

# INSTITUTIONAL RESEARCH Biotechnology UPDATE REPORT

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# Anavex Life Sciences Corp. (NASDAQ/AVXL)

# **BUY Rated: Hires Ex-FDA Biostatistician CNS Expert**

Anavex announced the appointment of Kun Jin, Ph.D., as Vice President, Head of Biostatistics. Dr. Jin was recently the Statistical Team Leader at the U.S. Food and Drug Administration. Dr. Jin provided statistical review coverage and expertise for neurological drug products for the Center for Drug Evaluation and Research (CDER), and performed timely and quality reviews of marketing applications, including New Drug Applications (NDA), Biologic License Applications (BLA), and Investigational New Drug (IND) applications.

### **Investment Highlights:**

A New Approach to CNS Disease. The development of Alzheimer's has been linked to different mechanisms which may trigger negative cascades. Research advances are emerging around what happens when cells undergo stress. Why do some survive, and others degenerate? One answer may relate to individual cell survival mechanisms, which in part may be associated with the role of the Sigma-1 Receptor, which is activated (an agonist) by ANAVEX2-73. It is believed that Sigma 1 can help to protect a cell from the accumulation of misfolded proteins, acting to chaperone them out of the cell. As a result, cell metabolism (oxidative stress and mitochondrial dysfunction) is kept in balance.

#### Key Near-Term Pipeline Updates: (press release):

- Alzheimer's disease: Full data ANAVEX2-73-AD-004: Potentially pivotal Phase 2b/3 clinical trial
- Parkinson's disease dementia: Data of 48-week OLE Phase 2 study
- **Parkinson's disease:** Initiation of ANAVEX2-73 imaging-focused clinical trial
- **Fragile X:** Initiation of potentially pivotal ANAVEX2-73 Phase 2/3 clinical trial
- Schizophrenia: Initiation of ANAVEX3-71 Phase 2 clinical trial
- New Rare disease: Initiation of potentially pivotal ANAVEX2-73 Phase 2/3 clinical trial
- **Publications:** Several clinical publications involving ANAVEX2-73, ANAVEX3-71, and Rett syndrome Burden of Illness study

**Valuation.** Our valuation is based on our therapeutic models and associated assumptions projected to 2030. Our model assumes multiple financial raises, and as such, our share count is based on a projected, fully diluted out-year basis. Given the early nature of the company and its dependence on clinical trial outcomes in the CNS space, we apply a probability of success (50%) in our models. On top of this, we also add a 30% risk rate in our free cash flow to the Firm (FCFF), our discounted EPS (dEPS), and sum-of-the-parts (SOP) models. We equal weight and average these metrics and then round to the nearest whole number to derive our price target.

**Risks to our thesis include:** (1) commercial; (2) regulatory; (3) clinical; (4) market share; (5) financial; (6) investment; and (7) intellectual property.

# March 9, 2023

## Jason Kolbert Managing Director & Senior Analyst jkolbert@dawsonjames.com

Current Price	\$10.11
Price Target	\$39.00

Broad SIGMAR1 Platform Targeting Significant Unmet Medical Need

DHDDHT	REAG	PHILE	Magg Magg
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(Rocansile)	FARMON'S DISUKE	The star	
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AMA/(3*3-7)	NICOTOTOPORE DEMONTR/PTD	ADM/101*9-73-001	
(W7338)	NEURODEGENERATIVE DISLASES	Differentiated cli	inical-stage CNS assets
AMA/D*1-11	SPRESCH		cant and growing markets
	NEURCOEGINERATIVE DISEASES	Patent protectio	n to 2030-2039, worldwide rights
4N0rD*1266	VICENCESS	for all product ca	andidates
ANI/07*1366	ACUTE A REVIEWARD REPORT		
Soure: Anave	deel lees indicate planeed clinical ataches X		anavex
Stock Data			
52-Week Rar	nge	\$7.13	- \$15.24
Shares Outst	anding (mil.)		78.
Market Capit	alization (mil.)		\$78
Enterprise Va			\$64
Debt to Capit			09
Book Value/9	Share		\$0.5
Price/Book			5.0
	e Months Trad	ing Volume (H	
Insider Owne			3.09
Institutional			34.99
Short interes			21.99
Dividend / Yi	eld		\$0.00/0.09
	ex Life Sciences (	Corp. (AVXL)	
Volum	e (Thousands)		Price (USD)
Vo	olume <del>—</del> Anavex	Life Sciences Cor	p.
			14
			13
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40,000	<b>N/W</b>		9
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0 <del>]</del>			7
Mar Ap	r May Jun Jul A		v Dec Jan Feb Source:FactSet Prices
			200.00.1 a01001 -11003



