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 3, 2019**

Oncternal Therapeutics, Inc.
(Exact Name of Registrant as Specified in Charter)

Delaware	**000-50549**	**62-1715807**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

12230 El Camino Real **Suite 300** **San Diego, California**	**92130**
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: **(858) 434-1113**

N/A
(Former Name or Former Address, if Changed Since Last Report)

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 communication 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**
Common Stock, par value $0.001 per share	ONCT	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 ☐
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.

Oncternal Therapeutics, Inc. ("Oncternal" or the "Company"), has posted an updated corporate slide presentation to the Company's website, www.oncternal.com. A copy of the updated presentation is attached hereto as Exhibit 99.1 and is incorporated by reference into this Item 7.01. Oncternal plans to use its website to disseminate future updates to its corporate presentations and does not intend to file or furnish a Form 8-K alerting investors each time the presentation is updated.

The information set forth in this Item 7.01 is being furnished pursuant to Item 7.01 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 liabilities of that section, and it shall not be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or under the Exchange Act, whether made before or after the date hereof, except as expressly provided by specific reference in such a filing.

By filing this Current Report on Form 8-K and furnishing the information in this Item 7.01, Oncternal makes no admission as to the materiality of Item 7.01 in this report or the presentation available Oncternal's website. The information contained in the presentation is summary information that is intended to be considered in the context of Oncternal's filings with the Securities and Exchange Commission (the "SEC") and other public announcements that Oncternal makes, by press release or otherwise, from time to time. Oncternal undertakes no duty or obligation to publicly update or revise the information contained in this Item, although it may do so from time to time as its management believes is appropriate or as required by applicable law. Any such updating may be made through the filing of other reports or documents with the SEC, through press releases, by updating its website or through other public disclosure.

Item 8.01. Other Events.

On October 3, 2019, the Company announced that it has opened for enrollment a Phase 1b expansion cohort of its Phase 1/2 clinical trial of cirmtuzumab, a Receptor tyrosine kinase-like Orphan Receptor 1 ("ROR1") targeted monoclonal antibody, combined with ibrutinib, in patients with mantle cell lymphoma ("MCL"). The decision to open an expansion cohort in MCL of the ongoing Phase 1/2 CIRLL (Cirmtuzumab and Ibrutinib targeting ROR1 for Leukemia and Lymphoma) clinical trial was based on favorable interim results from the dose-finding cohort of the trial, including that the combination was well-tolerated and that complete responses were observed in two heavily pre-treated patients who had received and failed multiple chemotherapy regimens and an autologous transplant, as well as either an allotransplant or chimeric antigen receptor T cell ("CAR-T") therapy, prior to participating in this clinical trial.
In June 2019, the Company presented interim data at the American Society of Clinical Oncology ("ASCO") annual meeting, including the preliminary results from the first six patients with MCL treated in the CIRLL clinical trial. One patient with MCL, who had relapsed following an allogeneic stem cell transplant, experienced a confirmed complete response ("CR") after 3 months of cirmtuzumab plus ibrutinib treatment, including complete resolution of a large mediastinal mass. This CR appears to be sustained and has been confirmed to be ongoing after completing 12 months of cirmtuzumab plus ibrutinib treatment. Following ASCO, a second confirmed CR occurred in a patient who had progressive disease after failing several different chemotherapy regimens, autologous transplant and CAR-T therapy. Additional data from this clinical trial will be presented at a future medical conference.
The CIRLL clinical trial is supported by a grant from the California Institute for Regenerative Medicine (CIRM) and is being conducted in collaboration with the University of California San Diego (UCSD).

Cautionary Note Regarding Forward-Looking Statements

The Company cautions you that statements included in this report that are not a description of historical facts are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negatives of these terms or other similar expressions. These statements are based on the Company's current beliefs and expectations. Forward looking statements include statements regarding: the Company's plans to present additional data from its ongoing Phase 1/2 clinical trial of cirmtuzumab; the expectation that the Company will be able to enroll patients into the Phase 1b expansion cohort; and the Company's belief that favorable outcomes from the ongoing Phase 1 portion of the clinical trial support opening the Phase 1b portion. The inclusion of forward-looking statements should not be regarded as a representation by the Company that any of its plans will be achieved. Actual results may differ from those set forth in this release due to the risks and uncertainties inherent in the Company's business, including, without limitation: uncertainties associated with the clinical development and process for obtaining regulatory approval of cirmtuzumab and the Company's other product candidates, including potential delays in the commencement, enrollment and completion of clinical

trials; the Company's dependence on the success of cirmtuzumab and its other product development programs; the risk that interim results of a clinical trial do not necessarily predict final results and that one or more of the clinical outcomes may materially change as patient enrollment continues, following more comprehensive reviews of the data, and as more patient data become available; the risk that unforeseen adverse reactions or side effects may occur in the course of developing and testing product candidates such as cirmtuzumab and the Company's other product candidates; the Company's limited operating history and that fact that it has incurred significant losses, and expects to continue to incur significant losses for the foreseeable future; risks related to the inability of the Company to obtain sufficient additional capital to continue to advance the development of cirmtuzumab and its other product candidates; and other risks described in the Company's prior reports as well as in public periodic filings with the U.S. Securities & Exchange Commission. All forward-looking statements in this report are current only as of the date hereof and, except as required by applicable law, the Company undertakes no obligation to revise or update any forward-looking statement, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise. All forward-looking statements are qualified in their entirety by this cautionary statement. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Corporate Slide Presentation as of October 3, 2019

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.

Oncternal Therapeutics, Inc.

Date: October 3, 2019

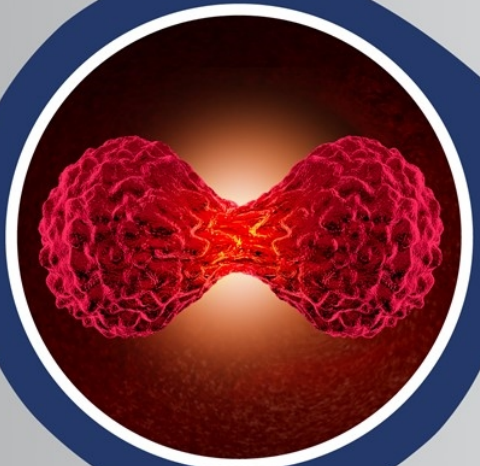
By: /s/ James B. Breitmeyer

Name: James B. Breitmeyer, M.D., Ph.D.

