

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 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): July 13, 2023

Caribou Biosciences, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction
of Incorporation)
2929 7th Street, Suite 105
Berkeley, California
(Address of Principal Executive Offices)

001-40631
(Commission File Number)

45-3728228
(IRS Employer
Identification No.)

94710
(Zip Code)

Registrant's Telephone Number, Including Area Code: (510) 982-6030

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:

- 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
Common Stock, \$0.0001 par value per share	CRBU	NASDAQ Global Select Market

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 Matters.

On July 13, 2023, Caribou Biosciences, Inc. (the "Company") announced positive results of the long-term follow-up from the dose escalation portion of the ongoing ANTLER Phase 1 trial evaluating CB-010, an allogeneic anti-CD19 CAR-T cell therapy, in patients with relapsed or refractory B cell non-Hodgkin lymphoma (r/r B-NHL). A summary of the dose escalation clinical results of the ongoing ANTLER Phase 1 is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	ANTLER Trial Results Summary
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Caribou Biosciences, Inc.

Date: July 13, 2023

By: /s/ Rachel E. Haurwitz
Rachel E. Haurwitz
President and Chief Executive Officer



July 13, 2023

ANTLER Phase 1 trial results summary

Transformative genome-edited therapies for patients

Forward-looking statements

All statements in this presentation, other than statements of historical facts, are forward-looking statements, within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements speak only as of the date of this presentation and are subject to a number of known and unknown risks, assumptions, uncertainties, and other factors that may cause the actual results, levels of activity, performance, or achievements of Caribou Biosciences, Inc. (the "Company," "Caribou," "we," or "our") to be materially different from those expressed or implied by any forward-looking statements. The words "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplate," "believe," "estimate," "predict," "potential," or "continue" or the negative of these terms or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. All statements other than statements of historical facts contained in this presentation, including but not limited to any statements regarding the initiation, timing, progress, strategy, plans, objectives, expectations (including as to the results) with respect to our product candidate preclinical studies, clinical trials, and research programs, including our expectations and timing regarding the release of additional clinical data from our ongoing ANTLER phase 1 clinical trial for our CB-010 product candidate; the status, progress, and release of clinical data from our ongoing CaMMouflage phase 1 clinical trial for our CB-011 product candidate; expectations relating to the submission of our IND application for our CB-012 product candidate; our ability to successfully develop our product candidates and to obtain and maintain regulatory approval for our product candidates; the number and type of diseases, indications, or applications we intend to pursue for our product candidates; the beneficial characteristics, safety, efficacy, therapeutic effects, and potential advantages of our product candidates; the expected timing or likelihood of regulatory filings and approval for our product candidates; and the sufficiency and anticipated use of our existing capital resources to fund our future operating expenses and capital expenditure requirements and needs for additional financing are forward-looking statements. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date this presentation is given. This presentation discusses product candidates that are or will be under clinical investigation and that have not yet been approved for marketing by the U.S. Food and Drug Administration. No representation is made as to the safety or effectiveness of these product candidates for the therapeutic uses for which such product candidates are being or will be studied.

As a result of many factors, including risks related to our limited operating history, history of net operating losses, financial position and our ability to raise additional capital as needed to fund our operations and product candidate development; uncertainties related to the initiation, cost, timing, and progress, and results of our current and future research and development programs, preclinical studies, and clinical trials; risks that initial or interim clinical trial data will not ultimately be predictive of the safety and efficacy of our product candidates or that clinical outcomes may differ as more clinical data becomes available; the risk that preclinical study results we observed will not be borne out in human patients; our ability to obtain and maintain regulatory approval for our product candidates; risks that our product candidates, if approved, may not gain market acceptance due to negative public opinion and increased regulatory scrutiny of cell therapies involving genome editing; our ability to meet future regulatory standards with respect to our products; our ability to establish and/or maintain intellectual property rights covering our product candidates and genome-editing technology; risks of third parties asserting that our product candidates infringe their patents; developments related to our competitors and our industry; our reliance on third parties to conduct our clinical trials and manufacture our product candidates; the impact of COVID-19 and other public health crises and geopolitical events on our business and operations; and other risks described in greater detail in our filings with the Securities and Exchange Commission (the "SEC"), including the section titled "Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2022, and other filings we make with the SEC; the events and circumstances reflected in our forward-looking statements may not be achieved or may not occur, and actual results could differ materially from those described in or implied by the forward-looking statements contained in this presentation.

