# EFHutton

October 14, 2024

# Overcoming Hurdles in Immune Suppression and Drug Resistance — Prostate Cancer P2; Initiate Buy

Kairos Pharma is a clinical-stage biopharmaceutical company focused on developing innovative therapeutics targeting immune suppression and drug resistance for cancer patients. The company's portfolio includes antibodies and small molecules aimed at treating prostate, lung, glioblastoma/head, and neck cancers plus. The most advanced candidate, ENV105, is now in a large P2 trial. Success is transformative for the company.

**KROS 101 for Prostate and NSCLC–Does it Work?** A small Phase 2 trial involving a heavily pre-treated population suffering from prostate cancer was initiated at Cedars-Sinai Medical Center (2018). The study's primary objective was to measure the proportion of patients at two months who had either disease stabilization or regression (i.e., complete or partial response), referred to as the clinical benefit rate. A clinical benefit rate of 62% was observed. ENV105 is now being evaluated in a larger sponsored Phase 2 Trial in prostate cancer. The trial looks at the combination of an Androgen Signaling Inhibitor (Erleada) with or without ENV105. Positive results from this trial should create a value inflection for the company, allowing additional capital to be raised and invested into other indications and advancement of the earlier pipeline products.

**A Deep Pipeline.** Five preclinical or two clinical-trial-stage drug candidates are in development. These include ENV 105, 205 and KROS 101, 102, 201, 301, and 401. For valuation purposes, we only include ENV105. If the current Phase 2 trial reproduces earlier results, we expect to see the company's valuation rise, allowing additional capital to be raised and advancing the pipeline.

**It's not just Kairos.** We have known the company's CEO and founder, Dr. John Yu, for many years. Dr. Yu is considered an oncology KOL in Glioblastoma. Cedars Sinai's reputation, where Dr. Yu has his lab, is also unmatched, as is Dr. Bhowmick (also Cedars), the company's CSO. The company receives support from Cedars and recently won a \$3.2M NIH Grant. We also consider that millions were previously invested by Tracon Pharma (ceased operations) into the development of TRC105 (now ENV-105),

**Valuation**: We model multiple indications. We apply a Probability of Success factor of just 20% for the Prostate Cancer indication and 10% for NSCLC. In addition to the POS factor, we apply a 30% discount rate (r) to our models. We assume additional capital will be raised in our final share count. We then use these projections to our Free Cash Flow to the firm, or FCFF discounted EPS or dEPS, and sum-of-the-parts or SOP models, which are equal-weighted, averaged, and rounded to the nearest whole number to derive our 12-month price target of \$9.00.

**Risk Factors:** These include Clinical/Regulatory Risk, Partnership and Financial Risk, Commercial Risk, Legal and Intellectual Property Risk, and Market Share Risk.

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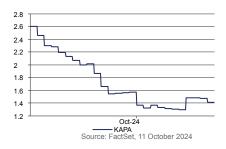
# MARKET DATA

Rating	Buy
Price Target	\$9.00
Price	\$1.41
Average Daily Volume (000)	64
52-Week Range (\$)	\$1.64-\$4.00
Market Cap (M)	\$18
Enterprise Value (M)	\$12
Dividend Yield	0.0%
Cash (M)	\$0
Qrtly Burn Rate (M)	\$0

# ESTIMATES

	2023A	2024E	2025E
Revenue (M)	\$0.0	\$0.0	\$0.0
Total Expenses (M)	\$2	\$1	\$3
GAAP EPS	\$(0.17)	\$(0.10)	\$(0.23)

# **One Year Performance Chart**



# Please see analyst certification and important disclosures on page 25 of this report.



#### Company Overview.

Kairos is a clinical-stage biopharmaceutical company advancing therapeutics for cancer patients designed to overcome key hurdles in immune suppression and drug resistance. These therapeutics include antibodies and small molecules for the treatment of prostate cancer, lung cancer, breast cancer, and glioblastoma. The company states its mission as to advance its portfolio of therapeutics to target key mechanisms of therapeutic resistance and immune suppression and transform how cancer is treated.

The company and its founders have leveraged molecular insights into therapeutic resistance and immune suppression mechanisms to develop a new class of novel drugs that it expects will target drug resistance and checkpoints of immune suppression. The company's seven-drug portfolio offers diversification and mitigates the overall exposure to many of the inherent risks of drug development.

The company's proprietary technologies are licensed from Cedars-Sinai Medical Center, the largest academic medical center in the Western U.S. and ranked number one in California and number two in the nation in U.S. News & World Report's Best Hospitals Honor Roll for 2022-2023.

The product portfolio comprises preclinical and clinical-trial-stage drug candidates that target immune responses. Two therapeutic agents were developed by the company's subsidiary, Enviro Therapeutics, Inc. These are designed to increase the anti-tumor response in conjunction with cancer therapies by addressing resistance to these agents. These include a variety of technologies licensed by our Enviro Therapeutics, Inc. subsidiary, which consists of compositions and methods for treating diseases and conditions by targeting CD105 and depleting mitochondrial DNA from circulation.

DRUG CANDIDATE	MODALITY/ MOA	INDICATION	LEAD	DIDENTIFICA	PRE-CLINI	CAL	HASE 1 CAL TRIALS	>	PHASE 2 CLINICAL TRI	ALS	PHASE 3 NICAL TRIALS	MARKET	
	Antibody targeting Endoglin/ BMP to limit resistance to androgen signaling inhibitors	Prostate cancer	Drug Discovery	Screen	ntified in Vitro	DMPK Toxicity			•				
ENV-105	Antibody targeting Endoglin/ BMP to limit resistance to Tagrisso	EGFR-dependent non-small cell lung cancer	>										
KROS-201	Activated T cell therapy	Glioblastoma											
KROS-101	Small molecule checkpoint agonist GITR	Melanoma				•							
KROS-102	Small molecule checkpoint inhibitor GITR	Auto-immune disease				•							
KROS-301	Small molecule targeting NF-KB	Triple negative breast cancer				•							
KROS-401	Small molecule targeting IL-4/IL-13	Triple negative breast cancer				•							
ENV-205	Antibody targeting mt DNA for resistance	Prostate cancer				•							

# Exhibit 1. Pipeline

Source: Kairos Pharmaceuticals



**Financials**: Kairos raised approximately \$6.2M for 1.55M shares of stock in its IPO, priced at \$4.0 per share. Before the IPO, the company had a modest spending rate; we estimate it to be close to \$200k per quarter. Post-IPO, we expect spending to rise. The company outlines in its IPO *S1 filing* its plan for the use of the capital:

- 1. Prioritize proceeds from the offering to fund Phase 1 and Phase 2 clinical trials of ENV 105 and preclinical candidates, including KROS 101, potential acquisition or in-licensing activities, and working capital and general corporate purposes.
- 2. Approximately \$1.0 million will fund the clinical trials of our lead product candidate, ENV 105, and \$0.7 million will pay outstanding accounts payable.
- Kairos anticipates spending \$1.7 million to complete the Phase 2 trial for prostate cancer for ENV 105. The ENV 105 Phase 1 trial for non-small cell lung cancer should be completed with no additional funding as an external source fully funds it.
- 4. Kairos estimates \$3.2 million for the preclinical development of KROS 101, KROS 301, and KROS 401. In addition to our ongoing trials, management plans to advance one drug at a time, depending on the availability of funds.

Based on the current operating plan, the net proceeds from the offering should fund operations for the next 12 months. As a result, management has guided us to \$5.5 million in additional funding to support our drug development efforts during months 13-24. Our model assumes multiple capital raises, and our valuation is based on a 2034 fully diluted share count.

#### Non-Dilutive Capital. Recent Grants Awarded through the National Institutes of Health

On May 21, 2024, the company learned that the National Cancer Institute / National Institutes of Health— NIH was awarding Neil Bhowmick, PhD, our Chief Scientific Officer and also a Cedars-Sinai Professor of Medicine, a grant of \$3.2 million to support the development of the mechanism of action and companion biomarkers in research that Cedars-Sinai is performing in conjunction with our ongoing Phase 2 trial for ENV105 and apalutamide treating castrate-resistant prostate cancer patients. This funding will be used by Cedars-Sinai, through Dr. Bhowmick's study, to test for the biomarkers and genetic studies corollary studies to support our ongoing Phase 2 trial for ENV105, and also to help identify biomarker-positive patients who will potentially respond to ENV105 in a future Phase 3 trial. Biomarkers help de-risk the outcomes of trials.