Title: President and Chief Executive Officer

Exhibit 99.1

ONCTERNAL therapeutics™



TARGETING CANCER

New Science. New Cancer Therapies. New Hope.

Corporate Presentation, October 2019

FORWARD LOOKING STATEMENTS

This presentation includes forward-looking statements (including within the meaning of §21E of the U.S. Securities Exchange Act of 1934, as amended, and § 27A of the U.S. Securities Act of 1933, as amended). Forward looking statements, which generally include statements regarding goals, plans, intentions and expectations, are based upon current beliefs and assumptions of Oncternal Therapeutics, Inc. ("Oncternal," or the "Company") and are not guarantees of future performance. Statements that are not historical facts are forward-looking statements, and include statements regarding the expected timing for achieving key milestones, including completing and announcing results of clinical trials of the Company's product candidates, and the anticipated market potential, duration of patent coverage, and ability to obtain and maintain favorable regulatory designations for the Company's product candidates and preclinical programs.

All forward looking statements are subject to risks and uncertainties, which include, but are not limited to: risks related to the failure to realize any value from product candidates and preclinical programs being developed and anticipated to be developed in light of inherent risks and difficulties involved in successfully bringing product candidates to market; uncertainties associated with the clinical development and process for obtaining regulatory approval of Oncternal's product candidates, including potential delays in the commencement, enrollment and completion of clinical trials; the risk that results seen in a case study of one patient may not predict the results seen in other patients in the clinical trial, including the possibility that there may not be additional complete or sustained responses from any other patients in the study; the risk that interim results of a clinical trial do not necessarily predict final results and that one or more of the clinical outcomes may materially change as patient enrollment continues, following more comprehensive reviews of the data, as follow-up on the outcome of any particular patient continues, and as more patient data become available; the risk that unforeseen adverse reactions or side effects may occur in the course of developing and testing Oncternal's product candidates; potential changes in the regulatory environment for developing and obtaining approval of product candidates and preclinical programs, which may result in delays or termination of development of such product candidates or preclinical programs, or unexpected costs in obtaining regulatory approvals; and the risk that Oncternal may be unable to obtain sufficient additional capital to continue to advance the development of its product candidates and preclinical programs.

Except as required by applicable law, Oncternal undertakes no obligation to revise or update any forward-looking statement, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise. All forward-looking statements in this presentation are current only as of the date on which the statements were made. Additional factors that could cause actual results to differ materially from those expressed in the forward-looking statements are discussed in reports filed with the SEC by Oncternal, including its most recent Annual Report on Form 10-K, Form 10-K/A, Quarterly Report on Form 10-Q, and Current Reports on Form 8-K filed with the SEC. This caution is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Cirmtuzumab, TK216 and Oncternal's CAR-T targeting ROR-1 are investigational product candidates or preclinical programs that have not been approved by the U.S. Food and Drug Administration for any indication.

Breakthrough Oncology Opportunities, Cutting Edge Science

ONCTERNAL therapeutics™

CIRMTUZUMAB - ROR1 mAb IN RANDOMIZED PHASE 2

- Encouraging early efficacy and safety with ibrutinib in CLL
- Phase 1b in HER2 negative, metastatic breast cancer
- Potential in multiple ROR1 expressing tumors (TNBC, NSCLC)

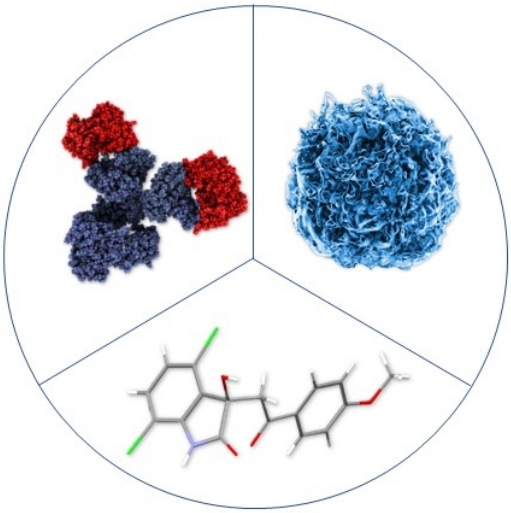
TK216 - TARGETED ETS INHIBITOR IN PHASE 1

- Objective response in patient with metastatic Ewing sarcoma
- Potential for targeting multiple ETS-driven tumors (AML, prostate)

MULTIPLE CLINICAL DATA CATALYSTS

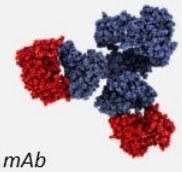
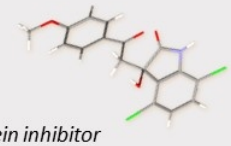
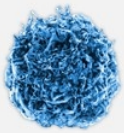
- Clinical data updates expected over next three quarters
- CAR-T targeting ROR1 expected to reach clinic in 2020

EXPERIENCED MANAGEMENT AND FOUNDERS



Robust Pipeline, Multiple Product Candidates, Multiple Indications

ONCTERNAL therapeutics™

Product Candidate	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Approach
Cirmtuzumab	Chronic Lymphocytic Leukemia (CLL)					 *ROR1 mAb*
	Mantle Cell Lymphoma (MCL)					
	Breast Cancer					
TK216	Ewing Sarcoma					 *ETS oncoprotein inhibitor*
	Acute Myeloid Lymphoma (AML)					
	Prostate Cancer					
ROR1 CAR-T	Heme Cancers					 *CAR-T targeting ROR1*
	Solid Tumors					

