DAWSONJAMES SECURITIES

Member FINRA/SIPC

INSTITUTIONAL RESEARCH

Biotechnology

INITIATION REPORT

Toll-Free: 561-391-5555 ♦ www.DawsonJames.com ♦ 1 North Federal Highway - Suite 500 ♦ Boca Raton, FL 33432

Anavex Life Sciences Corp. (NASDAQ/AVXL)

July 24, 2019

BUY: A Differentiated Approach to CNS Disease

Jason Kolbert
Healthcare Research
jkolbert@dawsonjames.com

Anavex is pioneering a new treatment in CNS diseases like Alzheimer's and Parkinson's diseases and Rett's syndrome. The clinical approach utilizes many of the same principals seen in Oncology development, precision medicine to enrich trial outcomes. With multiple active, proof of concept trials, we see numerous catalysts ahead for the stock.

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 related to 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) are kept in balance. The implications here can have an impact across a wide range of neurodegenerative diseases from Alzheimer's to Parkinson's and niche orphan diseases such as Rett's syndrome, which may represent a "fast path" to establish proof of concept, around Sigma 1 agonism.

Pharmaco-Genomics and the Growing Value of Precision Medicine. The use of precision medicine saves both time and money, as well as improving the probability of success for clinical trial outcomes. Precision medicine enables scientists to identify which drugs will be most effective on each patient due to the presence of certain biomarkers. This is because of the different microenvironments that nourish each individual's cells. The use of biomarkers, during the selection process of clinical studies, may increase the probability of success by as much as two to three times.

Lots of Clinical Catalysts. Alzheimer's Disease. Anavex is now in a Phase 2b/3 trial. The study could complete by YE2020 setting up commercialization by YE2022. **Rett Syndrome.** Rett Syndrome is a rare severe neurological monogenic disorder caused by a mutation of the X-linked gene, MECP2. A Phase 2 proof of concept study is now underway in Rett Syndrome with the first patients having been treated. We could see top-line data by 1H2020. **Parkinson's Dementia Disease (PDD).** Phase 2 trial could complete by YE2019 with top-line data to follow early next year.

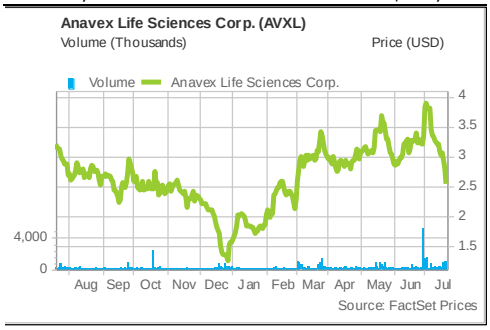
Valuation: We model ANAVEX2-73 in the Alzheimer's, Rett Syndrome, and Parkinson's Disease Dementia markets. We use just a 25% probability of success in our therapeutic models and a 30% discount rate in our FCFF, discounted EPS, and sum-of-the-parts models to arrive at a $16.00 price target.

Risk to our thesis, include the following: (1) commercial; (2) regulatory; (3) clinical; (4) manufacturing; (5) financial; (6) liability; and (7) intellectual property. We review these risks in the risk section of this report.

Current Price	**$2.54**
Price Target	**$16.00**

Estimates	F2019E	F2020E	F2021E
Expenses ($000s)	$ 31,158	$ 32,116	$ 33,342
1Q March	$ 7,474	$ 7,982	$ 8,288
2Q June	$ 8,140	$ 8,013	$ 8,320
3Q September	$ 7,757	$ 8,044	$ 8,351
4Q December	$ 7,787	$ 8,076	$ 8,383
	F2019E	F2020E	F2021E
EPS (diluted)	$ (0.65)	$ (0.65)	$ (0.33)
1Q March	$ (0.16)	$ (0.16)	$ (0.08)
2Q June	$ (0.17)	$ (0.16)	$ (0.08)
3Q September	$ (0.16)	$ (0.16)	$ (0.08)
4Q December	$ (0.16)	$ (0.16)	$ (0.08)
EBITDA/Share			
EV/EBITDA (x)			

Stock Data	
52-Week Range	$1.25 - $4.09
Shares Outstanding (mil.)	51.7
Market Capitalization (mil.)	$131
Enterprise Value (mil.)	$112
Debt to Capital	0%
Book Value/Share	$0.56
Price/Book	6.1
Average Three Months Trading Volume (K)	228
Insider Ownership	4.7%
Institutional Ownership	14.7%
Short interest (mil.)	7.9%
Dividend / Yield	$0.00/0.0%



Initiation - July 24, 2019 - Buy - Price Target $16.00

Please find Important Disclosures beginning on Page 15.

Company Overview. Anavex Life Sciences Corp. is an innovative biopharmaceutical company, that focuses on treating central nervous system diseases, with high unmet demand. Currently, the company has multiple clinical trials which have been combined to utilize genomic data focused on specific biomarkers to enrich the trial results. ANAVEX2-73 is the most advanced molecule and is being evaluated in Alzheimer's, Rett Syndrome, and Parkinson's Dementia Disease. The hope is that Sigma-1 agonism via ANAVEX2-73 can stimulate synaptogenesis, help restore calcium ion imbalance, reduce inflammation, reduce oxidative stress, reduce tau hyper-phosphorylation, restore mitochondrial function, and reduce protein misfolding. We view the upregulation of Sigma-1 as a highly conserved cell survival mechanism. These CNS and related indications represent large markets with significant unmet needs. The Alzheimer's market alone represents a $5 billion-plus opportunity in 2020 that could be as large as $12 Billion by 2026.

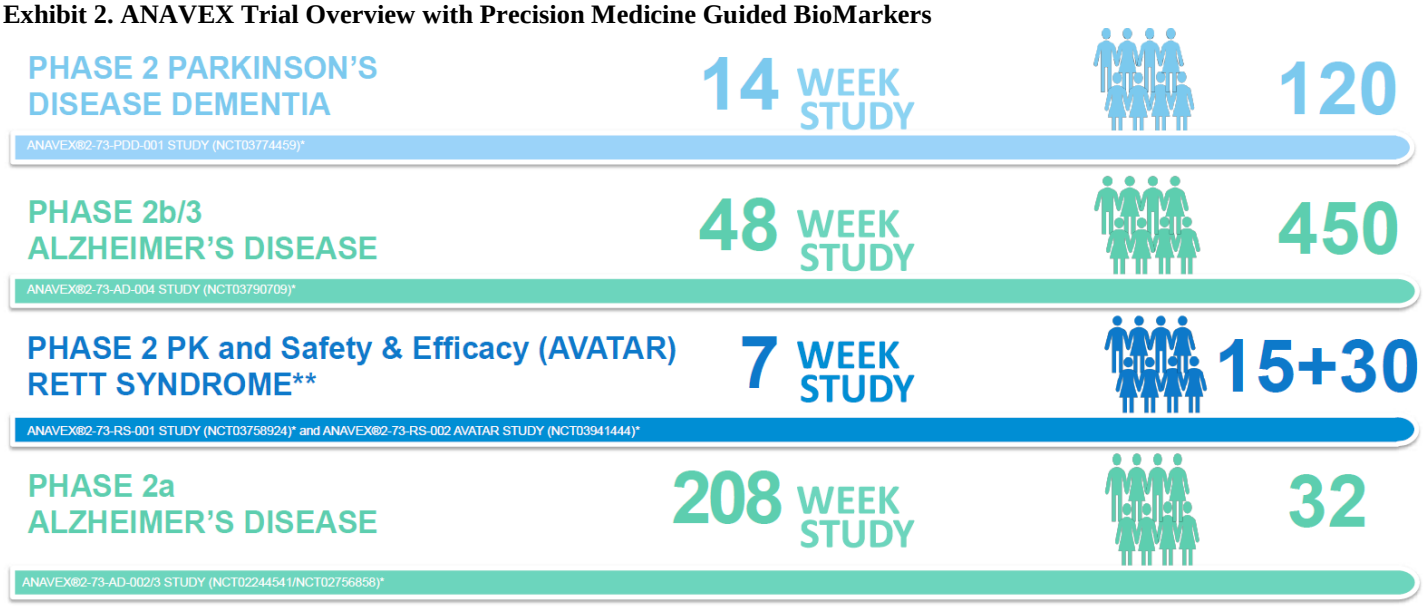
Exhibit 1. Catalysts

Molecule	Geography	Indication	Event	Timeline	Impact	Peak Sales
ANAVEX2-73	U.S./ EU	Parkinson's Dementia	Phase 2 clinical trial in Parkinson's disease completes enrollment	4Q19	++	
	U.S./ EU	Parkinson's Dementia	Top Line Data	1Q20	+++	
ANAVEX2-73	U.S./ AU	Rett Syndrome	Phase 2 study completion in Rett syndrome	4Q19	++	
	U.S./ AU	Rett Syndrome	Top Line Data	1Q20	+++	
ANAVEX2-73	US / ROW	Alzheimer's disease	Phase 2b/3 trial Alzheimer's disease trial completion	YE20	++	
	US / ROW	Alzheimer's disease	Phase 2b/3 trial Alzheimer's disease Top Line Data	1Q21	+++	
	US / ROW	Alzheimer's disease	Possible filing in AD	YE21	+	

Stock Significance Scale: + of moderate importance; ++ higher level; +++ highly

Source: Dawson James

Exhibit 2. ANAVEX Trial Overview with Precision Medicine Guided BioMarkers



Source: Anavex Life Sciences

A special thanks to Clayton Berger – Skidmore College, Chase Shea - Georgetown University, Alex Levy - University of Wisconsin-Madison , Jesse Clark - University of Florida, Ryan Swiezbin- Quinnipiac University, Tucker Kolbert - University of Wisconsin -Madison for their research contributions to this report.