License Agreement with Tracon Pharmaceutical, Inc. On May 21, 2021, Enviro entered into a License Agreement with Tracon Pharmaceutical, Inc. Tracon granted Enviro access to inactive IND filings for TRC105 in the United States; ownership of TRC105 stored vials of drug product manufactured to GMP standards stored at Fisher Clinical or their designee; and assignment of Tracon's patent rights to its CD105 technologies. Tracon is no longer an operating company after its injectable PD-L1 inhibitor failed. The biotech gave up on envafolimab after the subcutaneous PD-L1 inhibitor only triggered responses in four out of 82 patients who had already received therapies for their undifferentiated pleomorphic sarcoma or myxofibrosarcoma. At 5%, the response rate was below the 11% the company had expected. Tracon invested millions in developing TRC105 (now ENV105), which benefits Kairos.

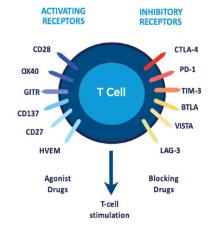


#### **Cancer Overview**

The human immune system can tell the difference between normal cells in the body and those it sees as "foreign," which allows it to focus an attack on the foreign cells while leaving the normal cells alone. To do this, our immune system uses "checkpoints" – molecules on certain immune cells that need to be activated (or inactivated) to start an immune response. Cancer cells can find ways to use these checkpoints to avoid being attacked by the immune system. Kairos aims to develop small molecules that can specifically target these central checkpoints. In addition, the company is developing an activated T-cell therapy designed to target cancer stem cells.

Exhibit 2. The goal is to form a company dedicated to developing and investigating therapeutics that enhance the body's Immune system's ability to fight cancer. The company has seven therapeutics in development, most of which are in the early stages of development.

- To eliminate foreign or diseased cells, our immune systems use "checkpoints" – molecules on certain immune cells that need to be activated (or inactivated) to start an immune response
- Kairos Pharma is developing small molecules that aim to target these central checkpoints to induce the immune system into attacking cancer cells: KROS 101 and 102
- In addition, Kairos Pharma is developing an activated T cell therapy that aims to transform patients' T cells into killer activated T cells against cancerous stem cells: KROS 201



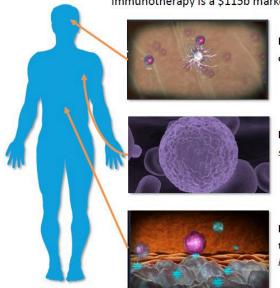
#### Source: Kairos Pharmaceuticals

Unmet Medical Need	Drug	How Kairos Addresses Unmet Medical Need
Resistance to hormone and EGFR therapies for multiple cancer types develop through the upregulation of CD105 signaling	ENV 105	Aims to target CD105 signaling to reverse cancer drug resistance
T cells diminished by cancer Autoimmune T cells are overactive	KROS 101 KROS 102	<ul> <li>Aims to expand killer T cells and inhibits suppressor T reg cells</li> <li>Aims to diminish overactive T cells and increases Treg suppressor cells</li> </ul>
Immunosuppression from cancer	KROS 201	Aims to generate killer T cells targeting cancer stem cells
Chemotherapies are immunosuppressive	KROS 301	• By exploiting the NF-kB molecular pathway in dependent cancers, KROS 301 aims to kill tumors and inhibit the mechanism of PD-L1 expression on tumor cells
Tumor environment is immunosuppressive from macrophages	KROS 401	Aims to transform immunosuppressive macrophages to tumor killing macrophages
Chemotherapy stops working as cancers become resistant; Cancer patients become cachexic	ENV 205	<ul> <li>Aims to support chemotherapy sensitivity by reversing resistance</li> <li>Aims to limit debilitating muscle wasting disease (cachexia) common to patients with cancer</li> </ul>

#### Exhibit 3. Attacking Cancer on Multiple Fronts.



# Exhibit 4. Kairos Immunotherapeutics are engineered to influence every stage of the immune response.



Immunotherapy is a \$115b market despite 17% response rate

**KROS 201:** Activated T cells are generated to kill cancer stem cells to **overcome** *cancer induced immunosuppression* 

KROS 101: T cells are expanded and Tregs are reduced to overcome systemic immunosuppression

**KROS 401:** Tumor environment is made favorable to T cells by impacting tumor infiltrating macrophages to **overcome** *local tumor immunosuppression* 

Source: Kairos Pharmaceuticals

Exhibit 5. Milestones and Timeline.



June 2013 – Spun-off from Cedars-Sinai Medical Center as NanoGB13

<u>June 2014</u> – Raised \$525k from Founders / Pennsylvania Biotechnology Grant

July 2016 –Name changed to Kairos Pharma and licensed immunotherapy technology from Cedars-Sinai Medical Center

November 2019 – Merged with AcTcell Biopharma

July 2021 – Merged with Enviro Therapeutics  Planned Launch of ENV105 Prostate Cancer Phase II, ENV105 Non-Small Cell Lung Cancer Phase I, KROS-201 Glioblastoma Phase I

- Activated T cells Pre-IND work completed
- IND approved in 2022 to initiate Phase I trial for glioblastoma for KROS 201

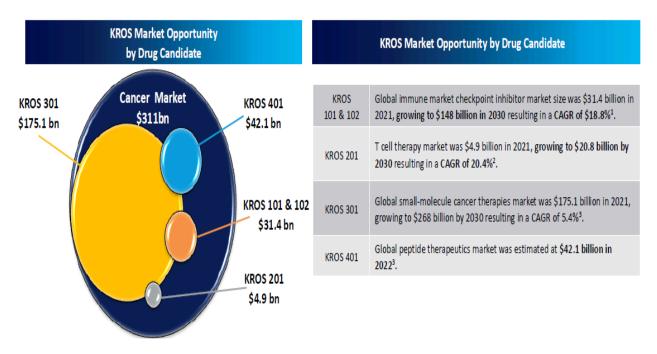
KROS-101 GITR agonist molecule and KROS-102 antagonist GITR molecule Preclinical studies

- IND approved for Phase II Prostate Cancer Trial and for Phase I Non-Small Cell Lung Cancer for ENV 105
- Phase I and II multi-center trials with ENV 105 enrolling
- Preclinical development of KROS 101, 102, 301, 401
- Safety data from Phase II trial and Phase I trial
- 5-year Horizon for ENV105 FDA Approval with a Maturing Pipeline of Broader Prospective Applications
- Phase I trials for KROS 101, 401
- Pre IND for KROS 102, 301
- KROS 201 Phase I trial

and Phase I trial



**Exhibit 6. The global cancer drug market addresses unmet medical needs, particularly in Immuno-Oncology.** Projections for the market indicate substantial growth, with expected sales between \$95 and \$127 billion by 2026, reflecting a compound annual growth rate (CAGR) of up to 20% from 2020. Key market drivers include an expanding patient population, rising cancer mortality rates, and increasing approvals for new immunotherapeutic drugs, propelling the global market forward.



Source: Kairos Pharmaceuticals

**Exhibit 7. What is Kairos?** An early-stage company with a robust portfolio of immune-based therapeutics in Oncology. The company's lead product, ENV-105, picks up where Tracon (the company Kairos acquired the drug from) left off, capitalizing on the millions invested in understanding how the drug works. Current P2 data suggests a signal. ENV105 treatment provided a 62% response rate in prostate cancer patients with very few other therapeutic options.

- Clinical stage company enrolling in phase 1 and 2 trials treating significant unmet need in widespread cancers with rapidly growing and robust pipeline
- Strategic relationship with Cedars-Sinai Medical Center (ranked #2 in the nation by US News and World Report for 2022-2023) provides access to medical expertise, drives clinical trial efficiency and accelerates therapeutic innovations
- Initial clinical development focusing on overcoming
   drug resistance
- Pipeline includes extensive immunomodulating therapies
- Extensive IP portfolio going as far as 2040
- Experienced team of thought leaders creating transformative therapies in an enormous market opportunity of \$125 billion in immunotherapeutics





#### ENV-105- A Phase 2 Therapeutic

**Background.** In June 2021, Kairos announced the acquisition of Enviro Therapeutics, Inc. to incorporate their advanced pipeline of drug candidates in Phase 1 and Phase 2 trials. The pipeline includes two therapeutic agents that address significant unmet needs in the prostate and lung cancer markets and can help address cancer progression, in particular, in those cancers that develop resistance to standard therapies. The company has an early-stage pipeline of seven drugs, the most advanced ENV 105. 105 is now in a randomized Phase 2 trial for prostate cancer and a Phase 1 study for non-small cell lung cancer.