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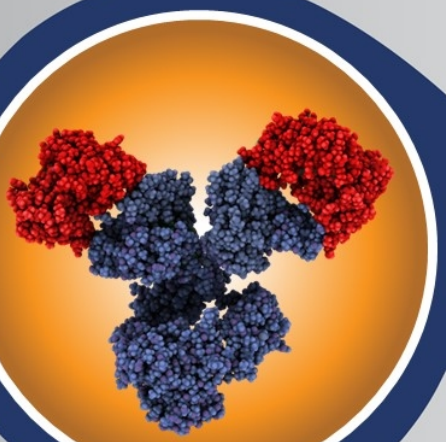


CIRMTUZUMAB

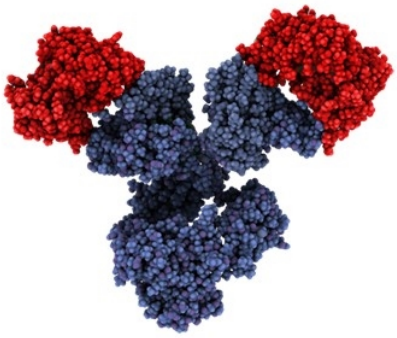
ROR1 monoclonal antibody

Cirmtuzumab: ROR1 Monoclonal Antibody

ONCTERNAL therapeutics™

DEVELOPMENT STATUS

- Enrolling randomized Phase 2 in CLL in combination with ibrutinib
  - Phase 1 interim ORR 91.7% with CRs and encouraging safety profile
- Phase 1b trial ongoing in HER2^{neg} breast cancer
- CRs in ongoing Phase 1 in mantle cell lymphoma with ibrutinib



MECHANISM OF ACTION

- High-affinity humanized ROR1 monoclonal antibody
- Inhibits Wnt5a signaling
  - Decreased proliferation, invasion, metastasis, stemness

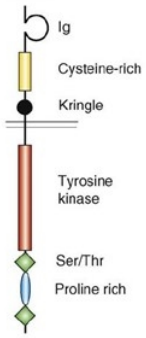
OPPORTUNITY

- Potential in multiple hematologic and solid cancers
- Supported by ~$16M non-dilutive CIRM grant
- Patent coverage through 2033

ROR1 = **R**eceptor tyrosine kinase-like **O**rphan **R**eceptor **1**
CIRM = California Institute for Regenerative Medicine

ROR1 Overexpressed in Multiple Liquid and Solid Tumors

Receptor Tyrosine Kinase-like Orphan Receptor 1

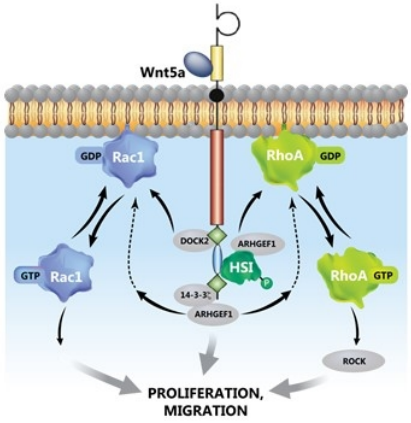


- ROR1, essential for fetal CNS development, is suppressed in adult life until reactivated as a survival factor by many different cancers
- Blocking ROR1 can overcome tumor resistance to therapy (e.g., EGFR inhibitors in lung adenocarcinoma models)

ROR1 Expression on Tumors

MCL	>95%
CLL	95%
Uterus	96%
Lymphoma	90%
Prostate	90%
Skin	89%
Pancreatic	83%
Adrenal	83%
Lung	77%
Breast	75%
Testicular	73%
Colon	57%
Ovarian	54%
Bladder	43%

ROR1 Signaling Pathway

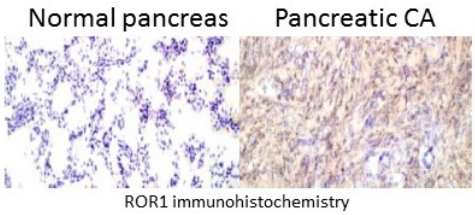


In hematological cancers ROR1 is activated by Wnt5a, leading to increased proliferation, invasion and is associated with shorter patient survival

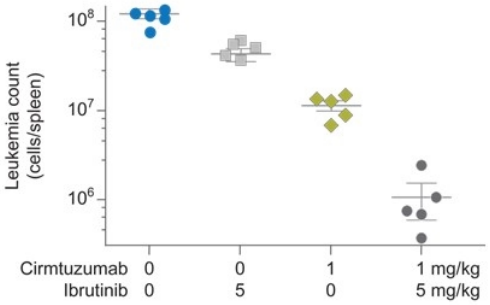
Zhang & Kipps 2012, AJP 181:1903
Yu, J. et al J Clin Invest. 2015
Wang OncLett 2019

Cirmtuzumab – Anti-tumor ROR1 Antibody

- High affinity humanized monoclonal antibody
  - Biophysical properties support monthly dosing
- Binds important inhibitory epitope
  - Issued patent claim covering epitope
- No binding to normal adult tissues in GLP tissue cross-reactivity studies
- Biologically active and well tolerated in completed single agent Phase 1 study
- Synergistic with ibrutinib in preclinical studies
  - ROR1-Wnt5a pathway not inhibited by ibrutinib
  - Rationale for lead indication and ongoing clinical trial
- Synergistic with paclitaxel in breast cancer preclinical studies



ROR1 immunohistochemistry



Choi 2015 ClinLyLeuk
Choi 2018 Cell Stem Cell
Yu 2017 Leukemia
Zhang 2019 PNAS

Phase 1/2 Study of Cirmtuzumab and Ibrutinib in Patients with CLL and MCL

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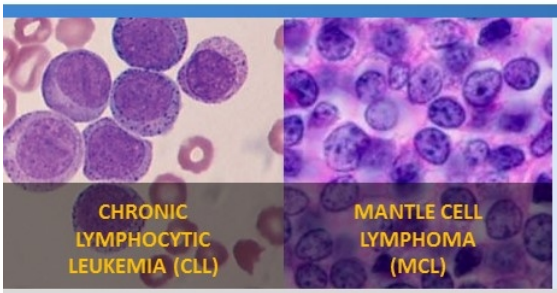


UNMET MEDICAL NEED:

While ibrutinib alone is active, there is a low Complete Response rate in previously treated patients with CLL & MCL:

- CLL CR <10%[1]
- MCL CR ~25%[2]

1 Byrd JC (2014) NEJM, Byrd JC (2013) NEJM, Farooqui MZ (2015) Lancet Oncology, O'Brien S (2016) Lancet Oncol
2 O'Brien (2018) JAMA Oncol

VALUE PROPOSITION:
Improve complete response rate and durability with minimal added toxicity

STUDY DESIGN

PART 1 (in CLL & MCL)	PART 2 (in CLL & MCL)	PART 3 (in CLL)
DOSE-FINDING COHORT • Cirmtuzumab at 2/4/8 & 16 mg/kg and 300 & 600 mg per dose • One month cirmtuzumab for biomarkers, then combination treatment	**DOSE CONFIRMING COHORT** • Confirm Recommended Dosing Regimen (RDR) of cirmtuzumab + ibrutinib	**RANDOMIZED EFFICACY** • Cirmtuzumab + ibrutinib vs ibrutinib • Primary endpoint: Complete Response rate • Part 3 open and enrolling CLL

CIRLL Study:

- **C**irmtuzumab and **I**brutinib targeting **R**OR1 for **L**eukemia and **L**ymphoma
- Data will determine whether to seek regulatory approval through accelerated approval pathway

Cirmtuzumab + Ibrutinib - Planned CLL Interim Analysis of Phase 1 Study

ONCTERNAL therapeutics™

- Adverse events typical for ibrutinib alone
  - No dose limiting toxicities and no discontinuations due to cirmtuzumab
- Objective response rate of 91.7% for first 12 CLL patients treated in dose finding cohort[1]
  - 1 confirmed complete response
  - 2 clinical complete responses
  - Recommended dosing regimen (RDR) selected
    - 600 mg cirmtuzumab monthly + 420 mg ibrutinib daily
- Objective response rate of 100% at 12 weeks for first 9 CLL patients with evaluable disease treated with the RDR in dose confirming cohort[2]
- No progressive disease observed

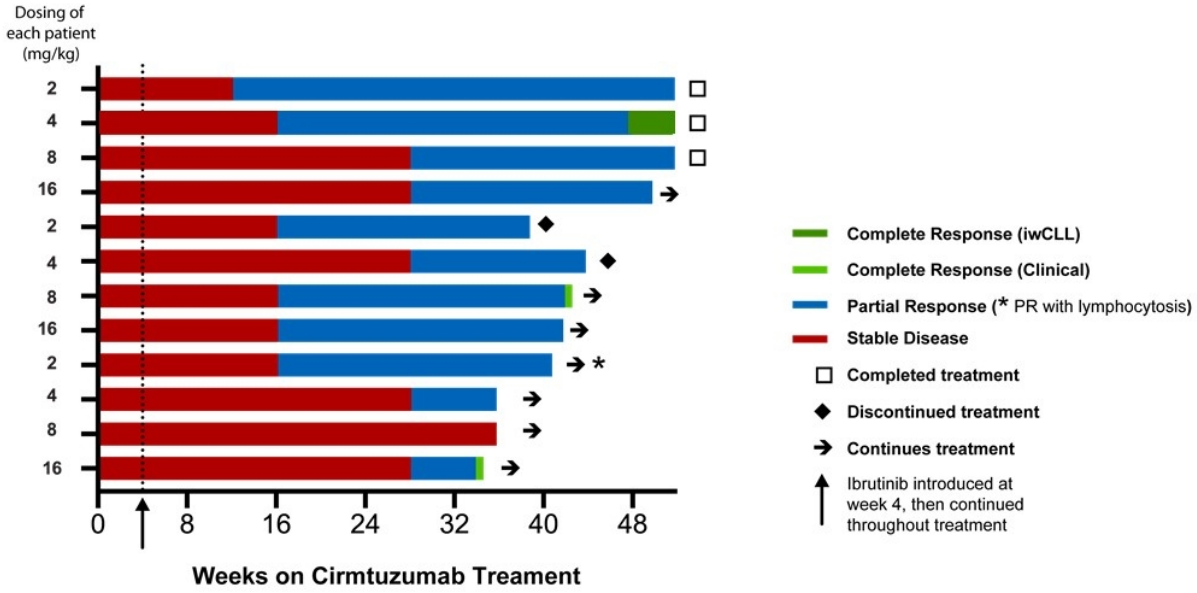
1 - Choi, 2019 ASCO
2 - Company data

ASCO 2019 presentation of interim data

- CIRLL study
- 12 patients with CLL evaluable for efficacy
  - ages 57-86
  - median 2 prior therapies
- Cirmtuzumab dosing 2-16 mg/kg for 32-52 weeks
- Fixed dosing regimens of 300 mg & 600 mg per dose mAb tested
- RDR selected based on PK, PD and clinical data

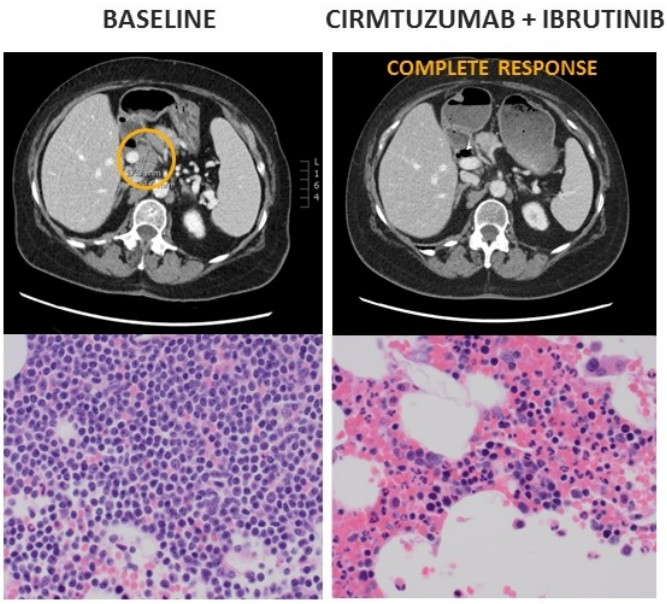
CIRLL Clinical Trial – Interim Data (Part 1) : Overall Response Rate of 91.7% in CLL Dose Finding Cohort