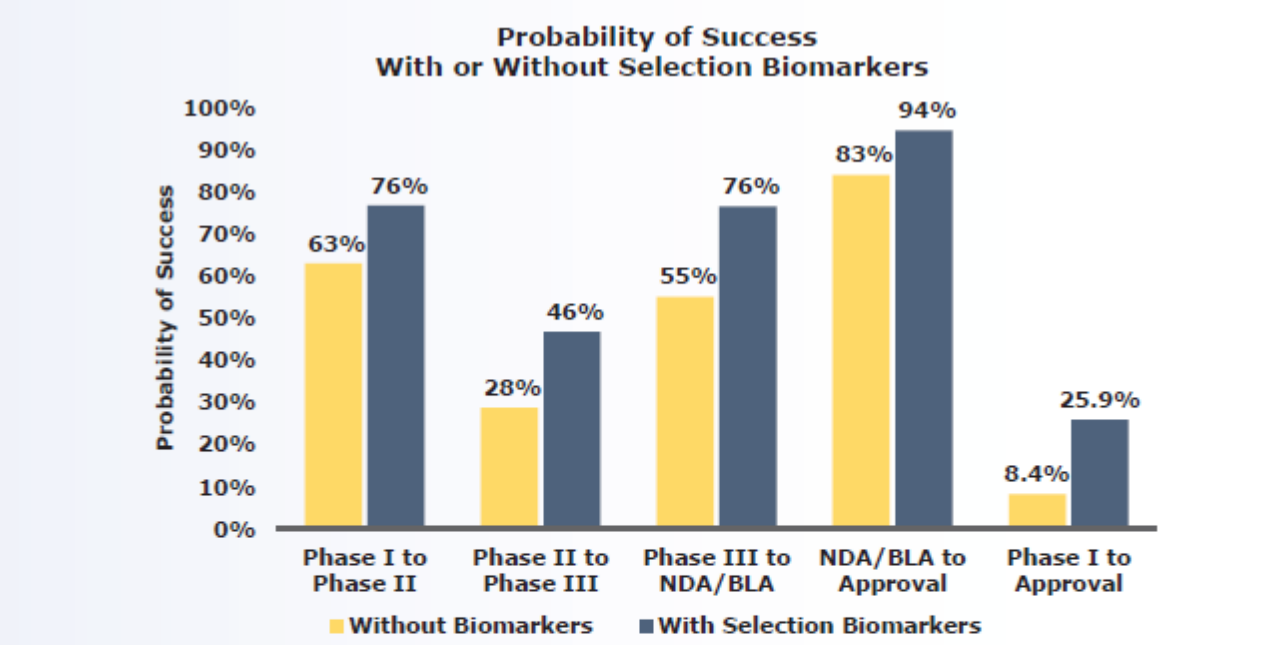
Bull Case. Anavex's lead product, ANAVEX2-73 works. Data through 148 weeks in the Phase 2a trial showed favorable safety and efficacy. The current Phase 2b/3 trial utilizes genomic biomarkers to enrich the probability of the patient's response. ANAVEX2-73 has a differentiated mechanism of action, agonism of the Sigma 1 receptor. This coupled (as just mentioned), with smart clinical trials that use biomarkers to enrich the target patient population in a well-designed Phase 1 and 2 studies suggest the current study has a good probability of meeting its endpoints. ANAVEX2-73 also has an excellent safety profile, so even moderate efficacy in Alzheimer's disease, Rett Syndrome, Parkinson's Dementia Disease is welcome. Multiple catalysts beginning later this year and across the next 24 months, if positive, may become transformative for the company.

Bear Case. ANAVEX2-73 fails in later-stage clinical trials. Early results can be both encouraging and misleading as we have seen many products with strong Phase 2 data fail in later stages of clinical development. AD, Rett, and PDD are complex multi-factorial diseases. As such it's unlikely that one signaling pathway, Sigma 1, will be enough to meaningfully change the course of the disease.

Our Take. We view the science behind Sigma 1 agonism as valid and the clinical data, thus far, (148 weeks in AD) as suggestive of an efficacy signal. While we can not say with certainty that any of the current clinical programs in AD, Rett or PDD will show compelling results we couple our outlook with a benign molecule (ANAVEX2-73 has shown itself to be very safe). As such, any efficacy signal is likely to be welcomed. The CNS area is one of small step innovation, combination therapy, and incremental gains. We also are also excited to see the data from the Rett and PDD trials which may provide additional clues into the mechanism of action, efficacy, and additional biomarker data to help further identify responders versus non-responders. On balance we see a very favorable risk-reward ratio in Anavex.

Financials. For the 2Q19 Anavex reported $19.5M in cash and equivalents. We also note that the company is offsetting some of its cost (Rett Syndrome) with help from the Australian government and other private corporations.

Exhibit 3. The efficacy of using biomarkers in clinical studies

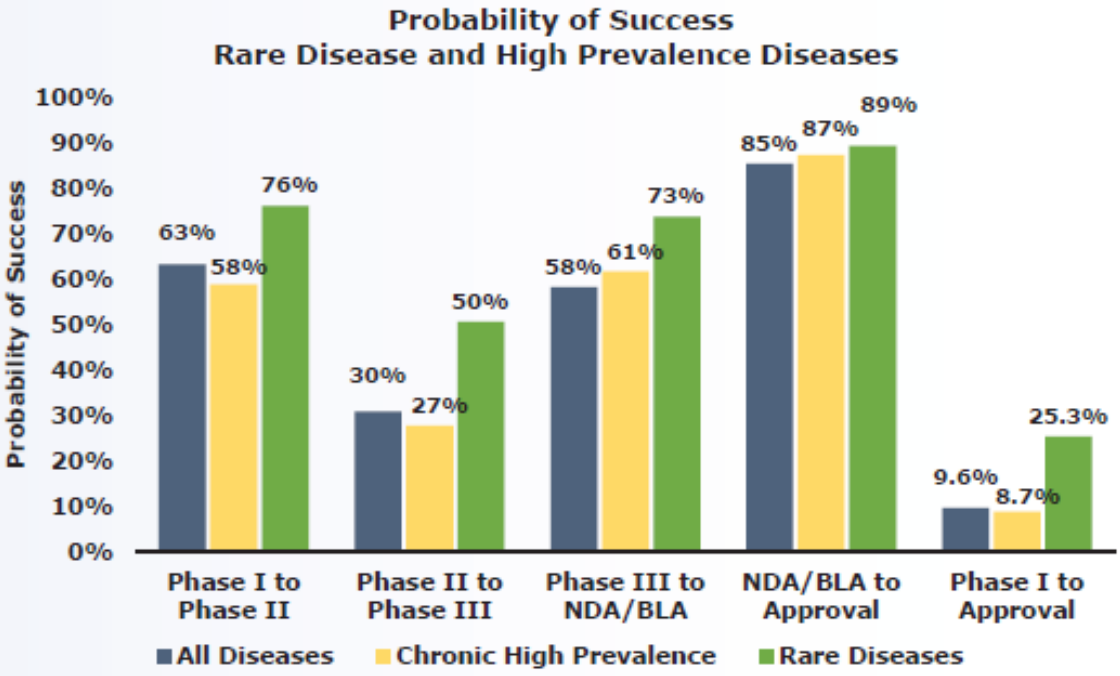


Phase Success	Phase I to Phase II		Phase II to Phase III		Phase III to NDA/BLA		NDA/BLA to Approval	
	Advanced or Suspended	Phase Success	Advanced or Suspended	Phase Success	Advanced or Suspended	Phase Success	Advanced or Suspended	Phase Success
No Biomarkers	3480	63.0%	3396	28.8%	1254	55.0%	882	83.9%
Selection Biomarkers	43	76.7%	246	46.7%	132	76.5%	91	94.5%
Likelihood of Approval	**Phase I to Approval**		**Phase II to Approval**		**Phase III to Approval**		**NDA/BLA to Approval**	
	LOA n	Phase LOA	LOA n	Phase LOA	LOA n	Phase LOA	LOA n	Phase LOA
No Biomarkers	9012	8.4%	5532	13.3%	2136	46.2%	882	83.9%
Selection Biomarkers	512	25.9%	469	33.8%	223	72.3%	91	94.5%

Source: BIO Industry Analysis

Current Treatment for Rett Syndrome. Rett syndrome is a rare non-inherited genetic postnatal progressive neurodevelopmental disorder that almost exclusively occurs in females (approximately 1 in every 10,000-15,0000 female births). This disorder leads to several lifelong impairments, such as difficulty breathing, talking, waking, and eating. The cause is due to an X-linked mutation (MECP2) responsible for encoding methyl-CpG- binding protein. No drugs are currently approved specifically for the treatment of Rett syndrome, although there are certain types of antiepileptic drugs that are used for seizure-like behavior associated with symptoms of the syndrome. Current treatments used for Rett syndrome are directed at helping individuals with communication, social participation, and mobility. These treatment modalities usually only progress as the children grow older and involve a team of specialists who each address specific symptoms caused by Rett syndrome. This holistic approach is aimed at making life more comfortable for patients not at treating or slowing down the disease. ANAVEX2-73 is one of four clinical studies currently being funded by the Rett syndrome foundation. So far, ANAVEX2-73 has shown promising results in mouse models during preclinical trial studies completed in 2016. These conclusions were promising enough that Anavex is now in a Phase 2 study in Rett syndrome. Currently, there are two Phase 2, studies. One in the U.S. and one in Australia (the Avatar study).

