Kiniksa Outlines Next Steps for the Development of Mavrilimumab

June 8, 2021

- Defined regulatory pathway for Phase 3 clinical development of mavrilimumab in multiple indications -

- Continued development in COVID-19-related ARDS represents fastest path to potential registration for mavrilimumab; Phase 3 data expected in Q1 2022 -

HAMILTON, Bermuda, June 08, 2021 (GLOBE NEWSWIRE) -- Kiniksa Pharmaceuticals, Ltd. (Nasdaq: KNSA) ("Kiniksa"), a biopharmaceutical company with a portfolio of assets designed to modulate immunological pathways across a spectrum of diseases, today outlined next steps for the development of mavrilimumab, an investigational fully-human monoclonal antibody that blocks activity of granulocyte macrophage colony stimulating factor (GM-CSF) by binding specifically to the alpha subunit of the GM-CSF receptor.

"Recent favorable interactions with the FDA, based upon the clinical data generated with mavrilimumab in COVID-19-related ARDS, giant cell arteritis, and rheumatoid arthritis, underscore the broad utility of mavrilimumab and define a regulatory pathway for Phase 3 clinical development for each indication," said Sanj K. Patel, Chief Executive Officer and Chairman of the Board of Kiniksa. "We believe the ongoing Phase 3 study of mavrilimumab in COVID-19-related ARDS represents the fastest path to potential registration for the asset, and there remains a significant unmet need in these patients. Enrollment in our Phase 3 clinical trial is ongoing, and we expect data in the first quarter of 2022."

Mavrilimumab Development and Capital Allocation

- Interactions between Kiniksa and the U.S. Food and Drug Administration (FDA) on mavrilimumab in COVID-19–related acute respiratory distress syndrome (ARDS), giant cell arteritis (GCA), and rheumatoid arthritis (RA) resulted in a defined path for Phase 3 clinical development for each indication.
- Kiniksa believes development of mavrilimumab in COVID-19-related ARDS represents the fastest path to potential registration.
    - Based upon data from the Phase 2 portion of the Phase 2/3 clinical trial of mavrilimumab in non-mechanically ventilated patients with COVID-19-related ARDS and discussions with the FDA, Kiniksa has adjusted the final sample size to appropriately power the Phase 3 portion of the clinical trial. The Phase 3 clinical trial will enroll a total of approximately 600 non-mechanically ventilated patients. The primary efficacy endpoint remains as the proportion of patients alive and free of mechanical ventilation at Day 29.
    - The Phase 3 portion of the clinical trial has already enrolled over 400 patients. Kiniksa expects data from the Phase 3 portion of the clinical trial in the first quarter of 2022.
    - Kiniksa is engaged with the FDA and other government agencies on pathways to accelerate access to mavrilimumab as a potential therapeutic option for COVID-19-related ARDS.
- Kiniksa completed an end-of-Phase 2 meeting for GCA with the FDA.
    - Kiniksa received guidance that a single, well-controlled pivotal Phase 3 clinical trial in approximately 450 patients could be sufficient for registration. The FDA agreed with the proposed 150 mg and 100 mg subcutaneous (SC) bi-weekly dose levels versus placebo on top of a steroid taper and agreed with a 52-week exposure duration to support chronic use.
- Kiniksa completed a pre-IND meeting for RA with the FDA.
    - Kiniksa received guidance that two well-controlled Phase 3 trials in 1,000-1,500 patients with at least one-year of exposure to mavrilimumab could be sufficient for registration in a broad RA population, such as patients with inadequate response to methotrexate and/or methotrexate naïve patients. The FDA agreed with the proposed 150 mg and 100 mg SC bi-weekly dose levels versus placebo.
    - Mavrilimumab was dosed at 150 mg and 100 mg SC bi-weekly in over 550 RA patients in Phase 2b clinical studies in Europe which achieved prospectively-defined primary endpoints of efficacy and safety.
- Kiniksa intends to provide additional updates on the development of mavrilimumab following data from the Phase 3 clinical trial in COVID-19-related ARDS.
- Kiniksa's resources are currently focused on the commercial launch of ARCALYST ® (rilonacept) in recurrent pericarditis, the Phase 3 clinical trial of mavrilimumab in COVID-19-related ARDS, the Phase 2b clinical trial of vixarelimab in prurigo nodularis, and the planned Phase 2 clinical trial of KPL-404 in RA. The company continues to expect that its approximately $264.0 million of cash, cash equivalents and short-term investments will fund its current operating plan into 2023[1].

About Mavrilimumab in COVID-19-related ARDS
Kiniksa believes there remains an urgent unmet need in patients who are hospitalized with COVID-19-related ARDS. Historically, the annual number of pneumonia-associated ARDS cases in the U.S. has averaged over 300,000. In the past year, that number has spiked to more than 1,000,000 due to COVID-19. Over time, the company expects the incidence may revert to historical averages with occasional spikes.