Responses in the CLL cohort of 12 evaluable patients based on investigator assessments



Choi, 2019 ASCO

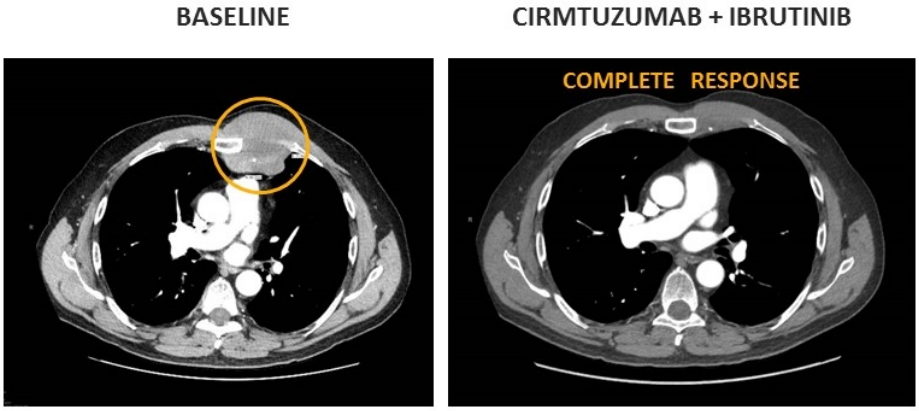
CIRLL Clinical Trial – Interim Data (Part 1) : Confirmed Complete Response in Patient with Relapsed CLL



- CIRLL Study (Part 1)
- Patient characteristics
  - Negative prognostic feature: Del 11q
  - Prior treatment chlorambucil, obinutuzumab
- Complete Response details
  - Steady decrease in lymph node size to within normal limits by 9 months cirmtuzumab + ibrutinib
  - Steady decrease in absolute lymphocyte count to within normal limits by 10 months cirmtuzumab + ibrutinib
  - Bone marrow biopsy with no visible CLL by 10 months cirmtuzumab + ibrutinib

Choi, 2019 ASCO

CIRLL Clinical Trial – Interim Data (Part 1) : Confirmed Complete Response in Patient with Relapsed MCL



- CIRLL Study (Part 1)
- Patient characteristics
  - Mantle cell lymphoma relapsed after high dose chemotherapy and stem cell transplant
  - 9x7 cm mediastinal/ chest wall lesion
- Complete Response details
  - Rapid clinical response with confirmed CR after 3 months cirmtuzumab + ibrutinib
  - CR confirmed and durable at 6, 9 and 12+ months cirmtuzumab + ibrutinib

Choi, 2019 ASCO

Opportunity in Multiple ROR1 Expressing Solid Tumors: Rationale for Cirmtuzumab Treatment of Breast Cancer

High Unmet Medical Need

- 270,000 new breast cancer cases per year in the US
- 42,000 deaths per year
- Her2^{neg} and triple negative variants harder to treat

Scientific Rationale

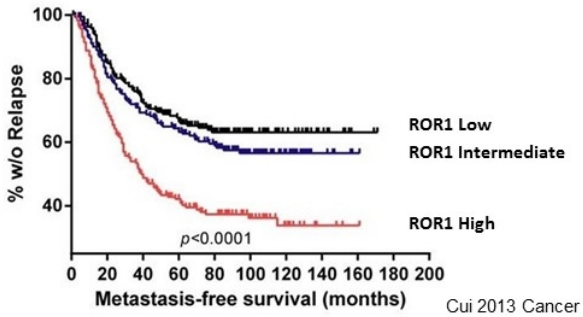
- Patients with ROR1+ breast cancer have a worse prognosis

Strong Preclinical Data

- Cirmtuzumab + paclitaxel synergistic in preclinical models

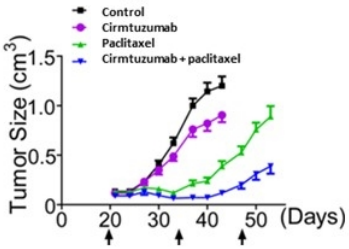
ONCT Corporate Presentation 20191003

ROR1 Expression is Associated with Higher Risk of Breast Cancer Relapse

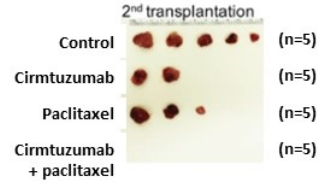


Cui 2013 Cancer Res

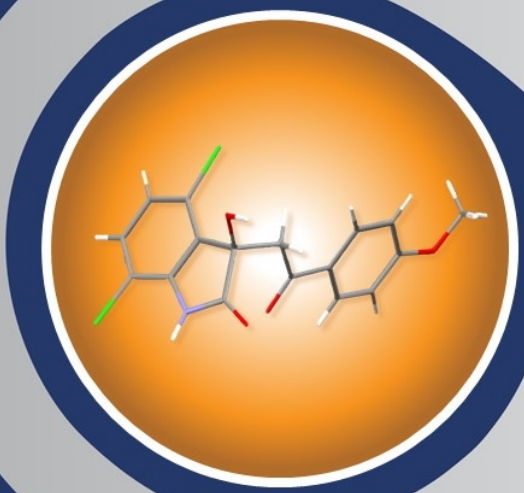
Cirmtuzumab Synergistic with Paclitaxel in TNBC PDX Xenograft Model



No Tumor Take After Cirmtuzumab + Paclitaxel Treatment



Zhang 2016 CancerRes



TK216

Targeted ETS Oncoprotein Inhibitor

TK216: Targeted ETS Oncoprotein Inhibitor

ONCTERNAL therapeutics™

DEVELOPMENT STATUS

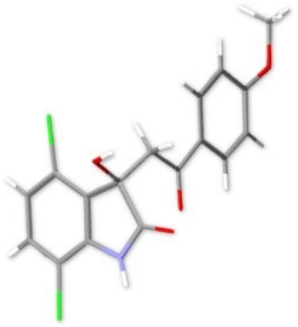
- Moving toward expansion cohort, Phase 1 clinical trial in Ewing sarcoma, rare pediatric bone tumor
- Fast Track Status and Orphan Drug designation with FDA