## **Exhibit 1. Income Statement (\$ in thousands)**

Anavex Life Sciences Corp																
Anavex: YE Sept 30	2019A	2020A	2021A	1Q22A	2Q22A	3Q22A	4Q22A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030
Revenue																
Anavex2-73 AD U.S.		-	-	-	-	-	-	-		-	-	996,342	1,332,252	1,067,282	1,244,145	1,348,343
Anavex2-73 AD ROW			-	-	-	-	-	-		-	-	1,235,807	1,285,239	1,103,163	1,350,272	1,606,824
Anavex2-73 Rett's Syndrome			-	-	-	-	-	-		28,192	71,890	586,623	747,945	915,484	933,794	952,470
Anavex2-73 Parkinson's Dimentia PDD				-	-	-	-		-	-	-	177,649	241,602	369,651	439,885	480,732
Total Product Revenues	_			-	-					28,192	71,890	2,996,421	3,607,037	2 455 591	3,968,096	1 200 260
Total Product Revenues										20,192	71,050	2,550,421	3,007,037	3,433,381	3,300,030	4,300,300
% Chg																
% Sequential Growth																
Milestones % Sequential Growth																
Total Revenues (\$000)	-	-		_	_	_	-	-	-	28,192	71,890	2,996,421	3,607,037	3,455,581	3 9 6 8 3 9 6	4 388 365
Expenses		1								20,132	71,000	2,000,421	-5,001,057	-0,400,001	-0,000,000	1,000,000
Cost of Goods Sold (10%)		-	-	-	-	-	.	_	_	_ F		223,215	261,749	217,045	259,442	295,517
Accounting and Audit Fees		-	-				-	-	-	-	-	220,210	201,745	217,040	200,442	200,011
Amortization and deprectiation	2	2	2	0	0	0	0	2	2	2	2	2	2	2	2	
Bank charges and interest	-	-	1								-	-	-	_	-	
Consulting Fees																
Insurance																
Investor relations																
Legal fees																
Management fees																
Office and miscellanous expense																
Registration and filing fees																
Rent and administration																
Research and Development	22,260	25,232	32,267	8,604	9,273	11,382	12,067	41,326	38,905	31,593	25,655	20,834	16,918	13,739	11,157	9,06
Salaries and wages	22,200	20,202	02,207	0,001	0,210	11,002	12,007	11,020	00,000	01,000	20,000	20,001	10,010	10,700	,	0,00
Travel																
Website design and maintence																
General and Administrative	6,847	5,857	9,205	2,915	3,185	3,903	3,317	13,320	40,000	75,000	65,000	65,650	66,307	66,970	67,639	68,316
Operating expenses	31,287	31,088	41,474	11,519	12,459	15,284	15.384	54,647	78,906	106,594	90,657	309,700	344,975	297,754	338,239	372,894
Oper. Inc. (Loss)	(31,287)	(31,088)	(41,474)	(11,519)	(12,459)	(15,284)	(15,384)	(54,647)	(78,906)	(78,402)	(18,767)	2,686,721	3,262,062	3,157,826	3,629,857	4,015,474
Oper Margin	(01,201) NM	NM	NM	NM	(12,100) NM	NM	(10,001) NM	NM	(10,000) NM	NM	NM	2,000,721	0,202,002	1	1	1,010,11