Exhibit 4. Increased probability for FDA approval of rare diseases



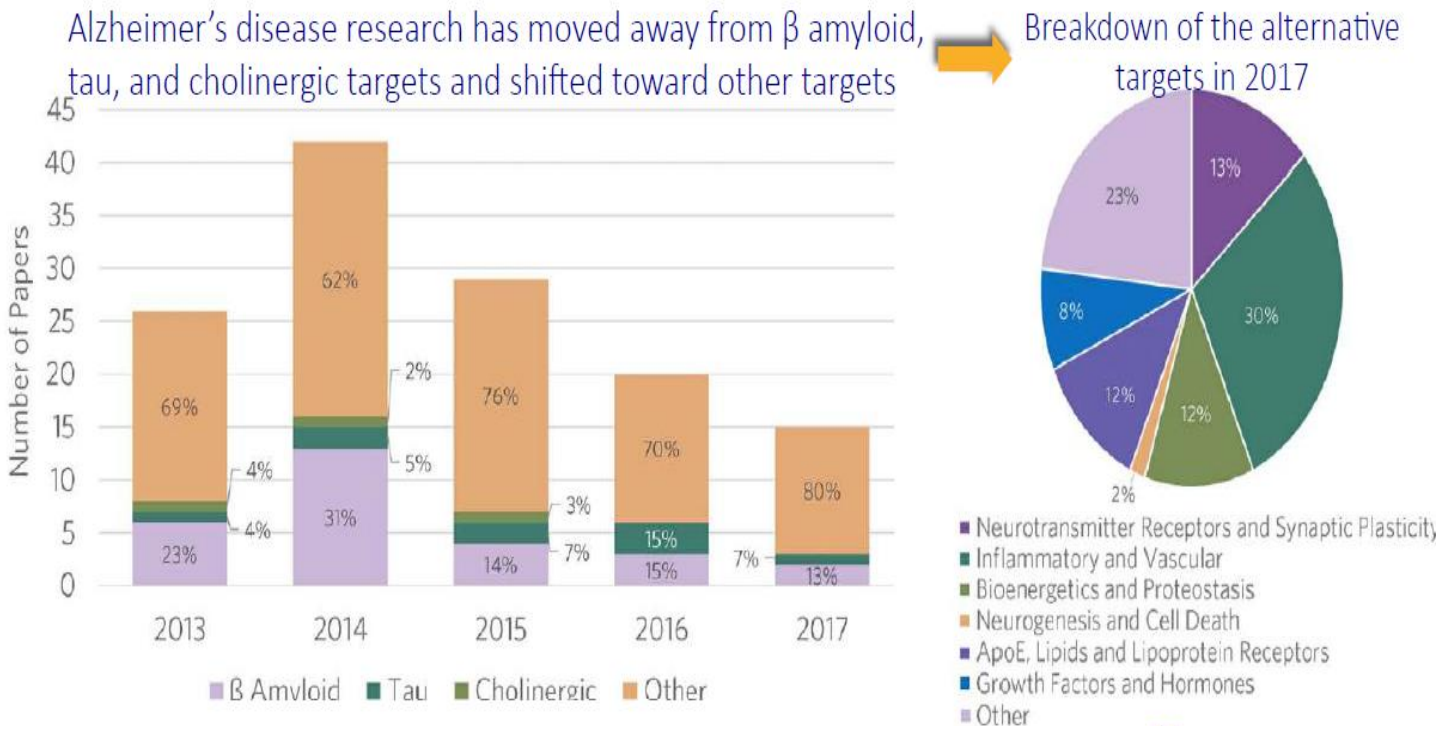
Phase Success	Phase I to Phase II		Phase II to Phase III		Phase III to NDA/BLA		NDA/BLA to Approval	
	Advanced or Suspended	Phase Success	Advanced or Suspended	Phase Success	Advanced or Suspended	Phase Success	Advanced or Suspended	Phase Success
All Diseases	3582	63.2%	3862	30.7%	1491	58.1%	1050	85.3%
Chronic High Prevalence	732	58.7%	726	27.7%	268	61.6%	196	87.2%
Rare Diseases	150	76.0%	168	50.6%	110	73.6%	93	89.2%

Likelihood of Approval	Phase I to Approval		Phase II to Approval		Phase III to Approval		NDA/BLA to Approval	
	LOA n	Phase LOA	LOA n	Phase LOA	LOA n	Phase LOA	LOA n	Phase LOA
All Diseases	9985	9.6%	6403	15.3%	2541	49.6%	1050	85.3%
Chronic High Prevalence	1922	8.7%	1190	14.9%	464	53.7%	196	87.2%
Rare Diseases	521	25.3%	371	33.3%	203	65.7%	93	89.2%

Source: BIO Industry Analysis

Alzheimer's Disease is an irreversible, progressive neurological disease that leads to decrease functionality of memory and cognition. It is the most common cause of dementia and is the sixth-leading cause of death in the United States. Currently, on the market there are four open-label medications used specifically to treat Alzheimer's disease. The goal of these drugs is to slow down cognitive impair, by either addressing cholinergic targets, tau fibers, or Beta-Amyloid plaques. These medications have little efficacy in stopping any degradation and have proved to be less effective than ANAVEX2-73 at maintaining mental functionality. Anavex's methodology in the treatment of Alzheimer's is to target the individual's specific imbalance using precision medicine. These targets include but are not limited to, Beta-Amyloid plaques, tau fibers, cholinergic targets, neurotransmitter receptors and synaptic plasticity, inflammatory and vascular, bioenergetics and proteostasis, ApoE Lipids and lipoprotein receptors, and growth factors and hormones. ANAVEX2-73, a sigma-1 receptor agonist, is believed to restore cellular homeostasis among these targets mainly, by restoring Ca^{2+} imbalances, synaptogenesis, reducing inflammation, reducing oxidative stress, reducing tau hyper-phosphorylation, restoring mitochondrial dysfunction, and by reducing protein misfolding.

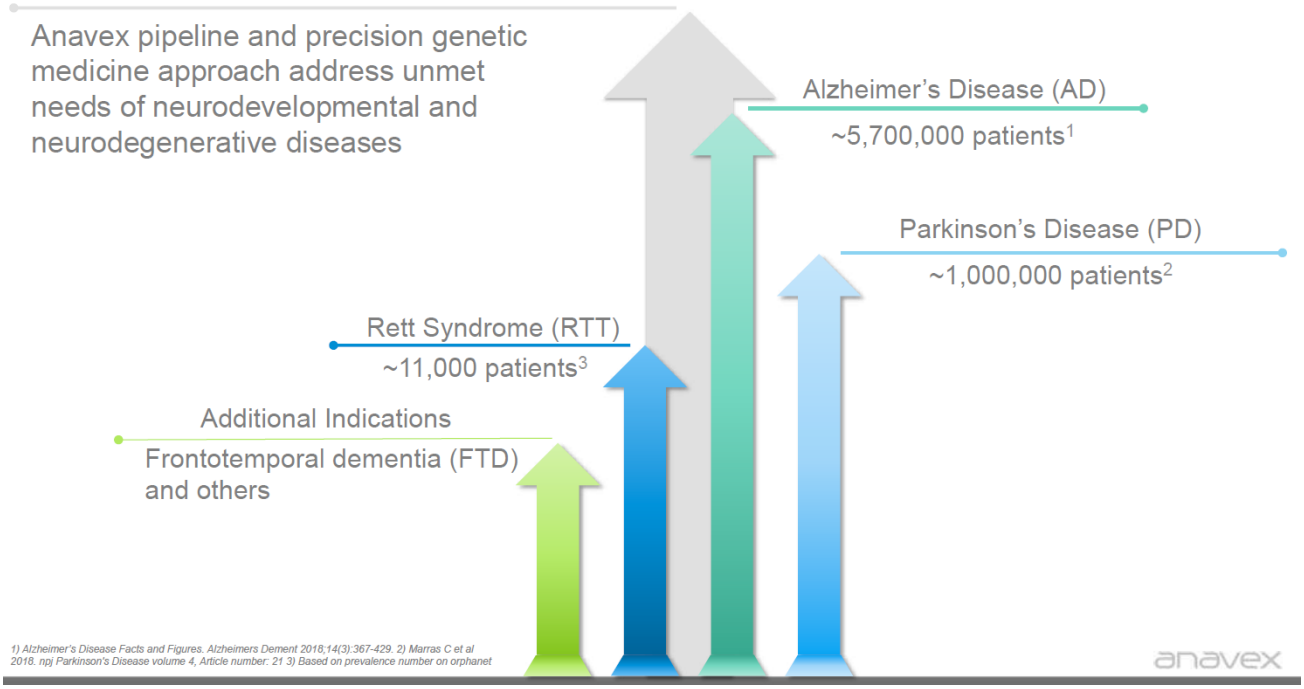
Exhibit 5. Paradigm Shift in Alzheimer's Disease



