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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 8-K**

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

**Date of Report (Date of earliest event reported): November 14, 2022**

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**Alaunos Therapeutics, Inc.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction  
of incorporation)

**001-33038**  
(Commission  
File Number)

**84-1475642**  
(IRS Employer  
Identification No.)

**8030 El Rio Street**  
**Houston, TX 77054**  
(Address of principal executive offices, including zip code)

**(346) 355-4099**  
(Registrant's telephone number, including area code)

**Not applicable**  
(Former name or former address, if changed since last report)

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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:

- 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:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
<b>Common Stock, par value \$0.001 per share</b>	<b>TCRT</b>	<b>The Nasdaq Stock Market LLC</b>

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

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.

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**Item 2.02 Results of Operations and Financial Condition.**

On November 14, 2022, Alaunos Therapeutics, Inc. (the “Company”) issued a press release announcing its financial condition and results of operations for the three and nine months ended September 30, 2022. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

**Item 7.01 Regulation FD Disclosure.**

On November 14, 2022, the Company presented slides with a business update. A copy of the presentation is furnished as Exhibit 99.2 to this Current Report on Form 8-K.

The information contained in Items 2.02 and 7.01, including Exhibits 99.1 and 99.2, are being “furnished” and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liability of that Section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended (the “Securities Act”). The information contained in Items 2.02 and 7.01, including Exhibits 99.1 and 99.2, shall not be incorporated by reference into any registration statement or other document pursuant to the Securities Act or into any filing or other document pursuant to the Exchange Act, except as otherwise expressly stated in any such filing.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	<a href="#">Press Release of Alaunos Therapeutics, Inc., dated November 14, 2022.</a>
99.2	<a href="#">Presentation of Alaunos Therapeutics, Inc., dated November 14, 2022.</a>
104	<a href="#">Cover Page Interactive Data File (embedded within the Inline XBRL document).</a>

**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.

Alaunos Therapeutics, Inc.

Date. November 14, 2022

By: /s/ Melinda Lackey

Name: Melinda Lackey

Title: Senior Vice President, Legal



### Alaunos Therapeutics Reports Third Quarter 2022 Financial Results

- Presented early data highlighting first successful objective clinical response using non-viral *Sleeping Beauty* TCR-T cell therapy in solid tumors at the CRI-ENCI-AACR Sixth International Cancer Immunotherapy Conference (CICON)
- Actively enrolling patients in TCR-T Library Phase 1/2 trial at the second dose level; expect to treat next patient in 4Q22
- Expanded manufacturing capacity to produce two products simultaneously
- Expect to file Investigational New Drug (IND) amendment in 4Q22 to add two additional TCRs to TCR library and move from a fresh to cryopreserved manufacturing process, reducing manufacturing time by 13%
- Company to host conference call today at 8:30 AM ET

**HOUSTON, November 14, 2022** – Alaunos Therapeutics, Inc. (“Alaunos” or the “Company”) (Nasdaq: TCRT), a clinical-stage oncology-focused cell therapy company today announced financial results for the third quarter ended September 30, 2022.

“Our team has worked diligently over the past year to transform our promising technology and scientific foundation into meaningful clinical progress. We were excited to present early data from our TCR-T Library Phase 1/2 trial at CICON, where we showed for the very first time, an objective clinical response in a solid tumor using a non-viral TCR-T cell therapy. These initial safety, persistence and efficacy data reinforce the promise of our *Sleeping Beauty* TCR-T cell therapy to safely achieve measurable regression in solid tumors, even at the lowest dose,” commented Kevin S. Boyle, Sr., Chief Executive Officer of Alaunos. “In tandem, we have successfully doubled our manufacturing capacity. We look forward to dosing the next patient in our TCR-T Library Phase 1/2 Trial as well as filing an IND amendment to expand our TCR Library and enhance the speed and flexibility of our manufacturing process using cryopreserved cell products in the fourth quarter.”

#### **Recent Developments and Upcoming Milestones**

**Presented encouraging clinical data from TCR-T Library Phase 1/2 Trial at CRI-ENCI-AACR Sixth International Cancer Immunotherapy Conference (CICON):** In September 2022, the Company presented early data from its TCR-T Library Phase 1/2 trial targeting *KRAS*, *TP53*, and *EGFR* mutations across six solid tumor indications. The data represent the first report of a successful TCR-T cell therapy using the non-viral *Sleeping Beauty* system for solid tumors. The Company expects to dose the next patient in the study in 4Q22.

Key highlights include:

- First patient dosed was diagnosed with NSCLC and was treated at dose level 1 with TCR-T cells targeting a *KRAS* G12D mutation. The patient achieved six-month progression-free survival, with a best overall response of objective, partial regression of greater than 50% of target lesions at 12 weeks post-cell therapy.

