



Revolutionizing CAR-T Therapy

JULY 2022

NASDAQ: KRBP
Kiromic.com



Forward Looking Statements

This presentation contains forward-looking statements that involve substantial risks and uncertainties. Kiromic makes such forward-looking statements pursuant to the safe harbor provisions of the United States Private Securities Litigation Reform Act, Section 21E of the Securities Exchange Act of 1934, as amended, and other federal securities laws. All statements other than statements of historical facts are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as: “will,” “potential,” “could,” “can,” “believe,” “intends,” “continue,” “plans,” “expects,” “anticipates,” “estimates,” “may,” or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to, statements regarding: Kiromic’s current and anticipated IND applications including statements regarding the scope of and timing for submission of an IND application; the Deltacel™ product platform; the sponsored research agreement and the data that will be generated as a result of such collaboration; the timing for submitting and activating Kiromic’s IND applications; the benefits of utilizing non-genetically engineered Gamma Delta T cells as our first in-human study; Kiromic’s ability to achieve its objectives; and the timing for the initiation and successful completion of Kiromic’s clinical trials of its product candidates. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, levels of activity, performance, or achievements to be materially different from the information expressed or implied expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, the risks and uncertainties discussed in our Annual Report on Form 10-K for the year ended December 31, 2021, and as detailed from time to time in our SEC filings. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance, or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. Such forward-looking statements relate only to events as of the date of this press release. We undertake no obligation to update any forward-looking statements except to the extent required by law.

Free Writing Prospectus

This presentation highlights basic information about us and the proposed offering. Because it is a summary, it does not contain all of the information that you should consider before investing.

We have filed a registration statement (including a preliminary prospectus) with the SEC for the offering to which this presentation relates, which registration statement has not yet been declared effective by the SEC (File No. 333-265860). Before you invest, you should read the preliminary prospectus and the registration statement (including the risk factors described therein) for more complete information about us and the offering.

You may access these documents for free by visiting EDGAR on the SEC Website at <http://www.sec.gov>. Alternatively, we or any underwriter participating in the offering will arrange to send you the prospectus if you contact ThinkEquity LLC, Prospectus Department, 17 State Street, 41st Floor, New York, New York 10004, telephone: (877) 436-3673 or e-mail: prospectus@think-equity.com.

This presentation does not constitute an offer to sell, or the solicitation of an offer to buy, nor will there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of such state or jurisdiction. The offering is only being made by means of the prospectus.

Offering Summary

Issuer	Kiromic BioPharma, Inc.
Symbols	Nasdaq: KRBP, KRBPW
Expected Offering Size	Approximately \$25,000,000 + 15% Over-allotment Option
Securities Offered	One common share and one 5-year warrant (or for purchasers who cannot beneficially own more than 4.99% of the outstanding share of common stock, one pre-funded warrant and one warrant)
Use of Proceeds	<ul style="list-style-type: none"> ● Submission and the clinical trial activation of IND #1, which is our Deltacel™ product candidate in combination with a standard anti-tumor modality. ● IND resubmission of the IND for ALEXIS-PRO-1 and the corresponding trial activation. ● Intellectual property protection and reinforcement. ● IND applications and IND enabling trials for our other product candidates. ● Working capital; general corporate purposes, including but not limited to legal fees associated with pending matters.
Sole Book-Runner	ThinkEquity

Contents



The Kiromic Difference



Diamond AI™ (Artificial Intelligence)



Gamma Delta T-cell (GDT) Therapy:
Mechanism of Action (MOA), Product Pipeline, cGMP Manufacturing