Source: http://www.cytoxgroup.com/uploads/news/id6/BioCentury_Diagnosing-AD-Trials-6-March-2017.pdf

Parkinson's Disease Dementia or PDD. PDD is when Parkinson's disease eventually leads to dementia. The resulting effect is a degradation of specific neurons in the substantia nigra, related to a dramatic decrease in dopamine production, and Lewy bodies. Out of all the Parkinson's patients, 50-80% eventually end up with PDD. Currently, there are no cures for Parkinson's disease, only medication to help manage the symptoms. Most of these drugs work by enabling dopamine production since there are low concentrations of dopamine in people with Parkinson's disease. There are several downsides to these medications, though. First off, their effectiveness dramatically decreases over time, with prolonged use of the given drug. Secondly, there are many side effects as a result of administering these treatment options, like nausea, lightheadedness, and hallucinations. ANAVEX2-73 has proved to be safer with better efficacy than the remaining drugs on the market.

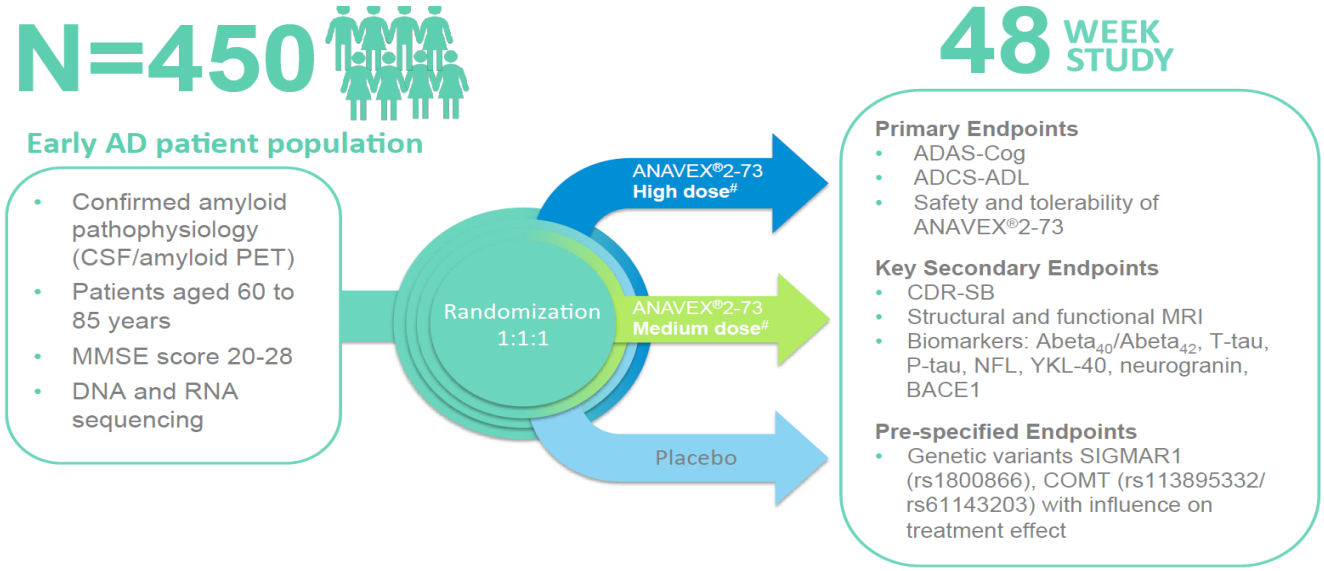
Exhibit 7. A Compelling Pipeline in both Large and Small CNS Indications



Source: Anavex Life Sciences

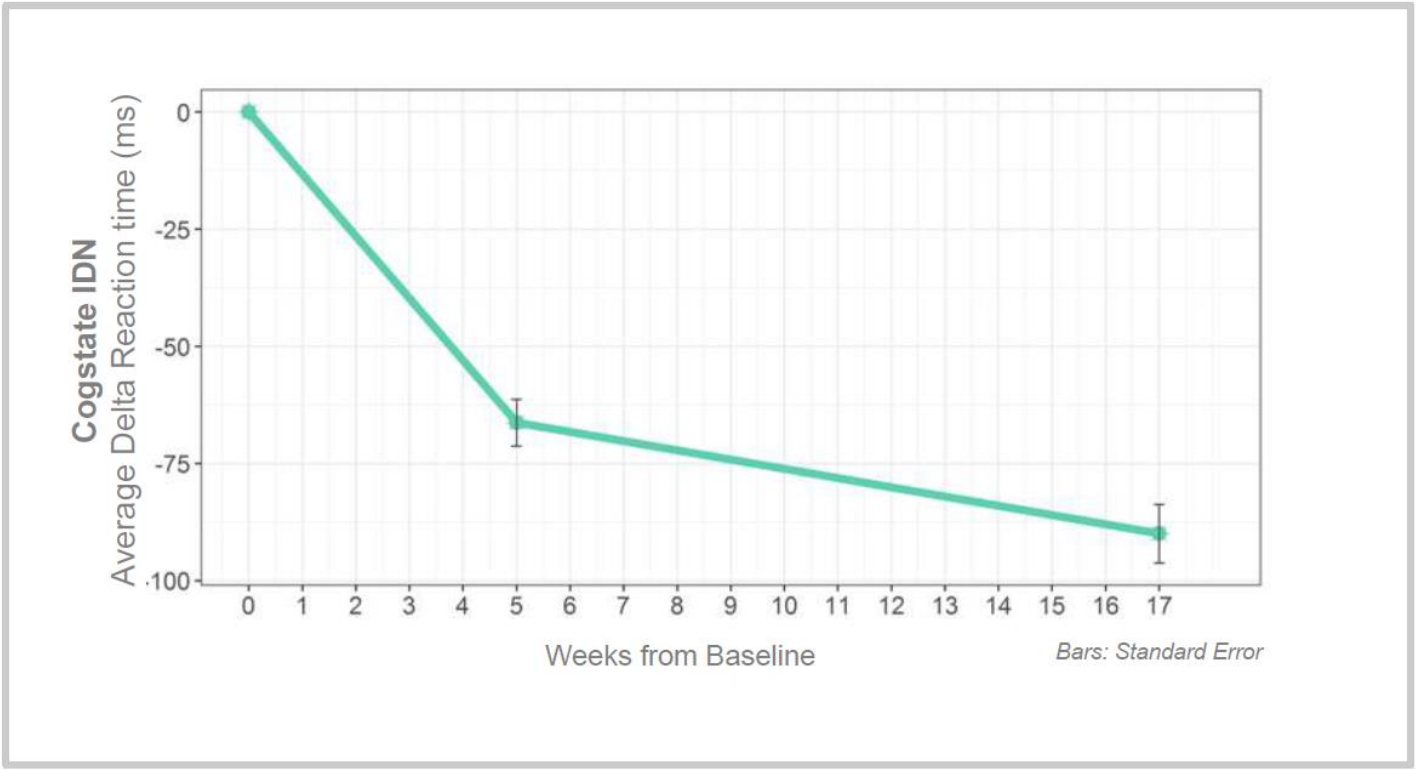
Alzheimer's Disease - AD. The ANAVEX2-73 Alzheimer's study is currently classified as a Phase 2b/3, potentially registrational study. The study is enrolling up to 450 patients, ages 60 to 85, with confirmed amyloid pathophysiology, and a baseline MMSE score ranging from 20-28. Patients are to be randomized into one of three groups, one being given a high dose of ANAVEX2-73, another group being treated with a medium dose, and a control group that will be given a placebo. The primary end points will be based on the ADAS-cognitive testing and the ADCS-activities of daily living. The pre-specified endpoints are the genetic variants SIGMAR1 (rs1800866), and COMT (rs113895332) with influence on the treatment effect. Data thus far suggests that ANAVEX2-73 (high dose) increases the ADCS-ADL score by 1.6-fold and the MMSE score by 2.1 fold. The full topline data from the 2b/3 ANAVEX2-73 studies in Alzheimer's is expected sometime in 2021.

