UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 8, 2021

KIROMIC BIOPHARMA, INC.

(Exact name of registrant as specified in its charter)

001-39619 (Commission

Delaware (State or other jurisdiction of incorporation)

File Number) 7707 Fannin, Suite 140

46-4762913 (IRS Employer Identification No.)

Houston, TX, 77054 (Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code (832) 968-4888

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

		Name of Each Exchange on			
Title of Each Class	Trading Symbol(s)	Which Registered			
Common Stock, \$0.001 par value	KRBP	The Nasdaq Stock Market LLC			

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company \boxtimes

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If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 7.01 Regulation FD Disclosure.

Kiromic BioPharma, Inc. (the "Company") is furnishing presentation materials (the "Investor Presentation") that management intends to use, possibly with modifications, in one or more meetings from time to time with current and potential investors. The Investor Presentation includes an update on the Company's current operations and major projects, as well as information relating to the Company's strategic plans, goals, growth initiatives and outlook, and forecasts for future performance and industry development. A copy of the investor presentation is furnished as Exhibit 99.1 to this report and is also available on the Company's website at https://kiromic.com/.

The foregoing description of the Investor Presentation does not purport to be complete and is qualified in its entirety by reference to the complete text of the Investor Presentation attached as Exhibit 99.1 to this Current Report on Form 8-K.

The information set forth in this Item 7.01 of this Report, including without limitation the Investor Presentation, is not deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as may be expressly set forth by specific reference in such a filing.

Item 9.01 Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Kiromic BioPharma, Inc. October 2021 Investor Presentation.
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

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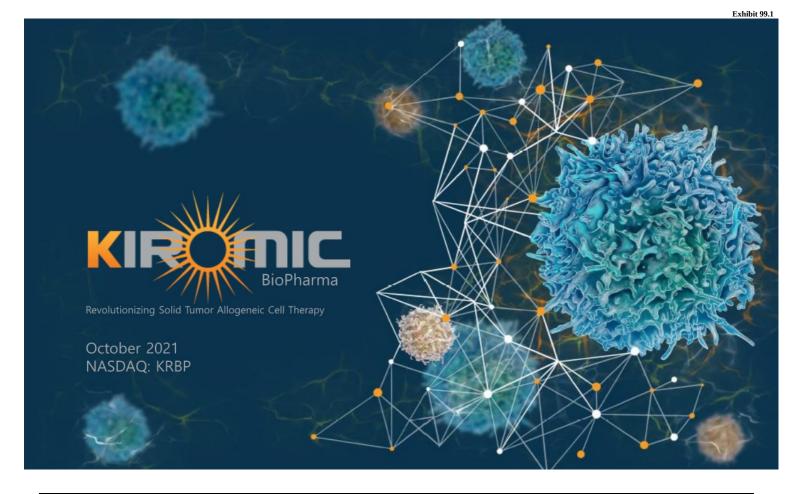
SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Kiromic BioPharma, Inc.

Date:	October	8	2021	

By: /s/ Maurizio Chiriva Internati Maurizio Chiriva Internati Chief Executive Officer





Forward Looking Statements

This press release contains forward-looking statements that involve substantial risks and uncertainties. We make such forward-looking statements pursuant to the safe has provisions of the U.S. Private Securities Litigation Reform Act, Section 21E of the Securities Exchange Act of 1934, as amended, and other federal securities laws. All statements or than statements of historical facts are forward-looking statements. These statements relate to future events or to our future financial performance and involve known and unkner risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels activity, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements include, but are not limited to, statements about: goals and strategies; our future business development, financial condition and results of operations; expected changes in our revenue, costs or expenditures; growth of competition trends in our industry; our expectations regarding demand for, and market acceptance of, our products; future milestones and objectives, including scope and tim growth and opportunity for CAR-T therapies including any potential growth related to the approval of solid tumor therapies; the efficacy of our products and approaches relative alternatives; the ability of locel to target solid tumors; our expectations regarding our relationships investors, institutional funding partners and other parties we collaborate with; fluctuations in general economic and business conditions in the markets in which we operate; includ those fluctuations caused by COVID-19; and relevant government policies and regulations relating to our industry.