- Second patient dosed was diagnosed with colorectal cancer and was treated at dose level 2 with TCR-T cells targeting a *TP53* R175H mutation. This patient achieved a best overall response of stable disease at six weeks with 12-week progression-free survival.
- Persistence of TCR-T cells was evident in both patients. Patient 1 had persistence at 24 weeks with approximately 30% of all T-cells being TCR-T cells in the blood. Patient 2 had persistence at 12 weeks with approximately 20% of all T-cells being TCR-T cells in the blood.
- In both patients, the TCR-T cell therapy was well-tolerated and presented a manageable safety profile, with no dose limiting toxicities or immune effector cell-associated neurotoxicity syndrome (ICANS) observed.

Additional information about the trial is available at [www.clinicaltrials.gov](http://www.clinicaltrials.gov) using the identifier: [NCT05194735](https://clinicaltrials.gov/ct2/show/study/NCT05194735).

**Expanded manufacturing capacity to produce two products simultaneously:** The Company continues to execute on its multi-pronged strategy to expand manufacturing capacity. As a result of this initiative, the Company has doubled its existing manufacturing capacity to produce two products simultaneously.

**Expect to file IND amendment in 4Q22 to expand its TCR Library and move from a fresh to cryopreserved manufacturing process:** Alauos expects to file an IND amendment in the fourth quarter, which will add two new TCRs to the Company's TCR Library targeting frequent mutations and HLAs. This should allow the Company to increase the potential addressable market for its T-cell therapies. In addition, the Company has successfully completed process qualification runs using cryopreserved cell products to manufacture TCR-T cells, which reduces manufacturing process time from 30 days to 26 days, a 13% decrease. The IND amendment will enable the Company to move to a cryopreserved manufacturing process and add flexibility for patient scheduling and treatment.

**Presented data highlighting potential of the Company's hunTR™ platform to expand its TCR Library at the Society for Immunotherapy of Cancer's (SITC) 37th Annual Meeting:** In November 2022, the Company presented a poster at the SITC annual meeting, highlighting its proprietary hunTR™ (human neoantigen T-cell Receptor) platform. hunTR™ is a high-throughput screening process that uses state-of-the-art bioinformatics and next generation sequencing to interrogate and deconvolute thousands of single T cells simultaneously. In the study, Alauos evaluated hundreds of thousands of TCR+HLA+neoantigen permutations in nine patients across colorectal, endometrial and breast cancers. All patients screened had at least one detectable neoantigen-reactive TCR, including one shared *KRAS* mutation. Further screening of additional patients only for *KRAS* mutations resulted in discovery of *KRAS*-G12V reactive TCRs. The Company plans to expand the application of hunTR to screen for additional shared *KRAS*, *TP53*, and *EGFR* mutations in order to rapidly advance new TCR library candidates from the lab through to clinical translation.

### **Third Quarter Ended September 30, 2022 Financial Results**

**Collaboration Revenue:** Collaboration revenue was \$2.9 million for the third quarter of 2022, compared to \$0.4 million for the third quarter of 2021, an increase of 631%. The increase was primarily due to the achievement of sales-based milestones of darinaparsin in Japan, which was largely offset by a one-time corresponding \$2.5 million Research & Development expense.

**Research and Development Expenses:** Research and development expenses were \$7.9 million for the third quarter of 2022, compared to \$14.5 million for the third quarter of 2021, a decrease of approximately 46%. Research and Development expenses during the third quarter of 2022 included a one-time \$2.5 million expense as a result of the achievement of sales-based milestones of darinaparsin in Japan.

**General and Administrative Expenses:** General and administrative expenses were \$3.3 million for the third quarter of 2022, compared to \$8.2 million for the third quarter of 2021, a decrease of approximately 60%.

**Net Loss:** Net loss was \$8.9 million, or \$(0.04) per share, for the third quarter of 2022, compared to a net loss of \$22.7 million, or \$(0.11) per share, for the same period in 2021.

**Cash and Cash Equivalents:** As of September 30, 2022, Alaunos had approximately \$37.8 million in cash and cash equivalents and restricted cash of \$13.9 million. Operating cash burn for the third quarter of 2022 was \$6.1 million compared to \$9.6 million in the third quarter of 2021, a decrease of \$3.4 million or 36%.

#### **Conference Call and Webcast**

Alaunos will host a conference call and webcast today, November 14, 2022, at 8:30am ET. Participants may access the live webcast using the link [here](#) or by visiting the “Investors” section of the Alaunos website at [www.alaunos.com](http://www.alaunos.com). To participate via telephone, please register in advance at this [link](#). Upon registration, all telephone participants will receive a confirmation email detailing how to join the conference call, including the dial-in number along with a unique passcode and registrant ID that can be used to access the call. After the live webcast, the event will be archived on the Company’s website for approximately 30 days after the call.