Caution should be exercised when interpreting results from separate trials involving separate product candidates: The results of other companies' CAR-T cell therapies presented in these slides have been derived from publicly available reports of clinical trials run independently of Caribou. The Company has not performed any head-to-head trials comparing any of these other CAR-T cell therapies with CB-010. As such, the results of these other clinical trials may not be comparable to clinical results for CB-010. The design of these other trials vary in material ways from the design of the clinical trials for CB-010, including with respect to patient populations, follow-up times, the clinical trial phase, and subject characteristics. As a result, cross-trial comparisons may have no interpretive value on the Company's existing or future results. For further information and to understand these material differences, you should read the reports for the other companies' clinical trials and the sources included in this presentation.

In light of the foregoing, you are urged not to rely on any forward-looking statement or third-party data in reaching any conclusion or making any investment decision about any securities of the Company. The forward-looking statements in this presentation are made only as of the date hereof. Except to the extent required by law, the Company assumes no obligation and does not intend to update any of these forward-looking statements after the date of this presentation or to conform these statements to actual results or revised expectations. From time to time, the Company may release additional clinical data from its ongoing ANTLER phase 1 clinical trial and its CaMMouflage phase 1 clinical trial. The Company makes no representations regarding such additional clinical data or the timing of its release, or whether any such data will support or contradict the findings of the clinical data reported earlier.

This presentation shall not constitute an offer to sell or the solicitation of an offer to buy any securities.



CB-010 dose escalation data rival approved autologous CAR-T cell therapies

94%

overall response rate (ORR)¹

69%

complete response (CR) rate²

44%

complete response (CR) rate ≥ 6 months³

16

dose escalation patients

1

lymphodepletion regimen evaluated

1

1 dose per patient, 3 dose levels evaluated, all generally well tolerated

¹ 94% ORR measures number of patients (15 of 16) achieving either a CR or partial response (PR) at any time point after treatment with CB-010.

² 69% CR rate measures the number of patients (11 of 16) achieving a CR at any time point after treatment with CB-010.

³ 44% CR rate measures number of patients (7 of 16) with a CR at 6-month or greater time point; includes one patient who converted from PR to CR at 12-month assessment.

^{1,2,3} Certain patients converted from a CR or PR to progressive disease (PD) at various assessment time points.



Patients in ANTLER all had aggressive r/r B-NHL

Patients' baseline and disease characteristics

Characteristics	Total (N=16)
Median age, years (range)	66 (55-82)
Male, n (%)	14 (88)
ECOG performance status, n (%)	
0	6 (38)
1	10 (62)
Time since first diagnosis, years	
Median (range)	2.4 (0.2-16.4)
Non-Hodgkin lymphoma subtype, n (%)	
LBCL	10 (63)
DLBCL	7 (44)
HGBL	2 (13)
PMBCL	1 (6)
Other B-NHL	6 (38)
MCL	3 (19)
FL ¹	2 (13)
MZL	1 (6)
CD19 ⁺ disease, n (%)	16 (100)
Prior systemic therapies, median number (range) ²	2 (1-8)

4 DLBCL: diffuse large B cell lymphoma; FL: follicular lymphoma; HGBL: high-grade B cell lymphoma; MCL: mantle cell lymphoma; MZL: marginal zone lymphoma; PMBCL: primary mediastinal large B cell lymphoma
¹ Aggressively behaving, with POD24 (high risk)
² Patients are CD19 CAR-T naïve



CB-010 has generally well-tolerated safety profile

No DLTs at dose level 2 or dose level 3, no Grade 3+ CRS, no GvHD observed (N=16)

