Kinnate Biopharma Inc. Announces Pipeline Updates, Strategic Reprioritization and Workforce Restructuring

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- Promising exarafenib combination data in NRAS mutant melanoma; intend to select two doses in the fourth quarter of 2023 for further development
- Plan to file KIN-8741 c-MET inhibitor Investigational New Drug application and nominate a drug candidate for brain-penetrant CDK4 selective program in the fourth quarter of 2023
- Completed exarafenib monotherapy dose expansion enrollment and cleared efficacious dose for KIN-3248, FGFR inhibitor; exploring strategic alternatives for both programs
- Paused KIN-7136 MEK inhibitor development and implementing a workforce restructuring, aligned with reprioritization plan
- Cash, cash equivalents and investments of $204.3 million as of June 30, 2023, anticipated to fund operations into at least the second quarter of 2026

SAN FRANCISCO and SAN DIEGO, Sept. 18, 2023 (GLOBE NEWSWIRE) -- Kinnate Biopharma Inc. (Nasdaq: KNTE) (“Kinnate” or “the Company”), a clinical-stage precision oncology company, today announced pipeline updates and a reprioritization plan, as well as a workforce restructuring, based on a strategic review of its business.

The review encompassed various factors, including the Company’s cash runway, near-term pipeline value creation prospects, the evolving regulatory landscape for targeted therapies, commercial potential, development strategy, and other relevant considerations. As a result, the Company is prioritizing the exarafenib combination, KIN-8741, and discovery efforts around its CDK4 selective program. Additionally, Kinnate will pause development of KIN-7136 and explore strategic alternatives for exarafenib monotherapy and KIN-3248, as part of the reprioritization plan. Concurrently, the Company will implement a workforce restructuring to align with its refined focus.

Nima Farzan, chief executive officer of Kinnate Biopharma Inc., commented, “Today, we are taking hard but necessary steps to streamline our programs, team and operations in order to advance our research and deliver meaningful benefits to patients and shareholders alike. These decisions reflect the current financing environment, oncology regulatory landscape and development timelines. We believe that reprioritizing our programs is the most effective approach to unlock the full promise of our innovative therapies.”

Farzan added, “The reprioritization plan unfortunately impacts our workforce. It is undoubtedly difficult to part with our valued and highly talented employees who have made substantial contributions to our company. I want to thank each one of them for their dedication to Kinnate and our mission.”

Pipeline Updates and Reprioritization Plan

Investigational Exarafenib Combined with Binimetinib: Pan-RAF plus MEK Inhibitor

Dose exploration for the combination of exarafenib and binimetinib is currently underway in the KN-8701 clinical trial, with a primary focus on NRAS mutant melanoma. NRAS alterations are detected in approximately 20-25% of melanoma patients, and as of today, there are no approved targeted therapies available for this subgroup, highlighting a significant unmet medical need.

As of September 11, 2023, the data cutoff, 44 patients with NRAS mutant melanoma and BRAF-altered solid tumors were enrolled across 6 exarafenib plus binimetinib combination dose cohorts, including 24 patients who continue on therapy.

- In the first 5 cohorts, among 20 efficacy-evaluable patients with NRAS mutant melanoma (including Q61 and non-Q61 mutations), 12 patients had radiographic tumor reductions.
- Among 16 efficacy-evaluable patients with NRAS mutant melanoma who had not received prior RAF, MEK, or ERK inhibitors, 6 achieved confirmed and unconfirmed partial responses (PRs), resulting in a 38% overall response rate (ORR), with 5 additional patients experiencing stable disease (SD) as their best response, yielding a 69% disease control rate (DCR).
- In a subgroup of 17 efficacy-evaluable patients with NRAS Q61 mutations, which represent up to 90% of all NRAS melanoma mutations, 7 achieved confirmed and unconfirmed PRs, leading to a 41% ORR, and 6 others had SD as their best response, resulting in a 76% DCR.
- The combination of exarafenib and binimetinib demonstrated significant pathway inhibition, as evidenced by reductions in phosphorylated extracellular signal-regulated kinase (pERK) and DUSP6 RNA expression in paired tissue biopsies.
- Additionally, substantial (>50%, up to 100%) reductions in circulating tumor DNA were observed in 70% of the combination-treated patients with NRAS mutant melanoma.
As of September 18, 2023, exarafenib plus binimetinib was generally well-tolerated in two dose cohorts and cleared by a dose review committee. Exploration of the two final dose pairs for the combination regimen is underway.

In the fourth quarter of 2023, the Company intends to select two doses for further development.