#### **About Alaunos Therapeutics**

Alaunos is a clinical-stage oncology-focused cell therapy company, focused on developing T-cell receptor (TCR) therapies based on its proprietary, non-viral *Sleeping Beauty* gene transfer technology and its TCR library targeting shared tumor-specific hotspot mutations in key oncogenic genes including *KRAS*, *TP53* and *EGFR*. The Company has a clinical and strategic collaboration with the National Cancer Institute. For more information, please visit [www.alaunos.com](http://www.alaunos.com).

#### **Forward-Looking Statements Disclaimer**

This press release contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts, and in some cases can be identified by terms such as “may,” “will,” “could,” “expects,” “plans,” “anticipates,” “believes” or other words or terms of similar meaning. These statements include, but are not limited to, statements regarding the Company’s business and strategic plans, the anticipated outcome of preclinical and clinical studies by the Company or its third-party collaborators, the Company’s cash runway, the Company’s manufacturing capabilities and the timing of the Company’s research and development programs, including the expected timeline for enrolling and dosing patients and the timing and forums for announcing data from the Company’s clinical trials. Although the management team of Alaunos believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and

uncertainties, many of which are difficult to predict and generally beyond the control of Alaunos, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, among other things, changes in the Company's operating plans that may impact its cash expenditures; the uncertainties inherent in research and development, future clinical data and analysis, including whether any of Alaunos' product candidates will advance further in the preclinical research or clinical trial process, including receiving clearance from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies to conduct clinical trials and whether and when, if at all, they will receive final approval from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies and for which indication; the strength and enforceability of Alaunos' intellectual property rights; and competition from other pharmaceutical and biotechnology companies as well as risk factors discussed or identified in the public filings with the Securities and Exchange Commission made by Alaunos, including those risks and uncertainties listed in the most recent periodic report filed by Alaunos with the Securities and Exchange Commission. Alaunos is providing this information as of the date of this press release, and Alaunos does not undertake any obligation to update or revise the information contained in this press release whether as a result of new information, future events, or any other reason.

**Investor Relations Contact:**

Alex Lobo

Stern Investor Relations

[Alex.lobo@sternir.com](mailto:Alex.lobo@sternir.com)

**Alaunos Therapeutics, Inc**  
Statement of Operations  
(In thousands except per share data)

	For the Three Months Ended September 30 (Unaudited)	
	2022	2021
Collaboration revenue	\$ 2,911	398
Operating expenses:		
Research and development	\$ 7,893	\$ 14,521
General and administrative	3,282	8,173
Total operating expenses	11,175	22,694
Loss from operations	(8,264)	(22,296)
Interest expense	(841)	(444)
Other income, net	254	7
Net loss	(8,851)	(22,733)
Basic and diluted net loss per share	\$ (0.04)	\$ (0.11)
Weighted average common shares outstanding, basic and diluted	215,098,995	214,542,465



**Alaunos Therapeutics, Inc**  
Selected Balance Sheet Data  
(In thousands)

	<u>(unaudited)</u> September 30, 2022	<u>(audited)</u> December 31, 2021
Cash and cash equivalents	\$ 37,807	\$ 76,054
Restricted cash	\$ 13,938	\$ —
Working capital, excluding restricted cash	\$ 8,698	\$ 62,790
Total assets	\$ 67,344	\$ 94,865
Total stockholders' equity	\$ 32,113	\$ 58,057

# Third Quarter 2022 Results

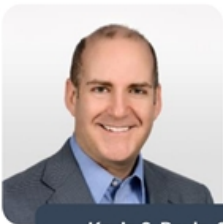
| November 14, 2022

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# Forward Looking Statements

This presentation contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts, and in some cases can be identified by terms such as "may," "will," "could," "expects," "plans," "anticipates," "believes" or other words or terms of similar meaning. These statements include, but are not limited to, statements regarding Alaunos Therapeutics, Inc.'s ("Alaunos" or "the Company") business and strategic plans, the anticipated outcome of preclinical and clinical studies by the Company or its third-party collaborators, the Company's manufacturing capacity, the Company's ability to raise capital, and the timing of the Company's research and development programs, including the anticipated dates for enrolling and dosing patients in the Company's clinical trials. Although the management team of Alaunos believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of Alaunos, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, among other things, changes in the Company's operating plans that may impact its cash expenditures; the uncertainties inherent in research and development, future clinical data and analysis, including whether any of Alaunos' product candidates will advance further in the preclinical research or clinical trial process, including receiving clearance from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies to conduct clinical trials and whether and when, if at all, they will receive final approval from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies and for which indication; the strength and enforceability of Alaunos' intellectual property rights; and competition from other pharmaceutical and biotechnology companies as well as risk factors discussed or identified in the public filings with the Securities and Exchange Commission made by Alaunos, including those risks and uncertainties listed in the most recent period report filed by Alaunos with the Securities and Exchange Commission. We are providing this information as of the date of this presentation, and Alaunos does not undertake any obligation to update or revise the information contained in this presentation whether as a result of new information, future events, or any other reason.

