid. The deposit is to be applied to the final research and development budget which has been agreed by the parties. It also provides for mutual indemnifications, describes the relationship of the parties and that ResolutionRx retains ownership of all intellectual property and provides for confidentiality.

**ResolutionRx Master Services Agreement with Ab Initio**

On October 9, 2023, ResolutionRx Ltd (“ResolutionRx”) a wholly owned Australian, public, unlisted subsidiary of RespireRx Pharmaceuticals Inc. (“RespireRx” or the “Company”) entered into a Master Services Agreement (“MSA”) with Ab Initio Pharma Pty Ltd, (“Ab Initio”) an Australian company for Ab Initio to manufacture, formulate, test and supply ResolutionRx with therapeutic drugs based on lipid nanoparticle technology licensed from RespireRx to ResolutionRx.

The initial services relate to ResolutionRx’s repurposing of dronabinol and its development program for obstructive sleep apnea pursuant to which Ab Initio will, among other things, manufacture and test our new dronabinol lipid nanoparticle formulation for pharmacokinetic, pharmacodynamic, and pivotal clinical trials as well as ultimately for commercialization.

The initial term of the MSA is two years and automatically renews for one-year periods unless ResolutionRx provides written notice to Ab Initio of its intent not to renew at least ninety days prior to the end of the initial term or any renewal term.

The services to be provided are set forth in a work order attached as a schedule to the MSA.

The MSA also provides for mutual indemnifications, describes the relationship of the parties and that ResolutionRx retains ownership of all intellectual property and provides for confidentiality.



## License Agreement with ResolutionRx Ltd

On August 3, 2023, RespireRx (“Licensor”) and ResolutionRx (“Licensee”), its wholly-owned, unlisted, public Australian subsidiary entered into a License Agreement (“License Agreement”) pursuant to which, RespireRx has licensed to ResolutionRx, the Intellectual Property (“Licensed IP” as defined in the License Agreement) which includes the Patent Rights (“Patent Rights” as defined in the License Agreement). The License (“License”) is an exclusive, worldwide and royalty-free license during the Term to use and exploit the Licensed IP in connection with ResolutionRx’s business and operations, including commercial and non-commercial purposes, with the exception that RespireRx shall have the exclusive right to use the technology described in the Licensed IP for non-cannabinoid products. ResolutionRx shall use its best efforts to commercialize the Licensed IP.

The Licensed IP is basically, the intellectual property and patent rights, identified in Schedule A of the License Agreement and is associated with the new dronabinol formulation initially to be developed for the treatment of obstructive sleep apnea.

The consideration for the License and the related Sublicense (see *Sublicense Agreement between RespireRx Pharmaceuticals Inc. and ResolutionRx Ltd* and *Share Transfer Agreement* below) is the issuance of 25,000,000 Ordinary Shares of ResolutionRx to RespireRx plus the payment of US\$1 to RespireRx.

Licensee shall not sublicense any of its rights and/or obligations under the License Agreement without the prior written consent of Licensor, except to contract manufacturers, distributors and other third parties engaged by Licensee pursuant to the normal course of Licensee’s business (the “Sublicensees”) on terms consistent with and not in conflict with this License Agreement, and in no event less protective of Licensor’s rights than those set forth in the License Agreement. Such agreements with Sublicensees shall terminate upon termination of this License Agreement.

The Licensor shall be responsible for patent prosecution and maintenance and Licensee shall promptly either pay directly or reimburse Licensor’s costs in each jurisdiction. ResolutionRx as Licensee, at its option may control prosecution and maintenance of the Patent Rights.

The License Agreement also addresses how the parties are to deal with interferences, if any.

All unpublished information is to be treated confidentially.

ResolutionRx acknowledges in the License Agreement, that RespireRx is the owner of all right, title and interest in and to the Licensed IP, including all modifications, enhancements, improvements and other derivative works (“Modifications”). All Modifications are Licensed IP immediately upon their creation.

Licensee shall promptly notify Licensor of any actual or potential infringement, counterfeiting, or other unauthorized use of the Licensed IP by any other person or entity of which Licensee becomes aware. Licensor shall have the right, but not obligation, in its sole discretion, to enforce its rights in the Licensed IP, including to bring action with respect to any infringement of the Licensed IP.

With respect to the Licensed Patents, the term of the License Agreement shall commence as of the Effective Date, as defined in the License Agreement, and shall be effective until the last of the Licensed Patents, as defined in the License Agreement, expires (the “Patent Term”). With respect to the Licensed IP but excluding the Licensed Patents, the initial term of this License Agreement shall commence as of the Effective Date and shall be effective for a period of two (2) years (the “Initial Term”) and shall automatically be renewed for successive annual terms (each a “Renewal Term”) unless Licensee gives written notice to the Licensor of its intent not to renew at least sixty (60) days prior to the end of the Initial Term or then current Renewal Term, as applicable.

Licensee and Licensor have indemnified one another.

The License Agreement is governed by and construed in accordance with Delaware Law, without regard to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction).

**Sublicense Agreement with ResolutionRx Ltd**

On August 3, 2023, RespireRx as sublicensor (“Sublicensor”) and ResolutionRx as sublicensee (“Sublicensee”), entered into a Sublicense Agreement (“Sublicense Agreement”) whereby Sublicensor, sublicensed the rights to its Exclusive License Agreement with The Board of Trustees of the University of Illinois, a body corporate and politic of the State of Illinois (“University”), effective June 27, 2014 (the “Original License”) and amended via that certain letter amendment, effective August 2, 2017 (the “Letter Amendment”) and that certain Second Amendment to RespireRx-University of Illinois Exclusive License Agreement, effective December 15, 2022 (the “Second Amendment,” and collectively with the Original License and Letter Amendment, the “Exclusive License” which is the same as the 2014 License Agreement described elsewhere in our condensed consolidated financial statements (unaudited) as of September 30, 2023), pursuant to which the University granted to RespireRx certain rights and licenses.

The Exclusive License permits Sublicensor to grant written sublicenses of its rights under the Exclusive License.

The consideration for the Sublicense and the related License (see *License Agreement between RespireRx Pharmaceuticals Inc. and ResolutionRx Ltd* above and *Share Transfer Agreement* below) is the issuance of 25,000,000 Ordinary Shares of ResolutionRx to RespireRx plus the payment of US\$1 to RespireRx.

The Sublicense is essentially a direct pass-through of all of the rights and obligations associated with the Exclusive License from RespireRx as Sublicensor to ResolutionRx as Sublicensee.

The Sublicense expires upon the termination of the Exclusive License.

**Stock Transfer Agreement with ResolutionRx Ltd**

On August 3, 2023, ResolutionRx as transferor (“Transferor”) and RespireRx as transferee (“Transferee”) entered into a Stock Transfer Agreement (“Stock Transfer Agreement”) whereby the Transferor and Transferee agreed that Transferor which has the authority under its Constitution to issue the 25,000,000 Ordinary Shares that are set out in the Stock Transfer Agreement, transfers absolutely, all title over the Ordinary Shares to the Transferee in consideration of the License Agreement and the Sublicense Agreement.

**Master Intercompany Services Agreement with ResolutionRx Ltd**

On August 3, 2023, RespireRx as the provider of services (“Provider”) and ResolutionRx as the recipient of services (“Recipient”) entered into a Master Intercompany Services Agreement (“MISA”). As of the date of the MISA, ResolutionRx was a wholly-owned Australian unlisted public subsidiary of RespireRx.