MECHANISM OF ACTION

- Novel small molecule inhibitor of ETS family oncoproteins
- Epigenetic/transcriptome effect

OPPORTUNITY

- Fast to market potential in Ewing sarcoma
  - Potentially Pediatric Voucher eligible
- Significant market potential in AML and prostate cancer
- Patent coverage through 2037



ETS = **E**26 **T**ransformation-**S**pecific oncogene family

The ETS Family: Neglected Oncogenes

ETS (E26 Transformation-Specific Oncogene) family proteins

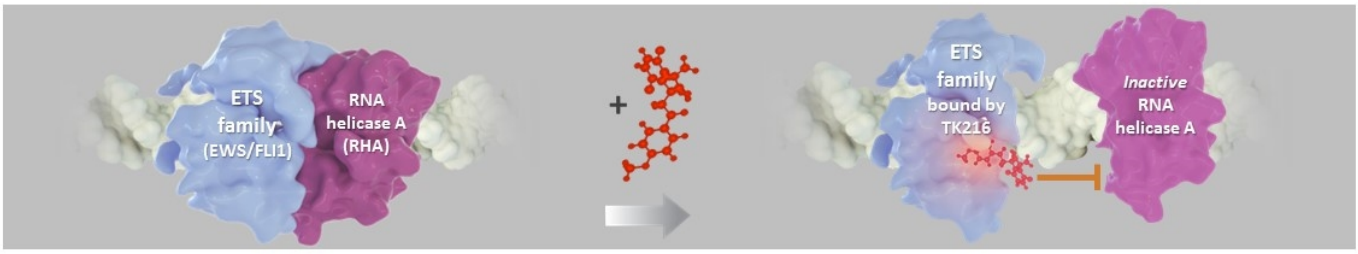
- Critical transcription factors for embryonic development
- ETS oncogenes regulate many target genes implicated in cancer development and progression
- Dysregulation can occur through overexpression, gene fusion and modulation
- Abnormal, dysregulated ETS function can lead to increased proliferation, angiogenesis, invasion and metastasis

ETS Overexpression or Fusion Proteins Incorporating ETS Family Member in Multiple Tumors:

Ewing sarcoma*	98%
Prostate cancer*	55%
Diffuse Large B Cell Lymphoma	52%
Head & Neck cancer	33%
Acute Myeloid Leukemia*	30%
Breast cancer*	25%
Melanoma	25%
Ovarian cancer	23%
Lung cancer	21%
Glioblastoma multiforme	15%

Overexpression of FLI1, ERG, SPIB, ETV1, ETV4, ETV5, ETV6, ETS1, or ETS2
cBioportal for Cancer Genomics, The Cancer Genome Atlas (TCGA), RNA seq data
** Fusion protein identified*

TK216 Inhibits Interaction of ETS Fusion Protein EWS/FLI1 with RNA Helicase A



Active heterodimer

In Ewing sarcoma, a key heterodimer forms the core of a transcriptome complex causing

- Activated oncogenes
- Inhibited tumor suppressors
- Abnormal RNA transcription
- Abnormal RNA splicing

Inactive monomers

TK216 was designed to disrupt the core heterodimer, resulting in

- Decreased oncogene expression
- Increased tumor suppressor function
- Improved transcription and splicing
- Apoptotic cell death

Erkizan 2009 Nature Medicine
Hong 2013 Oncotarget

TK216 for Ewing Sarcoma

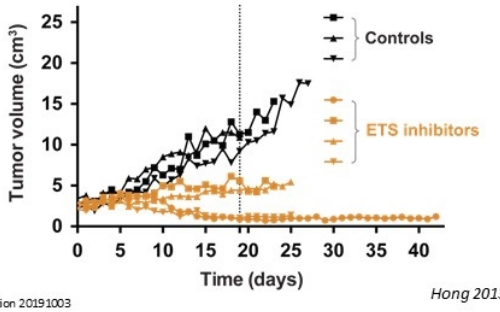
HIGH UNMET NEED:

- Second most common pediatric bone tumor
- No standard second line treatment
- 10-15% 5-year survival in recurrent disease
- 30% 5-year survival metastatic disease
- Top ten NCI Moonshot Program target

VALUE PROPOSITION:

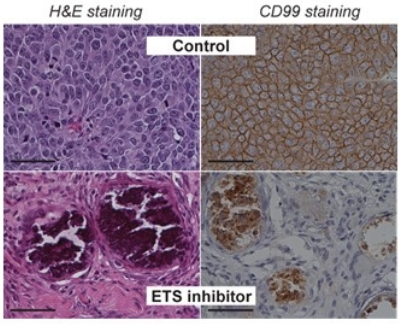
- Demonstrate antitumor activity in relapsed, refractory Ewing sarcoma with acceptable toxicity profile
- Fast Track and Orphan designations
- Potentially Pediatric Voucher eligible

Complete and partial responses of human Ewing sarcoma tumors in rat xenograft model



Hong 2013 Oncotarget

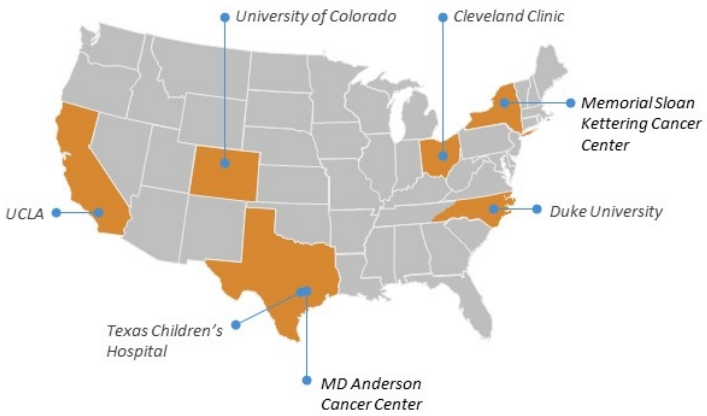
Responding CD99+ human Ewing sarcoma tumors undergo apoptotic cell death in rat xenograft model