In some cases, you can identify forward-looking statements by terms such as "may," "in coming years," "could," "by," "if," "will," "should," "would," "expect," "plan," "intend," "anticipate," "believe," "estimate," "predict," "potential," "project" or "continue" or the negative of these terms or other comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect results. Factors that may cause actual results to differ materially from current expectations include, among other things, those risks described in our filings with the Securities and Exchange Commission (SEC), including those discussed in our annual report on Form 10-K for the year ended December 31, 2020, in our quarterly reports on Form 10-Q for any subsequent quarterly periods, and elsewhere in this press release. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance.

The forward-looking statements made in this report relate only to events or information as of the date on which the statements are made in this report. Except as expressly requ by the federal securities laws, there is no undertaking to publicly update or revise any forward-looking statements, whether as a result of new information, future events, chan circumstances or any other reason.



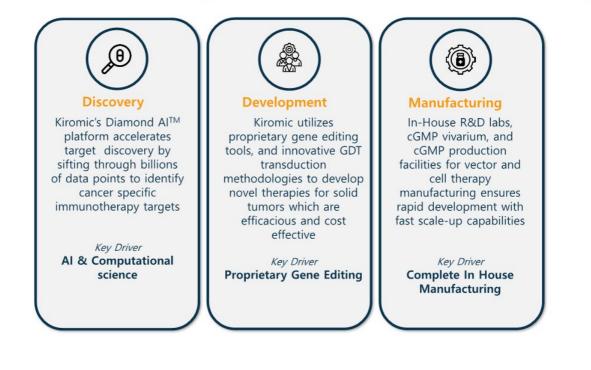


Kiromic Biopharma is an Al-driven, end-to-end CAR-T & gene therapy company, developing the first multi-indication allogeneic CAR-T cell therapy, that exploits the natural potency of Gamma Delta T-cells to target solid cancers





Kiromic's End to End Approach to Next Generation Gene Therapy





Kiromic Focus Areas

- Allogeneic, off-the-shelf, CAR-T Therapy

 (Cells from healthy donors not ill patients)
- 2. Gamma Delta T-Cell Approach
- **3. Solid Cancers** (~90% of all cancers¹)

¹American Cancer Society 2020 Cancer Facts & Figures; Leading sites of new cancer cases and deaths; epub.





KIROMIC's Market Opportunity

Significant upside opportunity for CAR-T Therapies in coming years, especially if **solid tume therapies** are approved



¹Global CAR T Cell Therapy Market To Reach US\$ 7.7 Billion By 2028, Coherent Market Insights ²T-cell Therapy Market - Global Industry Analysis, Size, Share, Growth, Trends, and Forecast, 2019 – 2027, Transparency Market Research



Comparables

A.I. Target		CAR-T and CAR-NK		
🙌 Personalis [®]	\$0.87 BLN IPO June 2019	THERAPEUTICS	\$6.14 BLN IPO Nov 2013	
BLACK DIAMOND THERAPEUTICS	\$0.36 BLN IPO Jan 2020	Kite Pharma	\$11.9 BLN GILD acqui. Post approval	
gritstone	\$0.62 BLN IPO Sep 2018		\$9.0 BLN BMS acqui. End Phase 2	

NASDAQ: KRBP Market Data as of 09/27/2021 - Yahoo Finance and SEC.GOV



Major Barriers Currently Restrict Mass Adoption of Traditional CAR-T Therapy for Cancer Treatment



2. Cost Effectiveness

Hospitals must charge \$2-2.5M per treatment to avoid losing money with current autologous CAR-T cell treatments due to treatment related toxicities (the cost for Kymriah/Novartis alone is \$475K per treatment with the additional costs secondary to inpatient treated toxicities).²

1. Efficacy

Cancer cells can begin to mutate resulting in "antigen escape" which reduces the efficacy of CAR-T. The lack of available predictive biomarkers is also an issue which limits the development of new and effective cancer immunotherapeutics.¹



4. Tra nev sig cos

Neurotoxicity Syndrome (ICANS).³

3. Safety & Toxicity

Current FDA approved CAR-T cell therap

products carry a high risk of side effects including the Cytokine Release Syndrom (CRS) and Immune Cell Associated