Exhibit 7. ANAVEX2-73 Study Design – Alzheimer's Disease



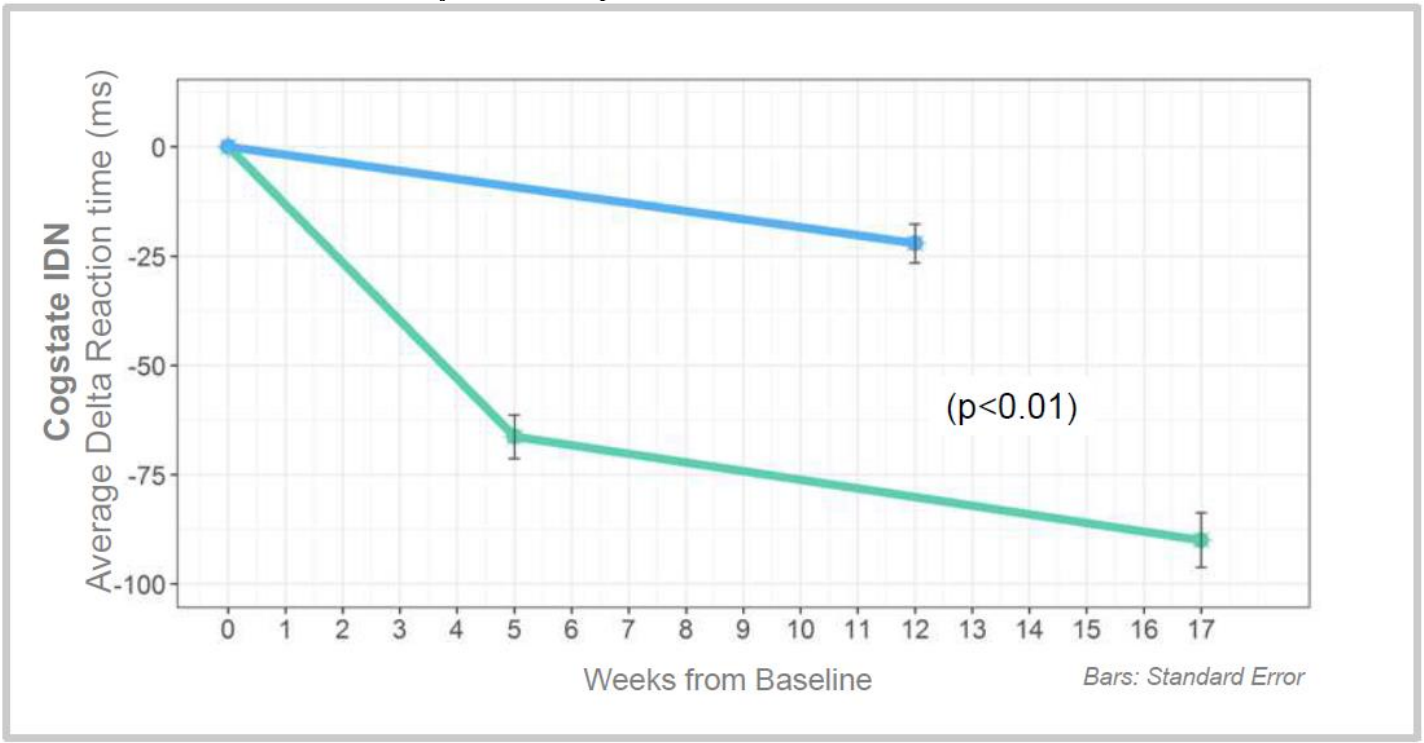
Source: Anavex Life Sciences

Exhibit 7. ANAVEX2-73 Phase 2a Study: Cogstate IDN Improve within Weeks



Source: Anavex Life Sciences

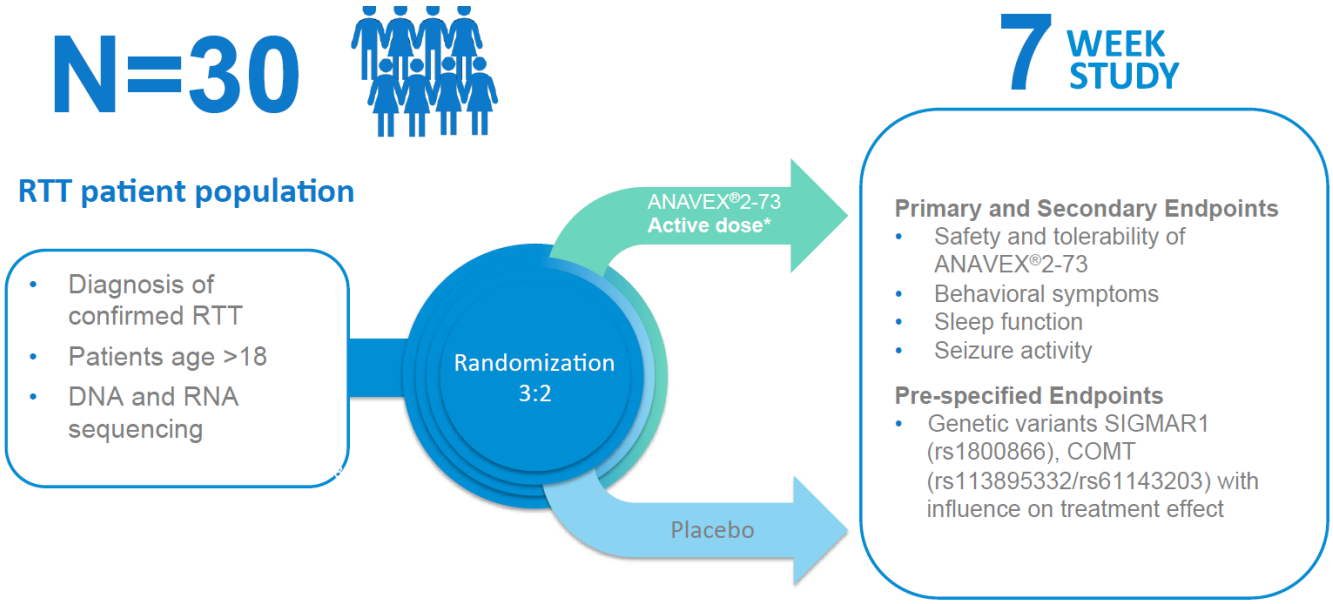
Exhibit 7. ANAVEX2-73 Phase 2a Study: Patients Improve within Weeks vs. Standard of Care



Based on comparison to AIBL-ROCS-AD Cohort as standard of care comparator (top line).
Source: Anavex Life Sciences

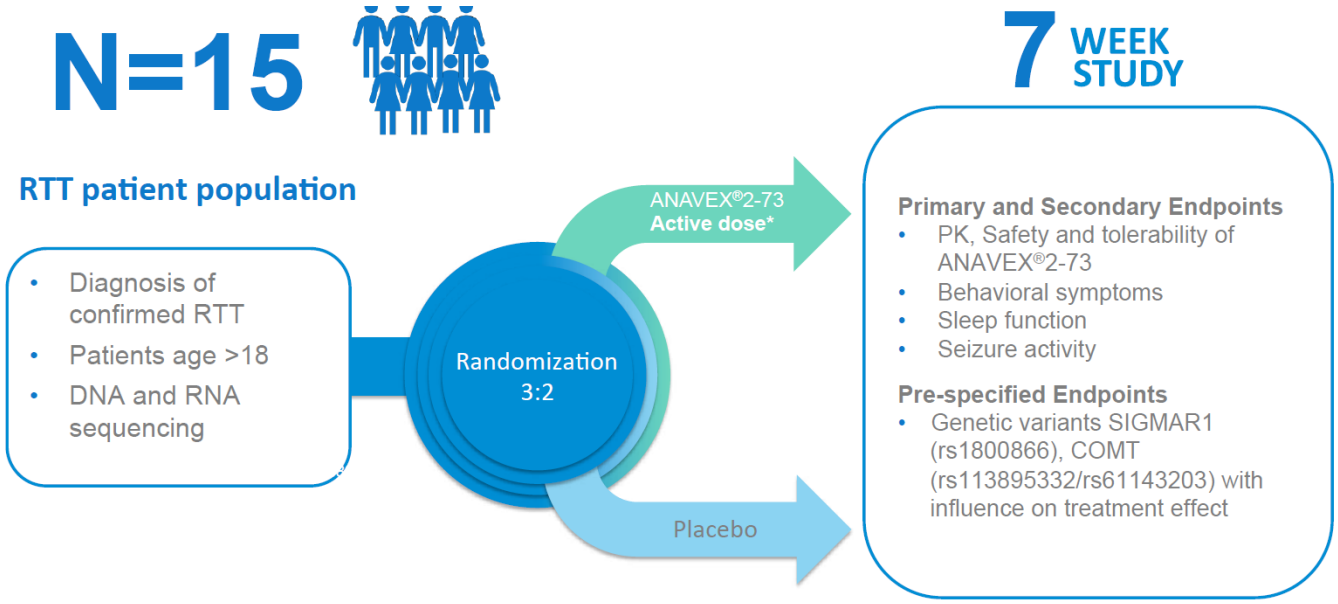
Rett Syndrome. Anavex has two clinical trials for Rett syndrome that are underway, and both have recently successfully dosed their first patients. The principle differences between each study are that the U.S. trial will have 15 patients ages 18 and older and will focus primarily on safety and pharmacokinetic data. The Avatar study (Australia) plans on enrolling 30 patients also over 18 years of age with a focus on safety and efficacy. There are multiple benefits associated with two trials and specifically with the Avatar trial, which include financial support in Australia. The Australian government is partly sponsoring the trial (a cash back payment of around 40%) to Anavex with the completion of the study, combined with reduced trial costs in Australia versus the U.S. We could see results as early as year-end, 2019.