Provider performs certain support activities in the form of both general and administrative and research and development support in the execution of the business operations of Recipient.

The initial term of the MISA is from August 3, 2023 for two years. The MISA automatically renews for successive one-year periods unless Recipient gives written notice to Provider of its intent not to renew at least ninety days prior the end of the initial term or any renewal term.

Provider will provide the services as set forth on Schedule A of the MISA on an ongoing basis as well as such further services as Recipient and Provider may specifically agree upon from time to time (the “Services”). As noted on Schedule A, and for clarity, Recipient specifically agrees to remit to Provider for the Services or components (“Components”) of the Services until such time as the Components are no longer required and when such Components are provided by a party in Australia other than Provider, or such Components are no longer subcontracted for by Provider and Provider agrees to no longer provide such Components or Services.

The MISA also describes the selection of personnel and subcontracting.

Provider will invoice Recipient for the Services to be performed on a quarterly basis (based on the fiscal year of Recipient) with such invoices to be issued, in advance, for Services to be rendered in the quarter following the date of each such invoice.

Recipient will pay Provider a fee (“Fee”) as set forth on Schedule B of the MISA, which may be amended by the Parties from time to time. Only those costs and expenses wholly and exclusively or otherwise properly attributed to the provision and coordination of provision of the Services will be included in the calculation of the Fee. Fees are payable in US dollars unless otherwise agreed by the parties.

Annually, based on the fiscal year of Recipient, Provider must deliver to Recipient its budget for the costs and expenses it reasonably believes will be incurred in the provision of the Services (“Budget”) which amounts may be increased by written agreement of Recipient and Provider.

The Recipient and the Provider have each indemnified one another. The MISA also establishes confidentiality provisions.

#### **UWMRF Patent License Agreement**

On August 1, 2020, RespireRx exercised its option pursuant to its option agreement dated March 2, 2020, between RespireRx and UWM Research Foundation, an affiliate of the University of Wisconsin-Milwaukee (“UWMRF”). Upon exercise, RespireRx and UWMRF executed the UWMRF Patent License Agreement effective August 1, 2020 pursuant to which RespireRx licensed the identified intellectual property.

Under the UWMRF Patent License Agreement, RespireRx has an exclusive license to commercialize GABAkine products based on UWMRF’s rights in certain patents and patent applications, and a non-exclusive license to commercialize products based on UWMRF’s rights in certain technology that is not the subject of the patents or patent applications. UWMRF maintains the right to use, and, upon the approval of RespireRx, to license, these patent and technology rights for any non-commercial purpose, including research and education. The UWMRF Patent License Agreement expires upon the later of the expiration of RespireRx’s payment obligations to UWMRF or the expiration of the last remaining licensed patent granted thereunder, subject to early termination upon the occurrence of certain events. The License Agreement also contains a standard indemnification provision in favor of UWMRF and confidentiality provisions obligating both parties.

Under the UWMRF Patent License Agreement, in consideration for the licenses granted, RespireRx will pay to UWMRF the following: (i) patent filing and prosecution costs incurred by UWMRF prior to the effective date, paid in yearly installments over three years from the Effective Date; (ii) annual maintenance fees, beginning on the second anniversary of the Effective Date, which annual maintenance fees terminate upon RespireRx’s payment of royalties pursuant to clause (iv) below; (iii) milestone payments, paid upon the occurrence of certain dosing events of patients during clinical trials and certain approvals by the FDA; and (iv) royalties on net sales of products developed with the licenses, subject to minimum annual payments and to royalty rate adjustments based on whether separate royalty payments by RespireRx yield an aggregate rate beyond a stated threshold. RespireRx will pay to UWMRF certain percentages of revenues generated from sublicenses of the licenses provided under the UWMRF Patent License Agreement by RespireRx to third parties.

Certain payments under the UWMRF Patent License Agreement have not been paid by RespireRx. RespireRx is in regular discussions with UWMRF regarding when RespireRx may be able to commence making payments. RespireRx has not received a notification of default either during or before the nine-month period ended September 30, 2023 or in any subsequent periods. All amounts due under the UWMRF Patent License Agreement are reflected in the Company’s condensed consolidated financial statements as of September 30, 2023 and December 31, 2022 in accounts payable and accrued expenses.

### **University of Wisconsin-Milwaukee Outreach Services Agreement**

On July 12, 2021, RespireRx and the Board of Regents of the University of Wisconsin System on behalf of the University of Wisconsin-Milwaukee (“UWM”) entered into an Outreach Services Agreement pursuant to which UWM agreed to provide, among other molecules, multiple milligram to gram quantities of KRM-II-81 (GABAkine) and RespireRx agreed to pay UWM an annual sum of \$75,000 payable in three installments of \$25,000 each beginning October 12, 2021, which amount was timely paid, and on a quarterly basis thereafter. The payments that were due on January 12, 2022 and April 12, 2022 have not yet been paid. The agreement terminated on June 30, 2022. Amounts due totaling \$50,000 on January 12, 2022 and April 12, 2022 are recorded in accounts payable as of September 30, 2023 and December 31, 2022. Payment of \$35,185 comprised of \$30,185, which is 50% of the patent fees identified in the license, and \$5,000 annual maintenance fee were due but unpaid as of September 30, 2023.

### **University of Illinois 2014 Exclusive License Agreement**

On June 27, 2014, RespireRx entered into an Exclusive License Agreement (the “2014 License Agreement”) with the University of Illinois, the material terms of which were similar to a License Agreement between the parties that had been previously terminated on March 21, 2013. The 2014 License Agreement became effective on September 18, 2014, upon the completion of certain conditions set forth in the 2014 License Agreement, including: (i) the payment by RespireRx of a \$25,000 licensing fee, (ii) the payment by RespireRx of outstanding patent costs aggregating \$15,840, and (iii) the assignment to the University of Illinois of rights RespireRx held in certain patent applications, all of which conditions were fulfilled. The 2014 License Agreement was amended on July 25, 2017 and effective December 15, 2022, the first amendment was to extend certain timeframes and the second amendment represented an extensive set of modifications (“2<sup>nd</sup> Amendment”).

The 2014 License Agreement granted RespireRx (i) exclusive rights to several issued and pending patents in numerous jurisdictions and (ii) the non-exclusive right to certain technical information that is generated by the University of Illinois in connection with certain clinical trials as specified in the 2014 License Agreement, all of which relate to the use of cannabinoids for the treatment of sleep related breathing disorders. The Company is developing dronabinol ( $\Delta^9$ -tetrahydrocannabinol), a cannabinoid, for the treatment of OSA, the most common form of sleep apnea.