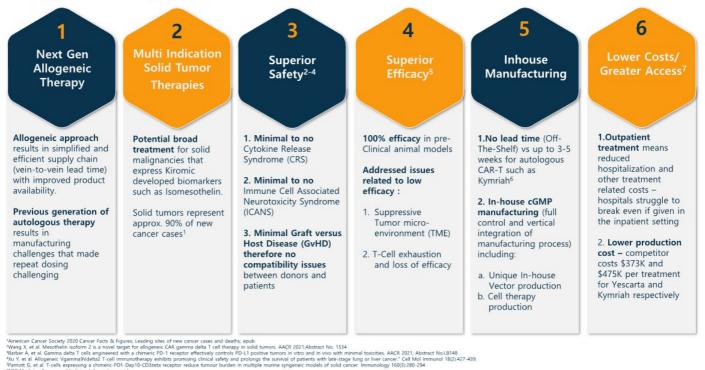
5. Manufacturing Challenges Traditional CAR-T cell manufacturing can range from 2-5 weeks. This can be an issue for late-stage cancer patients

weeks. This can be an issue for late-stage cancer patients when timing is especially critical. Harvesting viable patient derived T-cells can also be a challenge for very sick patients. As traditional autologous CAR-T cell therapies are also specific to the patient, "mass" production is also not possible as each infusion is only for the patient themselves.

¹Research and Markets; Immune Checkpoint Inhibitors Market. Feb 6, 2020;epub. ⁴Maziarz RT. CAR T-cell Therapy total cost can exceed \$1.5M per treatment. Cell Therapy Next; May 29, 2019. ⁴Mareican Cancer Society. CAR T-cell Therapy and Its Side Effects; epub. ⁴Burke CW. Why does immunotherapy cost so much?; Biospace; October 4, 2018;epub. 4. Development Lead Time Traditional development lead time for

new immunotherapies usually take years, significant expert resources, and can cost over \$1B in development expenditures.⁴

The Kiromic Difference - Engineered Allogeneic Gamma Delta Based Therapies



KIROMIC

Mariano (Mariano) MPS Medicine,Consumer Medicine Information; epub Maziarz RT. CAR T-cell therapy total cost can exceed \$1.5M per treatment. Cell Therapy Next, May 29, 2019.



The Kiromic Difference - Engineered Gamma Delta T Cells Engineered Gamma Delta delivers on critical factors compared to other CAR T/Chimeric approaches

Kiromic's engineered Gamma Delta (chPD1) approach has the potential to significantly enhance current commercial therapies by minimizing side effects, expanding indications, and reducing manufacturing costs compared to current CAR-T therapies

	Autologous & Allogeneic CAR-T technology challenges	Autologous CAR-T	Allogeneic CAR-T	Allogeneic Al engineered GD CAR-T
	Graft Versus Host Disease Risk(GvHD)	NA		
SAFETY	Cytokine Release Syndrome (CRS)			U
	Immune Cell Associated Neurotoxicity Syndrome (ICANS)	•	0	0
	Efficacy	0	0	00 1
	Indication	Blood cancers (<8% of cancers) ²	Solid Tumors	Solid tumors (~90% of cancers) ²
EFFICACY	T-Cell exhaustion	•	. 😁	00
	Tumor immunosuppressive microenvironment	•	0	00
	Tumor specific antigens (Shedding)	•	0	00
	Off-the-Shelf Product	N/A	0	0
MANUFACTURING	Cost of Manufacturing (per patient)	\$\$\$	\$\$	\$
	Lead time (Auto vs off-the-shelf)		•	•
	Manufacturing success	•	0	0
	Market opportunity	\$	\$\$	\$\$\$
APPLICATION	Cost of ancillary toxicity related treatments	\$\$\$	\$\$	\$
	Treatment setting	Inpatient	Inpatient	Outpatient

¹Based upon Kiromic's pre-clinical animal models ²American Cancer Society 2020 Cancer Facts & Figures; Leading sites of new cancer cases and deaths; epub.