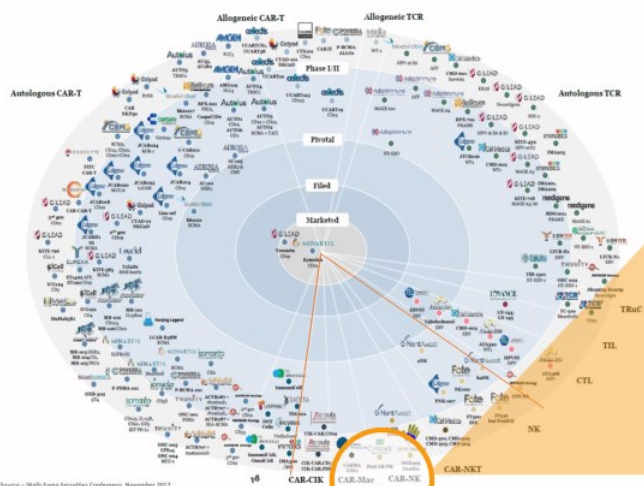
Current Status and Path Forward

Kiromic BioPharma is the only cell therapy company combining AI-driven genetically edited Gamma Delta T-cells (GDT) with proprietary targeting technology to address solid malignancies.

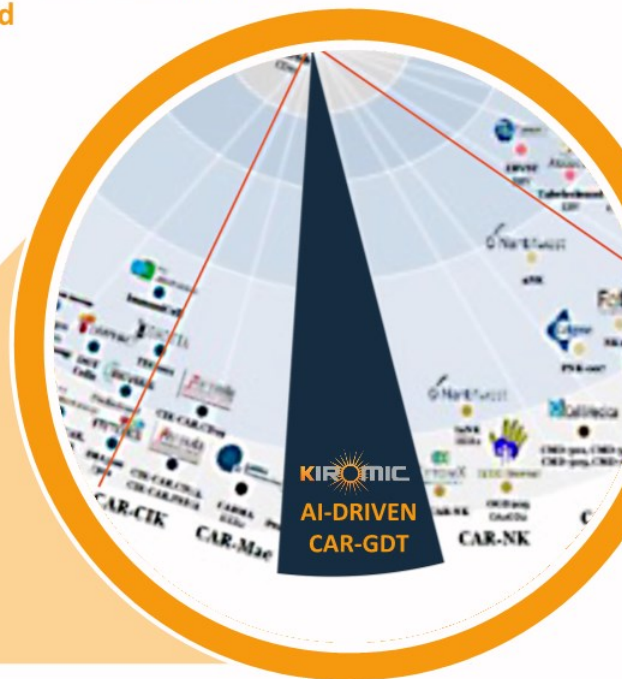


Strategic Competitive Landscape

6 Known Companies (including Kiromic) in the Gamma Delta T Cell Therapy space.
No Known Competitors with AI-driven Technology Combined with a Gamma Delta CAR-T Delivery Platform.



Source - Wells Fargo Securities Conference, November 2017



Global CAR-T Cell
Therapy Market
by 2027¹ (USD)

\$33+
Billion

90%

of Cancers Are
Solid Malignancies²

¹ Global CAR-T Cell Therapy Market, By Product Type, By Tumor Type, By Indication, By Treatment Type, By Targeted Antigen, By End User, By Region, Competition, Forecast and Opportunities, 2017-2027 (ReportLinker)

² American Cancer Society, Cancer Facts & Figures, 2022. <https://www.cancer.org/research/cancer-facts-statistics.html>

Competitive Difference



Allogeneic Gamma Delta Based T Cell Therapies

1	2	3	4	5	6
Next Gen Allogeneic Therapy	Multi Indication Solid Tumor Therapies	Superior Safety²⁻⁴	Superior Efficacy⁵	In-house Manufacturing	Lower Costs/ Greater Access⁷
<p>Allogeneic approach simplifies the supply chain and shortens the lead time.</p> <p>Previous generation of autologous therapy makes repeat dosing challenging, and gene editing raises manufacturing costs and poses regulatory challenges</p>	<p>Potential broad treatment for solid malignancies that express Kiromic developed biomarkers such as Isomesothelin.</p> <p>Solid tumors represent approx. 90% of new cancer cases¹</p>	<p>1. Minimal to no projected Cytokine Release Syndrome (CRS)</p> <p>2. Minimal to no projected Immune Cell Associated Neurotoxicity Syndrome (ICANS)</p> <p>3. Minimal Projected Graft versus Host Disease (GvHD) therefore no compatibility issues between donors and patients</p>	<p>Strong efficacy in pre-Clinical animal models of CAR-T therapy</p> <p>Issues related to low efficacy:</p> <ol style="list-style-type: none">1. Suppressive Tumor micro-environment (TME)2. T-Cell exhaustion and loss of efficacy	<p>1. Off-The-Shelf vs up to 3-5 weeks for autologous CAR-T such as Kymriah⁶</p> <p>2. In-house cGMP manufacturing (full control and vertical integration of manufacturing process) including:</p> <ol style="list-style-type: none">a. Unique In-house Vector productionb. Cell therapy production	<p>1. Potential Outpatient treatment means reduced hospitalization and other treatment related costs</p> <p>2. Lower projected cost increases patient and health care professional access to these therapies, and also potentially provides important quality-of-life benefits for patients as well</p>