Exhibit 7. ANAVEX2-73 Study Design for Rhett Syndrome (AVATAR – Australia)



Source: Anavex Life Sciences

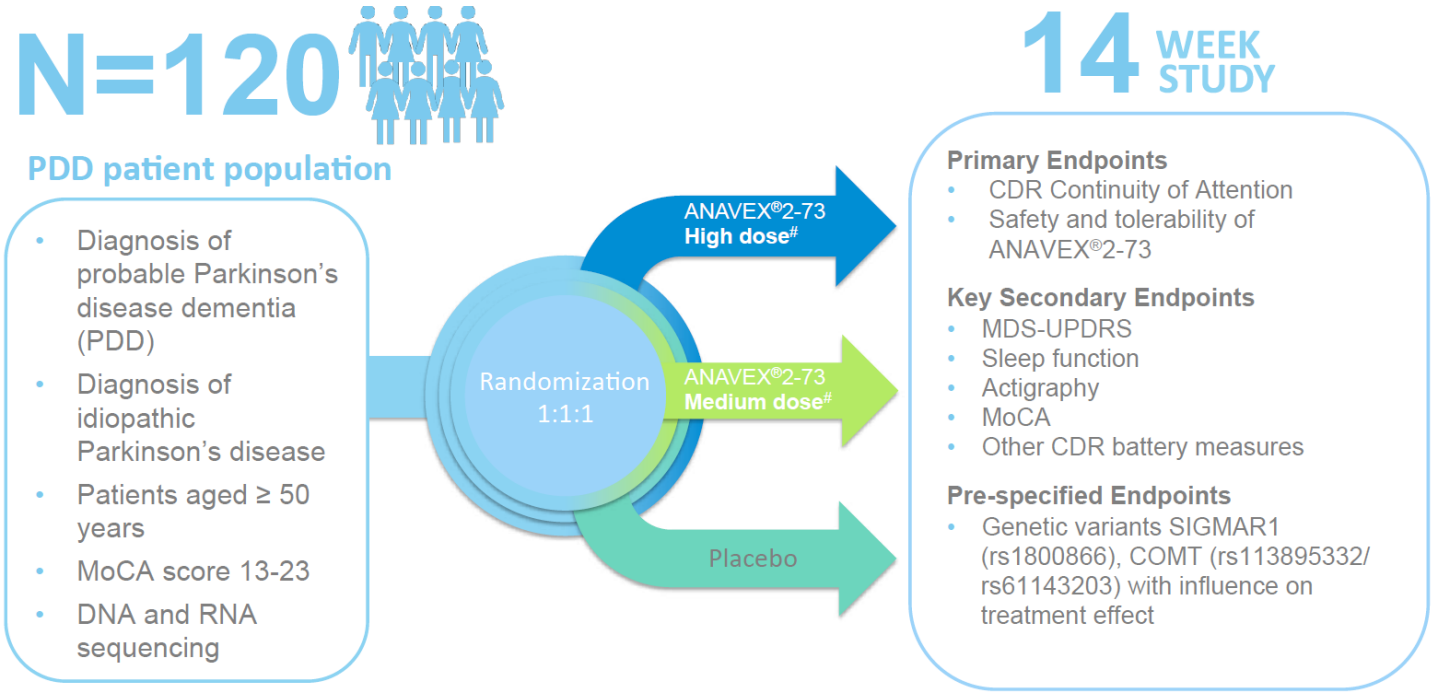
Exhibit 7. ANAVEX2-73 Study Design for Rhett Syndrome (U.S.)



Source: Anavex Life Sciences

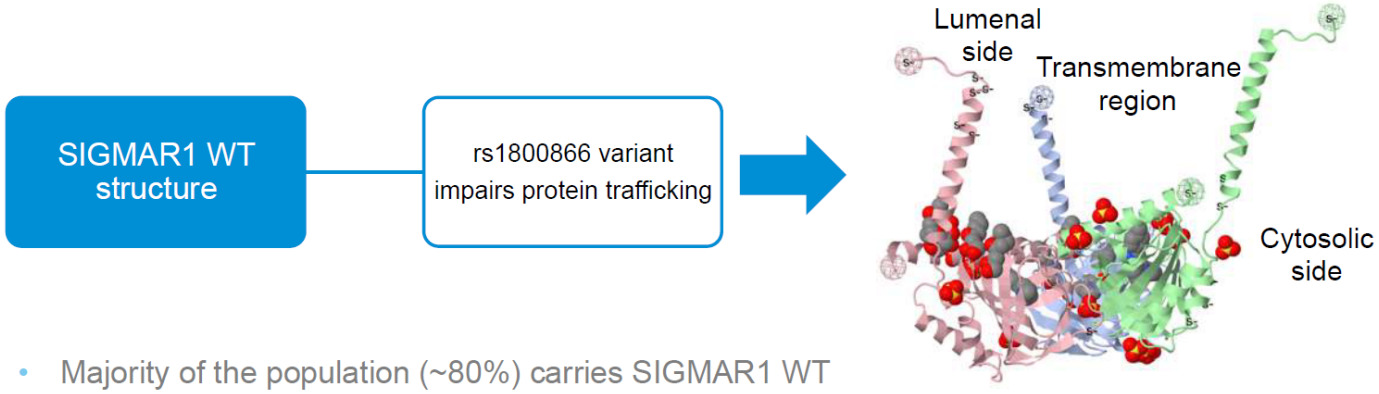
Parkinson's Disease Dementia (PDD). The 14 week PDD clinical study is a Phase 2 trial. The trial intends to enroll N=120 patients, who are 50 years of age or older, have a MoCA score of 13-23, have a diagnosis of idiopathic Parkinson's disease, and a diagnosis of probable PDD. Like the Alzheimer's study, the PDD population will be divided into three groups, a high dose ANAVEX2-73 group, a medium dose ANAVEX2-73 group, and a control placebo group. The primary endpoint is safety, tolerability, and CDR- continuity of attention. The prespecified endpoints are the genetic variants SIGMAR1 (rs1800866), and COMT (rs113895332/rs61143203) with influence on the treatment effect. This is a 14-week study, and results should be expected by early 2020.

Exhibit 7. ANAVEX2-73 Study Design for PDD



Source: Anavex Life Sciences

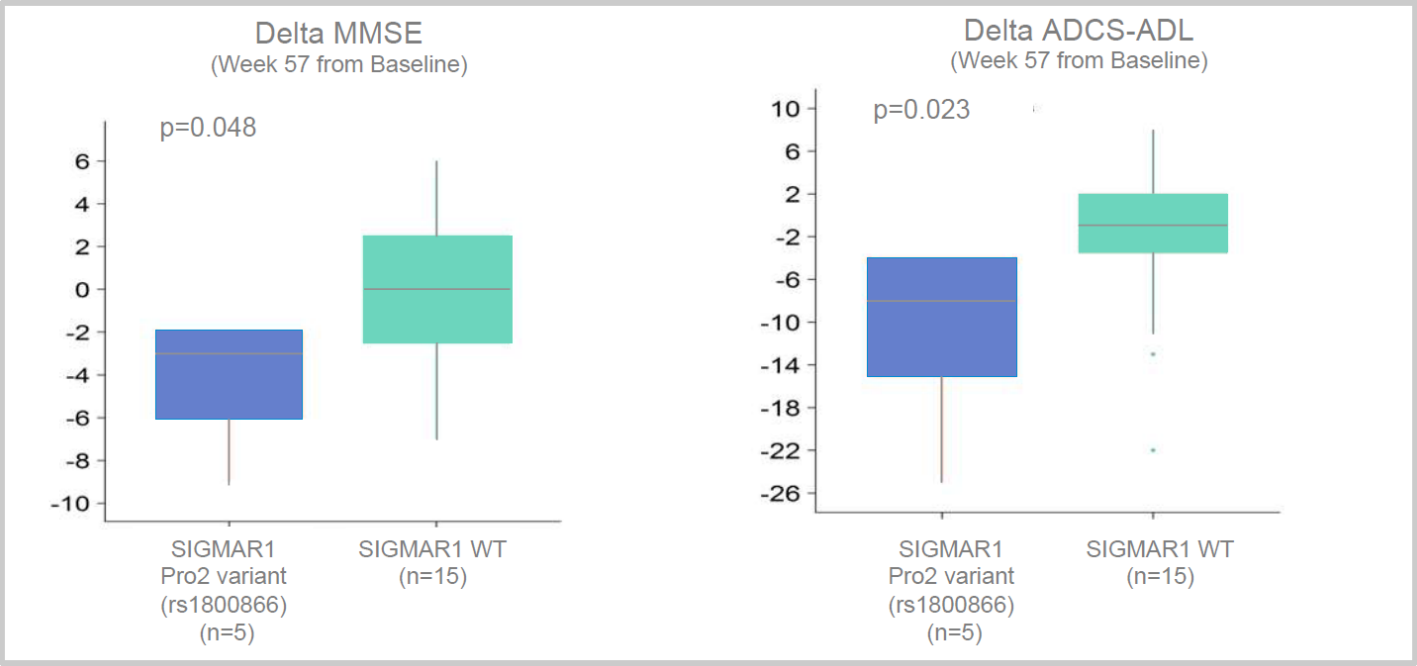
Exhibit 7. SIGMAR1 Gene Plays a Role in Protein Trafficking



- Majority of the population (~80%) carries SIGMAR1 WT
- Majority of patients (~80%) are expected to benefit from SIGMAR1 activation with ANAVEX®2-73
- rs1800866 variant found in the remaining (~20%) of the population can cause structural change, leading to impaired protein trafficking

Source: Anavex Life Sciences and Laurini E., 3D Homology Model of Sigma 1 Receptor.