What is ENV105 and How Does it Work? ENV 105 is a therapeutic antibody designed to combat cancer progression. It is being evaluated in NSCLC and Prostate Cancer. The focus of the Prostate Cancer trial is patients who have developed resistance to androgen-targeted therapies.

**Mechanism of Action**—Targeting Endoglin. ENV 105 is an antibody that targets CD105 / Endoglin, which is expressed in tumor cells and surrounding cells as the tumor becomes resistant to therapeutics in prostate and lung cancer. Endoglin is upregulated (increased in quantity) in cancer cells and the surrounding non-cancerous environment, particularly in response to androgen-targeted therapy and EGFR inhibitors. Endoglin is involved in the tumor's microenvironment, helping the cancer survive and resist treatment.

Addressing Resistance. One of the key challenges in treating prostate cancer, especially with androgen-targeted therapies, is the development of resistance. ENV 105 targets both the cancer cells and the supportive tumor microenvironment, disrupting the mechanisms that allow the cancer to evade therapy. This dual targeting helps to prevent or overcome resistance mechanisms, such as tumor dormancy, which is a state where cancer cells remain inactive and resistant to conventional therapies.

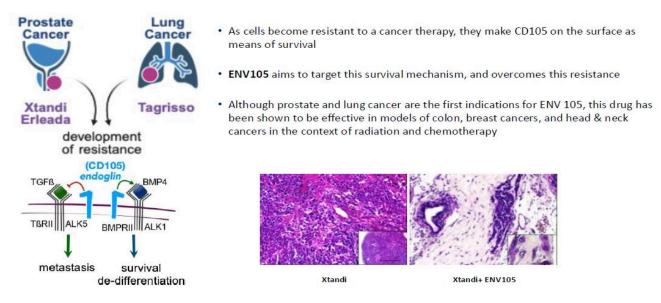
**Combination Therapy.** ENV 105 is being tested with apalutamide, a third-generation androgen receptor inhibitor. The combination aims to enhance the efficacy of the androgen-targeted therapy by specifically targeting the resistance mechanism related to endoglin. This could improve outcomes for patients resistant to previous androgen-targeted treatments.

**Potential and Tolerability.** ENV 105 has shown promise not only in prostate cancer but also in other cancers like non-small cell lung cancer (NSCLC), particularly in combination with EGFR inhibitors like Osimertinib (Tagrisso). The drug has been well-tolerated in clinical trials, with manageable side effects such as anemia, nausea, and gingival bleeding, depending on the combination therapy used.

Does it Work? A Phase 2 trial involving a heavily pre-treated population suffering from prostate cancer was initiated at Cedars-Sinai Medical Center in 2018. The study's primary objective was to measure the proportion of patients at two months who had either disease stabilization or regression (i.e., complete or partial response), referred to as the clinical benefit rate. A clinical benefit rate of 62% was observed. The trial enrolled 11 patients, of which nine were evaluable. This investigator-initiated trial closed to accrual prior to its planned enrollment of 40 patients due to limitations of the drug supply from the manufacturer. The drug supply has since been expanded and obtained by Kairos Pharma. This Phase 2 trial involved the use of enzalutamide (Xtandi®, Pfizer) and abiraterone (ZYTIGA®, Janssen), two forms of hormone therapy that blocks the androgen receptor and its target ligand, testosterone, respectively. These two agents are considered standard of care for nearly all recurrent prostate cancer patients. The trial accrued patients who were resistant to the very androgen-targeted therapy (enzalutamide or abiraterone) given in the trial in addition to ENV105. ENV105 administration alone has no clinical benefit based on pre-clinical findings. However, two agents that have no clinical effect, when combined, halt tumor progression in most patients. The finding is supported by numerous publications reporting on studies that demonstrated hormone therapy resistance develops through the induction of CD105, the target of ENV105. In addition, all of the patients participating in the trial were not only resistant to the two hormone therapy agents but also resistant to at least one other intervention after surgical or radiation progression. Some patients failed to respond to as many as five other drugs. The responders to the combination therapy were patients who, at that point, had exceedingly few other options for survival.

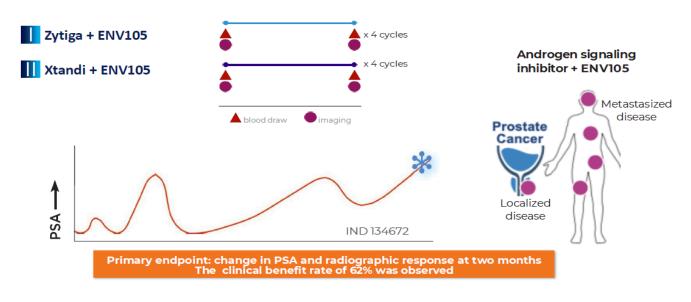


**Exhibit 8. Cancers Typically Become Resistant.** Endoglin (CD105) expression increases in prostate cancer in response to androgen-targeted therapy and EGFR-targeted therapy, resulting in therapeutic resistance. ENV105 may help overcome this resistance. In the two slides presented below ENV 105 allows the androgen targeted standard of care drug Xtandi to work again to kill prostate cancer cells (right) when it grew previously with Xtandi alone (left).



Source: Kairos Pharmaceuticals

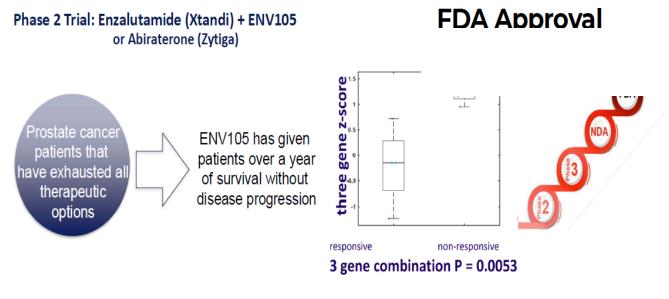
**Exhibit 9. ENV105 is now being evaluated in a Phase 2 Trial in Prostate Cancer.** The trial looks at the combination of Androgen Signaling Inhibitors (Zytiga and, or Xtandi) plus ENV105. We pay close attention to the PSA line on the chart below as regulators consider a change in PSA an acceptable endpoint. The chart below shows the point at which PSA rises and the patient becomes a candidate for ENV105.



Source: Kairos Pharmaceuticals



**Exhibit 10. Biomarkers are Critical.** Kairos has identified multiple biomarkers that are likely to predict therapy responders. This work is based on the efforts of the company's CSO, Dr. Bhowmick, and has been supported by grants (National Cancer Institutes and the National Institute of Health). Biomarkers help de-risk trial outcomes.



Source: Kairos Pharmaceuticals

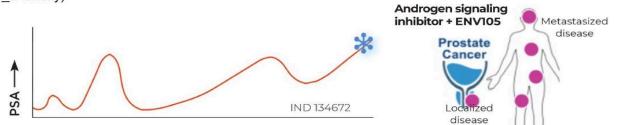
**Exhibit 11.** ENV105 represents a Completely Novel Therapeutic—first In Class. Treatment thus far has shown a 62% response rate in prostate cancer patients with very few other therapeutic options. ENV105 is reasonably well-tolerated as an adjunct to contemporary AR inhibitors. No grade 3-4 toxicities were observed from the combination, which is superior to the therapies below.

#### Compare to:

Rucaparib (Rubraca) is a PARP inhibitor by Clovis – only addresses BRCA1 mutant patients (< 10% of the prostate cancer population) - had 58% objective response rate

**177Lu-PSMA (PLUVICTO)** by Novartis is given in combination with hormone therapy for a 8.7 month median radiographic PFS. In the phase III trial they used 6 weeks for their objective response criteria – had a **51%** objective response rate (52.7% grade  $\geq$ 3 toxicity)

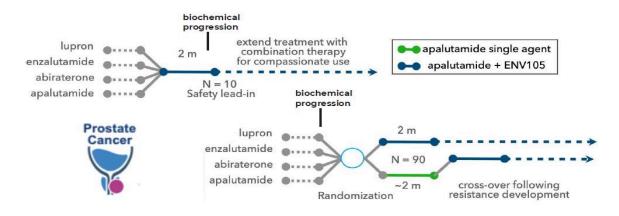
**Apalutamide (Erleada)** by Jassen + ADT had **22%** 12 week biochemical PFS (45.1% grade >3 toxicity)



Source: Kairos Pharmaceuticals

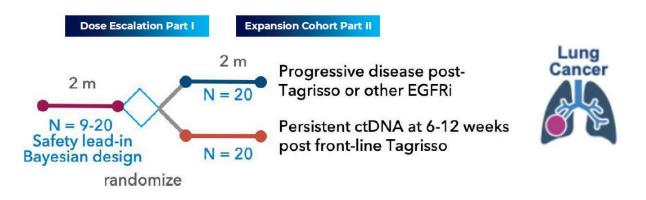


**Exhibit 12. The Phase 2 Trial for Prostate Cancer: Apalutamide (Erleada) + ENV105.** The trial's Primary endpoints are the change in PSA and the radiographic response, which are considered approvable endpoints by the FDA for Prostate Cancer therapeutics. The secondary endpoint is a companion biomarker evaluation.



