# Anavex Life Sciences Reports PK and PD Data from Phase 2a Trial of ANAVEX®2-73 in Mild-to-Moderate Alzheimer's Disease Patients; Conference call today at 8:30am ET

*ANAVEX2-73 demonstrates desirable PK/PD properties, describing the relationship between drug concentration and the effect observed*

*Anavex is incorporating advanced Artificial Intelligence platform for the analysis of Phase 2a results with the aim to increase the chances of success in forthcoming Phase 2/3 study*

NEW YORK, October 12, 2017 – Anavex Life Sciences Corp. (Nasdaq: AVXL) today announced pharmacokinetic (PK) and pharmacodynamic (PD) data for ANAVEX2-73 from its positive Phase 2a study in mild-to-moderate Alzheimer's disease patients. ANAVEX2-73 targets the sigma-1 receptor, which regulates neuroplasticity and cellular homeostasis. Anavex previously reported the Phase 2a trial successfully achieved both primary and secondary endpoints at the pre-specified 57-week analysis.

Data announced today establishes a clear concentration-effect relationship between ANAVEX2-73 and study measurements. These measures obtained from all patients during 57 weeks include cognitive and functional scores as well as a biomarker signal of brain activity. Additionally, ANAVEX2-73 activity appears to be enhanced by its active metabolite (ANAVEX19-144), which also targets the sigma-1 receptor with a half-life approximately twice as long as the parent molecule.

"I welcome such a thorough analysis of data before moving into a Phase 2/3. The intriguing ANAVEX2-73 data shown thus far exemplifies a precision medicine approach, to my knowledge, the first of its kind to broaden the scope of drug development in Alzheimer's disease and other central nervous system diseases," said George Perry, PhD, Dean of the College of Sciences at The University of Texas at San Antonio and editor-in-chief of the Journal of Alzheimer's Disease.

The Company is identifying the best responders to ANAVEX2-73 by using Ariana Pharma's KEM® advanced Artificial Intelligence technology. This cutting edge trial analysis will be used to more effectively design the upcoming Phase 2/3 clinical study, raising the odds of late stage trial success.

"We continue to be encouraged by the data from our Phase 2a clinical trial for ANAVEX2-73," said Christopher U Missling, PhD, President and Chief Executive Officer of Anavex. "We believe that through a systematic analysis of ANAVEX2-73 we might be able to increase the potential impact ANAVEX2-73 may have on this devastating condition."

On the conference call scheduled for this morning, Christopher U Missling, PhD, President and Chief Executive Officer of Anavex will be joined by Professor George Perry, PhD and Mohammad Afshar, MD, PhD, President and CEO of Ariana Pharma to discuss new findings from the ANAVEX2-73 Phase 2a trial. Further data will be presented at the Clinical Trials on Alzheimer's Disease (CTAD) meeting in November 2017.

## Conference call and webcast information

Anavex will host a conference call at 8:30 a.m. ET today, October 12, 2017. The call will be webcast live at http://www.wsw.com/webcast/cc/avxl2 and slides are accessible through the investor relations section of the Company's website at www.anavex.com. To join the call live via telephone dial 1-866-866-1333 within the United States or 1-404-260-1421 from outside the United States. A replay of the call will also be available for a period of three months through the Company's website shortly after the call.

## About ANAVEX®2-73 Phase 2a Clinical Study

The multicenter Phase 2a clinical trial of ANAVEX 2-73 consisted of two parts and a total of 32 mild-to-moderate Alzheimer's patients. PART A was a simple randomized, open-label, two-period, cross-over between oral (30mg/50mg) and IV (3mg/5mg) administration, adaptive trial lasting up to 5 weeks for each patient. PART B was an open-label extension for an additional 52 weeks. Initially planned for 26 weeks, PART B was extended to 52 weeks as a result of requests from patients and caregivers.

The primary endpoint of the Phase 2a trial was safety, tolerability and maximum tolerated dose (MTD) of ANAVEX2-73, which had shown potential in preclinical studies to prevent, halt and/or reverse the course of the disease. Secondary endpoints included dose response, bioavailability, and exploratory cognitive as well as functional measures using Mini Mental State Examination (MMSE) and evaluation of Alzheimer's Disease Co-operative Study – Activities of Daily Living Inventory (ADCS-ADL), as well as Cogstate test battery and biomarker EEG/ERP.

## About Ariana Pharma

Ariana® Pharma is a leading digital health Company focused on developing advanced therapeutic decision support systems. Ariana's innovative clinical data analysis and diagnostic testing solutions help the healthcare sector better adapt patient treatments to individual biological characteristics. Ariana Pharma's KEM® technology enables personalization of therapies, improves the efficacy and safety of patient treatment, reduces risks and drug development costs, and accelerates time to market. KEM® is the only FDA-tested technology that systematically explores combinations of biomarkers, producing more effective biomarker signatures for precision medicine. Ariana has developed Onco KEM®, the most advanced, clinically tested, oncology treatment selection system. Founded in 2003 as a spin-off of the Institut Pasteur, Paris, France, the company opened a subsidiary in the United States in 2012. Further information is available at www.arianapharma.com.

## About Anavex Life Sciences Corp.

Anavex Life Sciences Corp. (Nasdaq: AVXL) is a publicly traded biopharmaceutical company dedicated to the development of differentiated therapeutics for the treatment of neurodegenerative and neurodevelopmental diseases including Alzheimer's disease, other central nervous system (CNS) diseases, pain and various types of cancer. Anavex's lead drug candidate, ANAVEX®2-73, recently completed successfully a Phase 2a clinical trial for Alzheimer's disease. ANAVEX®2-73 is an orally available drug candidate that restores cellular homeostasis by targeting sigma-1 and muscarinic receptors. Preclinical studies demonstrated its potential to halt and/or reverse the course of Alzheimer's disease. It has also exhibited anticonvulsant, anti-amnesic, neuroprotective and anti-depressant properties in animal models, indicating its potential to treat additional CNS disorders, including epilepsy. The Michael J. Fox Foundation for Parkinson's Research has awarded Anavex a research grant to develop ANAVEX®2-73 for the treatment of Parkinson's disease to fully fund a preclinical study, which could justify moving ANAVEX®2-73 into a Parkinson's disease clinical trial. ANAVEX®3-71, also targeting sigma-1 and M1 muscarinic receptors, is a promising preclinical drug candidate demonstrating disease modifications against the major Alzheimer's hallmarks in transgenic (3xTg-AD) mice, including cognitive deficits, amyloid and tau pathologies, and also with beneficial effects on neuroinflammation and mitochondrial dysfunctions. Further information is available at www.anavex.com. You can also connect with the company on Twitter, Facebook and LinkedIn.

## Forward Looking Statements

Statements in this press release that are not strictly historical in nature are forward-looking statements. These statements are only predictions based on current information and expectations and involve a number of risks and uncertainties. Actual events or results may differ materially from those projected in any of such statements due to various factors, including the risks set forth in the Company's most recent Annual Report on Form 10-K filed with the SEC. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement and Anavex Life Sciences Corp. undertakes no obligation to revise or update this press release to reflect events or circumstances after the date hereof.

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