# Speakers on Today's Call



**Kevin S. Boyle, Sr.**  
Chief Executive Officer



**Drew Deniger, Ph.D.**  
VP, Research & Development



**Abhishek Srivastava, Ph.D.**  
VP, Technical Operations



**Mike Wong**  
VP, Finance

# Confirmed Partial Response Following Treatment with *Sleeping Beauty* TCR-T Cells at First Dose Level



TCR-T Library Phase 1/2 Trial Enrolling; Confirmed Partial Response in First Patient (NSCLC); Now Treating at Dose Level 2

- 1 Increasing cGMP Manufacturing Facility Capacity; Consistently Producing High Quality TCR-T Cells at Clinical Scale
- 2 Growing Clinical Library of TCRs (*KRAS*, *TP53*, *EGFR*) Increasing the Addressable Market
- 3 Proprietary TCR Discovery Platform, hunTR™ is Expanding and Advancing the Pipeline
- 4 60% Fewer Employees and 50%+ Reduction in Operating Cash Burn Year-over-Year

# TCR-T Platform Targeting Hotspot Mutations with Multiple Solid Tumor Programs in Pipeline

PROGRAM	TARGETS	INDICATION	DISCOVERY	PRECLINICAL	IND-ENABLING	PHASE 1
<b>Library TCR-T Cell Therapy</b> (Company Sponsored at MDACC - NCT05194735)	<b>KRAS, TP53 &amp; EGFR Hotspot Mutations</b>	Lung	██████████	██████████	██████████	██████████
		Colon/Rectum	██████████	██████████	██████████	██████████
		Endometrium	██████████	██████████	██████████	██████████
		Pancreas	██████████	██████████	██████████	██████████
		Ovary	██████████	██████████	██████████	██████████
		Bile Duct	██████████	██████████	██████████	██████████
<b>mbIL-15 TCR-T Cell Therapy</b>	<b>KRAS &amp; TP53 Hotspot Mutations</b>	Solid Tumors	██████████	██████████	██████████	██████████

# Clinical Update

## Encouraging Early Clinical Data for Non-viral TCR-T Therapy: Safety, Persistence and Efficacy with 1 Confirmed PR

- First in human confirmed response in solid tumor by TCR-T cell therapy using *Sleeping Beauty*
  - Patients have been treated with *KRAS* and *TP53* mutation specific cells
- Two patients treated; now treating at dose level 2
  - Manageable safety profile with no neurotoxicity
  - Persistence of TCR-T cells observed at six months
  - Confirmed Partial Response in Patient 1 with Non-Small Cell Lung Cancer (NSCLC)
- Early clinical validation highlights potential of TCR-T cell therapy in high value indications with significant unmet medical need