Among other things, the 2<sup>nd</sup> Amendment redefined the term “Product” primarily to include in the definition, any product or process that would be enforceable under the licensed patent rights after the patent rights have expired. In addition, new definitions were added for “Deferred Compensation Annual Net Sales Payments” and “Deferred Compensation Minimum Payment(s),” both of which only become due and payable after the expiration of the patent rights and shall not be due and payable while any of the patent rights have not yet expired. These deferred compensation arrangements were in consideration for deferment of certain financial obligations. The deferred payments are due for eight years from the first commercial sale of a regulatory approved product but after the patent rights have expired. The 2<sup>nd</sup> Amendment also modified the term to the period of time from the effective date until the later of the date: (a) of the last to lapse, expire or terminate of the patent rights or (b) when the licensee (RespireRx) provides notice that the use of technical information as defined in the 2014 License Agreement as amended has ceased or (c) of the expiration of the last form of market exclusivity or (d) of the last date in which the Licensee (RespireRx) owes payments to the University. The 2<sup>nd</sup> Amendment amended and clarified Schedule 2 to the 2014 License Agreement, as amended by among other things, by (i) including a 4% royalty on Net Sales by the Licensee or sublicensee as Deferred Compensation Annual License Payments

The 2014 License Agreement provides for various commercialization and reporting requirements commencing on June 30, 2015. In addition, the 2014 License Agreement provides for various royalty payments, including a royalty on net sales of 4%, payment on sub-licensee revenues of 12.5%, and a minimum annual royalty beginning in 2015 of \$100,000, which is due and payable on December 31 of each year beginning on December 31, 2015. The minimum annual royalty obligation of \$100,000 due on December 31, 2021, was extended to May 31, 2022 and then further extended to an indefinite future date while discussions to amend the obligation are taking place. The minimum annual royalty obligation due on December 31, 2021 has not yet been paid. What was the \$100,000 annual minimum that existed from inception through December 31, 2020 was eliminated and therefore the amounts previously recorded in accounts payable and accrued expenses, were reduced to \$0. The annual minimum amount due the first year with a market approval from the US FDA (United States Food and Drug Administration) or a foreign equivalent and every year thereafter until the first commercial sale of \$350,000 of a product replaced two similarly timed payments of \$150,000 and \$200,000. The first year with a commercial sale of a product and every year thereafter is now \$400,000 whereas it was previously \$250,000 after the first year of commercial sale. One time milestone payments have been changed to read as follows:

- (i) \$10,000 due within 5 days after dosing of the first patient with a product in a Phase II human clinical study anywhere in the world.
- (ii) \$150,000 due within 5 days after dosing of the first patient with a product in a Phase III human clinical study anywhere in the world.
- (iii) \$350,000 due within 5 days after the earlier date of the following (a) enrolling 80% of the patients with a product in the Phase III human clinical study anywhere in the world, (b) one year after the initiation of the Phase III human clinical study anywhere in the world, or (c) termination of the Phase III human clinical study anywhere in the world.
- (iv) \$500,000 due within 5 days after the first NDA (New Drug Application) filed with the US FDA or any other foreign equivalent regulatory agency for a product anywhere in the world.
- (v) \$1,000,000 due within twelve (12) months after the first commercial sale of a product anywhere in the world.

There are reporting requirements by the Licensee to the University.

Royalty stacking provisions remained unchanged in the 2<sup>nd</sup> Amendment.

The concept of reduced royalties upon expiration of the patent rights, but while technical information was being used, was eliminated with the 2<sup>nd</sup> Amendment.

During the nine-months ended September, 2023 and 2022, the Company recorded charges to operations of \$0 and \$50,000, respectively representing, in 2022, the pre-amendment annual minimum royalty, which was included in research and development expenses in the Company's condensed consolidated statement of operations. The \$100,000 from the fiscal year ended December 31, 2021 was reversed as a result of the effectiveness of the 2<sup>nd</sup> Amendment as of December 15, 2022 and the estimate for the fiscal year ended December 31, 2022 was \$0.

#### **Noramco Inc. - Dronabinol Development and Supply Agreement**

On September 4, 2018, RespireRx entered into a dronabinol Development and Supply Agreement with Noramco Inc., one of the world's major dronabinol manufacturers, which Noramco subsequently assigned to its subsidiary, Purisys LLC (the "Purisys Agreement"). Under the terms of the Purisys Agreement, Purisys agreed to (i) provide all of the active pharmaceutical ingredient ("API") estimated to be needed for the clinical development process for both the first- and second-generation products (each a "Product" and collectively, the "Products"), three validation batches for New Drug Application ("NDA") filing(s) and adequate supply for the initial inventory stocking for the wholesale and retail channels, subject to certain limitations, (ii) maintain or file valid drug master files ("DMFs") with the FDA or any other regulatory authority and provide RespireRx with access or a right of reference letter entitling RespireRx to make continuing reference to the DMFs during the term of the agreement in connection with any regulatory filings made with the FDA by RespireRx, (iii) participate on a development committee, and (iv) make available its regulatory consultants, collaborate with any regulatory consulting firms engaged by RespireRx and participate in all FDA or Drug Enforcement Agency ("DEA") meetings as appropriate and as related to the API. We now refer to the second-generation product as our proprietary formulation or proprietary product and have de-emphasized the first-generation product.

In consideration for these supplies and services, RespireRx has agreed to purchase exclusively from Noramco during the commercialization phase all API for its Products as defined in the Development and Supply Agreement at a pre-determined price subject to certain producer price adjustments and agreed to Noramco's participation in the economic success of the commercialized Product or Products up to the earlier of the achievement of a maximum dollar amount or the expiration of a period of time.

There was no activity during the nine-month periods ended September 30, 2023 or 2022 with respect to the Purisys Agreement. The Company is engaging in discussions with Purisys with the intent of amending the Purisys Agreement or cancelling the Purisys Agreement and establishing a new agreement. The anticipated new formulations and the formation of ResolutionRx in Australia are the primary reasons for participating in such discussions.

**Summary of Principal Cash Obligations and Commitments**

The following table sets forth the Company’s principal cash obligations and commitments for the next five fiscal years as of September 30, 2023, aggregating \$751,385. License agreement amounts included in the 2023 column represent amounts contractually due from October 1, 2023 through December 31, 2023 (3 months) and in each of the subsequent years, represents the full Calendar year. Employment agreement amounts included in the 2023 column represent amounts contractually due from October 1, 2023 through December 31, 2023 (three months) and then nine months to September 30, 2024 and does not assume renewals thereafter.

	Total	Payments Due By Year				
		2023	2024	2025	2026	2027
License agreements	\$ 90,185	\$ 35,185	\$ 10,000	\$ 15,000	\$ 15,000	\$ 15,000
Employment agreements (1)	661,200	165,300	495,900	-	-	-
Total	<u>\$751,385</u>	<u>\$200,485</u>	<u>\$505,900</u>	<u>\$ 15,000</u>	<u>\$ 15,000</u>	<u>\$ 15,000</u>

(1) The payment of certain of such amounts has been deferred indefinitely, as described above in “Employment Agreements.”

**9. Subsequent Events**

***Post September 30, 2023 Convertible Note Conversions***

During the period from October 1, 2023 through November 9, 2023, three convertible note holders of notes with substantially similar attributes converted \$96,712 of principal, \$2,923 of interest, \$1,000 of conversion fees for a total of \$100,635, into 67,090,000 shares of Common Stock at a conversion price, in each case, of \$0.0015 per share of Common Stock.

On November 7, 2023, RespireRx received a \$25,000 investment and issued 250 shares of Series I Preferred Stock in respect of such investment.

***Patent fees and maintenance fees of \$35,185 due to UWMRF at August 1, 2023 were unpaid***

Payment due of \$35,185 comprised of \$30,185, which is 50% of the patent fees identified in the license and \$5,000 annual maintenance fee were due to UWMRF but unpaid as of November 17, 2023.

## ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*The following discussion and analysis should be read in conjunction with the condensed consolidated financial statements (unaudited) and notes related thereto appearing elsewhere in this document, as well as the audited consolidated financial statements, notes related thereto, and Management’s Discussion and Analysis of Financial Condition and Results of Operations in our 2022 Form 10-K.*

### Overview

#### *Mission*

The mission of the RespireRx Group, is to develop innovative and revolutionary treatments to combat disorders caused by disruption of neuronal signaling at reduced risk and cost. In pursuit of this goal, we have (i) used data mining to identify and acquire new GABA<sub>k</sub>ines, a family of compounds that have displayed a high degree of efficacy in a wide range of animal studies and are undergoing preclinical safety studies; (ii) re-discovered the safety of our low impact AMPA<sub>k</sub>ines, a class of compounds that have been under- or unrecognized, and have advanced their clinical development and (iii) have re-purposed dronabinol, an already approved drug, and developed it forward into late stage clinical status for use as a new proprietary treatment. We have focused on treatment options that address conditions affecting millions of people, but for which there are limited or poor treatment options, including OSA, attention deficit hyperactivity disorder (“ADHD”), epilepsy, acute and chronic pain, including inflammatory and neuropathic pain, recovery from spinal cord injury (“SCI”) and certain orphan disorders. As we move forward, we may also consider developing treatment options for other conditions based on results of preclinical and clinical studies to date. To achieve these goals, the Company has determined that some or all of these opportunities should be licensed, sub-licensed, joint ventured or even sold and has initiated efforts to do so.

#### *Strategy*

It is generally agreed that drug research and development (“R&D”) programs can cost hundreds of millions of dollars, take years if not decades to complete and carry considerable risk to successfully complete. While large, well-funded companies can undertake such ventures, smaller companies must seek out other creative and disruptive approaches to compete in the drug discovery and development process. It is generally agreed that drug R&D programs can cost hundreds of millions of dollars, take years if not decades to complete and carry considerable risk to successfully complete. We believe we have identified three basic methods that, when utilized, will allow us to reduce risk, minimize costs and create considerable value.

*Data-mining* - a process whereby value can be found by data-mining published literature using artificial intelligence (“AI”) and our extensive knowledge and experience to identify validated neuronal targets and known drugs and drug candidates. This approach can dramatically reduce much of the costs, time and risks involved.

*Re-Discovery* - a process whereby value can be found by (a) identifying and acquiring drug(s) with appropriate mechanism(s) of action on a newly discovered identified target; (b) acquiring drug(s) that have strong preclinical data demonstrating efficacy and safety and preferably be ready to begin IND enabling studies in preparation for clinical trials; and/or (c) clinical studies demonstrating safety (Phase 1) and, optimally, efficacy (Phase 2).

*Re-Purposing* - a process whereby value can be found by (a) determining that an identified neuronal substrate is involved in an undiscovered, little known or orphan therapeutic area; (b) demonstrate that acquired drugs targeting that neuronal substrate demonstrate efficacy in predictive animal tests; and (c) acquire drugs that have successfully demonstrated safety in Phase 1 clinical studies and target engagement of the desired neuronal substrate.

#### *Implementation*

In order to facilitate our business activities and product development and to set up our programs for partnering or sale, the Company has implemented an internal restructuring plan based upon our two research platforms: drugs that act directly upon endocannabinoid receptors and drugs that act as neuromodulators at AMPA glutamate and GABA<sub>A</sub> receptors, the major excitatory and inhibitory neurotransmitters in the brain, respectively. ResolutionRx is the subsidiary focused on dronabinol for obstructive sleep apnea and EndeavourRx is the business unit focused on neuromodulators is referred to as EndeavourRx. It is anticipated that the Company will use, at least initially, its management personnel to provide management, operational and oversight services to these two business units as well as contracting firms to conduct specific R&D projects.

- (i) ResolutionRx, our repurposing platform is developing dronabinol initially for the treatment of OSA and later for other indications. Dronabinol is already approved by the U.S. FDA and other national regulatory agencies for other indications, allowing for a more rapid route to approval.
- (ii) EndeavourRx, our neuromodulators rediscovery platform is made up of two programs: (a) our AMPA<sub>k</sub>ines program, which is developing proprietary compounds that act as positive allosteric modulators (“PAMs”) of AMPA-type glutamate receptors to promote neuronal function and (b) our GABA<sub>k</sub>ines program, which is developing proprietary compounds that act as PAMs of GABA<sub>A</sub> receptors, and which was established pursuant to our entry into a patent license agreement (the “UWMRF Patent License Agreement”) with the University of Wisconsin-Milwaukee Research Foundation, Inc., an affiliate of the University of Wisconsin-Milwaukee (“UWMRF”).

ResolutionRx, was organized on January 11, 2023 as a wholly-owned subsidiary of RespireRx. We are also evaluating whether to organize our EndeavourRx business unit, in part or in whole, into one or more subsidiaries that would conduct R&D of our neuromodulator platform, including either or both of the AMPAkin and GABAkin programs and their related tangible and intangible assets and certain of their liabilities.

The RespireRx Group, comprised of RespireRx, ResolutionRx and EndeavourRx (and Pier, which is inactive) believes that there are advantages to separating these platforms formally into newly formed subsidiaries, including but not limited to optimizing their asset values by making them attractive to separate financing and strategic partnering channels.

The Company's business development efforts (licensing, sub-licensing, joint venture and other commercial structures), if successful, would represent strategic and operational infrastructure additions, as well as cash and in-kind funding opportunities. These efforts have focused on, but have not been limited to, transacting with brand and generic pharmaceutical and biopharmaceutical companies as well as companies with potentially useful clinical development, formulation or manufacturing capabilities, significant subject matter expertise and financial resources. No assurance can be given that any transaction will come to fruition and that, if it does, the terms will be favorable to the Company.

### ***Financing our Platforms***

Our major challenge has been to raise substantial equity or equity-linked financing to support research and development plans for our cannabinoid and neuromodulator platforms, while minimizing the dilutive effect to pre-existing stockholders. At present, we believe that we are hindered primarily by our public corporate structure, our OTC Pink Market listing and our low market capitalization as a result of our low stock price as well as the weakness of our balance sheet.

For this reason, the Company has affected an internal restructuring plan described above that we believe will further the aims of RespireRx, ResolutionRx and EndeavourRx, and may make it possible, through separate finance channels, to unlock the unrealized asset values of each and set up its programs for partnering or sale.

We believe that some or all of our assets should be licensed, sub-licensed, joint ventured or even sold and have initiated efforts to do so. No assurance can be given that any transaction will come to fruition and that if it does, that the terms will be favorable to the Company.

ResolutionRx is eligible to participate in the Australian R&D Tax Incentive ("R&DTI"), which is a tax rebate by the Australian government for qualified R&D expenditures. In the case of ResolutionRx, the R&DTI is expected to be 43.5% of qualified R&D. On January 27, 2023, ResolutionRx entered into a Letter of Intent and a term sheet with Radium Capital pursuant to which Radium Capital will finance in accordance with a debt facility, 80% of ResolutionRx's 43.5% tax rebate on an ongoing application basis similar to a line of credit.

On May 18, 2023, ResolutionRx entered into a Letter of Intent with Cantheon Capital ("Cantheon" and "Cantheon LOI") that describes an intended investment of US\$3,125,000 by Cantheon in Australian Series A Preference Shares to be issued by ResolutionRx to support clinical trial research and development over the R&D period equal to 25% of the clinical trial costs of the cannabinoid program that are the subject of the Australian CRO Agreement with iGENu. While the Letter of Intent is binding, subject to the commencement of human clinical trials, funding has not yet taken place.