COVID-19-related ARDS patients transition from an early phase of the disease characterized by high viral replication and load to a subsequent phase of aberrant inflammatory response that causes tissue damage and thrombosis, ARDS, and death. Uncontrolled viral replication increases the likelihood of variants that allow the virus to evade the protective effects of vaccines and virus-neutralizing cocktails; however, Kiniksa believes the way mavrilimumab blocks the body's counterproductive inflammatory reaction is agnostic to the coronavirus sequence. As such, Kiniksa believes mavrilimumab has the potential to remain effective despite the risk from emerging COVID-19 variants.

About Kiniksa
Kiniksa is a biopharmaceutical company focused on discovering, acquiring, developing and commercializing therapeutic medicines for patients suffering from debilitating diseases with significant unmet medical need. Kiniksa's portfolio of assets, ARCALYST, mavrilimumab, vixarelimab and KPL-404, are based on strong biologic rationale or validated mechanisms, target underserved conditions and offer the potential for differentiation. These assets are designed to modulate immunological pathways across a spectrum of diseases. For more information, please visit www.kiniksa.com.

About ARCALYST
ARCALYST is a weekly, subcutaneously-injected recombinant dimeric fusion protein that blocks interleukin-1 alpha and interleukin-1 beta signaling. ARCALYST was discovered by Regeneron and is approved by the FDA for recurrent pericarditis, cryopyrin-associated periodic syndromes (CAPS), including Familial Cold Autoinflammatory Syndrome and Muckle-Wells Syndrome, and deficiency of IL-1 receptor antagonist (DIRA). The FDA granted Breakthrough Therapy designation to ARCALYST for the treatment of recurrent pericarditis in 2019 and Orphan Drug designation to ARCALYST for the treatment of pericarditis in 2020.

Important information about ARCALYST Injection

- ARCALYST can affect your immune system and can lower the ability of your immune system to fight infections. Serious infections, including life-threatening infections and death have happened in patients taking ARCALYST. You should not begin ARCALYST if you have an infection or have infections that keep coming back. After starting ARCALYST, if you get an infection or show any sign of an infection, including a fever, cough, flu-like symptoms, or have any open sores on your body, call your doctor right away. Treatment with ARCALYST should be stopped if you get a serious infection.
- While taking ARCALYST, do not take other medicines that block interleukin-1, such as Kineret® (anakinra), or medicines that block tumor necrosis factor, such as Enbrel® (etanercept), Humira® (adalimumab), or Remicade® (infliximab), as this may increase your risk of getting a serious infection.
- Before starting ARCALYST, tell your doctor if you think you have an infection, are being treated for an infection, have signs of an infection, have any open sores, have a history of infections that keep coming back, have asthma, have diabetes or an immune system problem, have tuberculosis, or have been in contact with someone who has had tuberculosis, has or has had HIV, hepatitis B or hepatitis C, or takes other medicines that affect your immune system.
- Before you begin treatment with ARCALYST, talk with your healthcare provider about your vaccine history. Ask your healthcare provider whether you should receive any vaccines, including the pneumonia vaccine and flu vaccine, before you begin treatment with ARCALYST.
- ARCALYST can cause serious side effects:
    - Medicines that affect the immune system may increase the risk of getting cancer.
    - Stop taking ARCALYST and call your doctor or get emergency care right away if you have any symptoms of an allergic reaction (e.g., rash, swollen face, trouble breathing).
    - Your doctor will do blood tests to check for changes in your blood cholesterol and triglycerides.
- Common side effects of ARCALYST include injection-site reactions, upper respiratory tract infections, joint and muscle aches, rash, ear infection, sore throat, and runny nose.
- Tell your doctor if you are scheduled to receive any vaccines, if you are pregnant or plan to become pregnant, and if you are breastfeeding or plan to breastfeed.
- Tell your doctor if you take other medicines that affect the immune system such as interleukin-1 blockers, tumor necrosis factor blockers, or corticosteroids.

For more information about ARCALYST, talk to your doctor and see the Product Information.

About Mavrilimumab
Mavrilimumab is an investigational fully-human monoclonal antibody that blocks activity of GM-CSF by specifically binding to the alpha subunit of the GM-CSF receptor. Mavrilimumab was dosed in over 550 patients with RA through Phase 2b clinical studies in Europe and achieved prospectively-defined primary endpoints of efficacy and safety. Kiniksa is evaluating mavrilimumab in GCA, and the Phase 2 clinical trial achieved both the primary and secondary efficacy endpoints with statistical significance. Kiniksa continues to evaluate mavrilimumab in COVID-19-related ARDS. The FDA granted Orphan Drug designation to mavrilimumab for the treatment of GCA in 2020.