3+3 Phase 1 clinical trial for patients with relapsed/refractory Ewing sarcoma

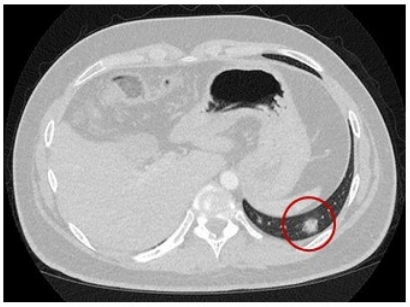
- Encouraging safety profile with no off-target toxicities observed (primarily manageable myelosuppression)
- Deep clinical response in heavily pretreated patient reported
- Additional results to be presented at 2019 CTOS conference

Top Ewing sarcoma centers

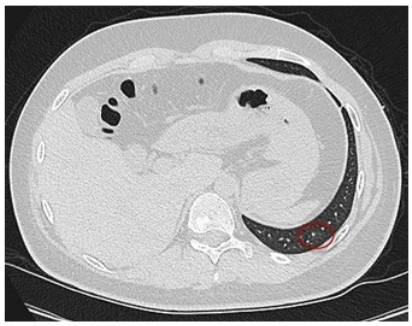


TK216: Novel, First-in-Class Small Molecule Inhibitor of ETS-Family Oncoproteins Clinically Active Against Ewing Sarcoma

Baseline: Lung Nodule Feb 2019



After 2 cycles TK216: Resolved

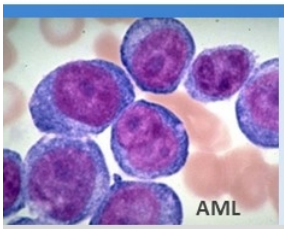


Clinical Case Study:

- 19 year with progressive metastatic lung disease despite prior treatment with surgery, radiation, multiple chemotherapies, bevacizumab and pazopanib
- Multiple lung nodules resolved after 2 cycles TK216 alone, which was sustained at 6 months of treatment with the patient receiving planned TK216 plus vincristine after the 2nd cycle
- Final remaining residual tumor (<1cm, non-target lesion) was later surgically removed, leading to a surgical CR
- Treatment has been well-tolerated in this patient

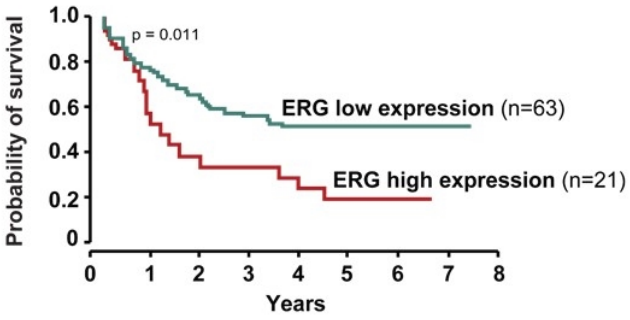
Meyers, 2019 COG

TK216 Has Potential for Patients with AML

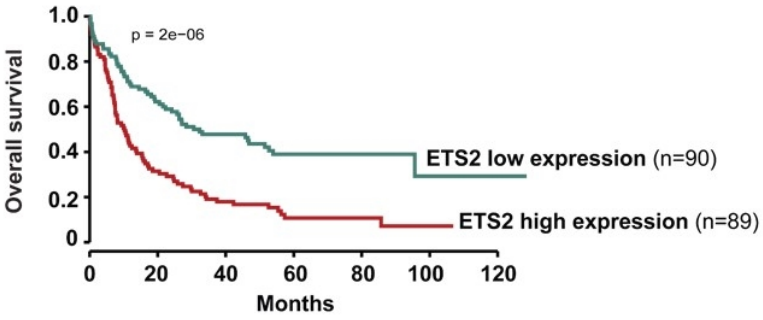


SCIENTIFIC RATIONALE:

- ETS family overexpressed or fusion proteins in ~30% of AML cases[1]
- Multiple AML cell lines sensitive to killing by TK216, sensitivity proportional to ETS expression
- 21,000 new cases of AML per year with 25% 5-year survival



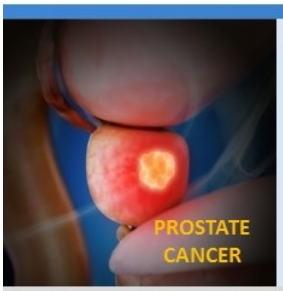
ERG overexpression is correlated with poor AML survial[2]



ETS2 overexpression is correlated with poor AML survial[3]

1 De Braekeleer 2012 LeukRes 36:945-61
2 Marcucci 2005 JCOncol 23:9234
3 Fu 2017 JTranslMed 15:159

TK216 Has Potential for Patients with Prostate Cancer

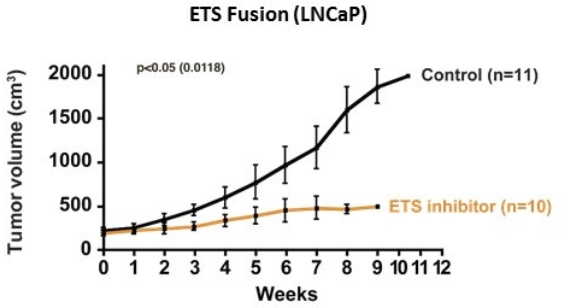


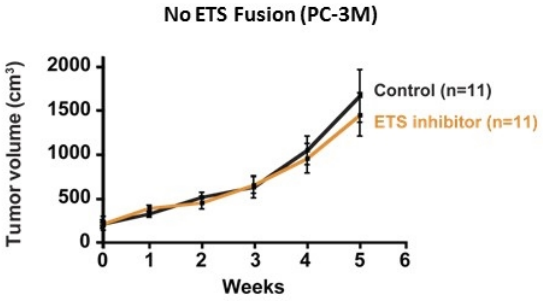
SCIENTIFIC RATIONALE:

- 55% of men with advanced prostate cancer carry the ETS family fusion protein TMPRSS2-ERG, related to androgen resistance

HIGH UNMET NEED:

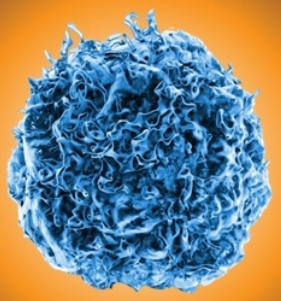
- Incidence of metastatic prostate cancer increasing
- 32,000 deaths per year
- New treatments needed after failure of androgen antagonism and prior to chemotherapy





Prostate cancer sensitivity associated with an ETS-family fusion protein in human prostate cancer xenograft models

Rahim 2014, PloS one: 9(12):e114260.