AEs of special interest	ANTLER dose escalation (N=16)		
	CRS	ICANS ¹	Infections ^{2, 3}
Any grade, N (%)	7 (44%)	4 (25%)	7 (44%)
Grade 1	4 (25%)	2 (13%)	2 (13%)
Grade 2	3 (19%)	-	4 (25%)
Grade 3	-	1 (6%)	1 (6%) ³
Grade 4	-	1 (6%)	-
Median time to onset, days (range)	3.5 (1,7)	7.5 (5,10)	27.0 (0, 279)
Median duration, days (range)	3.0 (1,9)	2.0 (1,34)	14.0 (2,63)

AE: adverse event; CRS: cytokine release syndrome; DLT: dose-limiting toxicity; GvHD: graft-versus-host-disease; ICANS: immune effector cell-associated neurotoxicity syndrome; TEAE: treatment-emergent adverse event
¹Four total events, 2 Grade 1; 2 Grade 3+ at dose level 1, both with complete resolution of symptoms with supportive care.
²Infection events reported were on or after CB-010 infusion, with highest grade reported per patient.
³Grade 3 cellulitis (right antecubital) occurred after CB-010 infusion and was unrelated to CB-010 per the investigator.
⁴Kymriah: USPI, NCT02445248, Schuster NEJM 2019, N=111
⁵Yescarta: USPI, NCT02348216, N=101
⁶Breyanzi: USPI, NCT02631044, N=192
⁵As of May 4, 2023 data cutoff date

	CRS Gr 3+	ICANS Gr 3+	Infections Gr 3+
CB-010 ANTLER Phase 1	0%	13%	6%
Kymriah Phase 2 ⁴	23%	15%	41%
Yescarta Phase 1/2 ⁵	13%	31%	29%
Breyanzi Phase 1 ⁶	4%	12%	23%

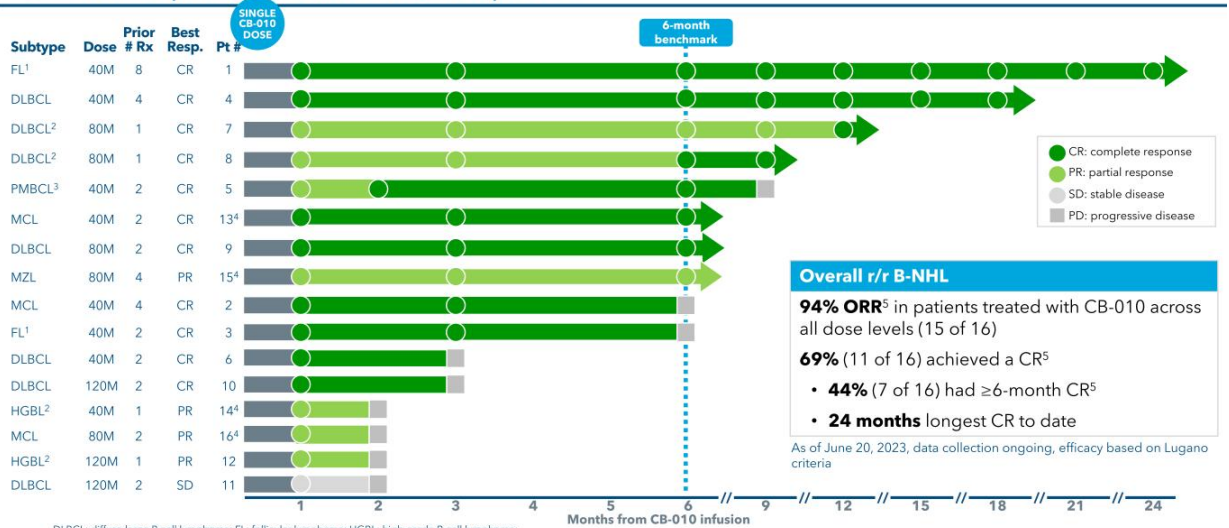
FOR ILLUSTRATIVE PURPOSES ONLY: The results of other CAR-T cell therapies presented on this slide have been derived from publicly available reports of clinical trials run independently of Caribou. The Company has not performed any head-to-head trials comparing any of these other CAR-T cell therapies with CB-010. As such, the results of these other clinical trials may not be comparable to clinical results for CB-010. The design of these other trials vary in material ways from the design of the clinical trials for CB-010, including with respect to patient populations, follow-up times, the clinical trial phase, and subject characteristics. As a result, cross-trial comparisons may have no interpretive value on the Company's existing or future results. For further information and to understand these material differences, you should read the reports for the other trials at the sources included in footnotes 4-6 of this slide.