¹American Cancer Society, Cancer Facts & Figures, 2022. <https://www.cancer.org/research/cancer-facts-statistics.html>
²Wang X, et al. Mesothelin isoform 2 is a novel target for allogeneic CAR gamma delta T cell therapy in solid tumors. AACR 2021; Abstract No. 1534
³Harber 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. L8148
⁴Xu Y, et al. Allogeneic Vgamma9delta2 T-cell immunotherapy exhibits promising clinical safety and prolongs the survival of patients with late-stage lung or liver cancer. Cell Mol Immunol 18(2):427-439.
⁵Parriott G, et al. T-cells expressing a chimeric-PD1-Dap10-CD3zeta receptor reduce tumour burden in multiple murine syngeneic models of solid cancer. Immunology 160(3):280-294.
⁶Novartis. Kymriah. Consumer Medicine Information. epub
⁷Macisano RT. CAR T-cell therapy total cost can exceed \$1.5M per treatment. Cell Therapy Next; May 29, 2019.

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Artificial Intelligence and Bioinformatic Analytic Discovery & Development Platform

Algorithms and Large-Scale Genomics Analysis for Target Prediction

Diamond AI™ Artificial Intelligence Neural Network



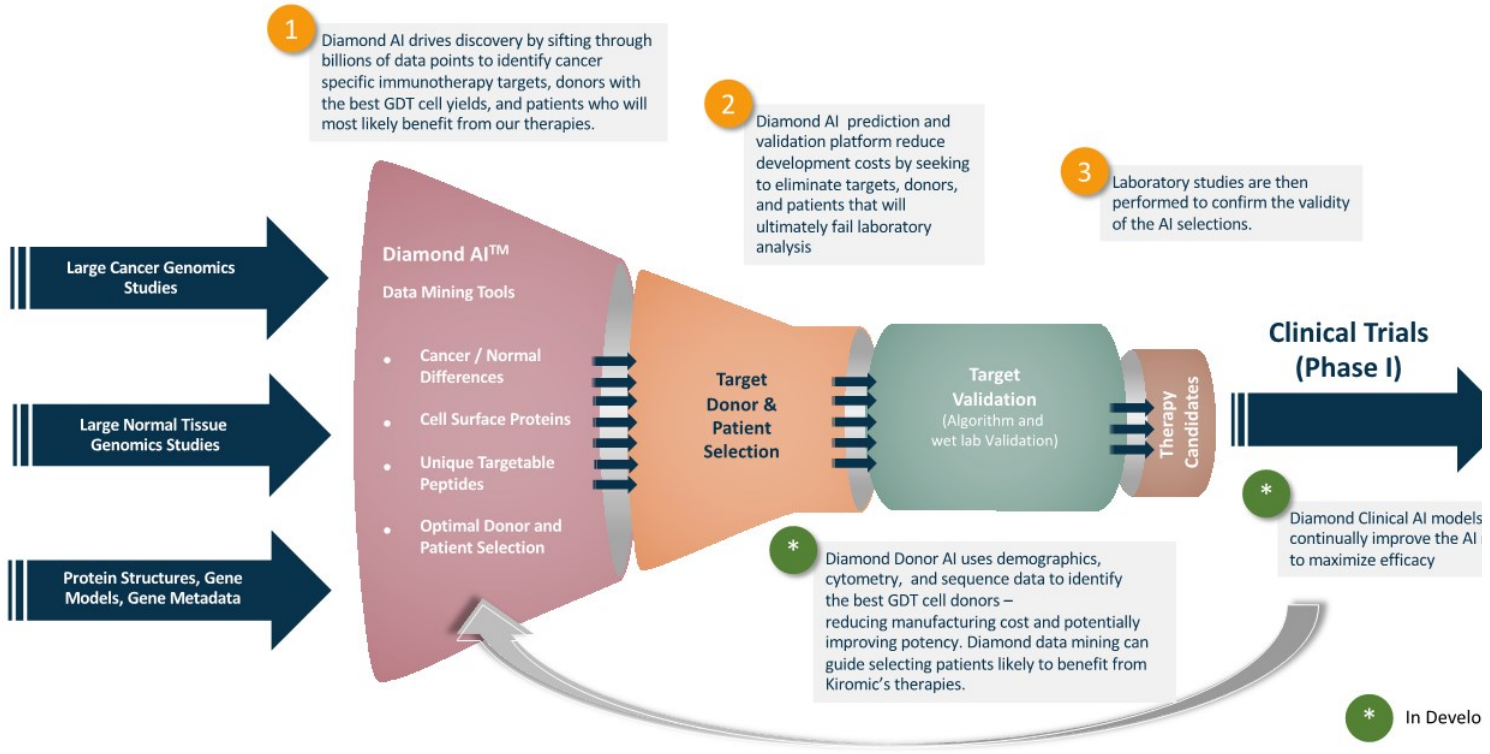
A.I. integrated with each stage of the Kiromic therapy production lifecycle