Source: Kairos Pharmaceuticals

**Exhibit 13. ENV105 Phase 1 Trial for EGFR-Driven Lung Cancer:** The trial evaluates Osimertinib (Tagrisso) + ENV105. The primary endpoint is to determine the safety and recommended phase 2 dose of this combination in patients with EGFR mutant NSCLC. Secondary endpoints will assess the response and identify companion biomarkers.



Source: Kairos Pharmaceuticals

#### **Earlier Stage Pipeline**

**KROS 101.** This therapeutic acts through GITR Inhibition. GITR is a co-stimulatory receptor found on the surface of T cells, including regulatory T cells (Tregs) and effector T cells. In normal immune function, GITR plays a role in modulating the immune response. By inhibiting GITR, KRS-101 is designed to reduce the activity of regulatory T cells, which are often responsible for suppressing the immune response against tumors. This inhibition allows for a stronger and more sustained attack by the immune system on cancer cells. Enhancing T T-cell activity by blocking GITR, KRS-101 not only reduces the suppressive effects of Tregs but also enhances the activity and proliferation of effector T cells. This dual effect leads to a more robust immune response, enabling the immune system to recognize and destroy cancer cells more effectively. Like other immunotherapies, KRS-101 also aims to alter the tumor microenvironment by making it less supportive of cancer cell survival and more accessible to immune cells. This shift increases the likelihood of a successful immune response against the tumor. As a GITR inhibitor, KRS-101 could be combined with other immunotherapies, such as checkpoint inhibitors, to amplify the immune system's ability to fight cancer.

**Exhibit 14. KROS 101 is a small molecule that induces trimerization of the GITR ligand.** It represents the culmination of the pioneering work of Dr. Ramachandran Murali, who is the Vice President of Research and Development, in 3D crystallography at Kairos.

KROS 101: GITR (glucocorticoid-induced tumor necrosis factor receptor) is a powerful checkpoint that increases the T cell response against cancer

Kairos Pharma developed a small molecule agonist that stabilizes the GITR ligand based on Dr. Murali's determination of GITRL crystal structure (PNAS papers)



KROS-101 pictured here in the center of the GITR protein



KROS-101 Targets GITR

Competitor	Drug	Activity
Kairos Pharma	KROS-101	<ul> <li>Small molecule half-life enables reversibility, allows for fine tuning to limit side effects</li> <li>Having both agonist and antagonist molecules can reverse potential untoward effects</li> <li>More scalable than manufacturing antibodies</li> <li>The power of oligomerization enabling exponential <b>physiologic</b> signaling</li> </ul>
AstraZeneca	MEDI1873	<ul> <li>Hexameric GITR ligand fusion protein does not enable oligomerization limiting exponential signaling like KROS 101</li> </ul>
Merck	MK4166	Agonist antibody does not signal GITR physiologically limiting response compared to KROS 101

#### **Competitive Offerings**



# Exhibit 15. KROS 102 (as shown in the slide below) is a GITR ligand antagonist designed to increase inhibitory Treg functions while hampering T-effector cell numbers and function.

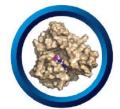
- KROS 102: A GITR antagonist that aim to increase the inhibitory regulatory T cell (Treg) functions while hampering T effector cell numbers and function
- KROS-102 has been shown to decrease T effector cells and increase Treg cells in a dose dependent fashion



#### Competition

Corticosteroids are the main inhibitors of an immune response but have many side effects such as hip necrosis and gastritis

#### Source: Kairos Pharmaceuticals



KROS-102 pictured here in the center of the GITR protein

#### Advantage of KROS-102:

- KROS-102 is a novel GITR inhibitor that we believe can impact the abnormal immune responses against one's own body
- Autoimmune diseases such as Crohn's disease, multiple sclerosis, and rheumatoid arthritis may be targets for such a molecule

KROS 201 is a proprietary technology for producing activated T cells (ATC). ATCs are killer T cells made from a patient's white blood cells in cell culture by activating with cytokines or T cell activating signals and priming dendritic cells loaded with glioblastoma cancer stem cell-specific antigens. Kairos generates activated T cells that will be infused intravenously into patients with recurrent glioblastoma.

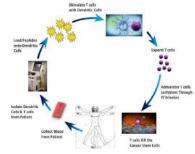
KROS 201 begins with activating T cells using dendritic cells to treat patients with glioblastoma. Activated T cells (ATC) are killer T cells made from a patient's white blood cells in cell culture by activating with cytokines or T-cell activating signals and priming dendritic cells loaded with glioblastoma cancer stem cell-specific antigens. Cytotoxic and helper T cells are generated in a cell manufacturing center and infused into patients with recurrent glioblastoma.

KROS 201 has the potential to become a novel T cell therapy that allows a "plug and play" scenario where a patient's specific tumor can be addressed. This would improve cancer treatment by stimulating patients' immune systems to generate a long-term population of cytotoxic T-cells and helper T-cells directed against the tumor.



**Exhibit 16. KROS 201.** KROS 201 consists of potent T-cells stimulated by dendritic cells in the test tube to target cancer stem cells. The initial focus of KROS 201 is to treat glioblastoma. Dr. Yu, a world-renowned KOL in the field, runs a lab known for its pioneering work in dendritic cell immunotherapy.

**KROS 201:** Aims to generate activated T cells (ATC), ATC are killer T cells that are made from a patient's white blood cells in a cell culture by activating with cytokines or T cell activating signals and by priming dendritic cells loaded with glioblastoma cancer stem cell specific antigens



# **Competitive Offerings**

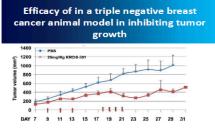
Competitor	Drug	Activity
Kairos Pharma	KROS-201	<ul> <li>Generates potent activated T cells that has been shown to improve cancer stem cell targeting</li> <li>T cells kill the root of glioblastoma tumors by targeting several antigens</li> </ul>
Ziopharm	Ad-RTS-hIL with veledimex And other gene therapies	<ul> <li>Uses intracranial adenoviral delivery of viruses which can cause cytokine storm and other untoward effects</li> </ul>
Imvax	IGV-001 And other vaccines	Uses dendritic cells and antigen targets that may not translate to a potent T cell response
Century Therapeutics	ET001 CAR And other CART cells	<ul> <li>T cells that target CD133 may have off target untoward effects on normal brain and blood stem cells. Antigen loss variants by targeting only one antigen.</li> </ul>
Bristol Myers Squibb	Nivolumab and other checkpoint inhibitors	• Failed due to absence of T cells in the tumor. Activated T cells must be generated first such as through KROS-201

#### Source: Kairos Pharmaceuticals

**Exhibit 17. KROS-301.** KROS 301 is a tumor-targeting small molecule and checkpoint inhibitor with two distinct mechanisms of action resulting from blocking intranuclear localization of ReIA, a key component of the NF-KB pathway. NF-KB is a key component for cancer growth and drug resistance. KROS 301 targets tumor cells in ReIA/p65 biomarker-positive solid tumors. Using this biomarker enables choosing patients who will respond to the drug, enabling efficient clinical trials that are more likely to succeed. KROS 301 is in active pre-clinical development.

