Aquinox

For Immediate Release

Aquinox Pharmaceuticals Initiates Patient Dosing in the Phase 2 Clinical Trial of AQX-1125 in Atopic Dermatitis

Vancouver, British Columbia - December 30, 2014 - Aquinox Pharmaceuticals, Inc. ("Aquinox") (Nasdaq: AQXP), a clinical-stage pharmaceutical company discovering and developing targeted therapeutics in disease areas of inflammation and immuno-oncology, announced today that it has initiated dosing in a Phase 2 clinical trial of AQX-1125 for the treatment of atopic dermatitis (AD).

The KINSHIP clinical trial is being conducted at clinical research centers in Canada as a randomized, double-blind, multicenter, placebo-controlled Phase 2 trial evaluating the efficacy and safety of AQX-1125 in approximately 50 adult patients with mild to moderate AD. The KINSHIP trial's primary endpoint is change from baseline in Total Lesion Symptom Score (TLSS) after 12 weeks of treatment. The TLSS is a comprehensive assessment of AD symptoms where AQX-1125 may have a beneficial effect. Secondary endpoints include safety, pharmacokinetics and additional parameters for assessing AD.

"We believe AQX-1125's ease of administration as a once daily, oral, anti-inflammatory medicine, and its ability to reduce immune cell migration to inflamed surfaces, could provide a clinically meaningful benefit to AD patients," said Dr. Stephen Shrewsbury, Senior Vice President of Clinical Development and Chief Medical Officer of Aquinox. "The KINSHIP trial has been designed to first evaluate AQX-1125's safety and efficacy in mild to moderate AD patients. Our eventual interest is AQX-1125's potential as an effective, oral therapy for moderate to severe AD patients."

The prevalence of AD ranges from 1%-20% worldwide. An estimated 17.8 million Americans are affected by AD, which is considered underdiagnosed by physicians. Approximately two-thirds of Americans with AD suffer from the moderate to severe form of the disease, where existing therapies are often ineffective or unsuitable for long-term treatment.

About AQX-1125

AQX-1125, Aquinox's lead drug candidate, is a small molecule activator of SHIP1, which is a regulating component of the PI3K cellular signaling pathway. By increasing SHIP1 activity, AQX-1125 accelerates a natural mechanism that has evolved to maintain homeostasis of the immune system and reduce immune cell activation and migration. AQX-1125 has demonstrated preliminary safety and favorable drug properties in multiple preclinical studies and clinical trials. Aquinox is currently exploring AQX-1125 as a once-daily oral treatment in several Phase 2 trials.

About Aquinox Pharmaceuticals, Inc.

Aquinox Pharmaceuticals, Inc. is a clinical-stage pharmaceutical company discovering and developing targeted therapeutics in disease areas of inflammation and immuno-oncology. Aquinox's lead drug candidate, AQX-1125, is a small molecule activator of SHIP1 suitable for oral, once daily dosing. Aquinox has successfully completed multiple preclinical studies and clinical trials with AQX-1125 and is advancing through Phase 2 development. The company has a broad intellectual property portfolio and pipeline of preclinical drug candidates that activate SHIP1. For more information, please visit **www.aqxpharma.com**.

Cautionary Note on Forward-looking Statements

Certain of the statements made in this press release are forward looking, such as those, among others, relating to: the success and timing of our Phase 2 clinical trials; the outcome of our interactions with the FDA and other regulatory authorities; and potential market opportunities for AQXP-1125. These statements are subject to risks and uncertainties that could cause actual results and events to differ materially from those anticipated, including, but not limited to, risks and uncertainties related to: our ability to enroll patients in our clinical trials at the pace that we project; the size and growth of the potential markets for AQX-1125 or any future product candidates and our ability to serve those markets; our ability to obtain and maintain regulatory approval of AQX-1125 or any future product candidates; and our expectations regarding the potential safety, efficacy or clinical utility of AQX-1125 or any future product candidates. Actual results or developments may differ materially from those projected or implied in these forward-looking statements. More information about the risks and uncertainties faced by Aquinox is contained in the company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014 filed with the Securities and Exchange Commission. Aquinox disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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