Discovering New Multi-tumor Targets

Identifying Optimal Donors and Patients to Maximize the Therapy Success

The Kiromic Difference - Diamond AI™ Target Discovery Platform

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



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Kiromic GDT Cell Therapy (Deltacel™, Procel™, and Isocel™)

Multiple Potential Indications



Deltacel™

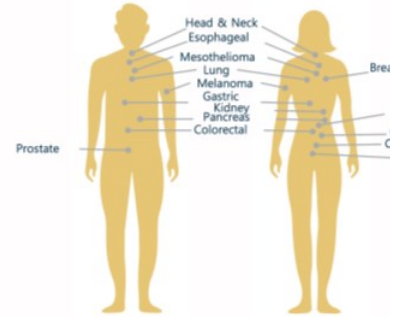
Non-viral, non-engineered, off-the-shelf product candidate targeting stress ligands on cancer cells

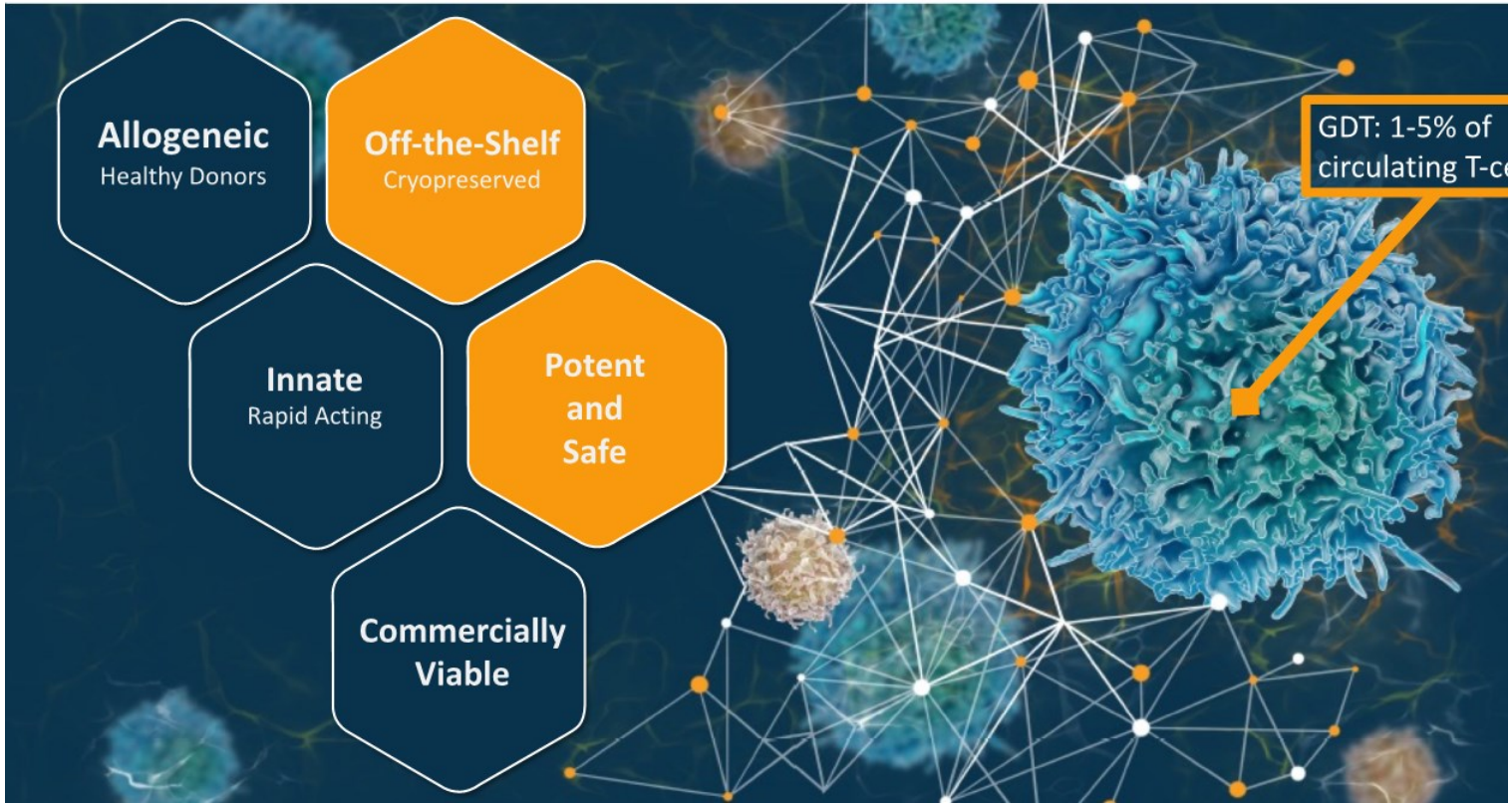
Procel™

Genetically-engineered off-the-shelf product candidate targeting PD-L1+ tumors

Isocel™

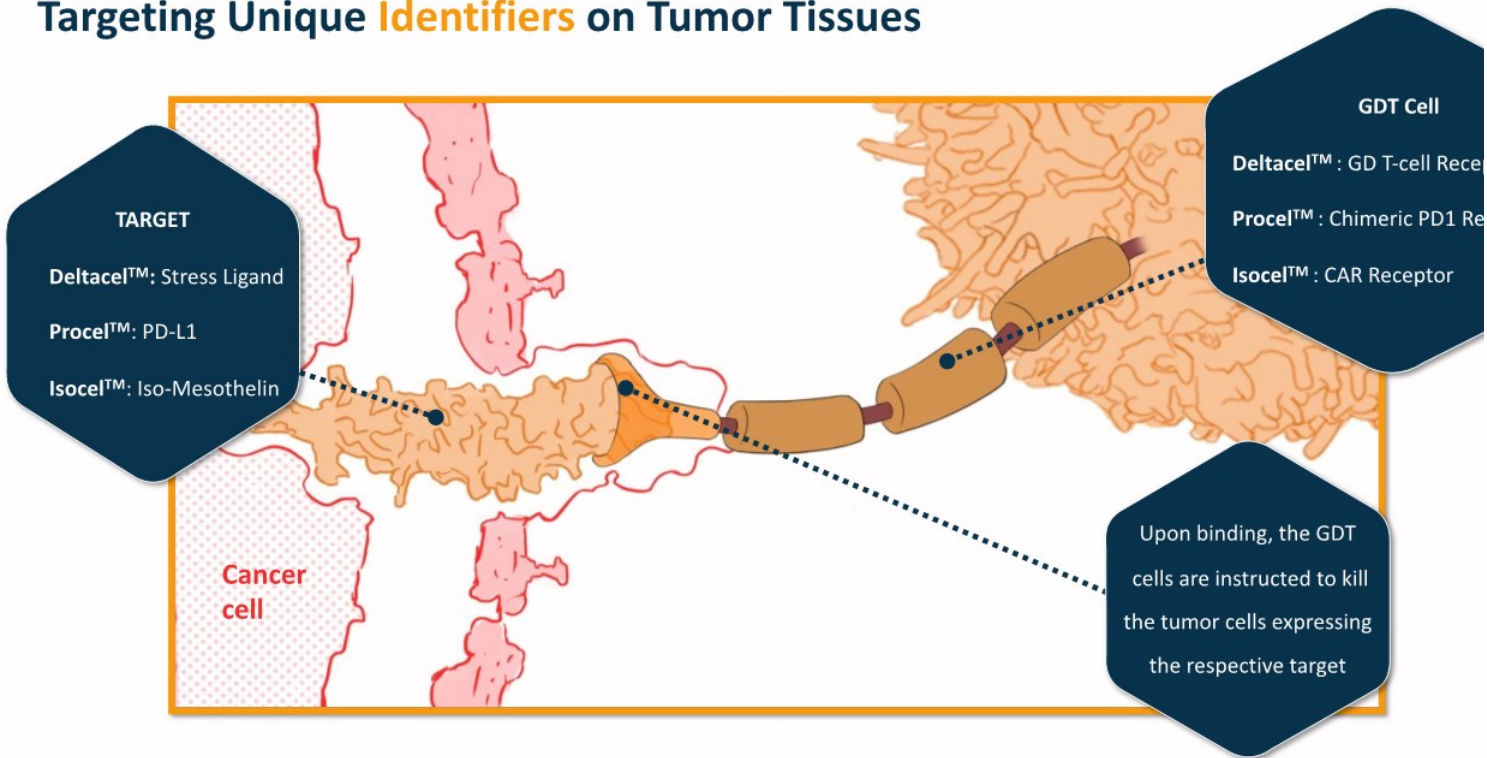
Genetically-engineered off-the-shelf product candidate targeting mesothelin isoform 2+ tumors