On May 11, 2023, RespireRx entered into a Letter Agreement ("Letter Agreement") with Viridian Capital Advisors ("VCA") pursuant to which, VCA would perform the following services ("Valuation Services"): (i) review the Company's intellectual property assets and licensing agreements as they relate to Company's cannabinoid program, net of any associated liabilities, (ii) review the Company's financial models and forecasts as they relate to the Company's cannabinoid program and (iii) prepare the data, analytics and Company valuation analysis ("Valuation Analysis") specifically with respect to the Company's cannabinoid program. The Letter Agreement became effective on May 22, 2023. The Company entered this Letter Agreement as part of the process that began with the establishment of ResolutionRx, into which the net assets of the Company's cannabinoid program have been contributed via license and sublicense in exchange for 25,000,000 Ordinary Shares of ResolutionRx, all as of August 3, 2023. RespireRx received the final Valuation Analysis on August 7, 2023.



**Recent Developments**

On August 3, 2023, RespireRx entered into a License Agreement with ResolutionRx See Note 8. Commitments and Contingencies-*Significant Agreements and Contracts - License Agreement with ResolutionRx Ltd.*

On August 3, 2023, RespireRx entered into a Sublicense Agreement with ResolutionRx - See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts - Sublicense Agreement with ResolutionRx Ltd.*

On August 3, 2023, RespireRx entered into a Stock Transfer Agreement with ResolutionRx - See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts - Stock Transfer Agreement with ResolutionRx Ltd.*

On August 3, 2023, RespireRx entered into a Master Intercompany Services Agreement with ResolutionRx – See Note 8. Commitments and Contingencies – *Significant Agreements and Contracts – Master Intercompany Services Agreement with ResolutionRx.*

On October 9, 2023, ResolutionRx entered into a Master Services Agreement (“MSA”) with Ab Initio Pharma Pty Ltd, (“Ab Initio”) an Australian company under which Ab Initio will manufacture, formulate, test and supply ResolutionRx with therapeutic drugs based on lipid nanoparticle technology licensed from RespireRx - See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts –Master Services Agreement with Ab Initio Pharma Pty Ltd.*

***Post September 30, 2023 Convertible Note Conversions***

See Note 9. Subsequent Events – *Convertible Note Conversions* to our condensed consolidated financial statements (unaudited) at September 30, 2023.

**Going Concern**

See Note 2. Business – *Going Concern* to our condensed consolidated financial statements (unaudited) at September 30, 2023.

The Company’s regular efforts to raise capital and to evaluate measures to permit sustainability are time-consuming and intensive. Such efforts may not prove successful and may cause distraction, disruption or other adversity that limits the Company’s development program efforts.

**Concentration of Risk**

See Note 3. Significant Accounting Policies – *Concentration of Credit Risk* to the Company’s condensed consolidated financial statements (unaudited) at September 30, 2023.

**Critical Accounting Policies and Estimates**

The Company prepared its condensed consolidated financial statements (unaudited) in accordance with GAAP. The preparation of these condensed consolidated financial statements requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Management periodically evaluates the estimates and judgments made. Management bases its estimates and judgments on historical experience and on various factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates as a result of different assumptions or conditions.

Critical accounting policies and estimates are described in the notes to the Company’s condensed consolidated financial statements (unaudited) and include:

- Research and Development Costs
- License Agreements
- Patent Costs
- Convertible Notes
- Preferred Stock
- Phantom Stock

See Critical Accounting Policies and Estimates in our 2022 Form 10-K for a description. See Note 8. Commitments and Contingencies - *Phantom Stock* to our condensed consolidated financial statements at September 30, 2023 for a description of the accounting policies and estimates associated with Phantom Stock.

Results of Operations

The Company’s condensed consolidated statements of operations as discussed herein are presented below.

	Three-Months Ended September 30,		Nine-Months Ended September 30,	
	2023	2022	2023	2022
Operating expenses:				
General and administrative, including related parties	\$ 245,129	\$ 250,916	\$ 902,866	\$ 958,086
Research and development, including related parties	87,380	138,050	284,020	400,307
Total operating expenses	332,509	388,966	1,186,886	1,358,393
Loss from operations	(332,509)	(388,966)	(1,186,886)	(1,358,393)
Loss on extinguishment or settlement or modification of debt and other liabilities	-	(71,161)	-	(71,161)
Interest expense, including related parties	(73,408)	(94,643)	(365,729)	(533,812)
Foreign currency transaction gain	10,415	82,192	46,020	150,337
Net loss	\$ (395,502)	\$ (472,578)	\$ (1,506,595)	\$ (1,813,029)
Deemed dividend associated with paid-in-kind dividends on preferred stock for the three-months and nine-months periods ending September 30, 2023 and most favored nation provisions of convertible notes for the three-months and nine-months periods ending September 30, 2022	\$ (13,667)	\$ (1,168,594)	\$ (24,427)	\$ (1,520,332)
Net loss attributable to common stockholders	\$ (409,169)	\$ (1,641,172)	\$ (1,531,022)	\$ (3,333,361)
Net loss per common share attributable to common stockholders - basic and diluted	\$ (0.002)	\$ (0.014)	\$ (0.008)	\$ (0.031)
Weighted average common shares outstanding - basic and diluted	267,732,995	119,264,928	191,241,348	107,816,034

Three-months Ended September 30, 2023 and 2022

Revenues. The Company had no revenues during the three-months ended September 30, 2023 and 2022.

General and Administrative. For the three-months ended September 30, 2023 general and administrative expenses were \$245,129, a decrease of \$5,787, as compared to \$250,916 for the three-months ended September 30, 2022. The decrease in general and administrative expenses for the three-months ended September 30, 2023, as compared to the three-months ended September 30, 2022, is primarily due to a number of small increases and decreases that offset one another. Professional fees inclusive of Board of Directors fees, accounting and non-patent related legal fees increased \$16,612 whereas insurance, investor relations fees, transfer agent fees and travel and entertainment expenses decreased an aggregate of \$14,189. There was a decrease in patent related legal and other fees of \$9,624. The balance of the difference is a result of a number of smaller increases and decreases in various expense categories of \$1,414, none of which were individually greater than \$1,000. There was no share-based compensation recordable in the financial statements during the three-months ended September 30, 2023 or 2022.

Research and Development. For the three-months ended September 30, 2023, research and development expenses were \$87,380, a decrease of \$50,670, as compared to \$138,050 for the three-months ended September 30, 2022. The decrease in license fees of \$25,000 related to research and development associated with the 2<sup>nd</sup> Amendment to the 2014 Patent Agreement and a decrease of \$25,670 as a result of a decrease in utilization of our R&D consultants.

Loss on Extinguishment or Settlement or Modification of Debt and Other Liabilities. For the three-months ended September 30, 2023 and 2022 the loss on extinguishment or settlement or modification of debt and other liabilities was \$0 and \$71,161, respectively. The \$71,161 was a result of incentives offered to certain noteholders to modify the terms of their convertible notes.

Interest Expense. During the three-months ended September 30, 2023, interest expense was \$73,408 as compared to \$94,643 for the three-months ended September 30, 2022. The decrease of \$21,235 is primarily the result of a decrease of amortization of note discounts charged to interest expense, a decrease in principal amount upon which coupon interest expense is calculated due to convertible note conversions, offset by an increase in the coupon interest rate associated with certain convertible notes.

