

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934
(Amendment No. ___)*

Yield10 Bioscience, Inc.

(Name of Issuer)

Common Stock, par value \$0.01 per share

(Title of Class of Securities)

98585K862

(CUSIP Number)

December 31, 2020

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

(Page 1 of 8 Pages)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAME OF REPORTING PERSON Hudson Bay Capital Management LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION State of Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 237,500 shares of Common Stock issuable upon exercise of warrants
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 237,500 shares of Common Stock issuable upon exercise of warrants
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 237,500 shares of Common Stock issuable upon exercise of warrants	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.65%	
12	TYPE OF REPORTING PERSON PN	

1	NAME OF REPORTING PERSON Sander Gerber	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 237,500 shares of Common Stock issuable upon exercise of warrants
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 237,500 shares of Common Stock issuable upon exercise of warrants
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 237,500 shares of Common Stock issuable upon exercise of warrants	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.65%	
12	TYPE OF REPORTING PERSON IN	

Item 1(a). NAME OF ISSUER:

The name of the issuer is Yield10 Bioscience, Inc., a Delaware corporation (the "Company").

Item 1(b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES:

The Company's principal executive offices are located at 19 Presidential Way, Woburn, MA 01801.

Item 2(a). NAME OF PERSON FILING:

This statement is filed by Hudson Bay Capital Management LP (the "Investment Manager") and Mr. Sander Gerber ("Mr. Gerber"), who are collectively referred to herein as "Reporting Persons."

Item 2(b). ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE:

The address of the business office of each of the Reporting Persons is 777 Third Avenue, 30th Floor, New York, NY 10017.

Item 2(c). CITIZENSHIP:

The Investment Manager is a Delaware limited partnership. Mr. Gerber is a United States citizen.

Item 2(d). TITLE OF CLASS OF SECURITIES:

Common Stock, par value \$0.01 per share (the "Common Stock").

Item 2(e). CUSIP NUMBER:

98585K862

Item 3. IF THIS STATEMENT IS FILED PURSUANT TO RULES 13d-1(b) OR 13d-2(b) OR (c), CHECK WHETHER THE PERSON FILING IS A:

- (a) Broker or dealer registered under Section 15 of the Act (15 U.S.C. 78o);
- (b) Bank as defined in Section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) Insurance company as defined in Section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d) Investment company registered under Section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
- (e) Investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
- (f) Employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);

- (g) Parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);
- (h) Savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) Church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act (15 U.S.C. 80a-3);
- (j) Non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J);
- (k) Group, in accordance with Rule 13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J), please specify the type of institution:

Item 4. OWNERSHIP

The information required by Items 4(a) – (c) is set forth in Rows (5) – (11) of the cover page for each Reporting Person hereto and is incorporated herein by reference for each such Reporting Person.

The percentages used in this Schedule 13G are calculated based upon 3,334,048 shares of Common Stock outstanding as of November 9, 2020, as reported in the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2020 filed with the Securities and Exchange Commission on November 12, 2020 and assumes the exercise of the warrants held by Hudson Bay Master Fund Ltd.

The Investment Manager serves as the investment manager to Hudson Bay Master Fund Ltd., in whose name the securities reported herein are held. As such, the Investment Manager may be deemed to be the beneficial owner of all shares of Common Stock underlying the warrants held by Hudson Bay Master Fund Ltd. Mr. Gerber serves as the managing member of Hudson Bay Capital GP LLC, which is the general partner of the Investment Manager. Mr. Gerber disclaims beneficial ownership of these securities.

Item 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.

Not applicable.

Item 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.

See Item 4.

Item 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY.

Not applicable.

Item 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP.

Not applicable.

Item 9. NOTICE OF DISSOLUTION OF GROUP.

Not applicable.

Item 10. CERTIFICATION.

Each of the Reporting Persons hereby makes the following certification:

By signing below each Reporting Person certifies that, to the best of his or its knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURES

After reasonable inquiry and to the best of its or his knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

DATE: February 10, 2021

HUDSON BAY CAPITAL MANAGEMENT LP

By: /s/ Sander Gerber

Name: Sander Gerber

Title: Authorized Signatory

/s/ Sander Gerber

SANDER GERBER

EXHIBIT I

JOINT FILING AGREEMENT

The undersigned acknowledge and agree that the foregoing statement on Schedule 13G is filed on behalf of each of the undersigned and that all subsequent amendments to this statement on Schedule 13G shall be filed on behalf of each of the undersigned without the necessity of filing additional joint filing agreements. The undersigned acknowledge that each shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning him or it contained herein and therein, but shall not be responsible for the completeness and accuracy of the information concerning the others, except to the extent that he or it knows or has reason to believe that such information is inaccurate.

DATED as of February 10, 2021

HUDSON BAY CAPITAL MANAGEMENT LP

By: /s/ Sander Gerber

Name: Sander Gerber

Title: Authorized Signatory

/s/ Sander Gerber

SANDER GERBER