GDT Cell Therapy Mechanism of Action: Targeting Unique Identifiers on Tumor Tissues



GDT chPD1 T Cell Therapy (Procel™)*

Strong Efficacy

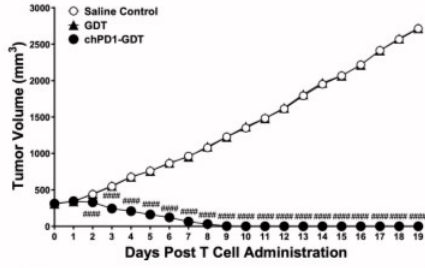
GDT chPD1 T Cell Therapy (Procel™)*

Strong Safety

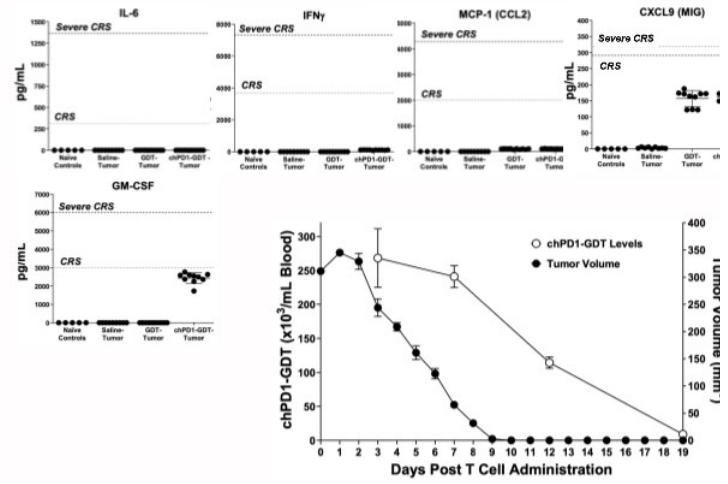
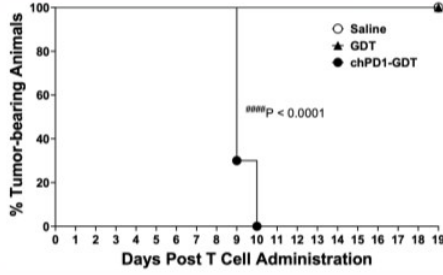
Procel™ eradicates established NCI-H226 pleural epithelioid mesothelioma and extends survival.