Other income (expense)	2,466															
Research and Development incentive	299				682	994		682								
Interest and financing fees	207			8	230	705		(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(2
Accretion of debt discount	116															
Change in fair value of derivative liability	(151)															
Debt conversion expense	(42)															
Loss on settlement of accounts payable Loss on extinguishment of debt																
Foreign exchange gain (loss)					(733)	(495)		(733)								1
Financing related charges and adjustments					(100)	(455)		(700)								1
Other non-operating income																
Non-operating Income (expense)	2,894	-	2,129		180		-	(75)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25
Financial Income, Net							2,392									1
Financial Expenses, Net		4,830	4,555													
Pretax Income	(28,393)	(26,258)	(36,918)	(10,438)	(12,279)	(14,080)	(12,992)	(54,722)	(78,931)	(78,427)	(18,792)	2,686,696	3,262,037	3,157,801	3,629,832	4,015,449
Pretax Margin	NM	NM (23)	NM (1EE)	NM	NM (88)	NM (210)	(00)	NM (210)	NM (7.802)	NM (14 117)	NM (F 4F0)	NM	NM	NM	NM	1 566 028
			(155)		(88) 5%	(210)	(20)	(319)	(7,893) 10%	(14,117)	(5,450)	886,610 30%	1,174,333 31%	1,231,543	1,415,635 31%	1,566,025
Income Tax Benefit (Provision)	(82)	(20)		50/							2370					31
Income Tax Benefit (Provision) Tax Rate	0	0		5% (10.428)			070	(50.069)	(71.029)	(64 210)	(12 242)	1 200 026	2 097 704	0170		2 1 10 42
Income Tax Benefit (Provision) Tax Rate GAAP Net Income (loss)	<mark>0</mark> (28,475)	<mark>0</mark> (26,280)	(37,074)	(10,438)	(12,368)	(14,290)	(12,972)	(50,068)	(71,038) NM	(64,310) NM	(13,342) NM	1,800,086	2,087,704	1,926,259	2,214,198	2,449,424
Income Tax Benefit (Provision) Tax Rate GAAP Net Income (loss) Net Margin	0 (28,475) NM	0 (26,280) NM	(37,074) NM	(10,438) NM	(12,368) NM	(14,290) NM	(12,972) NM	NM	NM	NM	NM	0.60	0.58	1,926,259 0.56	2,214,198 0.56	0.50
Income Tax Benefit (Provision) Tax Rate GAAP Net Income (loss) Net Margin GAAP-EPS	0 (28,475) NM (0.65)	0 (26,280) NM (0.45)	(37,074) NM (0.53)	(10,438) NM (0.14)	(12,368) NM (0.16)	(14,290) NM (0.18)	(12,972) NM (0.17)	NM (0.65)	NM (0.89)	NM (0.77)	NM (0.15)	0.60 19.98	0.58	1,926,259 0.56 19.74	2,214,198 0.56 21.81	0.50 23.18
Income Tax Benefit (Provision) Tax Rate GAAP Net Income (loss) Net Margin	0 (28,475) NM	0 (26,280) NM	(37,074) NM	(10,438) NM	(12,368) NM	(14,290) NM	(12,972) NM	NM	NM	NM	NM	0.60	0.58	1,926,259 0.56	2,214,198 0.56	0.50