Investigational KIN-8741: c-MET Inhibitor

KIN-8741 is designed to be a highly selective c-MET inhibitor with broad mutational coverage, including acquired resistance mutations, in solid tumors driven by exon 14-altered and/or amplified c-MET. A primary focus for KIN-8741 is on non-small cell lung cancer, where the c-MET exon 14 alteration serves as the primary driver alteration.

Kinnate expects to file an IND application for KIN-8741 with the U.S. Food and Drug Administration (FDA) in the fourth quarter of 2023.

Investigational Exarafenib Monotherapy: Pan-RAF Inhibitor

Enrollment in the exarafenib monotherapy dose expansion phase of KN-8701 has been completed. As of September 11, 2023, the data cutoff, a total of 107 patients were enrolled in the monotherapy arm, with 71 patients receiving the expansion dose of 300 mg twice daily (bid). Among these patients, 3 achieved a PR and 26 demonstrated SD as their best response.

As of the data cutoff, 26 patients with Class II-driven solid tumors were enrolled across both the dose escalation and dose expansion phases of KN-8701. Twenty-one of these patients received exarafenib as a monotherapy at 300 mg bid, with 7 patients continuing on therapy.

Out of 8 patients with Class II fusion-driven solid tumors who received exarafenib at 300 mg bid, 3 showed radiographic tumor reductions, 2 of the 6 efficacy-evaluable patients achieved confirmed PRs, resulting in a 33% ORR, and the remaining 4 efficacy-evaluable patients achieved SD as their best response, yielding a 100% DCR.

Among 13 patients with Class II non-fusion driven solid tumors treated with exarafenib at 300 mg bid, 7 patients experienced radiographic tumor reductions and 6 patients experienced SD as their best response, yielding a DCR of 60%. In addition, 1 patient treated at the 200 mg bid dose experienced a confirmed PR.

Exarafenib, administered at a dose of 300 mg bid to a cohort of 71 patients, demonstrated a consistent safety profile in line with previous reporting. Treatment-related adverse events (TRAEs) were observed in 73% of patients, with 51% experiencing skin-related TRAEs, primarily comprising rash (28%), dermatitis acneiform (21%) and pruritis (11%). Reversible, asymptomatic liver enzyme elevations were observed, including Grade 3 elevations in alanine aminotransaminase (ALT; n=7 patients) and aspartate aminotransferase (n=6) and Grade 4 increased ALT (n=2). Other common TRAEs included Grade 1 and 2 asthenia and fatigue (13%), nausea (13% overall including 1 Grade 3 TRAE) and vomiting (8 overall including 1 Grade 3 TRAE).

Overall, exarafenib was well-tolerated, with low rates of drug-related treatment interruption (27%), dose reductions (4%), and treatment discontinuations (9%). The mean dose intensity was 91%, with a median of 100%.

These clinical data involving over 100 patients treated with exarafenib support its favorable safety and tolerability profile, which validates the successful execution of KN-8701. This profile is further supported by favorable pharmacokinetic/pharmacodynamic properties. Notably, the data showed higher response and disease control rates in patients with BRAF Class II fusion versus BRAF Class II non-fusion-driven cancers. However, limited anti-tumor activity was observed with exarafenib monotherapy across all patients with Class II alterations, which may be attributed to the significant heterogeneity of Class II alterations and the presence of other co-occurring mutations.

Considering these results and the Company’s assessment of clinical development timelines for Class II fusion-driven solid tumors, Kinnate will not proceed with further clinical development of exarafenib as a monotherapy agent and will explore strategic alternatives.

Investigational KIN-3248: FGFR Inhibitor

As of September 11, 2023, the data cutoff, a total of 54 patients were enrolled in the ongoing dose escalation trial for KIN-3248, spanning 6 different dose levels: 5 mg once daily (QD) (dose level; DL 1), 10 mg QD (DL 2), 20 mg QD (DL 3), 30 mg QD (DL 4), 40 mg QD (DL 5) and 50 mg QD (DL 6). This includes 31 patients who have not been previously treated with an FGFR 2/3 inhibitor and 23 patients previously treated with an FGFR2/3 inhibitor.

The predicted efficacious dose of 40 mg QD (DL 5) has been cleared, and further exploration is ongoing at the 50 mg QD dose (DL 6).

Two PRs were observed, with 1 confirmed PR in a patient with pancreatic cancer who had not received prior treatment with an FGFR2 inhibitor; treatment began at 20 mg QD and was then increased to 30 mg QD.

Seven patients are currently enrolled at doses of 40 mg QD or higher and have not yet reached their first scan.
A dose-response relationship was observed in pharmacodynamic markers, including decreased pERK levels and increased serum phosphate levels.