Procel™ does not lead to cytokine level increases modeled to cause severe CRS, with circulating cell numbers regulated by objective response.

Tumor eradication



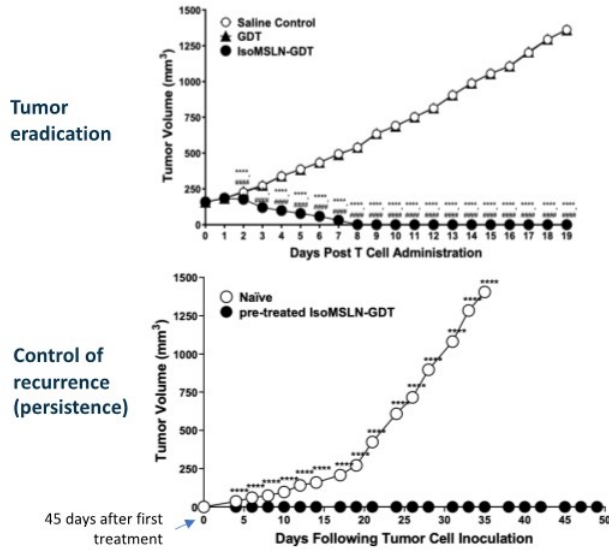
Overall Survival



*Preclinical models: nude mice with subcutaneous NCI-H226 cells injections

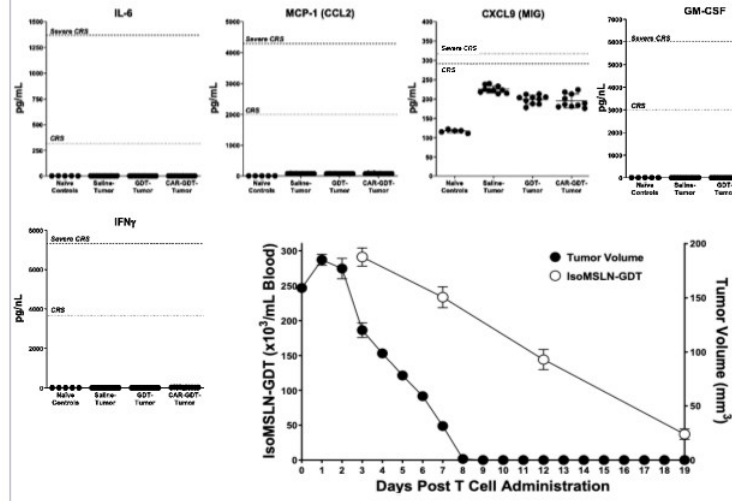
GDT CAR-T Cell Therapy (IsoceL™)* Strong Efficacy

IsoceL™ eradicates established NCI-H226 pleural epithelioid mesothelioma and prevents tumor growth in a model of recurrence.



GDT CAR-T Cell Therapy (IsoceL™)* Strong Safety

IsoceL™ does not lead to cytokine level increases modeled to cause severe Cf or CRS, with circulating cell numbers regulated by objective response.