Source: Dawson James estimates, company reports



#### **Risk Analysis**

**Clinical Trial Risk.** Anavex is dependent on the outcome of multiple clinical trials. The failure rates associated with disease conditions such as Alzheimer's are historically very high.

**Commercial Risk.** Anavex hopes to compete in the CNS markets, which have traditionally been dominated by large pharma and biotechnology companies with deep pockets (funding and resources), which may make it difficult for Anavex to compete unless the molecule is deemed to be truly differentiated.

**Financial Risk.** Anavex is likely to require additional capital raises before the company can be self-sustaining. There can be no guarantees that the company will be able to raise the needed capital.

**Investment Risk**. Anavex is a small capital company, which can translate into high volatility and risk for investors. The company has no revenues and is dependent on the clinical progress of its therapeutics.

**Intellectual Property.** Anavex may face I.P. challenges, forcing the company to defend its patents or itself against claims that the company is infringing on other patents. We do know that the lead product is protected by a composition of matter patent to 2033.

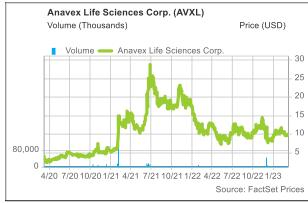
Market Share Risk. The central nervous system (CNS) market is competitive and tends to be dominated by large pharma and large well established biotechnology companies.

Regulatory Risk. Anavex, even with good clinical data, could face extensive delays and other regulatory setbacks.

#### Companies mentioned in this report:

#### **Important Disclosures:**





Price target and rating changes over the past three years: Initiated – Buy – July 24, 2019 – Price Target \$16.00 Update – Buy – July 31, 2019 – Price Target \$16.00 Update – Buy – August 7, 2019 – Price Target \$16.00 Update – Buy – September 5, 2019 – Price Target \$16.00 Update – Buy – September 17, 2019 – Price Target \$16.00 Update – Buy – October 24, 2019 – Price Target \$16.00 Update – Buy – December 2, 2019 – Price Target \$16.00 Update – Buy – December 4, 2019 – Price Target \$16.00 Update – Buy – December 4, 2019 – Price Target \$16.00 Update – Buy – February 4, 2020 – Price Target \$16.00 Update – Buy – February 7, 2020 – Price Target \$16.00 Update – Buy – May 8, 2020 – Price Target \$16.00





Update – Buy – May 22, 2020 – Price Target \$16.00 Update - Buy - June 16, 2020 - Price Target \$16.00 Update – Buy – July 1, 2020 – Price Target \$16.00 Update - Buy - October 15, 2020 - Price Target \$16.00 Update - Buy - November 6, 2020 - Price Target \$16.00 Update - Buy - December 15, 2020 - Price Target \$16.00 Price Target Change - Buy - February 19, 2021 - Price Target \$16.0 to \$19.00 Update - Buy - April 5, 2021 - Price Target \$19.00 Update - Buy - April 12, 2021 - Price Target \$19.00 Update - Buy - May 19, 2021 - Price Target \$19.00 Update - Buy - June 8, 2021 - Price Target \$19.00 Price Target Change – Buy – June 21, 2021 – Price Target \$35.00 Update - Buy - June 28, 2021 - Price Target \$35.00 Update - Buy - October 27, 2021 - Price Target \$35.00 Update – Buy – November 24, 2021 – Price Target \$35.00 Update - Buy - January 11, 2022 - Price Target \$35.00 Update - Buy - February 1, 2022 - Price Target \$35.00 Update - Buy - February 4, 2022 - Price Target \$35.00 Update - Buy - February 10, 2022 - Price Target \$39.00 Update - Buy - June 15, 2022 - Price Target \$39.00 Update - Buy - August 2, 2022 - Price Target \$39.00 Update - Buy - August 9, 2022 - Price Target \$39.00 Update – Buy – October 18, 2022 – Price Target \$39.00 Update – Buy – November 8, 2022 – Price Target \$39.00 Update – Buy – November 28, 2022 – Price Target \$39.00 Update – Buy – November 30, 2022 – Price Target \$39.00 Update - Buy - December 5, 2022 - Price Target \$39.00 Update - Buy - February 2, 2023 - Price Target \$39.00 Update - Buy - February 7, 2023 - Price Target \$39.00 Update - Buy - March 9, 2023 - Price Target \$39.00

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- 3) **Sell**: The analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

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	Company		Investment	
	Coverage		Banking	
				% of
<b>Ratings Distribution</b>	# of Companies	% of Total	# of Companies	Totals
Market Outperform (Buy)	24	69%	1	3%
Market Perform (Neutral)	11	31%	2	6%
Market Underperform (Sell)	0	0%	0	0%
Total	35	100%	3	9%

Current as of	3-Mar-23
current us or	5 10101 25

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