As of the data cut off, the maximum tolerated dose has not yet been determined. The safety and tolerability profile of KIN-3248 is consistent with other FGFR inhibitors in clinical development or currently approved.

Investigational KIN-7136: MEK Inhibitor

KIN-7136 is designed to be a brain-penetrant MEK inhibitor. Kinnate previously announced that the FDA cleared the IND application for KIN-7136.

Based on the reprioritization plan, the Company will not initiate a clinical trial for KIN-7136 at this time.

CDK4 Program

Kinnate is exploring drug candidates (DC) for a potentially brain-penetrant, selective CDK4 inhibitor and expects to nominate a DC in the fourth quarter of 2023.

Corporate Update

Kinnate will implement a corporate restructuring by reducing the Company’s workforce by approximately 70%. The Company expects to have 28 remaining full-time employees. The Company is also taking related measures to reduce operating expenses. This includes separating from all employees of its wholly-owned subsidiary in China, Kinnjiu Biopharma.

As of June 30, 2023, Kinnate had approximately $204.3 million in cash, cash equivalents and investments, which is anticipated to fund operations into at least the second quarter of 2026.

About Kinnate Biopharma Inc.

Kinnate Biopharma Inc. is a clinical-stage precision oncology company founded with a mission to inspire hope in those battling cancer by expanding on the promise of targeted therapies. The Company concentrates its efforts on addressing known oncogenic drivers for which there are currently no approved targeted drugs and to overcome the limitations associated with existing cancer therapies, such as non-responsiveness or the development of acquired and intrinsic resistance.

The Company’s lead product candidates are investigational pan-RAF inhibitor, exarafenib, which targets cancers with BRAF and NRAS-driven alterations, and investigational FGFR inhibitor, KIN-3248, which is designed for cancers with FGFR2 and FGFR3 alterations. The Company also has early-stage programs, including a c-MET inhibitor that targets resistant variants. The Kinnate Discovery Engine drives the Company’s pipeline of small molecule candidates, prioritizing high selectivity, optimized pharmaceutical properties, broad genetic alteration coverage, overcoming resistance, and brain penetration. For more information, visit Kinnate.com and follow the Company on LinkedIn to learn about its most recent initiatives.

Forward Looking Statements

This press release contains forward-looking statements that involve substantial risks and uncertainties. These forward-looking statements include, without limitation, the Company’s intentions for exploring strategic alternatives; the plans for implementing a workforce restructuring and the anticipated effect of such action, including with respect to Kinnjiu Biopharma; the future plans for clinical development of exarafenib as a monotherapy; the timing and number of doses for further development for the exarafenib plus binimetinib combination; the clinical trial plans for KIN-7136; the timing for filing an IND for KIN-8741; the timing and plans for nominating a DC for the Company’s CDK4 program; the Company’s anticipated cash runway; and statements by our Chief Executive Officer. Words such as “believes,” “anticipates,” “intends”, “plans,” “expects,” “will,” “potential” and similar expressions are also intended to identify forward-looking statements. We have based these forward-looking statements largely on our current expectations and projections about future events and trends. Such expectations and projections may never materialize or may prove to be incorrect. These forward-looking statements are subject to a number of risks, uncertainties, assumptions and other factors, including, among other things: operating as a clinical-stage biopharmaceutical company with a limited operating history; the timing, progress and results of ongoing and planned preclinical studies and clinical trials for our current product candidates; that continued dose escalation in our clinical trials could increase the risk of the occurrence of adverse events; the potential for future clinical trial results to differ from initial results or from our preclinical studies; our ability to timely enroll a sufficient number of patients in our clinical trials; our ability to raise additional capital to finance our operations; our ability to discover, advance through the preclinical and clinical development of, obtain regulatory approval for and commercialize our product candidates; the novel approach we are taking to discover and develop drugs; our ability to timely file and obtain approval of IND applications for our planned clinical trials; negative impacts of the COVID-19 pandemic on our business, including ongoing and planned clinical trials and preclinical studies; competition in our industry; regulatory developments in the United States and other countries; our ability to attract, hire and retain highly skilled executive officers and employees; difficulties in managing our growth; our ability to protect our intellectual property; reliance on third parties to conduct our ongoing and planned preclinical studies and clinical trials, and to manufacture our product candidates; general economic and market conditions; and other risks. These and other risks, uncertainties, assumptions and other factors are further described under the heading “Risk Factors” in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2023 that we filed with the Securities and Exchange Commission (SEC) on August 8, 2023, as well as in our subsequent filings we make with the SEC. New risk factors emerge from time to time and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. Investors should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Our forward-looking statements speak only as of the date of this release, and except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason in the future.

Company Contact:

Investors@kinnate.com