*Preclinical models: nude mice with subcutaneous NCI-H226 cells injections

Clinical Trial Candidate	MD Anderson Principal Investigator	Target	Pre-Clinical	Phase I
New IND #1 Deltacel™ in combination with standard antitumor modality Allogeneic, Non-Viral, Non-engineered off-the-shelf GDT therapy	SRA Yes	Universal Non-Engineered		Q4 2022 Expected Beginning of Active Process for New IND #1 Clinical Trial
New IND #2 Procel™ in combination with standard antitumor modality Allogeneic, off-the-shelf, GDT CAR-T therapy	Yes	PD-L1		Q2 2023 Expected Beginning of Active Process for New IND #2 Clinical Trial
ALEXIS - PRO-1 Procel™ Allogeneic, off-the-shelf, GDT CAR-T therapy	No	PD-L1		Q2 2023 Expected Beginning of Active Process for ALEXIS-PRO-1 Clinical Trial
New IND #3 IsoceI™ in combination with standard antitumor modality Allogeneic, off-the-shelf, GDT CAR-T therapy	Yes	Isoform of Mesothelin		Q4 2023 Targeting Beginning of Active Process for New IND #3 Clinical Trial
ALEXIS - ISO-1 IsoceI™ Allogeneic, off-the-shelf, GDT CAR-T therapy	No	Isoform of Mesothelin		Q4 2023 Targeting Beginning of Active Process for ALEXIS-ISO-1 Clinical Trial

Use of Proceeds



Facilitate IND submission and Activation of New IND #1
Deltacel™ in combination with standard antitumor modality



Resubmit IND for ALEXIS-PRO-1 and corresponding clinical trial activation



Intellectual Property Protection and Reinforcement



IND Applications and IND-enabling Trials for Other Product Candidates



Working Capital



General Corporate Purposes, Including but Not Limited to Legal Fees Associated with Pending Matters



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ACHIEVED MILESTONE WITH TIMELY COMPLETION OF EXPANDED CGMP MANUFACTURING FACILITY TO SUPPORT CELL THERAPY ONCOLOGY PIPELINE

✓ **End of Q2 2022**

2

Submission of New IND #1 (Deltacel in combination with standard antitumor modality)

- H2 2022

3

Expected Beginning of Activation Process for New IND #1 Clinical Trial

- End of Q4 2022

4

Submission of Amended IND for ALEXIS-PRO-1 and New IND #2 (Procel in combination with standard antitumor modality)

- H1 2023

5

Expected Beginning of Activation Process for ALEXIS-PRO-1 and New IND #2 Clinical Trials

- End of Q2 2023

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

Leadership Team

<p>Pietro Bersani CPA, CGMA</p>	<p>Leonardo Mirandola PhD</p>	<p>Scott Dahlbeck MD, PharmD</p>	<p>Michael Ryan PhD</p>	<p>Dan Clark CPA, MBA</p>
<p>CEO</p>	<p>CSO</p>	<p>COS</p>	<p>CBRCO</p>	<p>CFO</p>



Board of Directors

**Michael
Nagel**

Chairperson

**Pietro
Bersani**
CPA, CGMA

Director

**Americo
Cicchetti**

**Independent
Director**

**Frank
Tirelli**

**Independent
Director**

**Karen
Reeves**
MD

**Independent
Director**



neomend



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ARTHUR
ANDERSEN



alliantgroup



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Summary Balance Sheet & Cap Table



Balance Sheet Data (As of March 31, 2022)	As Reported	As Adjusted ¹
Cash and cash equivalents	\$15,123,100	\$37,644,100
Working capital	\$12,625,800	\$35,146,800
Total assets	\$25,889,800	\$48,410,800
Total stockholders' equity	\$20,032,100	\$42,553,100

Pre-Offering Cap Table	
Common Stock	15,839,112
Restricted Stock Units (\$10.37 Weighted average grant date fair value)	225,018
Options (\$8.49 Weighted average exercise price)	338,872
Warrants (\$7.43 Weighted average exercise price)	462,500
Fully Diluted Common Shares	16,865,502

1. Gives effect to the sale of 62,500,000 shares of common stock in this offering at an assumed offering price of \$0.40 per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.
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¹American Cancer Society, Cancer Facts & Figures, 2022. <https://www.cancer.org/research/cancer-facts-statistics.html>.



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