The Kiromic Difference - ALEXIS[™] Immunotherapy Platform (1/2)

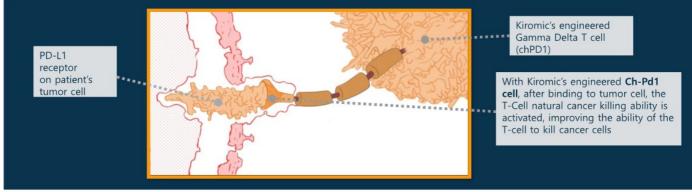
Kiromic's engineered Gamma Delta T-Cell allogeneic approach

1. Kiromic ALEXIS[™]-PRO-1 (Procel [™]) - Targeting PDL-1 Expression In Tumor Tissues

- Human T-cells are very effective natural cancer killers. Many cancer cells however can evade T-cell detection by developing PD-L1 receptors
 that "put the brakes" on the T-cell's cancer killing abilities. That is why traditional T-Cell based therapies can be ineffective.
- Kiromic's engineered Gamma Delta T-Cell (chPD1) approach seeks to introduce 2 key elements that have the potential to significantly enhance immune resp

A. Blocks the ability of checkpoints like PD-L1 from inactivating a T-cell (similar to checkpoint inhibitors) B. Engineered gamma delta T-cells are now able to kill cancer cells with enhanced potency upon binding with the PD-L1 receptor.

- Since many solid tumors have a wide expression of PD-L1¹, this means that most solid cancers such as lung, melanoma, gastric, esophagus, colorectal, brea prostate, liver, urothelial, renal, cervical, and head and neck can potentially now be effectively treated.



¹Vaddepally RK, et al. Review of Indications of FDA Approved checkpoint inhibitors per NCCN guidelines with the level of evidence. Cancers; Mar 2020;12(3):738.

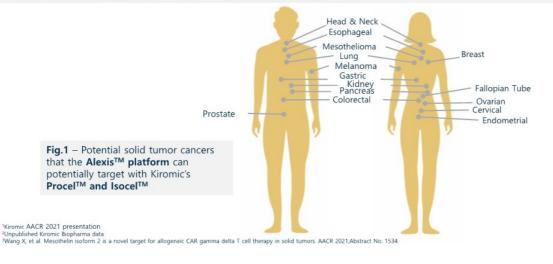


The Kiromic Difference - ALEXIS[™] Immunotherapy Platform (2/2)

First A.I. engineered Allogeneic Gamma Delta CAR-T cell therapy developed with Diamond AITM

2. Kiromic's ALEXIS[™]-ISO-1 (Isocel [™]) - Targeting Isomesothelin Expression In Tumor Tissues

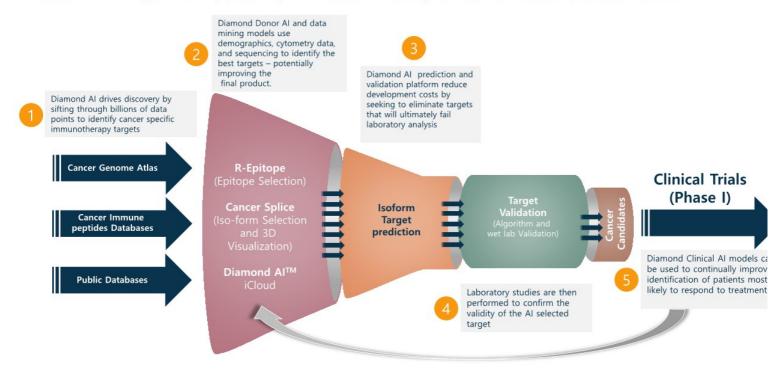
- First A.I. engineered gamma delta CAR-T cell therapy¹ developed with Diamond AI[™]
- Multiple solid tumors express the Isoform of mesothelin Isomesthelin.²
- Kiromic's ALEXIS[™]-ISO-1 cells target and destroy Isomesothelin expressing cancer cells.³
- This suggests ALEXISTM-ISO-1 has the potential to be an immunotherapy that targets solid cancers including Ovarian, Cervic
- Mesothelioma, Ovarian, Endometrial, and Pancreatic cancers.





The Kiromic Difference - Diamond AI™ Target Discovery Platform

Diamond AI[™] target discovery platform powers innovation and significantly reduces development time and cost.