Foreign Currency Transaction Gain. Foreign currency transaction gain was \$10,415 for the three-months ended September 30, 2023, as compared to a foreign currency transaction gain of \$82,192 for the three-months ended September 30, 2022. The foreign currency transaction gain relates to the \$399,774 loan from SY Corporation, made in June 2012, which is denominated in the South Korean Won and during the three-months ended September 30, 2023, but not 2022, the foreign currency translation effect associated with the translation of the ResolutionRx financial statements that are denominated in Australian dollars.

Net Loss and Net Loss Attributable to Common Stockholders. For the three-months ended September 30, 2023, the Company incurred a net loss of \$395,502 and a net loss attributable to Common Stockholders of \$409,169 as compared to a net loss of \$472,578 and a net loss attributable to Common Stockholders of \$1,641,172 for the three-months ended September 30, 2022, respectively. The difference for the three-months ended September 30, 2023 in the net loss as compared to the net loss attributable to Common Stockholders of \$13,667 is the dividends on the Series I Preferred Stock and Series J Preferred Stock and the difference of \$1,168,594 during the three-months ended September 30, 2022 being deemed dividends associated with most-favored nation provisions of convertible notes.

#### **Nine-months Ended September 30, 2023 and 2022**

Revenues. The Company had no revenues during the nine-months ended September 30, 2023 and 2022.

General and Administrative. For the nine-months ended September 30, 2023, general and administrative expenses were \$902,866, a decrease of \$55,220, as compared to \$958,086 for the nine-months ended September 30, 2022. The decrease in general and administrative expenses is a result of a number of factors. There were increases in Board of Directors fees of \$30,000 as a result of the addition of an independent director, an increase in accounting fees of \$29,121, \$59,323 in general corporate legal fees (inclusive of both the United States and Australian counsel fees) and an increase of \$45,000 which was the cost of an independent valuation analysis of one of our assets. These were offset by a decrease of deferred financing costs of \$177,883 that were written off in the prior nine-month period, and decreases of \$14,940, \$7,064, \$3,000 and \$14,710 in insurance, investor relations, conference fees and service charges, respectively. There were also smaller increases and decreases in other general and administrative expense categories.

There was no share-based compensation recordable in the financial statements during the nine-months ended September 30, 2023 or 2022. However, several phantom stock awards were made on June 7, 2023. An award for 70,000,000 shares of phantom stock was made to Dr. Arnold Lippa, our Interim President, Interim Chief Executive Officer and Chief Scientific Officer which were immediately transferred into a family trust. In addition, an award for 120,000,000 shares of phantom stock was made to Jeff Eliot Margolis, our Senior Vice President, Chief Financial Officer, Treasurer and Secretary which was immediately transferred to three family trusts. An award for 20,000,000 shares of phantom stock was made to Joseph Siegelbaum, an independent director. The remaining 96,000,000 of shares of Phantom Stock awarded were awarded to five vendors, consultants, advisors or their designees. A total of 306,000,000 shares of Phantom Stock were awarded.

The value of the Phantom Stock Awards cannot be determined at this time and can only be estimated or determined upon the occurrence of a Payment Event. Therefore, no amount has been recorded as a commitment or contingency. When or if a Payment Event occurs, an amount will be estimable or determinable and such amount will be recorded as a change in an estimate.

Research and Development. For the nine-months ended September 30, 2023, research and development expenses were \$284,020, a decrease of \$116,287, as compared to \$400,307 for the nine-months ended September 30, 2022. The decrease in research and development expenses for the nine-months ended September 30, 2023, as compared to the nine-months ended September 30, 2022, is primarily due to a \$75,000 reduction in license fees associated with the 2<sup>nd</sup> Amendment to the 2014 Patent Agreement and a decrease of \$25,000 related to completion of the services under the research services agreement with the University of Wisconsin. There was also a \$14,280 reduction in consulting fees due to lower utilization of our R&D consultants and a \$2,007 reduction in R&D related insurance costs.

Loss on Extinguishment or Settlement or Modification of Debt and Other Liabilities. For the nine-months ended September 30, 2023 and 2022 the loss on extinguishment or settlement or modification of debt and other liabilities was \$0 and \$71,161, respectively. The \$71,161 was a result of incentives offered to certain noteholders to modify the terms of their convertible notes.

Interest Expense. During the nine-months ended September 30, 2023, interest expense was \$365,729 as compared to \$533,812 for the nine-months ended September 30, 2022. The decrease of \$168,083 is primarily the result of a decrease of amortization of note discounts charged to interest expense and a decrease in principal amount upon which coupon interest expense is calculated due to convertible note conversions, offset by a one-time increase in interest expense due to the immediate amortization to interest expense of \$125,000 of warrant value associated with newly issued demand promissory notes and increases in the coupon interest rate associated with certain convertible notes.

Foreign Currency Transaction (Loss) Gain. Foreign currency transaction gain was \$46,020 for the nine-months ended September 30, 2023, as compared to a foreign currency transaction gain of \$150,337 for the nine-months ended September 30, 2022. The foreign currency transaction gains relate to the \$399,774 loan from SY Corporation, made in June 2012, which is denominated in the South Korean Won and during the nine-months ended September 30, 2023, but not 2022, the foreign currency translation effect associated with the translation of the ResolutionRx financial statements that are denominated in Australian dollars.

Net Loss and Net Loss Attributable to Common Stockholders. For the nine-months ended September 30, 2023, the Company incurred a net loss of \$1,506,595 and a net loss attributable to common stockholders was \$1,531,022, the difference being attributable to dividends on Series I Preferred Stock and Series J Preferred Stock, compared to a net loss and net loss attributable to common stockholders of \$1,813,029 and \$3,333,361 for the nine-months ended September 30, 2022, respectively, the difference of \$1,520,332 being deemed dividends associated with most-favored nation provisions of convertible notes.

### **Liquidity and Capital Resources – September 30, 2023**

The Company's condensed consolidated financial statements (unaudited) have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has incurred a net loss from operations of \$332,509 and a net loss of \$395,502 and a net loss attributable to common stockholders of \$409,169 for the three-months ended September 30, 2023 and a net loss from operations of \$1,186,886 and a net loss of \$1,506,595 and a net loss attributable to common stockholders of \$1,531,022 for the nine-months ended September 30, 2023. There was a net loss from operations of \$1,579,355, a net loss of \$2,102,720 and net loss attributable to common stockholders after deemed dividends of \$3,972,993 for the fiscal year ended December 31, 2022. The Company had negative operating cash flows of \$258,726 for the nine-months ended September 30, 2023 and \$143,905 for the fiscal year ended December 31, 2022, had a stockholders' deficiency of \$12,296,454 at September 30, 2023, and expects to continue to incur net losses and negative operating cash flows for at least the next few years. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern, and the Company's independent registered public accounting firm, in its report on the Company's consolidated financial statements for the year ended December 31, 2022, expressed substantial doubt about the Company's ability to continue as a going concern.

