KalVista Pharmaceuticals Presents Data at the Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting 2019

April 30, 2019

– Novel Oral Plasma Kallikrein Inhibitors KV998052 and KV998054 Prevent and Reverse VEGF-Induced Retinal Edema in Mice –

CAMBRIDGE, Mass. & SALISBURY, England--(BUSINESS WIRE)--Apr. 30, 2019-- KalVista Pharmaceuticals, Inc. (NASDAQ:KALV), a clinical stage pharmaceutical company focused on the discovery, development, and commercialization of small molecule protease inhibitors, announced data from a poster presentation on Monday, April 29, at the Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting 2019 in Vancouver, Canada.

“We are pleased to have more data confirming the ability of our oral plasma kallikrein inhibitors to demonstrate efficacy when systemically delivered in an animal model of retinal edema,” said Andrew Crockett, Chief Executive Officer of KalVista. “These molecules show a dose response and the ability to reach the back of the eye. We remain committed to applying these learnings to bring forward in development a potential oral treatment for diabetic macular edema.”

The poster presented data showing that two novel, orally administered plasma kallikrein inhibitors, KV998052 and KV998054, significantly reduce VEGF stimulated retinal edema in mice. Both compounds provided protection of plasma kallikrein-mediated high molecular weight kininogen cleavage.

- Oral administration of KV998054 initiated before VEGF injection resulted in a 59% (p=0.001) decrease in VEGF retinal thickening at 24 hours.
- Oral KV998052 provided 24 hours after intravitreal injection of VEGF accelerated resolution of edema at 72 hours by 83% (p=0.015) compared with controls given vehicle.
- Retinal segment analysis revealed that reduction in thickening by plasma kallikrein inhibition occurred in multiple layers, including an 87% decrease in the inner nuclear layer.
- Data suggest that oral administration of these plasma kallikrein inhibitors may provide an opportunity to treat diabetic macular edema (DME) that is caused by VEGF.

About KalVista Pharmaceuticals, Inc.

KalVista Pharmaceuticals, Inc. is a pharmaceutical company focused on the discovery, development, and commercialization of small molecule protease inhibitors for diseases with significant unmet need. The initial focus is on inhibitors of plasma kallikrein, which is an important component of the body’s inflammatory response and which, in excess, can lead to increased vascular permeability, edema and inflammation. KalVista has developed a proprietary portfolio of novel, small molecule plasma kallikrein inhibitors initially targeting hereditary angioedema (HAE) and diabetic macular edema (DME). The Company has created a structurally diverse portfolio of oral plasma kallikrein inhibitors and is advancing multiple drug candidates for HAE as well as DME. The Company has selected KVD900 as its program to be advanced as an on-demand therapy for HAE attacks and commenced a Phase 2 proof-of-concept study in HAE patients in late 2018. In DME, KalVista’s most advanced program, an intravitreally administered plasma kallikrein inhibitor known as KVD001, began a Phase 2 clinical trial in 2017 that is anticipated to complete in the second half of 2019.

For more information, please visit www.kalvista.com.

Forward-Looking Statements

This press release contains "forward-looking" statements within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Forward-looking statements can be identified by words such as: "anticipate," "intend," "plan," "goal," "seek," "believe," "project," "estimate," "expect," "strategy," "future," "likely," "may," "should," "will" and similar references to future periods. These statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from what we expect. Examples of forward-looking statements include, among others, available funding, our cash runway and future clinical trial timing and results. Further information on potential risk factors that could affect our business and its financial results are detailed in the annual report on Form 10-K filed on July 30, 2018 and other reports as filed from time to time with the Securities and Exchange Commission. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

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