Kiromic's Engineered Gamma Delta Approach – Superior Efficacy

Kiromic's **engineered Gamma Delta** approach (chPD1-GDTTM) is potentially more efficacious than nonengineered Gamma Delta Allogeneic approach.

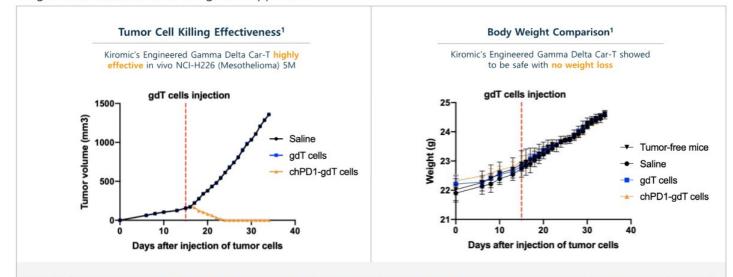
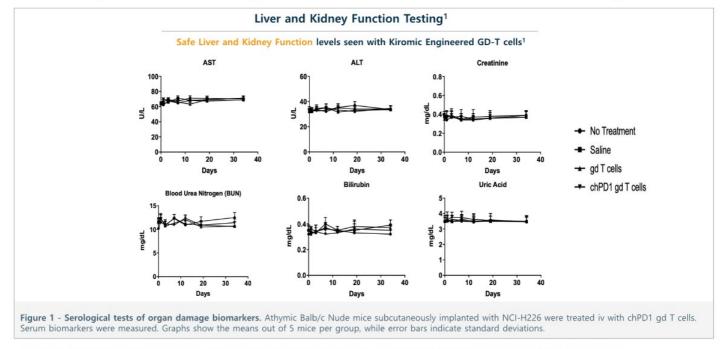


Figure 1,2 In vivo efficacy of chPD1 gdT cells. The in vivo efficacy and tolerability of gd T cells (5 x 10⁶ cells) in athymic Balb/c Nude mice subcutaneously implanted with the PDL1+ cell line, NCI-H226 (10⁶ cells). The dotted vertical line indicates the day when the gdT cells were administered (shday +15). Graphs ow the average A) tumor volumes and B) weights of 10 mice (Saline, gdT cells, chPD1 gdT cells), or 5 mice (tumor-free), +/- 95% C.I.

18arber A, et al. Gamma delta T cells engineered with a chimeric PD-1 receptor effectively controls PD-L1 positive tumors in vitro and in vivo with minimal toxicities. AACR 2021; Abstract No.LB148.



Kiromic's Engineered Gamma Delta Approach– Superior Safety Kiromic's engineered Gamma Delta approach (chPD1-GDT^M) shown to be safe in animal testing



18arber A, et al. Gamma delta T cells engineered with a chimeric PD-1 receptor effectively controls PD-L1 positive tumors in vitro and in vivo with minimal toxicities. AACR 2021; Abstract No.LB148.



Kiromic's Engineered Gamma Delta Approach – Superior Efficacy

Kiromic's **engineered Gamma Delta** approach is shown to be potentially more **efficacious** than non-engineered Gamma Delta Allogeneic approach.

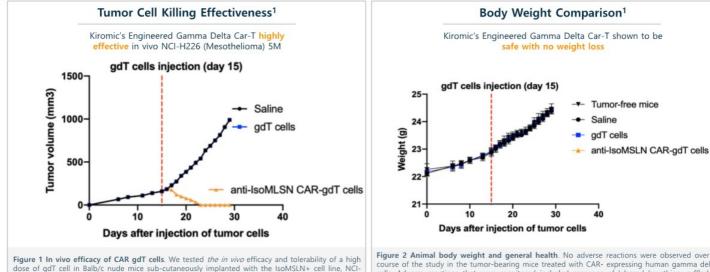


Figure 1 In vivo efficacy of CAR gdT cells. We tested *the in vivo* efficacy and tolerability of a high dose of gdT cell in Balb/c nude mice sub-cutaneously implanted with the IsoMSLN+ cell line, NCI+H226. 15 days after tumor cell implantation, mice with comparable tumor volumes were then divided into 3 groups (n=10 mice/group): i) injected with gdT cells, iii) injected with cAR gdT cells, lii) injected with saline solution. Tumor volumes and mice weight were measured daily for an additional 30 days. The dotted vertical line indicates the day when the gdT cells were administered. Graphs show the average values out of 10 mice (Saline, gdT cells, CAR gdT cells), or 5 mice (tumor-free), +/-95% C.I.