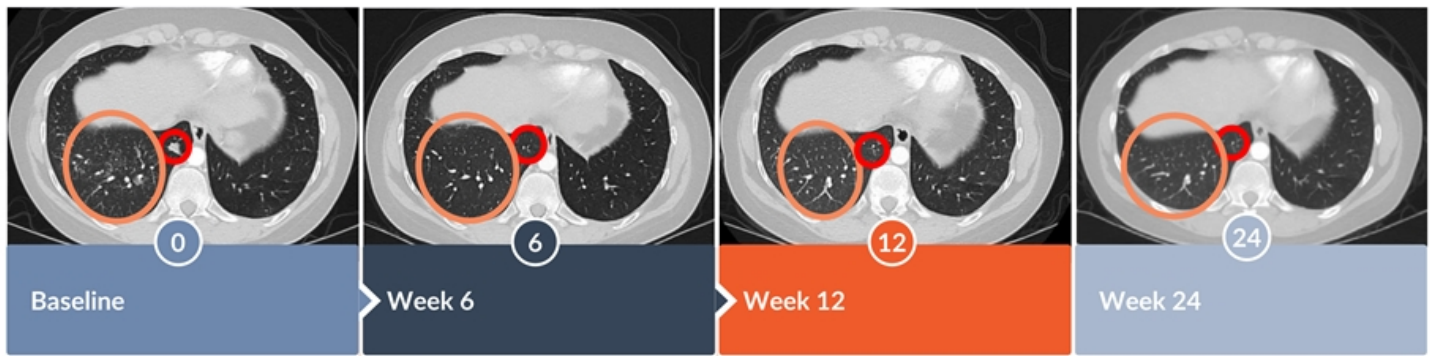


# Patient 1: PR in NSCLC

Six-month imaging

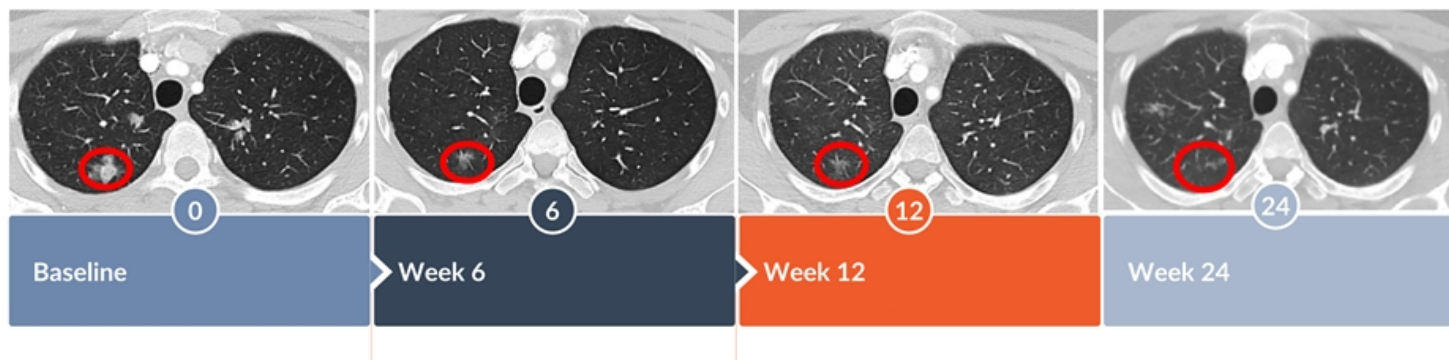
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# Durable, Complete Resolution of Right Lower Lobe NSCLC Lesion Through Week 24

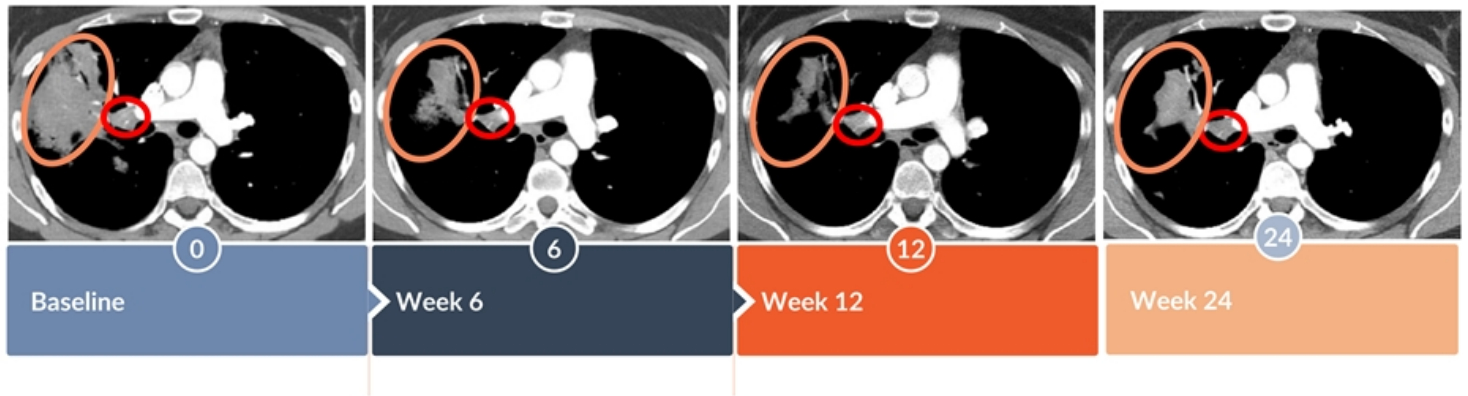


- Patient 1 had multiple lines of prior therapy and was refractory to checkpoint inhibitors
- Treated with  $9 \times 10^9$  TCR-T cells (dose level 1) targeting KRAS-G12D and HLA-A\*11:01 with manageable safety profile
- Red circles represent target lesions, orange circles represent non-measurable disease

# Sustained Reduction in Right Upper Lobe Lesion through Week 24



# Growth of Non-measurable Disease at 24 Weeks Relative to Week 12; Six Month Progression Free Survival



Perceived growth of non-measurable disease in orange circles led investigator to request biopsy of this area and additional scan at 28 weeks