About Vixarelimab
Vixarelimab is an investigational fully-human monoclonal antibody that targets oncostatin M receptor beta (OSMRβ), which mediates signaling of interleukin-31 (IL-31) and oncostatin M (OSM), two key cytokines implicated in pruritus, inflammation and fibrosis. Kiniksa believes vixarelimab to be the only monoclonal antibody in development that targets both pathways simultaneously. Kiniksa's lead indication for vixarelimab is prurigo nodularis, a chronic inflammatory skin condition characterized by severely pruritic skin nodules. The FDA granted Breakthrough Therapy designation to vixarelimab for the treatment of pruritus associated with prurigo nodularis in 2020.

About KPL-404
KPL-404 is an investigational humanized monoclonal antibody that is designed to inhibit CD40-CD154 (CD40 ligand) interaction, a key T-cell co-stimulatory signal critical for B-cell maturation and immunoglobulin class switching and Type 1 immune responses. Kiniksa believes disrupting the CD40-CD154 interaction is an attractive approach for multiple autoimmune disease pathologies. Kiniksa owns or controls the intellectual property related to KPL-404.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential," "strategy," or "continue" or the negative of these terms or other similar expressions, although not all forward-looking statements contain these identifying words. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation, statements regarding: our belief that there remains an urgent unmet need for patients who are hospitalized with COVID-19-related ARDS and that development of mavrilimumab in COVID-19-related ARDS represents the fastest path to potential registration for mavrilimumab; our belief that mavrilimumab has the potential to remain effective despite the risk from emerging COVID-19 variants; the expected timing and design of clinical trials, including our expectation of data from the Phase 3 portion of the clinical trial of mavrilimumab in the first quarter of 2022; engaging with the FDA and other government agencies on pathways to accelerate access to mavrilimumab as a potential therapeutic option for COVID-19-related ARDS; our beliefs in the Phase 3 studies required for registration of mavrilimumab in GCA and RA; our beliefs about the mechanisms of action of our product candidates and potential impact of their approach, including that vixarelimab is the only monoclonal antibody in development that targets both interleukin-31 (IL-31) and oncostatin M (OSM) pathways simultaneously and that KPL-404's disruption of the CD40-CD154 interaction is an attractive approach for multiple autoimmune disease pathologies; our belief that all of our product candidates offer the potential for differentiation; and expectation about our cash reserves funding our current operating plan into 2023.

These forward-looking statements are based on management's current expectations. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including without limitation, the following: delays or difficulty in enrollment of patients in, continuation of sites for, and completion of the Phase 3 portion of the clinical trial of mavrilimumab in COVID-19-related ARDS; amendments to our clinical trial protocols initiated by us or required by regulatory authorities; case rates of severe COVID-19 pneumonia and hyperinflammation in various geographies; our inability to replicate in later clinical trials encouraging or positive results from earlier studies of mavrilimumab in severe COVID-19-related ARDS; the evolving standard of care for the treatment of patients who develop severe COVID-19-related ARDS; impact of additional data from us or other companies, including the potential for our data to produce negative, inconclusive or commercially uncompetitive results; potential undesirable side effects caused by mavrilimumab; our inability to demonstrate safety and efficacy to the satisfaction of applicable regulatory authorities; potential for applicable regulatory authorities to not accept our filings or to delay or deny approval of, or emergency use authorization for, mavrilimumab or to require additional data or trials to support any such approval or authorization; meetings with the Food and Drug Administration and other government agencies to secure resources to bring mavrilimumab to patients; our reliance on third parties as the sole source of supply of the drug substance and drug products used in our products and product candidates and to manufacture our products and product candidates; drug substance and/or drug product shortages; our reliance on third parties to conduct research, clinical trials, and/or certain regulatory activities for our product candidates, including for mavrilimumab; complications in coordinating requirements, regulations and guidelines of regulatory authorities across jurisdictions for our clinical trials, including for the Phase 3 clinical trial of mavrilimumab; the impact of the COVID-19 pandemic and measures taken in response to the pandemic on our business and operations as well as the business and operations of our manufacturers, CROs upon whom we rely to conduct our clinical trials, and other third parties with whom we conduct business or otherwise engage, including the FDA and other regulatory authorities; changes in our operating plan and funding requirements; and existing or new competition.

These and other important factors discussed under the caption "Risk Factors" in our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission ("SEC") on May 6, 2021 and our other reports subsequently filed with the SEC could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. Any such forward-looking statements represent management's estimates as of the date of this press release. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this press release.

ARCALYST is a registered trademark of Regeneron Pharmaceuticals, Inc. All other trademarks are the property of their respective owners.

Every Second Counts!™

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[1] As of March 31, 2021

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