Concert Pharmaceuticals Announces Initiation of Enrollment in Second Cohort of CTP-543 Phase 2a Trial for Alopecia Areata

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Phase 2a Trial On Track to Complete in Second Half of 2018

LEXINGTON, Mass.--(BUSINESS WIRE)--Feb. 12, 2018-- Concert Pharmaceuticals, Inc. (NASDAQ: CNCE) today announced that it has initiated enrollment of the second cohort of its Phase 2a clinical trial evaluating CTP-543. Concert is developing CTP-543 for the treatment of moderate-to-severe alopecia areata, an autoimmune disorder in which the immune system attacks hair follicles, resulting in patchy or complete hair loss. CTP-543 is a deuterium-modified analog of ruxolitinib, a Janus Kinase (JAK) inhibitor.

An independent Data Monitoring Committee (DMC) conducted an interim safety data review of the first cohort of the Phase 2a trial, following 12 weeks of dosing with 4 mg of CTP-543 or placebo twice daily. Based on this review, the DMC provided its recommendation to continue with the current cohort and to initiate dosing of the second cohort, whereby patients will be administered 8 mg of CTP-543 or placebo twice daily for 24 weeks. The Company expects to report topline data from Phase 2a trial in the fourth quarter of 2018.

“The alopecia areata community is eager for an effective and well-characterized treatment for this important autoimmune disease and we are extremely pleased that novel treatments, including CTP-543, are advancing in clinical trials,” said Dory Kranz, President and CEO of the National Alopecia Areata Foundation.

“We are pleased that the CTP-543 trial is progressing as planned as we continue to advance the evaluation of our innovative product candidate for alopecia areata,” said James Cassella, Ph.D., Chief Development Officer of Concert Pharmaceuticals. “There is a significant unmet medical need for alopecia areata and we intend to be at the forefront of advancing a new oral treatment for patients.”

The Phase 2a trial is a double-blind, randomized, placebo-controlled trial to evaluate the safety and efficacy of CTP-543 in adults with moderate-to-severe alopecia areata. Approximately 90 patients are being enrolled in the study and sequentially randomized to receive one of two doses of CTP-543 (4 mg or 8 mg) or placebo twice daily. The primary outcome measure will utilize the severity of alopecia tool (SALT) after 24 weeks of dosing. Patient-reported outcome measures will be assessed as secondary endpoints. If appropriate, the protocol may be amended to explore higher doses of CTP-543. Additional information about the trial is available on www.clinicaltrials.gov.

CTP-543 has been well-tolerated in clinical evaluation to date and has demonstrated a non-clinical safety profile consistent with therapeutic JAK inhibition.

About CTP-543 and Alopecia Areata
CTP-543 was discovered by applying Concert's deuterium chemistry technology to modify ruxolitinib, a drug which selectively inhibits Janus kinases 1 and 2 (JAK1 and JAK2) and is commercially available under the name Jakafi® in the United States for the treatment of certain blood disorders. Ruxolitinib has been used to treat alopecia areata in academic settings, including an investigator-sponsored clinical trial, and has been reported to promote hair growth in individuals with moderate-to-severe disease. Deuterium modification of ruxolitinib was found to alter its human pharmacokinetics in ways which may enhance its use as a treatment for alopecia areata. The U.S. Food and Drug Administration (FDA) has granted Fast Track designation for CTP-543.

Alopecia areata is an autoimmune disease that results in partial or complete loss of hair on the scalp and body that may affect up to 650,000 Americans at any given time[1]. The scalp is the most commonly affected area, but any hair-bearing site can be affected alone or together with the scalp. Onset of the disease can occur throughout life and affects both women and men. Alopecia areata can be associated with serious psychological consequences, including anxiety and depression. There are currently no drugs approved by the U.S. Food and Drug Administration (FDA) for the treatment of alopecia areata.

The FDA selected alopecia areata as one of eight new disease areas that it focused on under its Patient-Focused Drug Development Initiative (PFDDI) in 2016-2017. The goal of the PFDDI is to bring patient perspectives into an earlier stage of product development. The PFDDI meeting on alopecia areata was convened by the FDA on September 11, 2017. Additional information is available online at: https://www.fda.gov/ForIndustry/UserFees/PrescriptionDrugUserFee/ucm554443.htm

About Concert
Concert Pharmaceuticals is a clinical stage biopharmaceutical company focused on applying its DCE Platform® (deuterated chemical entity platform) to create novel medicines designed to address unmet patient needs. The Company’s approach starts with approved drugs in which deuterium substitution has the potential to enhance clinical safety, tolerability or efficacy. Concert has a broad pipeline of innovative medicines targeting autoimmune and inflammatory diseases and central nervous systems (CNS) disorders. For more information please visit www.concertpharma.comor follow us on Twitter at @ConcertPharma or on LinkedIn.

Cautionary Note on Forward Looking Statements
Any statements in this press release about our future expectations, plans and prospects, including statements about our expectations for clinical development of CTP-543, and other statements containing the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “would,” and similar expressions, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: the uncertainties inherent in the initiation of future clinical trials, whether preliminary results from a clinical trial will be predictive of the final results of that trial or whether results of early clinical trials will be indicative of the results of later clinical trials, expectations for regulatory approvals, and other factors discussed in the “Risk Factors” section of our most recent Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission and in other filings that we make with the Securities and Exchange Commission. In addition, any

forward-looking statements included in this press release represent our views only as of the date of this release and should not be relied upon as representing our views as of any subsequent date. We specifically disclaim any obligation to update any forward-looking statements included in this press release.

[1] Fricke M. Epidemiology and Burden of alopecia areata: a systemic review. Clinical, Cosmetic and Investigational Dermatology. 2015; Vol 8. 397-403.

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