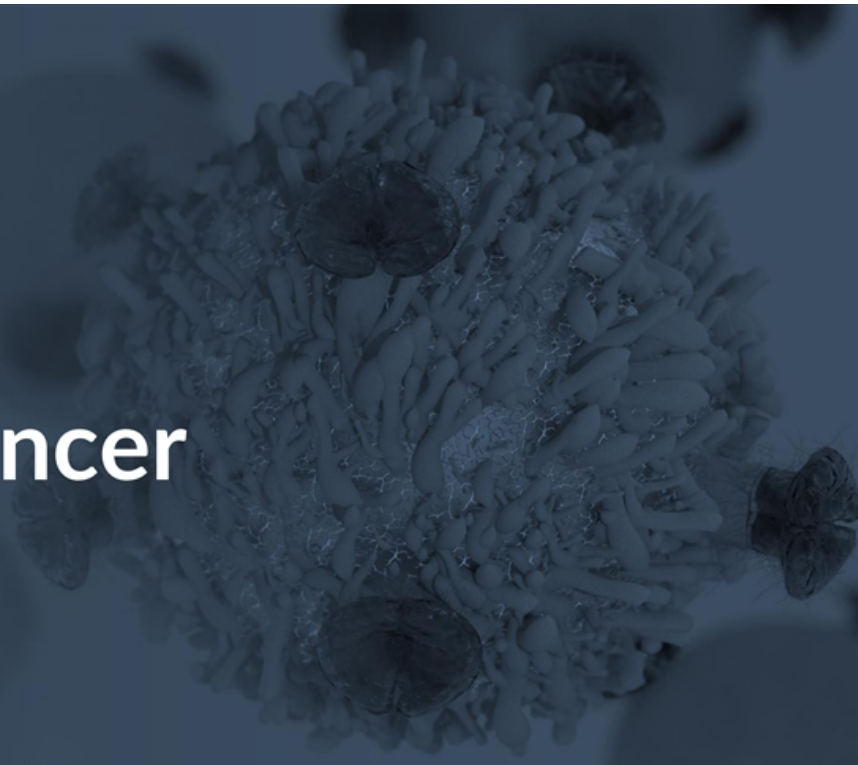
# Best Response is Partial Response, with a Six Month Progression Free Survival

- Patient 1 had an observed clinical benefit from our TCR-T cell therapy
- Persistence of TCR-T cells was observed in the blood at approximately 30% of T-cells at 24 weeks
- Elective tumor core biopsy showed continued presence of some tumor cells at six months
- Progression was corroborated by seven month scan; patient is now off study

	Baseline	Week 6	Week 12	Week 24
<b>Target Lesions</b>				
#1: Right lower lobe (mm)	13	0	0	0
#2: Right upper lobe (mm)	13	11	10	10
#3: Right hilar lymph node (mm)	15	11	10	12
<b>Sum of Diameters (mm)</b>	41	22	20	22
<b>Percent Change</b>		(46.3%)	(51.2%)	(46.3%)
<b>Non-measurable Disease</b>		Decreased	Decreased	Increased
<b>Overall Response</b>		Partial Response	Partial Response	Progressive Disease

# Patient 2: Colorectal Cancer

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# Patient 2: Previously Treated Advanced Colorectal Cancer Achieved Best Overall Response of Stable Disease

- Patient 2 received one prior line of therapy and was treated with  $64 \times 10^9$  TCR-T cells (dose level 2) targeting TP53-R175H and HLA-A\*02:01
- Treatment was well tolerated with manageable safety events; patient received one dose of tocilizumab with no neurotoxicity
- Some evidence of efficacy at six weeks with reduction of pelvic mass and overall decrease in target lesions combined
- Persistence of TCR-T cells was observed in the blood at approximately 20% of T-cells at 12 weeks
- Patient off study due to disease progression at Week 12 due to new lesions in the liver and lung

	Baseline	Week 6	Week 12
<b>Target Lesions</b>			
#1: Pelvic Mass (mm)	65	49	67
#2: Retroperitoneal Lymph Node (mm)	27	30	28
<b>Sum of Diameters (mm)</b>	92	79	95
<b>Percent Change</b>		(15.2%)	21.9%
<b>New Lesion</b>		No	Liver/Lung
<b>Overall Response</b>		Stable Disease	Progressive Disease



# Clinical Summary to Date

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# Encouraging Clinical Activity from *Sleeping Beauty* TCR-T Therapy Demonstrating Safety, Persistence and Efficacy

- Treatment was well tolerated with no DLTs or ICANS in either patient
- Persistence of TCR-T cells was noted in both patients to last follow-up
- Indications of efficacy observed in both patients
  - Six-month progression free survival in KRAS NSCLC patient, comparable to other therapeutics
- Infiltration of TCR-T cells into the tumor was observed at six months suggesting the cells could home to the tumor microenvironment
- Progressing tumor had both mutation and HLA expressed indicating that the target was intact and still required for the cancer

# Manufacturing Update

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# Successful Manufacturing of High Purity Products at Dose Levels 1 and 2

- Successfully manufactured two clinical products by our own employees at our in-house cGMP facility at dose levels 1 and 2
- Produced both KRAS and TP53 mutation-specific TCR-T cells with expected characteristics