CAR-T Program

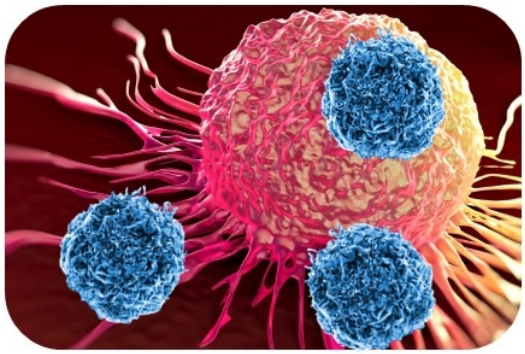
Targeting ROR1

ROR1 CAR-T: Overview

ONCTERNAL therapeutics™

DEVELOPMENT STATUS

- Preclinical data in hematologic and solid tumor models
- Utilizing cirmtuzumab scFv as targeting component
- Ready for process development and scale-up
- UCSD collaboration with non-dilutive financing from California Institute for Regenerative Medicine (CIRM)
- Planned Shanghai Pharma collaboration for manufacturing and clinical development



OPPORTUNITY

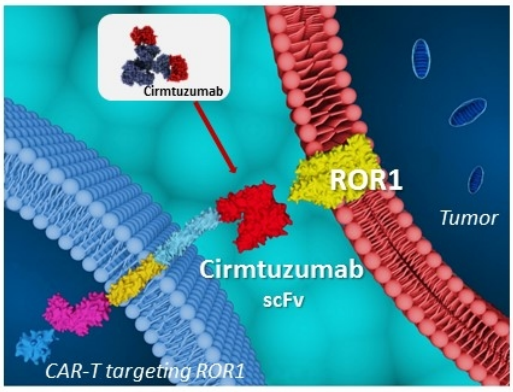
- Selective targeting strategy applicable to multiple tumors with ROR1 expression
- Target initial human proof-of-concept in hematological cancers, then expansion into solid tumors

CAR-T Targeting ROR1 Designed to Avoid Common CAR-T Challenges

ONCTERNAL therapeutics™

Emerging CAR-T Issues

- Increasing number of patient relapses following CAR-T therapy, frequently due to mutations or loss of the target antigen tumor (e.g. CD19), evading CAR-T efficacy
- Persistent CAR-T safety issues including deaths potentially related to activation by normal cells expressing the target antigen



Advantages to Targeting ROR1

Potential for fewer antigen negative relapses

- ROR1 expression associated with aggressive tumor phenotype
- If a ROR1 mutation or antigen loss should occur, surviving cancer cells may be weakened or less aggressive

Potential safety advantages

- Cirmtuzumab does not bind to normal human tissues in GLP tissue cross-reactivity studies

BUSINESS & FINANCIALS

Robust Pipeline: Upcoming Milestones

ONCTERNAL therapeutics™

Product Candidate	Indication	Preclinical	Phase 1	Phase 2	Next Anticipated Milestone
Cirmtuzumab	Chronic Lymphocytic Leukemia (CLL)				Report Phase 1 data 4Q 2019
	Mantle Cell Lymphoma (MCL)				Report Phase 1 data 4Q 2019
	Breast Cancer				Report Phase 1 data 4Q 2019
TK216	Ewing Sarcoma				Report Phase 1 data 4Q 2019
	Acute Myeloid Lymphoma (AML)				Initiate study 2H 2020
	Prostate Cancer				Initiate IND enabling studies 2H 2020
ROR1 CAR-T	Heme Cancers				Select candidate 1H 2020
	Solid Tumors				Select candidate 2H 2020

Financial Information

Ticker	ONCT (Nasdaq)
Cash & Cash Equivalents @ 6-30-19 Cash Runway through 2Q 2020	$28.5M
Debt	$0
Capitalization:	
Common Shares Outstanding	15.4M
Options	2.5M
Warrants	0.8M
Fully Diluted	18.7M
Non-Dilutive Support	
• CIRM Grant for CIRLL Study	~$16M
• Ibrutinib CTM for CIRLL Study	Expanded Supply Agreement

Highly Experienced Oncternal Team

James Breitmeyer, MD, PhD
CEO, Founder, Director

Richard Vincent
CFO

Igor Bilinsky
CBO

Frank Hsu, MD, PhD
CMO

Gunnar Kaufmann, PhD
CSO

Raj Krishnan PhD
SVP, Manufacturing

David Hale
Co-founder, Board Chairman

Michael Carter, MD,Ch.B., F.R.C.P.
Director

Daniel Kisner, MD
Director

Robert Wills, PhD
Director

Bill LaRue
Director

Charles Theuer
Director

Breakthrough Oncology Opportunities, Cutting Edge Science

ONCTERNAL therapeutics™

CIRMTUZUMAB - ROR1 mAb IN RANDOMIZED PHASE 2

- Encouraging early efficacy and safety with ibrutinib in CLL
- Phase 1b in HER2 negative, metastatic breast cancer
- Potential in multiple ROR1 expressing tumors (TNBC, NSCLC)

TK216 - TARGETED ETS INHIBITOR IN PHASE 1

- Objective response in patient with metastatic Ewing sarcoma
- Potential for targeting multiple ETS-driven tumors (AML, prostate)

MULTIPLE CLINICAL DATA CATALYSTS

- Clinical data updates expected over next three quarters
- CAR-T targeting ROR1 expected to reach clinic in 2020

EXPERIENCED MANAGEMENT AND FOUNDERS