Kiora Pharmaceuticals Presents Encore Imaging Results of KIO-301 for Retinitis Pigmentosa at ASNR 2023 Meeting

Encinitas, California–(May 1, 2023) – Kiora Pharmaceuticals (NASDAQ: KPRX) announced today an encore presentation on KIO-301 neuroimaging results at The American Society of Neuroradiology 2023 Meeting in Chicago. The late-breaking abstract presentation titled "Functional Vision Reanimation in Retinitis Pigmentosa using an Intravitreal 'Photoswitch' Molecule (KIO-301): Functional MRI Protocol and Preliminary In-Human Observations" will be presented by Christen Barras, MBBS, Ph.D., Neuroradiologist at Jones Radiology, Associate Professor of Radiology at the University of Adelaide, in Adelaide, Australia and a co-investigator in the study.

Patients with Retinitis Pigmentosa (RP) suffer degeneration of the retina, primarily the light sensing rods and cones (photoreceptors). KIO-301 is a light-sensitive small molecule that acts as a reversible 'photoswitch', specifically designed to restore the eyes' ability to perceive and interpret light in visually impaired patients. KIO-301 selectively enters retinal ganglion cells (those downstream of degenerated rods and cones) and turns them into light sensing cells, capable of signaling the brain as to the presence or absence of visible light. Early results of the ABACUS phase 1b trial show KIO-301 delivered intravitreally in patients with RP may restore functional vision.

Dr. Barras will share data from ABACUS, including functional MRI (fMRI) analysis from patients receiving KIO-301. fMRI assesses activity of the brain's visual pathways, imaging both the primary visual and extra-striate visual cortex. In addition to qualitative analysis, data are quantified to compare activity to baseline scans. fMRI was performed at baseline (pre-KIO-301 injection), 2 days, 2 weeks, and 4 weeks post-injection. Using a variety of light stimuli paradigms, fMRI showed a statistically significant increase in both primary and extra-striate visual cortex activation. Additionally, the timing of the effect observed on fMRI was consistent with other functional and patient reported readouts from these patients, with peak activity around day 14 and returning to baseline by day 29. There were no reported adverse events in the first patients treated.

"This case study documents the first-in-human report of safety, tolerability, and effect of KIO-301 in a late-stage RP population," said Eric Daniels, M.D., Chief Development Officer of Kiora. "Following injection, there is early fMRI evidence of a significant increment in visual brain activation and a correlative improvement in functional vision in the first patients, supporting additional patient dosing with higher amounts of drug being delivered."

The ABACUS trial is a phase 1b open-label, single ascending dose clinical trial for people living with retinitis pigmentosa. The study comprises the enrollment of six patients and the evaluation of 12 eyes, following monitoring for 29 days. The first cohort of three patients includes individuals with no or bare light perception due to the progression of RP. The second

cohort includes three patients able to detect hand motion and count fingers. The primary endpoints are safety and tolerability, with secondary efficacy endpoints including object identification and contrast assessment, navigation, fMRI and other ophthalmic and quality-of-life assessments. This study is being conducted at multiple sites in Adelaide, South Australia, including The Royal Adelaide Hospital.

About Kiora Pharmaceuticals

Kiora Pharmaceuticals is a clinical-stage biotechnology company developing and commercializing products for the treatment of ophthalmic diseases. KIO-301 is being developed for the treatment of retinitis pigmentosa. It is a molecular photoswitch that has the potential to restore vision in patients with inherited and/or age-related retinal degeneration. KIO-101 is being developed for the treatment of the Ocular Presentation of Rheumatoid Arthritis (OPRA). It is a next-generation, non-steroidal, immuno-modulatory and small molecule inhibitor of Dihydroorotate Dehydrogenase (DHODH) with what Kiora believes is best-in-class picomolar potency and a validated immune modulating mechanism (blocks T cell proliferation and proinflammatory cytokine release) designed to overcome the off-target side effects and safety issues associated with commercially available DHODH inhibitors. In addition, Kiora is developing KIO-201, a modified form of the natural polymer hyaluronic acid, designed to accelerate corneal wound healing.

In addition to news releases and SEC filings, we expect to post information on our website, www.kiorapharma.com, and social media accounts that could be relevant to investors. We encourage investors to follow us on Twitter and LinkedIn as well as to visit our website and/or subscribe to email alerts.

Forward-Looking Statements

Some of the statements in this press release are “forward-looking” and are made pursuant to the safe harbor provision of the Private Securities Litigation Reform Act of 1995. These “forward-looking” statements include statements relating to, among other things, the ability of KIO-301 to restore visual function in patients with retinitis pigmentosa, the potential for KIO-301 to address other eye diseases, Kiora’s ability to enroll patients and report results from its phase 1b trial of KIO-301 on a timely basis, the development and commercialization efforts and other regulatory or marketing approval efforts pertaining to Kiora’s development-stage products, including KIO-301, as well as the success thereof, with such approvals or success may not be obtained or achieved on a timely basis or at all. These statements involve risks and uncertainties that may cause results to differ materially from the statements set forth in this press release, including, among other things, the ability to conduct clinical trials on a timely basis, the risk that the full results of the phase 1b trial of KIO-301 may not be consistent with preliminary data, market and other conditions and certain risk factors described under the heading “Risk Factors” contained in Kiora’s Annual

Report on Form 10-K filed with the SEC on March 23, 2023 or described in Kiora's other public filings. Kiora's results may also be affected by factors of which Kiora is not currently aware. The forward-looking statements in this press release speak only as of the date of this press release. Kiora expressly disclaims any obligation or undertaking to release publicly any updates or revisions to such statements to reflect any change in its expectations with regard thereto or any changes in the events, conditions, or circumstances on which any such statement is based, except as required by law.

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