



Kairos Pharma Ltd. Announces Peer Reviewed Publication Highlighting Potentially Groundbreaking Discovery in Overcoming Drug Resistance in Non-Small Cell Lung Cancer

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LOS ANGELES – March 20, 2025 – Kairos Pharma, Ltd. (NYSE American: KAPA), a clinical-stage biopharmaceutical company, announces a peer-reviewed publication highlighting a potentially significant breakthrough in addressing drug resistance to EGFR-targeted therapies for non-small cell lung cancer (NSCLC) patients. Recent findings published in *Drug Resistance Updates* highlight the critical role of CD105 (endoglin) in mediating resistance to osimertinib, a frontline treatment for EGFR-mutant NSCLC. The study, titled, “CD105 blockade restores osimertinib sensitivity in drug-resistant EGFR-mutant non-small cell lung cancer,” demonstrated that CD105 expression is upregulated as a mechanism of therapy resistance, correlating with poor prognosis in patients.

“We believe our latest findings represent a paradigm shift in overcoming resistance to EGFR-targeted therapies in NSCLC,” said Neil Bhowmick, Ph.D., Kairos Pharma Chief Scientific Officer. “Revealing this mechanism-of-action underscores our commitment to advancing precision oncology and bringing innovative therapies to patients in need.”

In preclinical models, targeting CD105 with ENV105 (carotuximab), a CD105-neutralizing antibody successfully restored treatment sensitivity to EGFR-targeted therapies. Notably, combining osimertinib with ENV105 reinstated susceptibility to EGFR inhibition through metabolic reprogramming and enhanced chromatin accessibility. These findings confirm the efficacy of this novel combination therapy strategy in overcoming drug resistance in this model of non-small cell lung cancer.

Dr. John Yu, CEO, stated, “These findings in lung cancer corroborate data in prostate cancer, breast cancer and colon cancer, that point to CD105 being a central mechanism of cancer drug resistance. We believe ENV105 can reverse this resistance in cancer models, and our clinical trials are designed to definitively demonstrate its potential impact.”

The global NSCLC treatment market is projected to reach \$45 billion by 2030, driven by advancements in targeted

therapies. However, drug resistance remains a major challenge. The ability of ENV105 to enhance EGFR-targeted therapy effectiveness positions it as a high-value asset in next-generation oncology treatment. Kairos Pharma is currently evaluating this transformative cancer therapy in ongoing clinical trials for EGFR-driven lung cancer patients. The study can be accessed [here](#).

About Kairos Pharma Ltd.

Based in Los Angeles, California, Kairos Pharma Ltd. ([NYSE American: KAPA](#)) is at the forefront of oncology therapeutics, utilizing structural biology to overcome drug resistance and immune suppression in cancer. Our lead candidate, ENV105, is an antibody that targets CD105 – a protein identified as a key driver of resistance to various cancer treatments. Elevation of CD105 in response to standard therapy results in resistance and disease relapse. ENV105 aims to reverse drug resistance by targeting CD105 and restore the effectiveness of standard therapies across multiple cancer types. Currently, ENV105 is in a Phase 2 clinical trial for castrate-resistant prostate cancer and a Phase 1 trial for lung cancer aimed at addressing significant unmet medical needs. For more information, visit [kairospharma.com](#).

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This press release contains “forward-looking statements” as defined in the Private Securities Litigation Reform Act of 1995. You can identify forward-looking statements as those that are not historical in nature, particularly those that use terminology such as “may,” “should,” “expects,” “anticipates,” “contemplates,” “estimates,” “believes,” “plans,” “projected,” “predicts,” “potential” or “hopes” or the negative of these or similar terms. The reader is cautioned not to rely on these forward-looking statements. If underlying assumptions prove inaccurate, or known or unknown risks or uncertainties materialize, actual results could vary materially from the expectations and projections of Kairos Pharma. We base these forward-looking statements on our expectations and projections about future events, which we derive from the information currently available to us. Such forward-looking statements relate to future events or our future performance. In evaluating these forward-looking statements, you should consider various factors, including: our expectations regarding the success and/or completion of our Phase 1 and Phase 2 clinical trials; our success in completing newly initiated clinical trials, commence new trials, and obtain regulatory approval following the conclusion of such trials; challenges and uncertainties inherent in product research and development; and the uncertainty regarding future commercial success. These and other factors may cause our actual results to differ materially from any forward-looking statement. Forward-looking statements are only predictions. The forward-looking statements discussed in this press release and other statements made from time to time by us or our representatives, may not occur, and actual events and results may differ materially and are subject to risks, uncertainties and assumptions about us, including those described in Kairos Pharma’s prospectus and our other filings made with the SEC. We are not obligated to publicly update or revise any forward-looking statement, and Kairos Pharma is not required to update any forward-looking statement as a result of new information or future events or developments, except as required by U.S. federal securities laws.

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