ANTLER trial results summary | July 2023
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CB-010 ANTLER dose escalation efficacy assessment

Overall depth and duration of response



Overall r/r B-NHL

94% ORR⁵ in patients treated with CB-010 across all dose levels (15 of 16)

69% (11 of 16) achieved a CR⁵

- **44%** (7 of 16) had ≥ 6 -month CR⁵
- **24 months** longest CR to date

As of June 20, 2023, data collection ongoing, efficacy based on Lugano criteria

DLBCL: diffuse large B cell lymphoma; FL: follicular lymphoma; HGBL: high-grade B cell lymphoma; MCL: mantle cell lymphoma; MZL: marginal zone lymphoma; PMBCL: primary mediastinal large B cell lymphoma

¹ Aggressively behaving, with POD24 (high risk)

² Primary refractory disease

³ Patient 5's 3-month scan conducted on day 63 post CB-010 as per investigator's discretion

⁴ Patients 13-16 are backfill patients at 40M and 80M

⁵ Certain patients converted from a CR or PR to PD at various assessment time points as indicated in the chart above

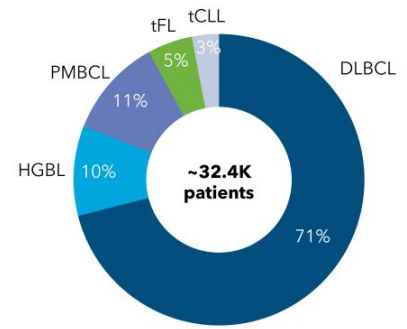
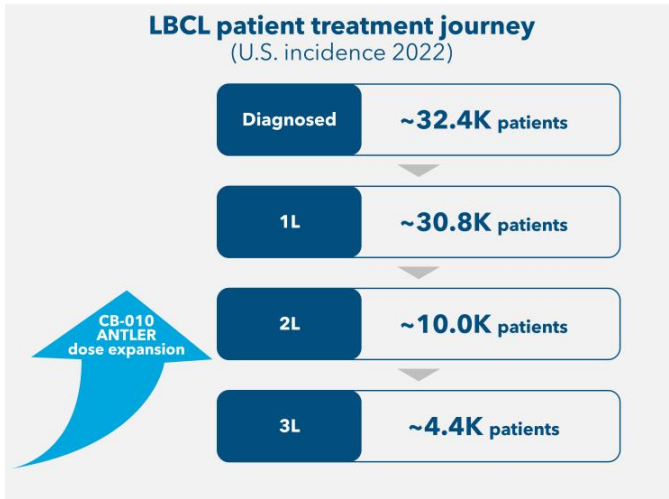
Subgroup efficacy profile supports 2L LBCL clinical development

Endpoints N, (%)	r/r B-NHL	r/r LBCL ²	2L LBCL ³
	All patients (N=16)	Subgroup (N=10)	Subgroup (N=4)
Overall response rate (ORR)¹	15 (94%)	9 (90%)	4 (100%)
Complete response (CR) rate¹	11 (69%)	7 (70%)	2 (50%)
≥6-month CR rate¹	7 (44%)	5 (50%)	2 (50%)
CR at longest duration to date	24 months	18 months	12 months ⁴

7 ¹ Certain patients converted from a CR or partial response (PR) to progressive disease (PD) at various assessment time points.
² Subgroup includes patients #4, 5, 6, 7, 8, 9, 10, 11, 12, and 14.
³ Four primary refractory patients were enrolled in dose escalation. Subgroup includes patient #7, 8, 12, and 14.
⁴ Patient #7 had a CR at 12 months, which converted from PR at the prior efficacy assessment.



