

KalVista Pharmaceuticals Presents Data Showing Rapid Reduction of Plasma Kallikrein Activity After Oral KVD900 Treatment and Early Symptom Relief From HAE Attacks in Patients

February 28, 2022

- KVD900 Phase 2 data presented at the American Academy of Allergy, Asthma & Immunology (AAAAI) Annual Scientific Meeting -

CAMBRIDGE, Mass. & SALISBURY, England--(BUSINESS WIRE)--Feb. 28, 2022-- KalVista Pharmaceuticals, Inc. (NASDAQ: KALV), a clinical stage pharmaceutical company focused on the discovery, development, and commercialization of oral, small molecule protease inhibitors, today presented data for its lead oral drug candidate, KVD900, in development for on-demand treatment of hereditary angioedema (HAE), at the American Academy of Allergy, Asthma & Immunology (AAAAI) Annual Scientific Meeting. Data presentations included new data from the Phase 2 trial highlighting rapid suppression of plasma kallikrein activity after KVD900 administration and its relationship with symptomatic relief.

"These data from our phase 2 trial in on-demand use for HAE attacks show that oral KVD900 is quickly absorbed, leading to rapid, near-complete suppression of plasma kallikrein activity, a key mediator of HAE attacks," said Andrew Crockett, Chief Executive Officer of KalVista. "We believe that this rapid absorption followed by rapid suppression of plasma kallikrein activity is the basis for the early symptom relief we observed in the trial."

The following posters were presented at AAAAI:

Poster Title: Rapid Plasma Kallikrein Inhibition Following Oral KVD900 is Associated with Early Symptom Relief in Patients with Hereditary Angioedema

- KVD900 was rapidly absorbed, reaching maximum plasma concentrations within 1 hour
- Plasma kallikrein activity was >80% inhibited within 15 minutes with near-complete inhibition (>95%) observed within 1 hour
- A significantly shorter median time (1.6 hrs.) to symptom relief was observed in patients receiving KDV900 compared with placebo (9 hrs.)

Poster Title: Agreement of Patient Global Impression of Change (PGI-C) with Attack Resolution or Use of Rescue Mediation in Patients with Hereditary Angioedema

- 113 HAE attacks were treated in a blinded manner with either KVD900 or placebo
- Symptom relief, as captured by improvement on the PGI-C, occurred in 72% of attacks within 24 hours, and among those
 only 16% of HAE attacks were associated with use of rescue medication, while approximately 60% achieved complete
 attack resolution without use of rescue
- Conversely, for the 28% of attacks where symptom relief was not achieved, 66% were associated with use of rescue medication and less than 4% achieved complete attack resolution without use of rescue
- PGI-C is an effective tool to monitor attack symptoms may be an early predictor of attack resolution in patients with HAE

About KalVista Pharmaceuticals, Inc.

KalVista Pharmaceuticals, Inc. is a pharmaceutical company focused on the discovery, development, and commercialization of oral, small molecule protease inhibitors for diseases with significant unmet need. KalVista has developed a proprietary portfolio of novel, small molecule plasma kallikrein inhibitors initially targeting hereditary angioedema (HAE) and diabetic macular edema (DME). KalVista is developing KVD900 as an oral on-demand therapy for acute HAE attacks, which completed a Phase 2 efficacy trial in February 2021, demonstrating statistical and clinical significance across all endpoints. KVD824 is in development for prophylactic treatment of HAE, with the Phase 2 KOMPLETE clinical trial underway. In addition, KalVista's oral Factor XIIa inhibitor program represents a new generation of therapies that may further improve the treatment of HAE for patients. In DME, an intravitreally administered plasma kallikrein inhibitor, called KVD001, has completed a Phase 2 clinical trial.

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

For more information on the KVD824 HAE prophylaxis Phase 2 KOMPLETE study, please visit www.kompletestudy.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, including the potential impact of COVID-19, that could cause actual results to differ materially from what we expect. Examples of forward-looking statements include, among others, timing or outcomes of communications with the FDA, our expectations about safety and efficacy of our product candidates and timing of clinical trials and its results, our ability to commence clinical studies or complete ongoing clinical studies, including our Phase 2 KOMPLETE clinical trial, and to obtain regulatory approvals for KVD900, KVD824 and other candidates in development, the ability of KVD900, KVD824 and other candidates in development to treat HAE or DME, and the future progress and potential

success of our oral Factor XIIa program. Further information on potential risk factors that could affect our business and financial results are detailed in our filings with the Securities and Exchange Commission, including in our annual report on Form 10-K for the year ended April 30, 2021, our quarterly reports on Form 10-Q, and our other reports that we may make 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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KalVista Pharmaceuticals, Inc. Ben Palleiko CBO & CFO 857-999-0890 investors@kalvista.com

Source: KalVista Pharmaceuticals, Inc.