Exhibit 7. SIGMAR1 WT Gene Associated with Improved Response …and validated at 48 weeks



Source: Anavex Life Sciences and H Hampel et al., AAIC 2018

Modeling Assumptions: We model incidence and prevalence in Alzheimer's, Rett syndrome, and Parkinson's Dementia with assumptions on clinical progress, commercialization, market share penetration, and pricing. Our therapeutic models follow.

1. **Alzheimer's Model**
   - **a.** We assume that the U.S. Alzheimer's market will consist of around 5.5 million target patients by 2020 and grow at an average rate of 4% each year, driven by aging baby boomers.
   - **b.** Our model assumes that ANAVEX2-73 can be commercialized by 2024. Key to our timeline will be the decision regarding a second pivotal trial. The current Phase2b/3 trial, with compelling data coupled with a high safety margin, could allow a fast pathway to the marketplace.
   - **c.** We assume very modest pricing at just $10,000 annually and a peak share of just 17%.
   - **d.** In terms of probability of success, we "haircut" our model by 75% by assuming just a 25% probability of success which is low given the fact that AVXL-273 is now in a P2b/P3 trial. We do this out of recognition for the high historic failure rates seen in the CNS space and for conservatism. We apply the same probabilities across the PDD and Rett programs as well.
2. **Rett Syndrome**
   - **a.** We assume revenues in 2021 in Rett syndrome. We recognize that good data coupled with orphan status, could create a fast pathway to the marketplace.
   - **b.** Given the orphan nature of Rett syndrome, we assume high pricing of $180k annually and a peak market share of 60% in the 10,000 U.S. patient prevalence.
3. **Parkinson's Dementia Disease**
   - **a.** We assume revenues in 2024 in PDD. We assume similar pricing to the AD market at $10k annually and a peak market share of just 14% in the 500,000 million U.S. patient prevalence.

Exhibit 9. AD Market Model

AVXL 2-73 U.S. AD	2015E	2016E	2017E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Prevalence	5,200,000	5,200,000	5,252,000	5,464,181	5,573,464.42	5,684,934	5,855,481.72	6,089,701	6,394,186.03	6,777,837	7,116,729.06	7,401,398	7,623,440.16	7,775,909	7,931,427.15
Growth		1%	2%	2%	2%	3%	4%	5%	6%	5%	4%	3%	2%	2%	2%
Target Population					1,114,693	1,705,480	2,342,193	3,044,850	3,836,512	3,388,919	2,846,692	2,220,419	1,524,688	1,555,182	1,586,285
Market Share							0%	0%	2%	4%	7%	12%	14%	16%	17%
Treated Patients					-	-	-	-	76,730	135,557	199,268	266,450	213,456	248,829	269,669
Cost per year					$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
% Price Increase					0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Probability of Success					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Total sales ($M)		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$192**	**$339**	**$498**	**$666**	**$534**	**$622**	**$674**

AVXL 2-73 ROW AD	2015E	2016E	2017E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Prevalence	15,200,000	########	15,504,000	15,814,080	16,130,362	16,452,969	16,946,558	17,624,420	18,505,641	19,615,979.70	20,596,779	21,420,649.83	22,063,269	22,504,535	22,954,625
Growth		2%	2%	2%	2%	3%	4%	5%	6%	5%	4%	3%	2%	2%	2%
Target Population						4,935,891	6,778,623	8,812,210	11,103,385	9,807,990	8,238,711	6,426,195	4,412,654	4,500,907	4,590,925
Market Share						0%	0%	0%	2%	3%	3%	4%	5%	6%	7%
Treated Patients						-	-	-	222,068	294,240	247,161	257,048	220,633	270,054	321,365
Cost per year						$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
% Price Increase						0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Probability of Success					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Total sales ($M)		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$555**	**$736**	**$618**	**$643**	**$552**	**$675**	**$803**

Source: Dawson James

Exhibit 9. Rett Syndrome Model

AVXL 2-73 U.S. Rett Syndrome	2015E	2016E	2017E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Prevalence	15,000	15,000	15,150	15,762	16,077	16,399	16,727	17,061	17,403	17,751	18,106	18,468	18,837	19,214	19,598
Growth		1%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Target Population					14,470	14,759	15,054	15,355	15,662	15,976	16,295	16,621	16,953	17,292	17,638
Market Share						1%	10%	30%	45%	55%	60%	60%	60%	60%	60%
Treated Patients					-	148	1,505	4,607	7,048	8,787	9,777	9,973	10,172	10,375	10,583
Cost per year					$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000	$180,000
% Price Increase					0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Probability of Success					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Total sales ($M)		**$0**	**$0**	**$0**	**$0**	**$7**	**$68**	**$207**	**$317**	**$395**	**$440**	**$449**	**$458**	**$467**	**$476**

Source: Dawson James

Exhibit 9. Parkinson's Dementia Disease Model

AVXL 2-73 U.S. Parkinson's Dimentia	2015E	2016E	2017E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Prevalence	550,000	550,000	550,550	572,792	584,248	595,933	607,852	620,009	632,409	645,057	657,958	671,117	684,540	698,231	712,195
Growth		0%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Target Population					525,823	536,340	547,067	558,008	569,168	580,551	592,162	604,006	616,086	628,407	640,976
Market Share						0%	0%	0%	1%	4%	6%	8%	12%	14%	15%
Treated Patients					-	-	-	-	5,692	23,222	35,530	48,320	73,930	87,977	96,146
Cost per year						$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000
% Price Increase					0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Probability of Success					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Total sales ($M)		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$14**	**$58**	**$89**	**$121**	**$185**	**$220**	**$240**

Source: Dawson James

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 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 just a 25% probability of success 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.

Exhibit 10. FCFF Model

	Average	$ 16

	Price Target	$ 16
	Year	2019

DCF Valuation Using FCF (mln):

units ('000)	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
EBIT	(17,381)	(31,184)	(32,144)	(26,730)	(32,884)	90,540	915,075	1,344,434	1,458,624	1,673,831	1,546,364	1,781,864	1,974,188
Tax Rate	0%	0%	0%	0%	5%	10%	18%	18%	30%	31%	31%	39%	39%
EBIT(1-t)	(17,381)	(31,184)	(32,144)	(26,730)	(31,239)	81,486	750,362	1,102,436	1,021,037	1,154,943	1,066,991	1,086,937	1,204,254
CapEx	-	-	-	-	-								
Depreciation	-	-	-	-	-								
Change in NWC (ex cash)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
FCF	(17,381)	(31,184)	(32,144)	(26,730)	(31,239)	81,486	750,362	1,102,436	1,021,037	1,154,943	1,066,991	1,086,937	1,204,254
PV of FCF	(22,595)	(31,184)	(24,726)	(15,817)	(14,219)	28,531	202,094	228,399	162,719	141,584	100,617	78,844	67,196
Discount Rate	30%												
Long Term Growth Rate	1%												
Terminal Cash Flow	4,194,127.66												
Terminal Value YE2030	234,026												
NPV	1,158,063												
NPV-Debt	-												
Projected Shares out (thousands)	73,395	2030E											
NPV Per Share	$ 15.78												

Source: Dawson James

Exhibit 11. Discounted EPS Model

Current Year		2019
Year of EPS		2030
Earnings Multiple		15
Discount Factor		30%
Selected Year EPS	$	16.40
NPV	$	13.73

	Discount Rate and Earnings Multiple Varies, Year is Constant 2030 EPS						
Earnings Multiple	13.73	5%	10%	15%	20%	25%	30%
1		$9.59	$5.75	$3.53	$2.21	$1.41	$0.92
5		$47.95	$28.75	$17.63	$11.04	$7.05	$4.58
10		$95.91	$57.49	$35.26	$22.08	$14.09	$9.15
15		$143.86	$86.24	$52.89	$33.11	$21.14	$13.73
20		$191.81	$114.98	$70.51	$44.15	$28.18	$18.31
25		$239.76	$143.73	$88.14	$55.19	$35.23	$22.88
30		$287.72	$172.48	$105.77	$66.23	$42.27	$27.46
35		$335.67	$201.22	$123.40	$77.27	$49.32	$32.03

Source: Dawson James

Exhibit 12. Sum of the Parts Model

Anavex Sum of the Parts	LT Gr	Discount Rate	Yrs. to Mkt	% Success	Peak Sales MM's	Term Val
AVXL 2-73 U.S. AD	1%	30%	5	50%	$2,697	$9,298.91
NPV						$4.27
AVXL 2-73 ROW AD	1%	30%	5	50%	$3,214	$11,081.54
NPV						$5.08
AVXL 2-73 Rett's Syndrome	1%	30%	3	50%	$1,905	$6,568.76
NPV						$5.09
AVXL 2-73 PDD	1%	30%	3	50%	$961	$3,315.39
NPV						$2.57
Net Margin						25%
MM Shrs OS (2030E)						73