**TCR-T Infusion Product- Patient 1**

	Result
Viability	97.3%
Total TCR-T Cells	$9 \times 10^9$
CD3+ Purity	99.7%
TCR+	95.2%

**TCR-T Infusion Product- Patient 2**

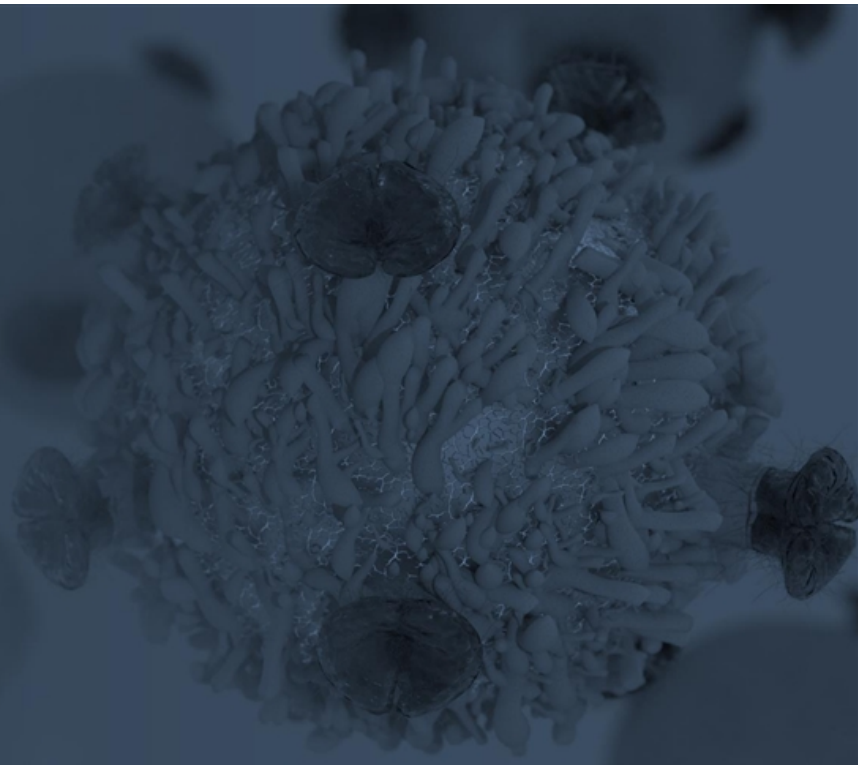
	Result
Viability	92.5%
Total TCR-T Cells	$6.4 \times 10^{10}$
CD3+ Purity	99.7%
TCR+	92.4%

# Execution Against Multipronged Expansion Strategy Has Doubled Manufacturing Capacity

- Changes in Process & Procedures
  - Updated SOPs to allow for simultaneous manufacture of multiple products in the cGMP suite
  - Expect to file IND amendment to move from fresh to cryopreserved product in 4Q 2022 and implement change in 1H 2023
- Reduced Manufacturing Time by 13%
  - Implementation of cryopreservation anticipated to shorten manufacturing time from 30 to 26 days, increasing cGMP suite throughput potential
- Expanded Manufacturing Team
  - Hired and trained additional staff to enable manufacture of simultaneous products

# R&D Update

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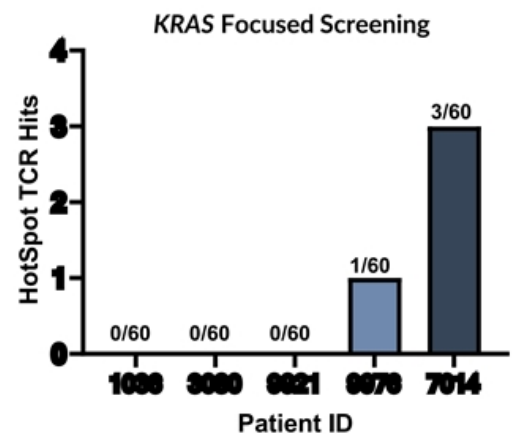


# hunTR™ Is Differentiated from Competing TCR Discovery Platforms

Differentiator	Alaunos	Competition
Starting material	TILs from patient with target	Blood from healthy donors without target
TCR screening	Reporter cell line (fast, universal)	Virally transduced donor T cells (donor-to-donor variability, labor intensive and time consuming)
HLA and mutation screening	All mutations and HLAs	Limited and commonly dependent on peptide prediction algorithms

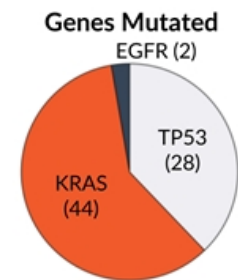
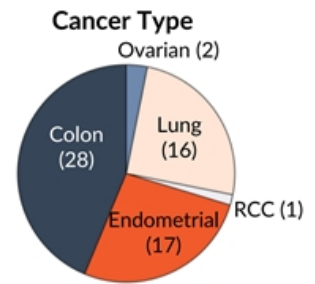
# hunTR™ Platform for TCR Discovery Expected to Expand Addressable Market with Exclusive TCRs

