Kezar Life Sciences Announces Positive Topline Results from the MISSION Phase 2 Trial Evaluating Zetomipzomib for the Treatment of Patients with Lupus Nephritis

June 27, 2022

- *11 of 17 patients (64.7%) achieved an overall renal response of 50% or greater reduction in urine protein to creatinine ratio (UPCR) at 6 months*
- *6 of 17 patients (35.2%) achieved a complete renal response, including a UPCR of 0.5 or less at 6 months*
- *Zetomipzomib continues to demonstrate a favorable safety and tolerability profile for administration over the 6-month treatment period*
- *Improvement seen in exploratory measures of extra-renal disease activity associated with systemic lupus erythematosus (SLE) in patients who completed treatment*
- *Company-hosted conference call and webcast to be held today at 4:30 p.m. ET*

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Jun. 27, 2022-- Kezar Life Sciences, Inc. (Nasdaq: KZR), a clinical-stage biotechnology company discovering and developing breakthrough treatments for immune-mediated and oncologic disorders, today reported positive topline results from the MISSION Phase 2 clinical trial evaluating zetomipzomib, a novel, first-in-class selective immunoproteasome inhibitor, in patients with active lupus nephritis (LN).

“The MISSION Phase 2 topline results show a clinically meaningful overall renal response to zetomipzomib after 6 months, without high-dose induction therapy. Patients in the trial also experienced reductions in extra-renal manifestations of lupus. Zetomipzomib appears to be immunomodulatory, well-tolerated and steroid-sparing – all important attributes for patients with autoimmune disease who are often young and active,” said Noreen R. Henig, M.D., Kezar’s Chief Medical Officer. “Based on the strength of these results, we plan to continue developing zetomipzomib for patients with lupus nephritis, as well as evaluate development opportunities for systemic lupus erythematosus.”

The MISSION Phase 2 clinical trial is an open-label study designed to demonstrate the responder rate of zetomipzomib in patients with active LN. During the 24-week treatment period, patients received 60 mg of zetomipzomib subcutaneously once weekly (first dose of 30 mg) in addition to stable background therapy. End-of-treatment (EOT) assessments occurred at Week 25, with completion of study at Week 37. Patients in the MISSION Phase 2 clinical trial received zetomipzomib without induction therapy, which represents a significant difference from other recently published trials in LN.

The primary efficacy endpoint for the trial was the proportion of patients achieving an overall renal response (ORR), measured as a 50% or greater reduction in urine protein to creatinine ratio (UPCR) at EOT. A key secondary efficacy endpoint was the number of patients with a complete renal response (CRR), measured as an absolute reduction in proteinuria values to a UPCR of 0.5 or less, with preserved renal function (eGFR), and corticosteroid use of 10 mg or less prednisone/prednisone equivalent and no use of prohibited medication.

Summary of Topline Results

In this Phase 2 topline analysis, 17 of 21 patients enrolled in the trial reached end of treatment:

- 11 of 17 patients (64.7%) achieved an ORR measured as a 50% or greater reduction in UPCR at EOT compared to baseline, the primary efficacy endpoint of the clinical trial.
- 6 of 17 patients (35.2%) achieved a CRR of 0.5 UPCR or less, with all other protocol definitions satisfied.
- Treatment benefit of zetomipzomib was maintained or deepened following the end of treatment, based on assessments at Week 29.
    - 16 of 17 patients (94.1%) reached an ORR at Week 29, and 6 patients maintained a CRR.
- Mean daily prednisone background dosage was reduced from 19.2 mg at baseline to 9.1 mg at EOT and was further reduced at Week 29.
- Mean eGFR (estimated glomerular filtration rate) remained stable from baseline to EOT.

Additionally, exploratory measures of extra-renal disease activity associated with SLE improved in patients completing the trial. Patients showed mean reduction in key SLE disease activity scores and normalization in biomarkers consistent with reduction in SLE disease activity.