KROS 301: A small molecule inhibitor aims to have two distinct mechanisms of action resulting from blocking intranuclear localization of ReIA, a key component of the NF-KB pathway. NF-KB is a key component for cancer growth and immune resistance

The use of ReIA/p65 biomarker allows the treatment of only positive solid tumors which predicts responsiveness



Competitor	Drug	Activity
Kairos Pharma	KROS-301	<ul> <li>Inhibits NF-KB activation without any effects on other signaling pathways</li> <li>Selectively targeting NF-KB signaling minimizes systemic toxicity</li> <li>NF-KB inhibition is transient and highly reversible to avoid long-term immunosuppression</li> </ul>
Takeda	Bortezomib (Velcade®)	<ul> <li>Bortezomib is a reversible 26S proteasome inhibitor that has been recently approved by FDA for the treatment of multiple myeloma. Although Bortezomib affects other signaling pathways, its efficacy may in part be due to inhibition of NF-KB activity</li> <li>The proteasome which is responsible for IKB degradation has many other important functions. Thus, inhibition of proteasome activity could potentially cause severe side effects</li> </ul>

Source: Kairos Pharmaceuticals

**Competitive Offerings** 



KROS 401 is a tumor microenvironment immune modulator and cyclic peptide inhibitor of IL-4 and IL-13, reversing tumor-associated macrophage inhibition. KROS 401 reduces the M2 macrophage population and limits fibrosis of the pancreas due to the anti-inflammatory process (Xue, Nature Com. 2015). Other indications may include pulmonary fibrosis, Crohn's disease, and other inflammatory conditions. KROS 401 blocks the IL4/IL13 cytokine immune receptors for triple-negative breast cancer, and in addition, it increases anti-tumor response in conjunction with radiation therapy in an animal model.

Recently, it became clear that macrophages in tumors are altered by the Th2 cytokines IL-4 and IL-13, inducing alternatively activated macrophages or M2. Breast cancer-associated tumor-associated macrophages are mainly activated M2 macrophages. Thus, shifting the balance toward M1 macrophages will prevent tumor growth and enable T cell activation and killing, which is dependent on Th1 cytokines. We will target a key Th2 cytokine pathway, IL-4, and IL-13, to block macrophage immunosuppression with KROS 401, thereby allowing T cells to access tumors.

Kairos sees significant advantages to KROS 401, as this peptide binds to the IL13R alpha1 and IL4R alpha1 (type I) receptor complex and blocks both IL-4 and IL-13-mediated signaling. The implication is that targeting IL-4Ralpha is predominantly for indications such as asthma or eczema, while type I targets macrophages/tumor growth (especially IL13R). KROS 401 is in preclinical development.

**Exhibit 18. KROS-401.** KROS 401 is a tumor microenvironment immune modulator and cyclic peptide inhibitor of IL-4 and IL-13, reversing tumor-associated macrophage inhibition. Both therapies reverse the mechanism of immune suppression at the tumor site.

**KROS 401:** Cyclic peptide inhibitor of IL4/IL13 cytokine immune receptors for triple negative breast cancer. It aims to increase anti-tumor response in conjunction with radiation therapy

Recently, it became clear that macrophages in tumors are altered by the Th2 cytokines IL-4 and IL-13, inducing protumor macrophages



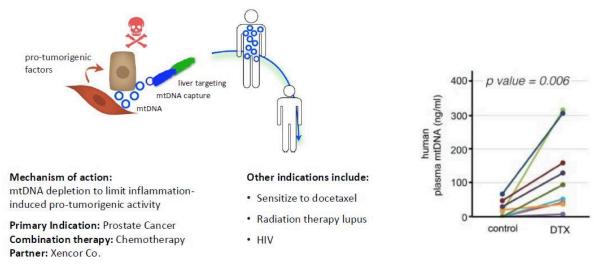
# Competitive Offerings

Competitor	Drug	Activity
Kairos Pharma	KROS-401	<ul> <li>Antibodies have not been studied in cancer or pancreatitis</li> <li>Our peptide binds to IL13R alpha1 and IL4R alpha1 (type I) receptor complex; blocks both IL-4 and IL-13 mediated signaling</li> <li>The implication is that targeting IL-4Ralpha is predominantly for indications such as asthma or eczema, while the type I is for macrophages/tumor growth (esp IL13R)</li> </ul>
LEO Pharma	Tralokinumab	Tralokinumab blocks IL-13 cytokine for asthma or eczema
Regeneron Pharmaceuticals	Dupilumab	<ul> <li>Dupilumab binds to IL-4R alpha (both type I and 2) which then prevents IL-13 (forming a heterodimer) signaling for eczema</li> </ul>



ENV 205 is a molecule found to limit the process of muscle wasting through the capture and excretion of mitochondrial DNA in circulation. We are not aware of any other biologic that is further along than ENV 205 in the development process that targets prostate cancers that have become otherwise resistant to chemotherapy. ENV 205 is an antibody that targets the excretion of mitochondrial DNA found elevated in circulation when patients are on chemotherapy. Higher blood levels of mitochondrial DNA are not only associated with chemotherapy resistance but are more widely recognized as a mediator of cardiac toxicity and other systemic inflammatory events contributing to the negative side effects of chemotherapy use. Thus, depleting mitochondrial DNA with the administration of ENV 205 restores chemotherapy sensitivity in animal models that received ENV 205 along with chemotherapy to reduce its toxic side effects.

**Exhibit 19. ENV 205.** 205 is a novel first-of-its-kind biologic that targets prostate cancers that have become otherwise resistant to chemotherapy. ENV 205 targets the excretion of mitochondrial DNA found elevated in circulation when patients undergo chemotherapy. Higher blood levels of mitochondrial DNA are not only associated with chemotherapy resistance. However, they are more widely recognized as a mediator of cardiac toxicity and other systemic inflammatory events contributing to the negative side effects of chemotherapy use. Thus, depleting mitochondrial DNA with the administration of ENV 205 restores chemotherapy sensitivity with reduced toxic side effects.



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Source: Kairos Pharmaceuticals

**EFHutton** 

## **Model Assumptions**

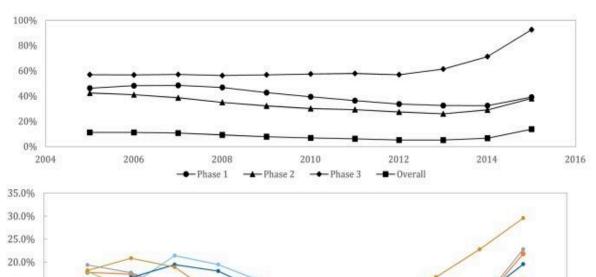
**ENV 105.** ENV 105 targets cancer cells and cancer-associated fibroblasts, making it a valuable complement to many epithelial-targeted cancer therapies. The company's focus has been on three key indications in pre-clinical studies, two of which have progressed to clinical trials: prostate cancer (Phase 2 with androgen signaling inhibitors), lung cancer (Phase 1 with EGFR antagonists), and head and neck cancer (preclinical with radiation or chemotherapy). Our valuation for the company is primarily based on ENV-105.

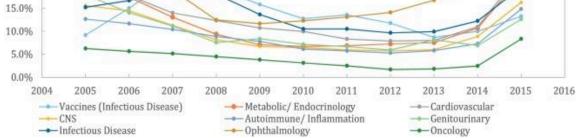
- 1. Prostate Cancer: There are approximately 300,000 castration-resistant prostate cancer patients in the U.S. eligible for combination therapy with ENV 105 and androgen signaling inhibitors, priced at \$5,000 per month (based on comparable neutralizing antibodies). This suggests a potential for U.S.\$9 billion in gross sales for ENV 105 in the U.S. over a six-month treatment course for this indication alone. Androgen signaling inhibitors currently represent a \$10 billion market, including key players like Sanofi, Johnson & Johnson, Pfizer, Astellas Pharma, and Bayer, with projections to grow to a \$15 billion global market by 2027. However, no current therapies have been approved to extend efficacy beyond chemotherapy (docetaxel and cabazitaxel), which have undesirable toxicity profiles.
- 2. Lung Cancer: In the U.S., approximately 30,466 patients are diagnosed annually with EGFRdriven non-small cell lung cancer (NSCLC). This subtype is most prevalent among non-smokers and individuals of East Asian descent, with 35-40% of NSCLC cases—341,633 patients annually—occurring in Asia (China, India, Japan, South Korea, Thailand, and the Philippines). ENV 105's market share could be gauged against Tagrisso's (AstraZeneca) \$3 billion annual sales for lung cancer. Accordingly, ENV 105 could capture a \$1 billion market share in the U.S. as a combination therapy with EGFR antagonists, enhancing or extending their efficacy.
- 3. Head and Neck Cancer: ENV 105's potential to complement radiation and chemotherapy suggests broad clinical applications across various solid tumors. The World Health Organization estimates over 550,000 new cases and around 300,000 deaths from head and neck cancer annually, with an expected 7.9% increase in incidence by 2030 due to rising alcohol and tobacco consumption. The global head and neck cancer drug market was valued at \$1.51 billion in 2021. Chemotherapy, either alone or in combination with radiation therapy, remains the standard of care, but its toxicity is a significant limitation. ENV 105 could enable lower radiation doses, improving patients' quality of life.
- 4. **Probability of Success Factor(s).** We apply a 20% probability of success factor in our Prostate Cancer Model, 10% in our NSCLC model, and 5% in Head and Neck Cancer. These rates are consistent with published data.