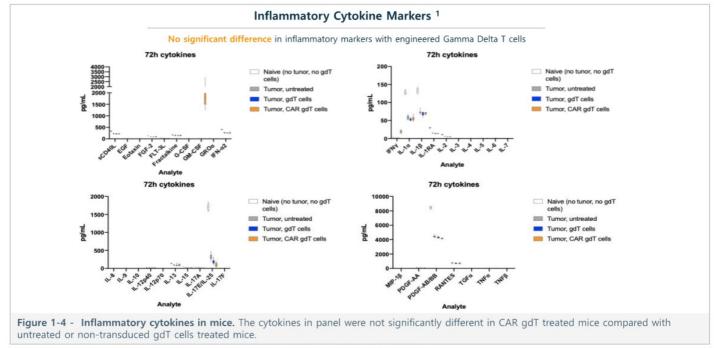
Figure 2 Animal body weight and general health. No adverse reactions were observed over th course of the study in the tumor-bearing mice treated with CAR- expressing human gamma delta cells. Adverse reactions that were monitored included presence of labored breathing, ruffled fur reduced appetite, lethargy, or hunched posture. Furthermore, the mice treated with CAR- expressing human gamma delta T cells did not experience any weight loss over the course of the study. Non tumor bearing mice were also included as a healthy animal control. The dotted vertical line indicate the day when the gdT cells were administered. Graphs show the average values out of 10 mic (Saline, gdT cells, CAR gdT cells), or 5 mice (tumor-free), +/- 95% C.I.

¹Xiao W., et al. Mesothelin isoform 2 is a novel target for allogenic CAR γδT cell therapy in solid tumors. AACR 2021; Abstract No. 1534



Kiromic's Engineered Gamma Delta Approach – Superior safety

Kiromic's engineered Gamma Delta approach (AICAR-Iso-GDT™) is shown to be safe with no CRS



¹Xiao W., et al. Mesothelin isoform 2 is a novel target for allogenic CAR yoT cell therapy in solid tumors. AACR 2021; Abstract No. 1534



Kiromic's T-Cell Immunotherapy Pipeline Kiromic has developed a robust pipeline of product candidates addressing solid cancers utilizing engineered Gamma Delta based therapy for potential multi-indications for cancer therapy. An accelerated pathway for a potential BLA submission by 2026 is also planned

Program	Indication	Target	Discovery	Pre-Clinical	Phase I	Phase II
ALEXIS-PRO-1 Procel™	Solid Tumors: Multi-Indication Dose Escalation	PD-L1			2022	
	PLUS Indication Specific Cohort Expansion				First in human, Allogeneic, off the shelf Gamma Delta T Cell Therapy	
ALEXIS TM -ISO-1 IsoceI TM	Solid Tumors: Multi-Indication Dose Escalation PLUS Indication Specific Cohort Expansion	lsoform of Mesothelin			2023	
					First in human, Allogeneic, off the shelf Gamma Delta T Cell Therapy	*Potential Accelerated Path

*Apart from the current path to market, Kiromic has developed a potential accelerated clinical development plan focussed on a one product one Indication approach, with the most promissing and rare indications from upcoming basket trial. This will enable a potential BLA submission by 2026



Kiromic's Upcoming Milestones*

Finalize Chemistry, Manufacturing and Control (CMC) Specifications Requested by FDA
 H1 2022

2 Submit Formal Request for FDA Type A Meeting

- H1 2022 Addresses the clinical hold and will allow us to discuss path toward our first-inhuman dosing.
- **3** Submit IND Amendment after Type A Meeting Feedback
 - H2 2022

GMP 2 Manufacturing Construction Completed

- Start construction in Q4 2021 on second GMP Manufacturing Center
- Construction expected to be completed by H2 2022
- FDA Authorization to proceed and First In Human Dosing
 H2 2022