Safety

Zetomipzomib was well tolerated over the course of the treatment period. Adverse events were generally mild-to-moderate (Grade 1 or 2) consistent with previous reports. Most common treatment-emergent adverse events (TEAEs) were injection site reaction, pyrexia (fever), headache, or nausea with or without vomiting. As previously reported, two patients experienced serious adverse events (SAEs) on the study. One patient had an acute

protracted migraine related to zetomipzomib but completed treatment. The other patient discontinued following worsening pulmonary arterial hypertension, a urinary tract infection and an acute kidney injury, which were all deemed unrelated to zetomipzomib. Early terminations occurred in 4 out of 21 patients. No opportunistic or Grade 3 infections were reported in the trial.

Conference Call and Webcast

Kezar Life Sciences will host a webcast and conference call today, June 27, 2022, at 4:30 p.m. ET to discuss topline data from the MISSION Phase 2 clinical trial. To access the audio webcast with slides, please visit the "Events & Presentations" page in the Investors & Media section of the Company's website at https://ir.kezarlifesciences.com/news-events/events-presentations. The call can also be accessed by dialing +1 (800) 309-0220 (domestic) or +1 (805) 309-0220 (international) with conference ID 6423042#.

The live audio webcast with slides can also be accessed here: https://www.veracast.com/webcasts/kezar/webcasts/Kezar-Life-Sciences-June-27th.cfm

For those unable to participate in the conference call or webcast, a replay will be available for 90 days on the Company's website.

About Zetomipzomib (KZR-616)

Zetomipzomib (KZR-616) is a novel, first-in-class, selective immunoproteasome inhibitor with broad therapeutic potential across multiple autoimmune diseases. Preclinical research demonstrates that selective immunoproteasome inhibition results in a broad anti-inflammatory response in animal models of several autoimmune diseases, while avoiding immunosuppression. Data generated from Phase 1 clinical trials provide evidence that zetomipzomib exhibits a favorable safety and tolerability profile for development in severe, chronic autoimmune diseases.

About Lupus Nephritis

Lupus nephritis (LN) is one of the most serious complications of systemic lupus erythematosus (SLE). LN is a disease comprising a spectrum of vascular, glomerular and tubulointerstitial lesions and develops in approximately 50% of SLE patients within 10 years of their initial diagnosis. LN is associated with considerable morbidity, including an increased risk of end-stage renal disease requiring dialysis or renal transplantation and an increased risk of death. There are limited approved therapies for the treatment of LN. Management typically consists of induction therapy to achieve remission and long-term maintenance therapy to prevent relapse.

About Kezar Life Sciences

Kezar Life Sciences is a clinical-stage biopharmaceutical company discovering and developing breakthrough treatments for immune-mediated and oncologic disorders. The company is pioneering first-in-class, small-molecule therapies that harness master regulators of cellular function to inhibit multiple drivers of disease via single, powerful targets. Zetomipzomib, its lead development asset, is a selective immunoproteasome inhibitor being evaluated in a Phase 2 clinical trial in lupus nephritis. This product candidate also has the potential to address multiple chronic immune-mediated diseases. KZR-261 is the first anti-cancer clinical candidate from the company's platform targeting the Sec61 translocon and the protein secretion pathway. An open-label dose-escalation Phase 1 clinical trial of KZR-261 to assess safety, tolerability and preliminary tumor activity in solid tumors is underway. For more information, visit www.kezarlifesciences.com.

Cautionary Note on Forward-looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "should," "expect," "believe", "plan" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. These forward-looking statements are based on Kezar's expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties that could cause Kezar's clinical development programs, future results or performance to differ materially from those expressed or implied by the forward-looking statements. Forward-looking statements contained in this press release include, but are not limited to, statements about the design, progress, timing, scope and results of clinical trials, the preliminary nature of topline data, the anticipated regulatory development and future clinical trials involving Kezar's product candidates, the likelihood that data will support future development and therapeutic potential, the association of data with treatment outcomes and the likelihood of obtaining regulatory approval of Kezar's product candidates. Many factors may cause differences between current expectations and actual results, including the performance of audit and verification procedures on topline data, unexpected safety or efficacy data observed during clinical studies, changes in expected or existing competition, the uncertainties and timing of the regulatory approval process and unexpected litigation or other disputes. Other factors that may cause actual results to differ from those expressed or implied in the forward-looking statements in this press release are discussed in Kezar's filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" contained therein. Except as required by law, Kezar assumes no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

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