**Exhibit 20. Probability of Success from Phase 1 to Approval.** Oncology is among the lowest. Oncology has a 3.4% success rate in our sample vs. 5.1% in prior studies. However, after declining to 1.7% in 2012, this rate improved to 2.5% and 8.3% in 2014 and 2015, respectively. In addition, trials that use biomarkers in patient selection have higher overall success probabilities than trials without biomarkers.

	Pha	se 1 to Phase	2	Pha	se 2 to Phase	3	Pha	al	Overall		
Year	Total Trials	$POS_{1,2}, \%$	(SE, %)	Total Trials	$POS_{2,3}, \%$	(SE, %)	Total Trials	POS <sub>3,APP</sub> , %	(SE, %)	POS, %	(SE, %)
2005	3605	46.2	(0.8)	3518	42.4	(0.8)	1988	56.9	(1.1)	11.2	(0.6)
2006	4218	48.1	(0.8)	3962	41.0	(0.8)	2246	56.7	(1.0)	11.2	(0.6)
2007	4707	48.5	(0.7)	4201	38.6	(0.8)	2501	57.1	(1.0)	10.7	(0.6)
2008	5187	46.8	(0.7)	4538	35.0	(0.7)	2717	56.2	(1.0)	9.2	(0.5)
2009	5988	42.7	(0.6)	4817	32.2	(0.7)	2854	56.8	(0.9)	7.8	(0.4)
2010	6753	39.4	(0.6)	5240	30.1	(0.6)	2873	57.5	(0.9)	6.8	(0.4)
2011	7414	36.3	(0.6)	5355	29.2	(0.6)	2654	57.9	(1.0)	6.1	(0.3)
2012	7885	33.6	(0.5)	5510	27.5	(0.6)	2671	56.9	(1.0)	5.3	(0.3)
2013	7872	32.5	(0.5)	5272	26.0	(0.6)	2375	61.3	(1.0)	5.2	(0.3)
2014	7491	32.4	(0.5)	4384	29.0	(0.7)	2116	71.2	(1.0)	6.7	(0.4)
2015	5315	39.2	(0.7)	2856	38.1	(0.9)	1424	92.6	(0.7)	13.8	(0.7)





Source: Corrigendum: Estimation of clinical trial success rates and related parameters. Wong CH, Siah KW, Lo AW. Biostatistics. 2019 Apr 1;20(2):366. doi: 10.1093/biostatistics/kxy072.



# Exhibit 21. Therapeutic Models

U.S. Prostate Cancer	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034
Incidence	300,000	303,000	306,030	309,090	312,181	315,303	318,456	321,641	324,857	328,106	331,387
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	19
Treated Patients - 85%	255,000	257,550	260,126	262,727	265,354	268,008	270,688	273,395	276,128	278,890	281,679
Market Share		0%	0%	0%	0%	0%	10%	12%	14%	16%	189
Patients	0	0	0	0	0	0	27,069	32,807	38,658	44,622	50,702
Cost of Therapy					\$60,000	\$60,600	\$61,206	\$61,818	\$62,436	\$63,061	\$63,69
% Price Increase	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Probability of Success	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Revenues (\$M)	\$0	\$0	\$0	\$0	\$0	\$0	\$331	\$406	\$483	\$563	\$646
Europe Prostate Cancer	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Prevalence	473,000	477,730	482,507	487,332	492,206	497,128	502,099	507,120	512,191	517,313	522,486
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Treated Patients - 85%	402,050	406,071	410,131	414,233	418,375	422,559	426,784	431,052	435,363	439,716	444,113
Market Share		0%	0%	0%	0%	0%	0%	5%	10%	12%	13%
Patients	0	0	0	0	0	0	0	21,553	43,536	52,766	57,735
Cost of Therapy					\$60,000	\$60,600	\$61,206	\$61,818	\$62,436	\$63,061	\$63,691
% Price Increase	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Probability of Success	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Revenues (\$M)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$266	\$544	\$665	\$735
U.S. Lung Cancer - EGFR Driven	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Prevalence	30,000	30,300	30,603	30,909	31,218	31,530	31,846	32,164	32,486	32,811	33,139
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Treated Patients - 95%	28,500	28,785	29,073	29,364	29,657	29,954	30,253	30,556	30,861	31,170	31,482
Market Share		0%	0%	0%	0%	0%	2%	5%	10%	14%	18%
Patients	0	0	0	0	0	0	605	1,528	3,086	4,364	5,667
Cost of Therapy					\$60,000	\$60,600	\$61,206	\$61,818	\$62,436	\$63,061	\$63,691
% Price Increase	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Probability of Success	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Revenues (\$M)	\$0	\$0	\$0	\$0	\$0	\$0	\$4	\$9	\$19	\$28	\$36
EU Lung Cancer - EGFR Driven	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Prevalence	55,000	55,550	56,106	56,667	57,233	57,806	58,384	58,967	59,557	60,153	60,754
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Treated Patients - 70%	52,250	52,773	53,300	53,833	54,372	54,915	55,464	56,019	56,579	57,145	57,717
Market Share		0%	0%	0%	0%	0%	0%	5%	10%	12%	14%
Patients	0	0	0	0	0	0	0	2,801	5,658	6,857	8,080
Cost of Therapy					\$60,000	\$60,600	\$61,206	\$61,818	\$62,436	\$63,061	\$63,691
% Price Increase	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Probability of Success	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Revenues (\$M)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$17	\$35	\$43	\$51
US Head & Neck Cancer	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Prevalence	66,000	66,660	67,327	68,000	68,680	69,367	70,060	70,761	71,469	72,183	72,905
Growth	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Market Share		0%	0%	0%	0%	0%	0%		5%	10%	20%
Patients	0	0	0	0	0	0	0	0	3,573	7,218	14,581
Cost of Therapy					\$60,000	\$60,600	\$61,206	\$61,818	\$62,436	\$63,061	\$63,691
% Price Increase	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Probability of Success	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Revenues (\$M)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11	\$23	\$46
EU Head & Neck Cancer	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Prevalence	135,000	137,700	140,454	143,263	146,128	149,051	152,032	155,073	158,174	161,337	164,564
Growth	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Market Share		0%	0%	0%	0%	0%	0%	0%	0%	50%	10%
Treated Patients		-	-	-	-	-		-	-	80,669	16,456
Cost of Therapy					\$60,000	\$60,000	\$60,000	\$60,600	\$61,206	\$61,818	\$62,436
% Price Increase	0%	0% 5%	0% 5%	0%	0%	0%	0%	1%	1%	1% 5%	1%
Probability of Success	5%			5%	5%	5%	5%	5%	5%		5%

Source: EF Hutton Estimates



**Valuation:** Our valuation is based on our models and the assumptions for our projected revenues to 2034. Our models apply a 70% probability of success (POS) in Ovarian Cancer as we feel the clinical data sets are derisking. We assume equity capital raises; our share count is based on a fully diluted 2034 estimate. In addition to the POS factor, we use a 30% risk rate in our free cash flow to the firm (FCFF), discounted EPS (dEPS), and sum-of-the-parts (SOP) models. We equal weight, average these metrics, and then round to the nearest whole number to derive our price target.