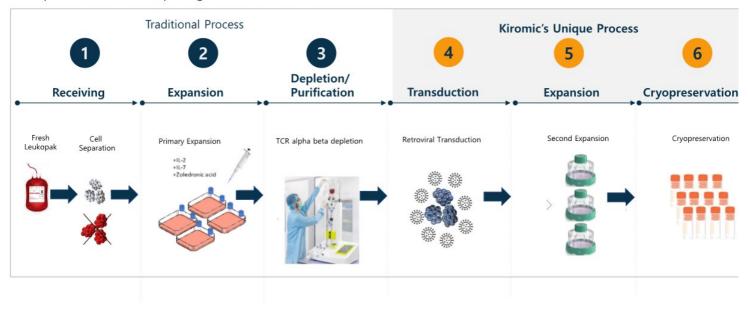
*The milestones and timing of completion are based upon the company's current expectations in consultation with its partners and vendors

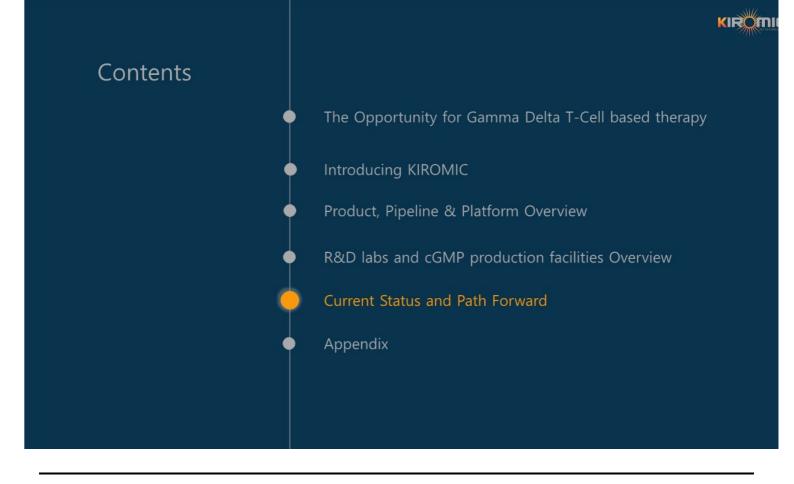




Kiromic's Manufacturing Process Differentiator

Kiromic's proprietary manufacturing approach utilizes unique in-house processes that **maximizes yield** and delivers engineered T-Cells that are **significantly more potent** compared to competition. This results in a much lower quantity of engineered T-Cells needed per therapeutic dose further improving **cost effectiveness**.





Kiromic Summary



Leading the Next Generation of A.I. Engineered Gamma Delta T-Cell Gene Therapy

- **1** ALEXIS[™]-PRO-1 (Procel [™]): Chimeric PD1 gamma delta T cell therapy (chPD1-GDT[™])
 - Phase I clinical trial 2022: PD-L1 positive metastatic solid malignancies
- 2 ALEXIS[™]-ISO-1 (Isocel [™]): Artificial Intelligence (AI) guided target discovery CAR gamma delta
 - T cell therapy (i.e., Isoform of Mesothelin)
 - Phase I clinical trial 2023: CAR-T therapy for Isomesothelin positive metastatic solid malignancies

2 Healthy donor derived allogeneic off-the-shelf product.

In-House R&D labs, vivarium and cGMP production facilities for vector and cell therapy manufacturing.

5 Value drivers:

- Large market opportunity with projected ~\$7.7B Car-T cell therapy market (liquid tumors) and potential 1 increased opportunity with solid tumors. ^{1,2}
- Lower expected production, treatment and administration costs (outpatient versus inpatient)
- Lower expected toxicity profile
- Higher expected efficacy profile

¹Global CAR T Cell Therapy Market To Reach US\$ 7.7 Billion By 2028, Coherent Market Insights ²T-cell Therapy Market - Global Industry Analysis, Size, Share, Growth, Trends, and Forecast, 2019 – 2027, Transparency Market Research

Kiromic Management Team







Revolutionizing Solid Tumor Allogeneic Cell Therapy

For more information contact INV.REL@KIROMIC.COM