# 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) **December 13, 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 December 13, 2021, Oncternal Therapeutics, Inc. ("Oncternal") disclosed updated interim clinical data from its Phase 1/2 CIRLL (Cirmtuzumab and Ibrutinib targeting ROR1 for Leukemia and Lymphoma) clinical trial evaluating zilovertamab (formerly cirmtuzumab), an investigational anti-ROR1 monoclonal antibody, in combination with ibrutinib in patients with mantle cell lymphoma ("MCL") and chronic lymphocytic leukemia ("CLL"). The updated interim data will be presented at the American Society of Hematology (ASH) 2021 Annual Meeting.

As of the October 1, 2021 data cut-off date, 26 of the 31 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, 52% with a high Ki-67 proliferative index (≥30%) ("High Ki-67 Patients") and 45% with intermediate/high simplified MCL international (sMIPI) prognostic score. The objective response rate ("ORR") was 81% (21 of 26 evaluable patients), including recently enrolled patients with relatively short follow-up time, compared to the 83% ORR (15 of 18 evaluable patients) previously presented at the American Society of Clinical Oncology (ASCO) 2021 Annual Meeting (the "2021 ASCO Meeting"). Of the 26 evaluable patients: (i) nine (35%) achieved a complete response ("CR"); (ii) 12 (46%) achieved a partial response ("PR"); and (iii) three (12%) had stable disease ("SD"), for a total clinical benefit rate (CR, PR, SD) of 92% as of the data cutoff date. CRs have remained durable for up to 32 months. The ORR and median duration of response were favorable in patients with high-risk features associated with difficult to treat disease. High Ki-67 Patients had an ORR of 85% and a median duration of response of 14 months (95% confidence interval 13.7 months - not evaluable). Patients that had received more than one systemic prior therapy had an ORR of 82%, with the median duration of response not reached for patients receiving two prior lines of systemic therapy and 34 months (95% confidence interval 13.7 months to 34.1 months) for patients receiving three or more prior lines of systemic therapy. Five patients had received prior treatment with ibrutinib, with two achieving CRs and two achieving PRs. One patient that received prior treatment with ibrutinib had SD. Median progression-free survival ("PFS") was 35.9 months, after a median follow-up of 14.4 months (95% confidence interval 11.4 months to 19.3 months), regardless of the number of prior systemic therapies. Median PFS had 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 October 1, 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 71% having RAI staging II or higher and a median of two systemic prior therapies (range 1-15). The ORR was 91% (31 of 34 evaluable patients), consistent with prior published results. The CR rate was 6% (two of 34 evaluable patients). Twenty-nine patients (85%) achieved a PR and three patients (9%) had SD, for a total clinical benefit rate (CR, PR, SD) of 100%. Median PFS in patients with two or fewer prior therapies had not been reached, and patients with more than two prior therapies had a median PFS of 36.1 months after a median follow-up of 29.0 months (95% confidence interval 27.6 months to 31.6 months) in this high risk and mostly heavily pre-treated CLL population. Based on the Kaplan-Meier curve, landmark PFS of approximately 85% and approximately 65% at 24 and 36 months, respectively, for CLL patients who had previously received two or more prior lines of therapy compared favorably to historical ibrutinib monotherapy of approximately 65% and approximately 50%, respectively (*Byrd* 2019). Landmark PFS was 100% at 36 months for CLL patients with two or more prior lines of therapy, which compares favorably to historical ibrutinib monotherapy of approximately 75% (*Byrd* 2019).

Thirty-one patients with CLL have also been enrolled in the randomized efficacy cohort of the clinical trial, of which 22 were evaluable for efficacy. Data on this cohort is maturing, and median PFS had not been reached as of the October 1, 2021 cut-off date.

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

Oncternal has not conducted head-to-head studies of zilovertamab in combination with ibrutinib compared to ibrutinib monotherapy and data from separate studies may not be directly comparable due to the differences in study protocols, conditions and patient populations. Accordingly, cross-trial comparisons may not be reliable predictors of the relative safety or efficacy of zilovertamab in combination with ibrutinib compared to ibrutinib monotherapy.

**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: December 13, 2021

By: /s/ James B. Breitmeyer

Name: James B. Breitmeyer

Title: Chief Executive Officer