# Exhibit 22. Free Cash Flow Model

Price Target \$	13										
Year	2024										
DCF Valuation Using FCF (mln):											
units ('000)	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
EBIT	(1,026)	(3,000)	(12,000)	(20,000)	(28,000)	(32,000)	233,747	552,198	936,069	1,366,235	1,361,253
Tax Rate	0%	0%	0%	0%	0%	0%	0%	25%	38%	38%	38%
EBIT(1-t)	(1,026)	(3,000)	(12,000)	(20,000)	(28,000)	(32,000)	233,747	414,149	580,363	847,066	843,977
CapEx											
Depreciation											
Change in NWC (ex cash)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FCF	(1,026)	(3,000)	(12,000)	(20,000)	(28,000)	(32,000)	233,747	414,149	580,363	847,066	843,977
PV of FCF	(1,026)	(2,308)	(7,101)	(9,103)	(9,804)	(8,619)	48,427	66,001	71,146	79,878	61,221
Discount Rate	30%										
Long Term Growth Rate	1%										
Terminal Cash Flow	2,939,367										
Terminal Value YE2034	1,029,154										
NPV	1,317,867										
NPV-Debt	-										
Projected Shares out (thousands)	102,092	2034E									
NPV Per Share	\$ 12.91										

#### Source: EF Hutton estimates

#### Exhibit 23. Discounted EPS Model

	oounto										
Current Year Year of EPS		2024 2034		Discount Rate and Earnings Multiple Varies, Year is Constant 2034 EPS							
Earnings Multiple		15		8.99	5%	10%	15%	20%	25%	30	
			Earning	s							
Discount Factor		30%	Multiple	. 1	\$5.07	\$3.19	\$2.04	\$1.33	\$0.89	\$0.60	
Selected Year EPS	\$	8.27		5	\$25.37	\$15.93	\$10.22	\$6.67	\$4.44	\$3.0	
NPV	\$	8.99		10	\$50.74	\$31.87	\$20.43	\$13.35	\$8.88	\$6.00	
Source: EF Hutton & Company repo	orts			15	\$76.11	\$47.80	\$30.65	\$20.02	\$13.31	\$8.99	
				20	\$101.49	\$63.73	\$40.86	\$26.70	\$17.75	\$11.99	
				25	\$126.86	\$79.67	\$51.08	\$33.37	\$22.19	\$14.99	
				30	\$152.23	\$95.60	\$61.29	\$40.05	\$26.63	\$17.99	
				35	\$177.60	\$111.54	\$71.51	\$46.72	\$31.06	\$20.08	

#### Exhibit 24. Sum-of-the-Parts Model

Kairos Pharma	LT Gr	Discount Rate	Yrs.to Mkt	% Success	Peak Sales MM's	Term Val
U.S. Prostate Cancer	1%	30%	6	20%	\$3,229	\$11,135
NPV						\$3.16
Europe Prostate Cancer	1%	30%	7	20%	\$3,677	\$12,680
NPV						\$2.77
U.S. Lung Cancer - EGFR Driven	1%	30%	7	10%	\$361	\$1,245
NPV						\$0.14
EU Lung Cancer - EGFR Driven	1%	30%	8	10%	\$515	\$1,775
NPV						\$0.15
US Head & Neck Cancer	1%	30%	9	5%	\$929	\$3,202
NPV						\$0.10
EU Head & Neck Cancer	1%	30%	10	5%	\$1,027	\$3,543
NPV						\$0.09
xxx	1%	30%	10	0%		\$0
NPV						\$0.00
Net Margin						70%
MM Shrs OS (2034E)						102
Total						\$6.4

Source: EF Hutton estimates



#### **Intellectual Property**

Dr. Yu, Dr. Bhowmick, and Dr. Murali, along with other researchers, have developed proprietary technologies that Kairos and its subsidiary Enviro are pursuing for commercialization through multiple licensing agreements with Cedars-Sinai Medical Center. Cedars owns the intellectual property these doctors and scientists created, which is then licensed to third parties, including Kairos and Enviro.

Kairos Intellectual Property Agreements: Kairos has secured four Exclusive License Agreements with Cedars-Sinai, granting it exclusive rights to several patented technologies:

- 1. A method for generating activated T cells for cancer therapy.
- 2. Methods involving compounds that bind to the RelA subunit of NFkB.
- 3. Compositions and methods for treating fibrosis.
- 4. Compositions and methods for treating cancer and autoimmune diseases.

These agreements include payment obligations such as initial license fees, annual maintenance fees, royalties on product sales, and milestone payments totaling up to \$4.4 million if all clinical milestones are achieved. Additionally, Kairos must pay non-royalty sublicense fees based on revenue generated at various stages of FDA authorization.

Enviro Intellectual Property Agreements: On March 16, 2020, Enviro entered into two Exclusive Option Agreements with Cedars-Sinai, later converted into Exclusive License Agreements. These agreements cover technologies for treating diseases by depleting mitochondrial DNA and sensitizing tumors to therapies through endoglin antagonism. Enviro has met several development milestones, including preclinical and toxicology studies, and is on track for an IND submission. The total fees payable by Enviro for these licenses could reach \$690,000, with additional milestone payments of up to \$7.15 million as cumulative net sales exceed \$100 million.

Enviro License and Supply Agreement with Tracon Pharmaceuticals: Enviro also secured an agreement with Tracon Pharmaceuticals, giving it access to inactive IND filings for "TRC105" and related patent rights. Enviro has agreed to pay Tracon up to \$1.1 million upon successful financing rounds, plus 3% royalties on net sales. Additionally, Tracon holds a 7% equity stake in Enviro, which is convertible into shares of Kairos following a share exchange. Both Kairos and Enviro have significant financial commitments to Cedars-Sinai and Tracon, and they could receive substantial future royalties and milestone payments based on the success of their licensed technologies-source: Kairos S1 filing.

Treating Cancer And

Autoimmune Diseases

Therapy

Antagonism

#### Key IP generated from Murali, Published patents Exclusive, worldwide rights to IP Bhowmick and licensed from Cedars Sinai executed internationally Yu labs Medical Center PCT/US2015/050906 PCT/US2019/045478 PCT/US2020/045570 PCT/US2017/037558 Pub # PCT/US2016/035318 Compositions And Methods Methods And Use Of Method Of Generating Sensitization Of Tumors To Compositions And Methods For Compounds That Bind To Activated T Cells For Cancer Therapies Through Endoglin Title

For Treating Fibrosis

Exhibit 25. IP Extends to 2040.



**RELA OF NF-KB** 



**The risks to our thesis include** 1. clinical/Regulatory Risk, 2. partnership and Financial Risk, 3. Commercial Risk, 4. legal and Intellectual Property Risk, and 5. Market Share Risk.

**Clinical / Regulatory Risk.** Kairos is dependent on the outcome of regulatory approvals. Regulatory risk often goes beyond the data and trials and includes the elements associated with the approval process, such as properly submitting the required forms and data.

**Partnership Risk**. Kairos is a small company that may pursue a partnership deal for U.S. and Rest of the World marketing. It cannot be assured that it will find an appropriate partner and realize attractive partnership terms.

**Financial Risk.** Kairos is a small capital company that can translate into high volatility and risk for investors. The company has no revenues and is dependent on the clinical progress of its therapeutics. Kairos will likely require additional capital raises before it can be self-sustaining, and there is no guarantee that it will raise the capital needed.

**Commercial Risk.** Kairos hopes to introduce a new treatment paradigm in Oncology. However, the company cannot be assured that it can effectively market its products.

**Legal and Intellectual Property**. Kairos may face multiple legal challenges, specifically IP challenges, which could force the company to defend its patents or claim it infringes on others.