Source: Dawson James

Exhibit 1. Income Statement

Anavex Life Sciences Corp												
Anavex: YE Sept 30	**2019E**	**2020E**	**2021E**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**	**2027E**	**2028E**	**2029E**	**2030E**
Revenue												
Anavex2-73 AD U.S.		-	-	-		191,826	338,892	498,171	666,126	533,641	622,073	674,171
Anavex2-73 AD ROW			-	-		555,169	735,599	617,903	642,619	551,582	675,136	803,412
Anavex2-73 Rett's Syndrome			6,642	67,744	207,296	317,162	395,395	439,967	448,767	457,742	466,897	476,235
Anavex2-73 Parkinson's Dimentia PDD					-	14,229	58,055	88,824	120,801	184,826	219,943	240,366
Total Product Revenues	**-**	**-**	**6,642**	**67,744**	**207,296**	**1,078,386**	**1,527,942**	**1,644,866**	**1,878,313**	**1,727,790**	**1,984,048**	**2,194,184**
% Chg												
% Sequential Growth												
Milestones												
% Sequential Growth												
Total Revenues ($000)	**-**	**-**	**6,642**	**67,744**	**207,296**	**1,078,386**	**1,527,942**	**1,644,866**	**1,878,313**	**1,727,790**	**1,984,048**	**2,194,184**
Expenses												
Cost of Goods Sold (10%)		-	-	-	-	74,699	107,449	111,607	130,875	108,522	129,721	147,758
Accounting and Audit Fees												
Amortization and depreciation	2	2	2	2	2	2	2	2	2	2	2	2
Bank charges and interest												
Consulting Fees												
Insurance												
Investor relations												
Legal fees												
Management fees												
Office and miscellanous expense												
Registration and filing fees												
Rent and administration												
Research and Development	24,040	24,867	25,369	20,601	16,729	13,585	11,032	8,959	7,275	5,908	4,797	3,896
Salaries and wages												
Travel												
Website design and maintence												
General and Administrative	6,588	7,247	7,972	80,000	100,000	75,000	65,000	65,650	66,307	66,970	67,639	68,316
Operating expenses	**31,158**	**32,116**	**33,342**	**100,602**	**116,731**	**163,286**	**183,482**	**186,217**	**204,457**	**181,401**	**202,159**	**219,971**
Oper. Inc. (Loss)	(31,158)	(32,116)	(26,700)	(32,859)	90,565	915,100	1,344,459	1,458,649	1,673,856	1,546,389	1,781,889	1,974,213
Oper Margin	NM	NM	NM	NM	0	1	1	1	1	1	1	1
Other income (expense)												
Research and Development incentive												
Interest and financing fees	(27)	(28)	(30)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)
Accretion of debt discount												
Change in fair value of derivative liability												
Debt conversion expense												
Loss on settlement of accounts payable												
Loss on extinguishment of debt												
Foreign exchange gain (loss)												
Financing related charges and adjustments												
Other non-operating income												
Non-operating Income (expense)	(27)	(28)	(30)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)	(25)
Financial Income, Net												
Financial Expenses, Net												
Pretax Income	**(31,184)**	**(32,144)**	**(26,730)**	**(32,884)**	**90,540**	**915,075**	**1,344,434**	**1,458,624**	**1,673,831**	**1,546,364**	**1,781,864**	**1,974,188**
Pretax Margin	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Income Tax Benefit (Provision)			(9,890)	(1,644)	9,054	164,714	389,886	481,346	602,579	603,082	694,927	769,933
Tax Rate	-	-		5%	10%	18%	29%	30%	31%	31%	31%	31%
GAAP Net Income (loss)	**(31,184)**	**(32,144)**	**(16,840)**	**(31,239)**	**81,486**	**750,362**	**954,548**	**977,278**	**1,071,252**	**943,282**	**1,086,937**	**1,204,254**
Net Margin	NM	NM	NM	NM	0.39	0.70	0.62	0.59	0.57	0.55	0.55	0.55
GAAP-EPS	**(0.65)**	**(0.65)**	**(0.33)**	**(0.59)**	**1.47**	**12.98**	**15.87**	**15.61**	**16.44**	**13.91**	**15.41**	**16.40**
Non GAAP EPS (dil)	(0.65)	(0.65)	(0.33)	(0.59)	1.47	12.98	15.87	15.61	16.44	13.91	15.41	16.40
Wgtd Avg Shrs (Bas)	46,968	48,349	48,542	48,737	48,932	49,128	49,325	49,523	49,721	49,920	50,120	50,321
Wgtd Avg Shrs (Dil)	47,288	49,296	51,298	53,381	55,548	57,804	60,151	62,593	65,135	67,779	70,532	73,395

Source: Dawson James

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 is 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 IP challenges, forcing the company to defend its patents or claiming the company is infringing on other patents. We do know that the lead product is protected by a composition of matter patent to 2033.

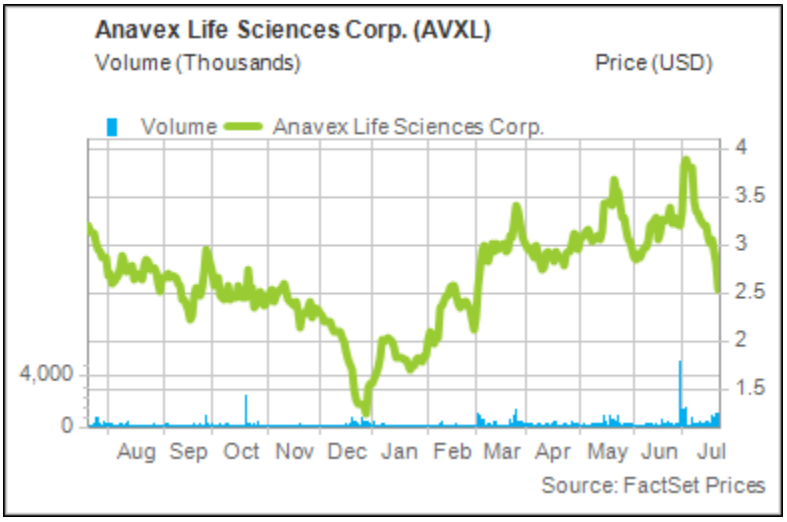
Market Share Risk. The central nervous system (CNS) market is competitive and tends to be dominated by large pharma and

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

Companies mentioned in this report

Important Disclosures:

Price Chart:



Price target and rating changes over the past three years:
Initiated – Buy – July 24, 2019 – Price Target $16.00

Dawson James Securities, Inc. (the "Firm") is a member of the Financial Industry Regulatory Authority ("FINRA") and the Securities Investor Protection Corporation ("SIPC").

The Firm does not make a market in the securities of the subject company(s). The Firm has NOT engaged in investment banking relationships with AVXL in the prior twelve months, as a manager or co-manager of a public offering and has NOT received compensation resulting from those relationships. The Firm may seek compensation for investment banking services in the future from the subject company(s). The Firm has NOT received any other compensation from the subject company(s) in the last 12 months for services unrelated to managing or co-managing of a public offering.

Neither the research analyst(s) whose name appears on this report nor any member of his (their) household is an officer, director or advisory board member of these companies. The Firm and/or its directors and employees may own securities of the company(s) in this report and may increase or decrease holdings in the future. As of June 30, 2019, the Firm as a whole did not beneficially own 1% or more of any class of common equity securities of the subject company(s) of this report. The Firm, its officers, directors, analysts or employees may effect transactions in and have long or short positions in the securities (or options or warrants related to those securities) of the company(s) subject to this report. The Firm may affect transactions as principal or agent in those securities.

Analysts receive no direct compensation in connection with the Firm's investment banking business. All Firm employees, including the analyst(s) responsible for preparing this report, may be eligible to receive non-product or service specific monetary bonus compensation that is based upon various factors, including total revenues of the Firm and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.

Although the statements in this report have been obtained from and are based upon recognized statistical services, issuer reports or communications, or other sources that the Firm believes to be reliable, we cannot guarantee their accuracy. All opinions and estimates included in this report constitute the analyst's judgment as of the date of this report and are subject to change without notice.

Information about valuation methods and risks can be found in the "STOCK VALUATION" and "RISK ANALYSIS" sections of this report.

The securities of the company discussed in this report may be unsuitable for investors depending on their specific investment objectives and financial position. This report is offered for informational purposes only and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such would be prohibited. Additional information is available upon request.

Rating Definitions:

1) **Buy**: The analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months;
2) **Neutra**l: The analyst believes the price of the stock is fairly valued for the next 12-18 months;
3) **Sel**l: The analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

The following chart reflects the range of current research report ratings for all companies followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	41	85%	12	29%
Market Perform (Neutral)	7	15%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	48	100%	12	25%

Analyst Certification:

The analyst(s) whose name appears on this research report certifies that 1) all of the views expressed in this report accurately reflect his (their) personal views about any and all of the subject securities or issuers discussed; and 2) no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst in this research report; and 3) all Dawson James employees, including the analyst(s) responsible for preparing this research report, may be eligible to receive non-product or service specific monetary bonus compensation that is based upon various factors, including total revenues of Dawson James and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.