Kairos Pharma Presents Preclinical Data on its Investigational Compounds KROS 101 and KROS 401 Further Supporting Both Compounds' Potential as Therapeutics for Melanoma and Glioblastoma

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LOS ANGELES - February 26, 2025 - Kairos Pharma, Ltd. (NYSE American: KAPA), a clinical-stage biopharmaceutical company, announced that the company presented preclinical data on its investigational compounds KROS 101 and KROS 401 during the American Association for Cancer Research Immuno-Oncology (AACR IO) conference held in Los Angeles from February 23-26, 2025. The data highlighted positive preclinical outcomes with the Company's glucocorticoid-induced tumor necrosis factor receptor (GITR) agonist KROS101 in melanoma and glioblastoma as well as its peptide inhibitor for macrophages KROS 401 in glioma animal models.

In the presentation titled, "KROS 101: A Next Generation GITR agonist boosting anti-tumor T cell responses and reprogramming the tumor environment," study authors demonstrated that KROS significantly inhibited tumor growth in a preclinical melanoma model. The same team of scientists also showed that KROS 101 increased the proliferation of helper and cytotoxic T cells (CD4+ and CD8+), while decreasing T reg cell growth in a melanoma model. Further, T cells treated with KROS 101 showed cytotoxicity against glioblastoma cell lines and glioma cancer cells, which study authors, Admasu, et. al., concluded KROS 101 demonstrated potent anti-tumor activity compared to a previously used antibody against the GITR receptor TRX518 that was in clinical trials. Most importantly, the authors demonstrated KROS 101 but not TRX518 to prevent the exhaustion of T cells in the tumor.

The second pesentation, titled, "Targeting M2 macrophage polarization: The anti-tumor effects of IL-4/IL-13 blocking peptide and iron oxide nanoparticles," demonstrated the Company's peptide inhibitor KROS 401 may effectively reprogram macrophages -- types of white blood cell of the innate immune system that engulf and digest pathogens, such as cancer cells, microbes, cellular debris and foreign substances - to inhibit tumor growth. The preclinical study demonstrated that KROS 401 exhibited an anti-tumor effect in glioma-bearing mice following a decrease in M2 macrophages, which are known to facilitate tumor growth.

Dr. John Yu, CEO of Kairos Pharma and co-inventor, commented, "We continue to receive validation of our preclinical data demonstrating our KROS platform's development of anti-tumor therapies. KROS 101 addresses an

Achille's heel of all T cell immunotherapies and that is the development of exhaustion in anti-tumor T cells. KROS 101 appears to prevent the development of exhaustion by T cells enabling them to continue to kill tumor cells."

Dr. Ram Murali, VP of Research and Development stated, "KROS 401 is designed to reverse the M1 to M2 transition of macrophages in the tumor microenviroment. What this translates to is changing pro-tumor macrophages into anti-tumor macrophages. This leads to tumor-killing activity by both macrophages and T cells." The American Association for Cancer Research Immuno-Oncology (AACR IO) encompasses the very best of basic, translational, and clinical research in immunology, inflammation, and immunotherapies for cancer, including immuno-oncology (IO) drugs, inflammatory modulators, vaccines, and cellular therapies. The cutting-edge AACR IO 2025 program will appeal to a wide audience of basic scientists, translational researchers, clinical investigators, regulators, industry, investors, and lay press. A mix of keynote lectures, major symposia, spotlight sessions, educational sessions, special sessions, and poster sessions with exhibits will cover the spectrum of the IO field—including late-breaking clinical trials sessions highlighting new agents and IO combinations, and the results of practice-changing clinical trials.

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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