Kairos Pharma	Kairos Pharma															
Revenues	2023A	1Q24A	2Q24A	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
U.S. Prostate Cancer								-	-	-	-	331,354	405,617	482,732	562,783	645,856
Europe Prostate Cancer								-	-	-	-	-	266,468	543,648	665,490	735,439
U.S. Lung Cancer - EGFR Driven								-	-	-	-	3,703	9,445	19,269	27,518	36,092
EU Lung Cancer - EGFR Driven								-	-	-	-	-	17,315	35,326	43,243	51,464
U.S. Head & Neck Cancer								-	-	-	-	-	-	11,156	22,760	46,434
EU Head & Neck Cancer								-	-	-	-	-	-	-	249,339	51,374
Other Platform								-	-	-	-	-	-	-	-	-
Total Product Revenues						-	-	-	-	-	-	335,058	698,845	1,092,130	1,571,133	1,566,660
Royalty Revenue																
Total Revenues (\$000)												335,058	698,845	1,092,130	1,571,133	1,566,660
Expenses																
COGS						-		-	-	-	-	60,310	104,827	109,213	157,113	156,666
% COGS	-						-					18%	15%	10%	10%	10%
Research and Development	82	165	63	75	75	378	2,000	10,000	15,000	20,000	20,000	21,000	21,420	21,848	22,285	22,731
General and Administrative	1,632	127	159	150	150	586	1,000	2,000	5,000	8,000	12,000	20,000	20,400	25,000	25,500	26,010
Operating expenses	1,714	292	222	225	225	964	3,000	12,000	20,000	28,000	32,000	101,310	146,647	156,061	204,899	205,407
Oper. Inc. (Loss)	(1,714)	(292)	(222)	(225)	(225)	(964)	(3,000)	(12,000)	(20,000)	(28,000)	(32,000)	233,747	552,198	936,069	1,366,235	1,361,253
Interest Income																
Warrants																
Financial Income, Net	(00)		(6.0)													
Financial Expenses, Net	(98)	(31)	(31)	(005)	(005)	((	(2.000)	(10.000)	(00.000)	(00.000)	(00.000)		550.000			
Pretax Income Pretax Margin	(1,812) NM	(323) NM	(253)	(225)	(225)	(1,026) NM	(3,000) NM	(12,000) NM	(20,000) NM	(28,000) NM	(32,000) NM	233,747	552,198	936,069 NM	1,366,235	1,361,253
Income Tax Benefit (Provision)	INIVI	INIVI	INIVI	INIVI		-					INIVI	35,062	138,050	355,706	519,169	517,276
Tax Rate	0%	0%	0%	0%	0%	0%	0%	0%	- 0%	0%	0%	15%	25%	333,700	38%	38%
GAAP Net Income (loss)	(1,812)	(323)	(253)	(225)	(225)	(1,026)	(3,000)	(12,000)	(20,000)	(28,000)	(32,000)	198.685	414,149	580.363	847,066	843,977
Net Margin	(1,012) NM	NM	(200)	NM	NM	(1,020) NM	(3,000) NM	(12,000) NM	(20,000) NM	(20,000) NM	(32,000) NM	0.59	0.59	0.53	0.54	0.54
GAAP-EPS	(0.17)	(0.03)	(0.02)	(0.02)	(0.02)	(0.10)	(0.23)	(0.45)	(0.52)	(0.44)	(0.38)	2.28	4.57	6.15	8.63	8.27
Non GAAP EPS (dil)	(0.17)	(0.03)	(0.02)	(0.02)	(0.02)	(0.10)	(0.23)	(0.45)	(0.52)	(0.44)	(0.38)	2.28	4.57	6.15	8.63	8.27
Wgtd Avg Shrs (Bas)	10,382	10,400	10,563	10,573	10,584	10,530	13,182	20,774	31,059	45,322	50,225	50,427	50,629	50,831	51,035	51,240
Wgtd Avg Shrs (Dil)	10,382	10,400	10,563	10,668	10,775	10,601	14,797	26,874	38,117	70,371	83,669	87,066	90,601	94,280	98,108	102,092

Source: EF Hutton & Company reports



Kairos Pharma																
Assets	2023A	1Q24A	2Q24A	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Cash and Cash Equivilents	\$93	\$93	\$21	\$5,996	\$5,793	\$5,793	\$22,071	\$10,270	\$20,520	\$51,107	\$20,556	\$221,047	\$637,100	\$1,219,473	\$2,068,660	\$2,914,875
Investments, other				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PrePaid and other Assets	\$8	\$8	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$17
Total Current Assets	\$101	\$101	\$38	\$6,013	\$5,810	\$5,810	\$22,088	\$10,287	\$20,537	\$51,124	\$20,573	\$221,064	\$637,117	\$1,219,490	\$2,068,677	\$2,914,892
Proeprty & Equipment				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Prepaid Expenses and other assets				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other LT assets	\$864	\$864	\$992	\$992	\$992	\$992	\$992	\$992	\$992	\$992	\$992	\$992	\$992	\$992	\$992	\$992
Total Assets	\$965	\$965	\$1,030	\$7,005	\$6,802	\$6,802	\$23,080	\$11,279	\$21,529	\$52,116	\$21,565	\$222,056	\$638,109	\$1,220,482	\$2,069,669	\$2,915,884
Current Liabilities																
Accounts Payable	\$2,401	\$2,401	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915
Accrued Expenses	\$4	\$4		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other current Liabilities				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other accrued liabilities				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
ST Debt				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Current Liabilities	\$2,405	\$2,405	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915
Warrant Liabilities	\$638	\$638		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total liabilities	\$3,043	\$3,043	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915	\$1,915
Stockholders' equity:																
Stockholders Equity-common stock	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11
Addional Paid-In Capital	\$4,123	\$4,123	\$5,958	\$12,158	\$12,180	\$12,180	\$31,458	\$31,657	\$61,907	\$120,494	\$121,943	\$123,749	\$125,654	\$127,664	\$129,786	\$132,024
Accumulated Deficit	(\$6,212)	(\$6,212)	(\$6,854)	(\$7,079)	(\$7,304)	(\$7,304)	(\$10,304)	(\$22,304)	(\$42,304)	(\$70,304)	(\$102,304)	\$96,381	\$510,530	\$1,090,892	\$1,937,958	\$2,781,934
Total Equity	(\$2,078)	(\$2,078)	(\$885)	\$5,090	\$4,887	\$4,887	\$21,165	\$9,364	\$19,614	\$50,201	\$19,650	\$220,141	\$636,194	\$1,218,567	\$2,067,754	\$2,913,969
Total Liab & Equity	\$965	\$965	\$1,030	\$7,005	\$6,802	\$6,802	\$23,080	\$11,279	\$21,529	\$52,116	\$21,565	\$222,056	\$638,109	\$1,220,482	\$2,069,669	\$2,915,884
Shares Iss'd (000)	10,382	8,145	10,563	10,573	10,584	\$10,530	\$13,182	\$20,774	\$31,059	\$45,322	\$50,225	\$50,427	\$50,629	\$50,831	\$51,035	\$51,240
Shares Out (000)	10,382	8,145	10,563	10,668	10,775	\$10,601	\$14,797	\$26,874	\$38,117	\$70,371	\$83,669	\$87,066	\$90,601	\$94,280	\$98,108	\$102,092

Source: EF Hutton & Company reports



Kairos Pharma Cash Flow Statement (\$000)	2023A	1Q24A	2Q24A	3Q24E	4Q24E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E
Cash Flows From Operating Activities:	(0.00)	(****)	(===)	()	(1.555)		(*****	(1.5.5.5)	(	(	(					
Net Loss Change in fair value of warrants	(382)	(382)	(576)	(801)	(1,026)	(1,026)	(3,000)	(12,000)	(20,000)	(28,000)	(32,000)	198,685	414,149	580,363	847,066	843,977
Stock-based Compensation				0	0	0										
Amortization Expense	80	80	80	80	0	80										
Amortization of debt discount	20	20	39	39	39	39										
	20	20	55	0	0	0										
Changes in assets and liabilities:																
PrePaid Clinical	(26)	(26)	(9)	(9)	(9)	(9)										
Accounts Pavable	232	(20)	(0)	(0)	(0)	(0)										
Prepaid Expenses and other common assets	202				ő	Ő										
					-	-										
Accrued Expenses and other current liabilities		232	334	334	334	334										
Net Cash Used in Operating Activities	(76)	(76)	(132)	(357)	(582)	(582)	(3.000)	(12.000)	(20.000)	(28.000)	(32.000)	198.685	414,149	580.363	847.066	843.977
Cash Flows From Investing Activities:																
Proceeds from notes payable				0	0	0										1
Payment of deffered operating costs																
				0	0	0										
Net cash provided by investing activities Cash flows from financing activities:	0	U	U	U	0	0	U	U	U	U	U	0	U	0	0	0
Proceeds from Issuance of ST debt		0	102	102	102	102										
		-														
Proceeds from exercise of warrants	(100)	(83)	(83)	(83)	(83)	(83)										
Payment of deffered operating costs	(129)	(129)	(42)	(42)	(42)	(42)										
Proceeds from Issuance of common stock and warrants				6,200	6,222	6,222	19,278	199	30,251	58,586	1,449	1,805	1,905	2,010	2,121	2,239
Net cash provided by financing activities	(129)	(212)	(23)	6,177	6,199	6,199	19,278	199	30,251	58,586	1,449	1,805	1,905	2,010	2,121	2,239
Increase (decrease) in Cash and Cash Equivilents	(205)	(288)	(155)	5,820	5,617	5,617	16,278	(11,801)	10,251	30,586	(30,551)	200,491	416,054	582,373	849,187	846,215
Cash and Cash Equivilents - Beginning Of Period	437	93	93	93	93	93	5,710	21,988	10,187	20,437	51,024	20,473	220,964	637,017	1,219,390	2,068,577
Exchange Differences on Cash and Cash Equivilents				0	0	0										
Cash and Cash Equivilents - End of Period	232	(195)	(62)	5,913	5,710	5,710	21,988	10,187	20,437	51,024	20,473	220,964	637,017	1,219,390	2,068,577	2,914,792



# **Important Disclosures**

# Analyst Certification

I, Jason Kolbert, certify that all of the views expressed in this research report accurately reflect my personal views about the subject security(ies) and subject company(ies). I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this research report.

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SELL (S) - Total return expected to underperform S&P 500 by at least 10%

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Rating	Count	Percent	Count	Percent			