- Established end-to-end platform from TCR discovery to clinical translation
- Focused on key mutations in *KRAS*, *TP53* and *EGFR* genes
- Goal to add more mutations and HLAs to the existing mutations in the TCR library
- In *KRAS*-G12D and *KRAS*-G12V focused screening, two patients have had hotspot mutation-reactive TCRs



# Throughput of hunTR™ Increased to Expand the Number of Patients Who May Benefit from TCR-T Cell Therapy

- Pre-screened over 250 commercially-sourced tumors for mutation and HLA and 64 are entering hunTR™ queue
- Evaluating diverse group of cancer types that are representative of potential treatment populations
- Two EGFR mutations are targeted (L858R and 19del)
- Focused on four KRAS mutations based on their prevalence in solid tumors (G12C, G12D, G12V, G13D)
- TP53 is among the most frequently mutated genes; we are targeting eight hotspots





# Financial Update

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# Selected Financial Data for the Third Quarter; Over a 50% Reduction in Operating Cash Burn Year-Over-Year

## Revenue

- **Collaboration revenue of \$2.9 million:** primarily related to the first commercial sale of darinaparsin by Solasia Pharma K.K.

## Operating Expense

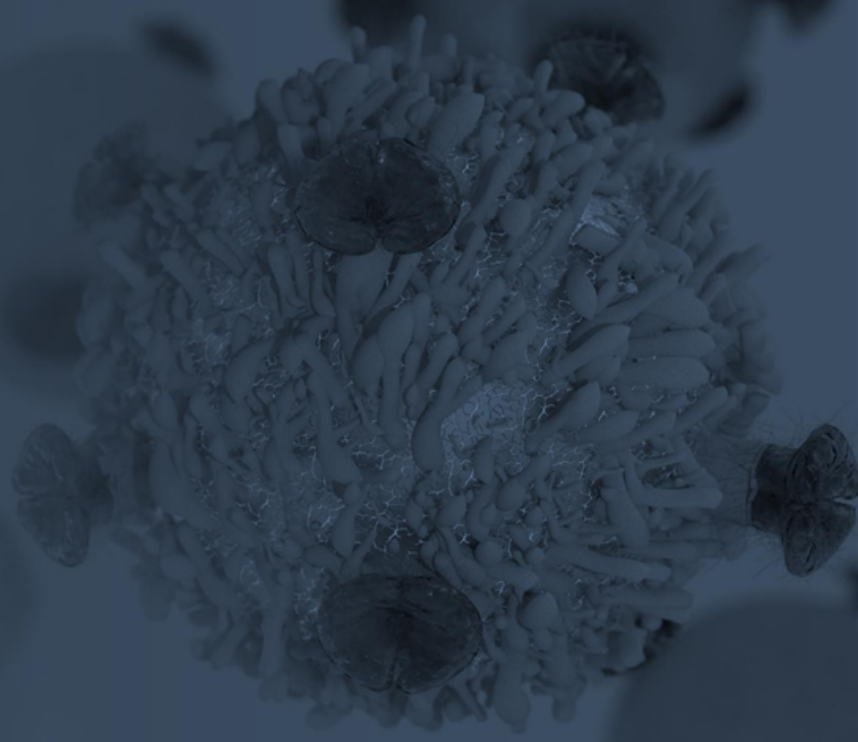
- **R&D costs decreased 46%:** as a result of focused efforts on our TCR-T platform and lower employee related costs; includes one-time milestone expense of \$2.5 million associated with the Solasia collaboration revenue.
- **G&A decreased 60%:** a result of reduced headcount and implemented efficiencies

## Cash & Net Cash

- **Cash:** \$37.8 million
- **Restricted Cash:** \$13.9 million
- **Debt Outstanding:** \$22.7 million
- **Operating Cash Burn:** \$6.1 million in third quarter of 2022, compared to \$9.6 million in third quarter of 2021 a decrease of 36%; Year-to-date of \$22.1 million in 2022, compared to \$46.3 in 2021, a decrease of 52%

# Upcoming Milestones

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# Continue to Grow Platform to Expand Number of Patients Who May Benefit from *Sleeping Beauty* TCR-T



## Poised for Continued Progress Generating Additional Clinical Data and Building Pipeline

- 1 Treating Additional Patients on Library TCR-T Cell Clinical Trial
- 2 Amending IND to Include Two New TCRs and Reducing Manufacturing Process Time with Cryopreserved Product
- 3 Planning to File IND for mbIL-15 TCR-T Cell Therapy in 2H 2023
- 4 Collaboration with NCI for Personalized *Sleeping Beauty* TCR-T Approach