At September 30, 2023, the Company had a working capital deficit of \$11,952,454, as compared to a working capital deficit of \$11,706,320 at December 31, 2022 reflecting an increase in the working capital deficit of \$246,134 for the nine-months ended September 30, 2023. The increase in the working capital deficit is primarily due to an increase accounts payable and accrued expenses of \$903,398 (after reclassification of certain amounts as of December 31, 2022 for consistency with current year presentation in our condensed consolidated financial statements at September 30, 2023), an increase in notes payable to officers and affiliates of \$112,008, an increase notes payable to a former officer of \$16,884 and an increase in short-term notes payable of \$10,464. This was offset by a decrease in accrued compensation of \$643,672, a decrease in convertible notes payable of \$43,227. There was a decrease in the note payable to SY Corporation of \$23,838 primarily due to foreign exchange gains. There was also a net increase in current assets other than cash of \$85,883 primarily as a result of in an increase in cash of \$6,274, an increase in prepaid R&D of \$48,568, an increase in deferred financing costs of \$6,457 and an increase in prepaid insurance of \$24,584.

At September 30, 2023, the Company had cash of \$6,362, as compared to \$88 at December 31, 2022,

The limited cash of \$265,000 raised in demand promissory note and Series I Preferred Stock financings during the nine-months ended September 30, 2023 was utilized for working capital. The financings completed during fiscal year ended December 31, 2022 were utilized to pay general and administrative and research and development expenses or the related accounts payable, including, but not limited to, our independent registered public accounting firm, our patent and intellectual property law firm and for other patent and intellectual property services, our transfer agent, our financial printer and limited cash payments of compensation. Cash was also utilized, among other purposes, to make payments pursuant to directors and officers insurance and other insurance financings. A significant amount of cash was advanced to our subsidiary, ResolutionRx, to pay a research deposit to our contract research organization, to our Australian financial advisor and to our professional service providers in Australia.

The Company is currently, and has for some time, been in significant financial distress. It has limited cash resources and current assets and has no ongoing source of sustainable revenue. Management is continuing to address various aspects of the Company's operations and obligations, including, without limitation, debt obligations, financing requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has continued to raise new debt and equity capital to fund the Company's general and administrative and research and development activities from both related and unrelated parties.

The Company is continuing its efforts to raise additional capital in order to be able to pay its liabilities and fund its business activities on a going forward basis, including the pursuit of the Company's planned research and development activities. The Company regularly evaluates various other measures to satisfy the Company's liquidity needs, including development and other agreements with collaborative partners and, when necessary, seeking to exchange or restructure the Company's outstanding securities. The Company is evaluating certain changes to its operations and structure to facilitating raising capital from sources that may be interested in financing only discrete aspects of the Company's development programs. Such changes have included and could include, in the future, significant reorganizations, which has included the formation of one subsidiary and may include in the future, the formation of one or more additional subsidiaries into which one of the programs is in the process of being contributed and additional programs may be contributed. As a result of the Company's current financial situation, the Company has limited access to external sources of debt and equity financing. Accordingly, there can be no assurances that the Company will be able to secure additional financing in the amounts necessary to fully fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources, the Company may be forced to discontinue its operations entirely and liquidate.

Operating Activities. For the nine-months ended September 30, 2023, operating activities utilized cash of \$258,726, as compared to utilizing cash of \$155,061 for the nine-months ended September 30, 2022, to support the Company's ongoing general and administrative expenses as well as its research and development activities.

Financing Activities. For the nine-months ended September 30, 2023, financing activities consisted of \$250,000 from the issuance of demand promissory notes to an affiliate of an executive officer and another affiliate and \$145,000 from the sale of Series I Preferred Stock.

## **Principal Commitments**

### ***Employment Agreements***

See Note 8. Commitments and Contingencies – Significant Agreements and Contracts – *Employment Agreements* to our condensed consolidated financial statements (unaudited) at September 30, 2023.

### ***University of Illinois 2014 Exclusive License Agreement***

See Note 8. Commitments and Contingencies – Significant Agreements and Contracts – *University of Illinois 2014 Exclusive License Agreement* to our condensed consolidated financial statements (unaudited) at September 30, 2023.

#### ***UWM Research Foundation Patent License Agreement***

See Note 8. Commitments and Contingencies – Significant Agreements and Contracts, *UWM Research Foundation Patent License Agreement* to our condensed consolidated financial statements (unaudited) at September 30, 2023.

#### ***License Agreement with ResolutionRx Ltd.***

See Note 8. Commitments and Contingencies-*Significant Agreements and Contracts* - License Agreement with ResolutionRx Ltd.

#### ***Sublicense Agreement with ResolutionRx Ltd.***

See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts* - Sublicense Agreement with ResolutionRx Ltd.

#### ***Stock Transfer Agreement with ResolutionRx Ltd.***

See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts* - Stock Transfer Agreement with ResolutionRx Ltd.

#### ***Master Intercompany Services Agreement with ResolutionRx.***

See Note 8. Commitments and Contingencies – *Significant Agreements and Contracts* – Master Intercompany Services Agreement with ResolutionRx.

#### ***Master Services Agreement with Ab Initio Pharma Pty Ltd.***

On October 9, 2023, ResolutionRx entered into a Master Services Agreement (“MSA”) with Ab Initio Pharma Pty Ltd, (“Ab Initio”) an Australian company under which Ab Initio will manufacture, formulate, test and supply ResolutionRx with therapeutic drugs based on lipid nanoparticle technology licensed from RespireRx - See Note 8. Commitments and Contingencies - *Significant Agreements and Contracts* – Master Services Agreement with Ab Initio Pharma Pty Ltd.

A table setting forth the Company’s principal cash obligations and commitments for the next five fiscal years as of September 30, 2023, aggregating \$751,385 is set forth in Note 8. Commitments and Contingencies – *Summary of Principal Cash Obligations and Commitments* to our condensed consolidated financial statements (unaudited) at September 30, 2023.

#### **Off-Balance Sheet Arrangements**

See Note 8. Commitments and Contingencies - *Phantom Stock* to our condensed consolidated financial statements (unaudited) at September 30, 2023.

At September 30, 2023, the Company did not have any other transactions, obligations or relationships that could be considered off-balance sheet arrangements.

#### **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK**

Not applicable.

#### **ITEM 4. CONTROLS AND PROCEDURES**

##### **Disclosure Controls and Procedures**

The Company maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”)) that are designed to ensure that information required to be disclosed in the reports that the Company files with the Securities and Exchange Commission (the “SEC”) under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms and that such information is accumulated and communicated to the Company’s management, including its Chief Executive Officer and Chief Financial Officer, to allow for timely decisions regarding required disclosures.

The Company carried out an evaluation, under the supervision and with the participation of its management, consisting of its principal executive officer and principal financial officer, of the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act). Based upon that evaluation, the Company's principal executive officer and principal financial officer concluded that, as of the end of the period covered in this Report, the Company's disclosure controls and procedures were not effective to ensure that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized and reported within the required time periods and is accumulated and communicated to the Company's management, consisting of the Company's principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

Management has been focusing on developing replacement controls and procedures that are adequate to ensure that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized and reported within the required time periods and is accumulated and communicated to the Company's management to allow timely decisions regarding required disclosure. The Company is current in its SEC periodic reporting obligations, but as of the date of the filing of this Report, the Company had not yet established adequate internal controls over financial reporting.

The Company's management, consisting of its principal executive officer and principal financial officer, does not expect that its disclosure controls and procedures or its internal controls will prevent all error or fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Furthermore, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. In addition, as conditions change over time, so too may the effectiveness of internal controls. However, management believes that the financial statements included in this Report fairly present, in all material respects, the Company's financial condition, results of operations and cash flows for the periods presented.

#### Changes in Internal Control over Financial Reporting

The Company's management, consisting of its principal executive officer and principal financial officer, has determined that no change in the Company's internal control over financial reporting (as that term is defined in Rules 13(a)-15(f) and 15(d)-15(f) of the Securities Exchange Act of 1934) occurred during or subsequent to the end of the period covered by this report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.



