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) **May 19, 2021**

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, CA 92130
(858) 434-1113
(Address and zip code; telephone number, including area code, of registrant's principal executive offices)

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 8.01. Other Events.

On May 19, 2021, Oncternal Therapeutics, Inc. ("Oncternal") disclosed updated interim clinical data from two ongoing clinical trials: (i) the Phase 1/2 CIRLL (Cirmtuzumab and Ibrutinib targeting ROR1 for Leukemia and Lymphoma) clinical trial evaluating cirmtuzumab, an investigational anti-ROR1 monoclonal antibody, in combination with ibrutinib in patients with mantle cell lymphoma ("MCL") and chronic lymphocytic leukemia ("CLL"); and (ii) the Phase 1/2 clinical trial evaluating TK216, an investigational, potentially first-in-class, targeted small-molecule inhibitor of the E26 transformation-specific (ETS) family of oncoproteins, as a single agent and in combination with vincristine in patients with relapsed or refractory Ewing sarcoma. The updated interim data from these clinical trials will be presented at the American Society of Clinical Oncology (ASCO) 2021 Annual Meeting.

Phase 1/2 CIRLL Clinical Trial

As of the April 16, 2021 data cut-off date, 18 of the 26 patients with relapsed/refractory MCL enrolled in the dose-finding and dose-expansion cohorts of the CIRLL Phase 1/2 clinical trial were evaluable for efficacy. These patients had high-risk factors and were heavily pre-treated at study entry, 70% with a high Ki-67 proliferative index (≥30%) ("High Ki-67 Patients"), 15% with intermediate/high simplified MCL international (sMIPI) prognostic score, and a median of two systemic prior therapies (range 1-5). The objective response rate ("ORR") was 83% (15 of 18 evaluable patients), which included recently enrolled patients with relatively short follow-up time, compared to an 87% ORR (13 of 15 evaluable patients) previously presented at the American Society of Hematology 2020 Virtual Annual Meeting in December 2020 (the "2020 ASH Meeting"). Eight of 18 (44%) evaluable patients achieved a partial response ("PR") and two patients (11%) had stable disease ("SD"), for a total clinical best benefit rate (complete response ("CR"), PR, SD) of 94%. The CR rate was 39% (seven of 18 evaluable patients). CRs have remained durable, for eight to more than 30 months as of the data cutoff date. The clinical benefit rate and median duration of response were favorable in patients with high-risk features associated with difficult to treat disease. High Ki-67 Patients had a clinical benefit rate of 89% and a median duration of response of 14 months (95% confidence interval 8.66 months - not estimable). Patients that had received more than one systemic prior therapy had a benefit rate of 100%, with the median duration of response not reached. Four patients had received prior treatment with ibrutinib and all four achieved clinical responses, with two CRs and two PRs. Median progression-free survival ("PFS") and overall survival ("OS") have not been reached, after a median follow-up of 18.9 months, regardless of number of prior systemic therapies, including three recently enrolled evaluable patients with a shorter follow-up time. Further, median PFS has not been reached for patients achieving a CR. Historical data published for single agent ibrutinib for 370 patients with relapsed/refractory MCL from three clinical trials showed an ORR of 66%, CR rate of 20% and median PFS of 12.8 months (Rule et al., 2017, British Journal of Haematology).

As of the April 16, 2021 data cut-off date, all 34 patients with CLL enrolled in the dose-finding and dose-confirming cohorts of this clinical trial were evaluable for efficacy. Patients had high-risk factors, and most were heavily pre-treated at study entry, with 85% having RAI staging II or higher, 65% with lymphocytosis, and a median of two systemic prior therapies (range 1-15). The ORR was 94% (32 of 34 evaluable patients), compared to a 91% ORR (five of 34 evaluable patients) presented at the 2020 ASH Meeting. The CR rate was 15% (five of 34 evaluable patients). Three CRs were unconfirmed. Twenty-seven patients (79%) achieved a PR and two patients (6%) had SD, for a total clinical benefit rate (CR, PR, SD) of 100%. Median PFS and OS have not been reached, after a median follow up of 22.1 months, in this high risk and mostly heavily pre-treated CLL population.

The combination of cirmtuzumab plus ibrutinib has been well tolerated, with treatment emergent adverse events and hematologic abnormalities consistent with, or slightly lower than those reported for ibrutinib alone. There have been no dose-limiting toxicities and no serious adverse events attributed to cirmtuzumab alone.

Phase 1/2 TK216 Clinical Trial

As of the April 16, 2021 data cut-off date, a total of 68 patients with relapsed/refractory Ewing sarcoma have been treated in the Phase 1/2 clinical trial evaluating TK216, 29 patients in the dose-finding cohorts, and 39 patients treated at the recommended Phase 2 dose ("RP2D") of TK216 (200 mg/m2/day for 14 days) with vincristine 0.75-1.5 mg/m^2 administered on the first day of each cycle. All patients treated at the RP2D had metastases at study entry and were heavily pretreated, with a median number of three prior systemic therapies (range 1-8). Two patients treated at the RP2D have achieved marked and sustained regression in target lesions after as little as two cycles of therapy. The first patient experienced 100% regression of target lesions following two cycles of TK216 alone. After six cycles of treatment that included concomitant vincristine starting in the third cycle, a single 7 mm non-target lung lesion was resected, resulting in a surgical complete remission. The patient remained on study with no evidence of disease after more than 24 months. The second patient attained 90% resolution of target lung lesions following two cycles of TK216 plus vincristine, then achieved a CR after six cycles of therapy. This patient also remained on study disease-free after more than 14 months, treated with TK216 alone following cycle 5. At the RP2D, the ORR

was 9.7% (3 of 31 evaluable patients), including one patient with an unconfirmed PR. Eleven patients (35.5%) had SD, for a disease control rate (CR, PR, SD) of 45.2% (14 of 31 evaluable patients). The median PFS for patients treated at the RP2D was 1.9 months (95% confidence interval 1.5 - 3.0 months), with an encouraging tail of extended PFS for some patients. Updated safety data showed that TK216 at the RP2D has been generally well tolerated, with frequent side effects including myelosuppression, fatigue, and alopecia. No unexpected off-target toxicities or deaths related to TK216 toxicity have been observed.

Item 9.01. Exhibits.

(d) Exhibits.

Exhibit No.	Description
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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: May 20, 2021

By: /s/ James B. Breitmeyer

Name: James B. Breitmeyer

Title: Chief Executive Officer