Potential to address high unmet medical need in 2L LBCL



8 Source: market research on file

ANTLER trial results summary | July 2023
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Dose escalation data support ANTLER dose expansion

CB-010 single dose allogeneic CAR-T cell therapy

- Response rates rival approved autologous CAR-T cell therapies
- Generally well-tolerated safety profile
- Off-the-shelf, readily-available
- RMAT and Fast Track designations enable FDA interactions
- **Safety and efficacy profile supports clinical development in second-line LBCL patients**

94%

overall response rate (ORR)¹

69%

complete response (CR) rate²

44%

complete response (CR) rate ≥6 months³

¹ 94% ORR measures number of patients (15 of 16) achieving either a CR or partial response (PR) at any time point after treatment with CB-010.

² 69% CR rate measures the number of patients (11 of 16) achieving a CR at any time point after treatment with CB-010.

³ 44% CR rate measures number of patients (7 of 16) with a CR at 6-month or greater time point; includes one patient who converted from PR to CR at 12-month assessment.

^{1,2,3} Certain patients converted from a CR or PR to progressive disease (PD) at various assessment time points.



CB-010 ANTILER dose escalation efficacy assessment

Overall, r/r, and 2L LBCL subgroups, by dose level

Endpoints (N, %)	r/r B-NHL	r/r LBCL ²	2L LBCL ³	CB-010 dose level		
	All patients (N=16)	Subgroup (N=10)	Subgroup (N=4)	40M (N=8)	80M (N=5)	120M (N=3)
Overall response rate (ORR)¹	15 (94%)	9 (90%)	4 (100%)	8 (100%)	5 (100%)	2 (67%)
Complete response (CR) rate¹	11 (69%)	7 (70%)	2 (50%)	7 (88%)	3 (60%)	1 (33%)
≥6-month CR rate¹	7 (44%)	5 (50%)	2 (50%)	4 (50%)	3 (60%)	0
CR at longest duration	24 months	18 months	12 months ⁴	24 months	12 months	28 days

¹ Certain patients converted from a CR or partial response (PR) to progressive disease (PD) at various assessment time points.
² Subgroup includes patients #4, 5, 6, 7, 8, 9, 10, 11, 12, and 14.
³ Four primary refractory patients were enrolled in dose escalation. Subgroup includes patient #7, 8, 12, and 14.
⁴ Patient #7 had a CR at 12 months, which converted from PR at the prior efficacy assessment.



CB-010 is generally well tolerated

Treatment-emergent adverse events (TEAE)

Event (N=16)	Any Grade ¹ N (%)	All Grade 3+ N (%)	Related Grade 3+ N (%)
Total number of TEAEs, N	348	96	28
Subjects with TEAE, n (%)	15 (94)	14 (88)	8 (50)
Thrombocytopenia/platelet count decreased	11 (69)	11 (69)	5 (31)
Anemia	11 (69)	8 (50)	1 (6)
Neutropenia/Neutrophil count decreased	10 (63)	9 (56)	1 (6)
Cytokine release syndrome	7 (44)	-	-
White blood cell count decreased	7 (44)	7 (44)	4 (25)
Fatigue	4 (25)	-	-
Lymphocyte count decreased	4 (25)	3 (19)	1 (6)
Blood creatinine increased	4 (25)	-	-
ICANS (immune effector cell-associated neurotoxicity)	4 (25)	2 (13)	2 (13)
Fall	3 (19)	-	-
Diarrhea	3 (19)	-	-
Hypoalbuminemia	2 (13)	-	-
Hypocalcemia	2 (13)	-	-
Hyponatremia	2 (13)	-	-
Muscular weakness	2 (13)	-	-
Febrile neutropenia	2 (13)	2 (13)	1 (6)
Syncope	2 (13)	2 (13)	-
Pulmonary embolism	2 (13)	1 (6)	-
Atrial fibrillation	1 (6)	1 (6)	1 (6)
Acute kidney injury	1 (6)	1 (6)	-
Cellulitis	1 (6)	1 (6)	-
Encephalopathy ²	1 (6)	1 (6)	1 (6)
Hyperglycemia	1 (6)	1 (6)	-

11 ¹ TEAEs are defined as adverse events (AEs) with a start date on or after the CB-010 infusion date.
² Encephalopathy and Grade 4 ICANS events were related and occurred in same patient.
 Table includes AEs with at least 2 subjects at any single dose level or at least 1 subject with a higher than Grade 3 TEAE.
 As of May 4, 2023 data cutoff date