PART II - OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We are periodically subject to various pending and threatened legal actions and claims. See Note 8. Commitments and Contingencies – *Pending or Threatened Legal Actions and Claims* to our condensed consolidated financial statements (unaudited) at September 30, 2023 for details regarding these matters.

ITEM 1A. RISK FACTORS

As of the date of this filing, there have been no material changes to the Risk Factors included in the Company’s 2022 Form 10-K. The Risk Factors set forth in the 2022 Form 10-K should be read carefully in connection with evaluating the Company’s business and in connection with the forward-looking statements contained in this Quarterly Report on Form 10-Q. Any of the risks described in the 2022 Form 10-K could materially adversely affect the Company’s business, financial condition or future results and the actual outcome of matters as to which forward-looking statements are made. These are not the only risks that the Company faces. Additional risks and uncertainties not currently known to the Company or that the Company currently deems to be immaterial also may materially adversely affect the Company’s business, financial condition and/or operating results.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

There were no unregistered sales of Common Stock during the nine-months ended September 30, 2023 that were not disclosed by the Company on a Current Report on Form 8-K. There were conversions of convertible note and exercises of warrants as disclosed in Note 6. Stockholders’ Deficiency – Common Stock of our condensed consolidated financial statements at September 30, 2023. There was the issuance of Series I Preferred Stock as disclosed in Note 6. Stockholders’ Deficiency – *Series I Preferred Stock* of our condensed consolidated financial statements at September 30, 2023. There was the issuance of Series J Preferred Stock as disclosed in Note 6. Stockholders’ Deficiency – *Series J Preferred Stock* of our condensed consolidated financial statements at September 30, 2023. There was the issuance of shares of Phantom Stock as disclosed in Note 6. Stockholders’ Deficiency – *Phantom* and in Note 8. Commitments and Contingencies - *Phantom Stock* of our condensed consolidated financial statements at September 30, 2023.

Additional information with respect to the transactions described above is provided in the Notes to the condensed consolidated financial Statements for the three-months and six-months ended September 30, 2023.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

*Note Payable to SY Corporation Co., Ltd.*

On June 25, 2012, the Company borrowed 465,000,000 Won (the currency of South Korea, equivalent to approximately \$400,000 United States Dollars) from and executed a secured note payable to SY Corporation. The note accrues simple interest at the rate of 12% per annum and had a maturity date of June 25, 2013. The Company has not made any payments on the promissory note. At September 30, 2013 and subsequently, the promissory note was outstanding and in technical default, although SY Corporation has not issued a notice of default or a demand for repayment. The Company believes that SY Corporation is in default of its obligations under its January 2012 license agreement, as amended, with the Company, but the Company has not yet issued a notice of default. The Company has in the past made several efforts towards a comprehensive resolution of the aforementioned matters involving SY Corporation. During the nine-months ended September 30, 2023, there were no further communications between the Company and SY Corporation.

The note payable to SY Corporation consists of the following at September 30, 2023 and December 31, 2022:

	September 30, 2023	December 31, 2022
Principal amount of note payable	\$ 399,774	\$ 399,774
Accrued interest payable	543,343	507,330
Foreign currency transaction adjustment	(133,492)	(73,641)
	<u>\$ 809,625</u>	<u>\$ 833,463</u>

Interest expense with respect to this promissory note was \$12,092 for the three-months ended September 30, 2023 and 2022, respectively and \$36,013 and \$35,881 for the nine-months ended September 30, 2023 and 2022, respectively.

*Default on Convertible Notes Payable*

As of September 30, 2023, principal and accrued interest on the Original Convertible Note that is subject to a default notice totaled \$69,806, of which \$44,806 was accrued interest.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

The following documents are filed as part of this report:

Exhibit Number	Description of Document
10.1*	<a href="#">Settlement and Exchange Agreement between RespireRx Pharmaceuticals Inc. and DNA Healthlink, Inc. dated September 26, 2023 (incorporated by reference to Exhibit 99.1 to the Company’s Current Report on Form 8-K (file no. 1-16467) filed October 2, 2023).</a>
10.2*	<a href="#">Second Amendment to Consulting Agreement between RespireRx Pharmaceuticals Inc. and DNA Healthlink, Inc. dated September 26, 2023 (incorporated by reference to Exhibit 99.2 to the Company’s Current Report on Form 8-K (file no. 1-16467) filed October 2, 2023).</a>
31.1*	<a href="#">Officer’s Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
31.2*	<a href="#">Officer’s Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
32.1**	<a href="#">Officer’s Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</a>
32.2**	<a href="#">Officer’s Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</a>
101.INS***	Inline XBRL Instance Document
101.SCH***	Inline XBRL Taxonomy Extension Schema Document
101.CAL***	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB***	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE***	Inline XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF***	Inline XBRL Taxonomy Extension Definition Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)
	* Filed herewith.
	** Furnished herewith.
	*** In accordance with Regulation S-T, the XBRL related information on Exhibit No. 101 to this Quarterly Report on Form 10-Q shall be deemed “furnished” herewith not “filed.”

SIGNATURES

In accordance with the requirements of the Securities and Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

RESPIRERX PHARMACEUTICALS INC.

(Registrant)

Date: November 17, 2023

By: /s/ Arnold S. Lippa

Arnold S. Lippa  
Interim President, Interim Chief Executive Officer and Chief Scientific Officer

Date: November 17, 2023

By: /s/ Jeff Eliot Margolis

Jeff Eliot Margolis  
Senior Vice President, Chief Financial Officer, Treasurer and Secretary

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER  
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Arnold S. Lippa, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of RespireRx Pharmaceuticals Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 17, 2023

By: /s/ Arnold S. Lippa

Arnold S. Lippa

Interim President, Interim Chief Executive Officer and Chief Scientific Officer

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**CERTIFICATION OF CHIEF FINANCIAL OFFICER  
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Jeff Eliot Margolis, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of RespireRx Pharmaceuticals Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 17, 2023

By: /s/ Jeff Eliot Margolis

Jeff Eliot Margolis

Senior Vice President Chief Financial Officer, Treasurer and Secretary

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**CERTIFICATION OF CHIEF EXECUTIVE OFFICER  
UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Arnold S. Lippa, the Chief Executive Officer of RespireRx Pharmaceuticals Inc. (the “Company”), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

- (i) The Quarterly Report on Form 10-Q of the Company for the quarterly period ended September 30, 2023, as filed with the Securities and Exchange Commission on the date hereof (the “Report”) fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and
- (ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Date: November 17, 2023

By: /s/ Arnold S. Lippa  
Arnold S. Lippa  
Interim President, Interim Chief Executive Officer and Chief  
Scientific Officer

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**CERTIFICATION OF CHIEF FINANCIAL OFFICER  
UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Jeff Eliot Margolis, the Senior Vice President, Chief Financial Officer, Treasurer and Secretary of RespireRx Pharmaceuticals Inc. (the “Company”), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

- (i) The Quarterly Report on Form 10-Q of the Company for the quarterly period ended September 30, 2023, as filed with the Securities and Exchange Commission on the date hereof (the “Report”) fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and
- (ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Date: November 17, 2023

By: /s/ Jeff Eliot Margolis  
Jeff Eliot Margolis  
Senior Vice President Chief Financial Officer, Treasurer and  
Secretary

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