

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 1)*

Yield10 Bioscience, Inc.

(Name of Issuer)

Common Stock, \$0.01 par value
(Title of Class of Securities)

98585K201

(CUSIP Number)

December 31, 2019

(Date of event which requires filing of this statement)

Check the appropriate box to designate the rule pursuant to which this Schedule 13G is filed:

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

(Page 1 of 7 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	NAMES OF REPORTING PERSONS Empery Tax Efficient II, 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 Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER
	6	SHARED VOTING POWER 10,521,116 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER 10,521,116 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 10,521,116 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*	
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) 4.99% (See Item 4)*	
12	TYPE OF REPORTING PERSON PN	

* As more fully described in Item 4, the Warrants are each subject to a 4.99% blocker, and the percentage set forth in row (11) gives effect to such blockers. However, as more fully described in Item 4, the securities reported in rows (6), (8) and (9) show the number of shares of Common Stock that would be issuable upon full exercise of such reported securities and do not give effect to such blockers. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to such blockers, is less than the number of securities reported in rows (6), (8) and (9).

1	NAMES OF REPORTING PERSONS Empery Asset 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 Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER
	6	SHARED VOTING POWER 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*	
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) 4.99% (See Item 4)*	
12	TYPE OF REPORTING PERSON PN	

* As more fully described in Item 4, the shares of Warrants are each subject to a 4.99% blocker, and the percentage set forth in row (11) gives effect to such blockers. However, as more fully described in Item 4, the securities reported in rows (6), (8) and (9) show the number of shares of Common Stock that would be issuable upon full exercise of such reported securities and do not give effect to such blockers. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to such blockers, is less than the number of securities reported in rows (6), (8) and (9).

1	NAMES OF REPORTING PERSONS Ryan M. Lane	
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
	6	SHARED VOTING POWER 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*	
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) 4.99% (See Item 4)*	
12	TYPE OF REPORTING PERSON IN	

* As more fully described in Item 4, the shares of Warrants are each subject to a 4.99% blocker, and the percentage set forth in row (11) gives effect to such blockers. However, as more fully described in Item 4, the securities reported in rows (6), (8) and (9) show the number of shares of Common Stock that would be issuable upon full exercise of such reported securities and do not give effect to such blockers. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to such blockers, is less than the number of securities reported in rows (6), (8) and (9).

1	NAMES OF REPORTING PERSONS Martin D. Hoe	
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
	6	SHARED VOTING POWER 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 15,227,777 shares of Common Stock issuable upon exercise of Warrants (See Item 4)*	
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) 4.99% (See Item 4)*	
12	TYPE OF REPORTING PERSON IN	

* As more fully described in Item 4, the shares of Warrants are each subject to a 4.99% blocker, and the percentage set forth in row (11) gives effect to such blockers. However, as more fully described in Item 4, the securities reported in rows (6), (8) and (9) show the number of shares of Common Stock that would be issuable upon full exercise of such reported securities and do not give effect to such blockers. Therefore, the actual number of shares of Common Stock beneficially owned by such Reporting Person, after giving effect to such blockers, is less than the number of securities reported in rows (6), (8) and (9).

This Amendment No. 1 (this "Amendment") amends the statement on Schedule 13G filed on November 21, 2019 (the "Original Schedule 13G", as amended, the "Schedule 13G"), with respect to Common Stock, \$0.01 par value (the "Common Stock") of Yield10 Bioscience, Inc. (the "Company"). Capitalized terms used herein and not otherwise defined in this Amendment have the meanings set forth in the Schedule 13G. This Amendment amends and restates Items 4 and 5 in their entirety as set forth below.

Item 4. OWNERSHIP.

The information as of the date of the event which requires filing of this statement 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 percentage set forth in Row 11 of the cover page for each Reporting Person is based on 24,999,017 shares of Common Stock issued and outstanding as of November 15, 2019 as represented as issued and outstanding in the Company's Prospectus Supplement on Form 424(b)(4) filed with the Securities and Exchange Commission on November 18, 2019 and assumes the exercise of the Company's reported warrants (the "Reported Warrants") subject to the Blockers (as defined below).

Pursuant to the terms of the Reported Warrants, the Reporting Persons cannot exercise the Reported Warrants to the extent the Reporting Persons would beneficially own, after any such exercise, more than 4.99% of the outstanding shares of Common Stock (the "Blockers"), and the percentage set forth in Row 11 of the cover page for each Reporting Person gives effect to the Blockers. Consequently, as of the date of the event which requires the filing of this statement, the Reporting Persons were not able to exercise all of the Reported Warrants due to the Blockers.

The Investment Manager, which serves as the investment manager to the Empery Funds, may be deemed to be the beneficial owner of all shares of Common Stock held by, and underlying the Reported Warrants (subject to the Blockers) held by, the Empery Funds. Each of the Reporting Individuals, as Managing Members of the General Partner of the Investment Manager with the power to exercise investment discretion, may be deemed to be the beneficial owner of all shares of Common Stock held by, and underlying the Reported Warrants (subject to the Blockers) held by, the Empery Funds. The foregoing should not be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of shares of Common Stock owned by another Reporting Person. Each of the Empery Funds and the Reporting Individuals hereby disclaims any beneficial ownership of any such shares of Common Stock.

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

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following: [X]

SIGNATURES

After reasonable inquiry and to the best of our knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

DATED: January 28, 2020

EMPERY TAX EFFICIENT II, LP
By: EMPERY ASSET MANAGEMENT, LP
By: EMPERY AM GP, LLC, its General Partner

By: /s/ Ryan M. Lane
Name: Ryan M. Lane
Title: Managing Member

EMPERY ASSET MANAGEMENT, LP
By: EMPERY AM GP, LLC, its General Partner

By: /s/ Ryan M. Lane
Name: Ryan M. Lane
Title: Managing Member

/s/ Ryan M. Lane
Ryan M. Lane

/s/ Martin D. Hoe
Martin D. Hoe