

**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) April 27, 2023

**YIELD10 BIOSCIENCE, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation)

**001-33133**

(Commission File Number)

**04-3158289**

(IRS Employer Identification No.)

**19 Presidential Way, Woburn, Massachusetts**

(Address of principal executive offices)

**01801**

(Zip Code)

Registrant's Telephone Number, Including Area Code: **(617) 583-1700**

**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:

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common stock, par value \$0.01 per share	YTEN	The Nasdaq Capital 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 1.01 Entry into a Material Definitive Agreement.**

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On April 27, 2023, Yield10 Bioscience, Inc. (“Yield10”) signed a non-binding letter of intent (“LOI”) with Marathon Petroleum Corporation (“Marathon”) for a potential investment in Yield10 by Marathon and an offtake agreement (the “Investment and Offtake Relationship”) for low-carbon intensity Camelina feedstock oil for use in renewable fuels. In connection with signing the LOI, Yield 10 sold and issued to MPC Investment LLC, an affiliate of Marathon (the “Purchaser”), a senior unsecured convertible note in the original principal amount of \$1.0 million (the “Convertible Note”) which is convertible into shares of the Company’s common stock or other Qualified Securities (as defined below), subject to certain conditions and limitations set forth in the Convertible Note. The Company sold and issued the Convertible Note pursuant to a securities purchase agreement, dated as of April 28, 2023 (the “Purchase Agreement”), between the Company and the Purchaser. The Company will use the net proceeds from the Convertible Note for working capital and general corporate purposes.

The Convertible Note contains customary events of default for such an instrument, accrues interest at 8% per annum, payable semi-annually in arrears, and has a maturity date of the earlier of (i) the date that is one year after the Exclusivity End Date (as defined below) or (ii) the Fundamental Change Effective Date (as defined in the Convertible Note) (the “Maturity Date”), unless earlier repaid or converted prior to such date in accordance with its terms. In addition, Yield10 may, at its option upon written notice to the Purchaser at least five business days prior to any interest payment date, pay the interest due on such interest payment date in kind (“PIK Interest”), in which case such PIK Interest will be capitalized and added to the unpaid principal amount of the Convertible Note. Under the LOI, Yield10 and Marathon currently intend to negotiate, finalize and agree to the terms of definitive agreements for the Investment and Offtake Relationship within the 120 day exclusivity period set forth in the LOI. The “Exclusivity End Date” is defined as the earlier of (i) the date on which the 120 day exclusivity period set forth in the LOI expires without the execution of definitive agreements for the Investment and Offtake Relationship or a similar transaction or (ii) the date on which Marathon notifies Yield10 that it will no longer pursue such transaction.

If any amount remains outstanding under the Convertible Note, whether on, after or before the Exclusivity End Date, when a transaction or event constituting a Fundamental Change (as defined in the Convertible Note) occurs or is publicly announced, then the Convertible Note will, at the election of the Purchaser, be convertible, in whole or in part, into shares of common stock at a conversion price equal to \$3.07 per share, subject to any mandatory adjustments as provided in the Convertible Note, the (“Fixed Conversion Rate”). The Fixed Conversion Rate exceeds the “minimum price” as defined in Nasdaq listing standard 5635(d). Any portion of the Convertible Note that is not converted in connection with the Fundamental Change will be due and payable on the effective date of the transaction constituting a Fundamental Change. If, at any time any amount under the Convertible Note remains outstanding before the Exclusivity End Date and Yield10 enters into definitive agreements for the Investment and Offtake Relationship or similar transaction that qualifies as a Qualified Financing (as defined in the Convertible Note), then the Convertible Note will convert, in whole, into the securities issued in respect of such Qualified Financing (the “Qualified Securities”) at a conversion price equal to the purchase price of such Qualified Securities sold in the Qualified Financing. Yield10 will not issue any fractional share of Common Stock or any fractional share, unit or note of Qualified Securities upon any conversion of the Convertible Note and will instead pay cash in lieu of delivering any fractional share in accordance with the terms of the Convertible Note. In no event will Yield10 issue any shares of common stock or other securities upon conversion of the Convertible Note if the issuance of such common stock or other securities, as the case may be, together with any securities issued in connection with any other related transactions that may be considered part of the same series of transactions for purposes of the rules of Nasdaq Stock Market LLC, would exceed the aggregate number of shares of common stock or other securities that Yield10 may issue in a transaction without first obtaining stockholder approval in compliance with Yield10’s obligations under the rules or regulations of the Nasdaq Stock Market LLC (the “Conversion Cap”), except that such limitation will not apply if Yield10’s stockholders have approved issuances in excess of the Conversion Cap in accordance with the rules of Nasdaq Stock Market LLC.

The Purchase Agreement contains customary representations, warranties, and covenants by the parties (including a covenant by Yield10 to register the securities issuable upon conversion of the Convertible Note). The representations, warranties and covenants contained in the Purchase Agreement were made only for purposes of the Purchase Agreement and as of specific dates, were made solely for the benefit of the parties to such agreement and are subject to certain important limitations.

The foregoing description of the Convertible Note and the Purchase Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Convertible Note and the Purchase Agreement, copies of which are filed with this Current Report on Form 8-K as Exhibits 4.1 and 10.1, respectively, and are hereby incorporated by reference herein.

### **Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.**

The information set forth in Item 1.01 of this Current Report on Form 8-K is incorporated herein by reference.

### **Item 3.02 Unregistered Sales of Equity Securities.**

The information set forth under Item 1.01 of this Current Report on Form 8-K is incorporated herein by reference.

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The information included in Item 1.01 of Current Report is also incorporated by reference into this Item 3.02 of this Current Report to the extent required. The Convertible Note, and the shares of Yield10 common stock or other securities issuable upon conversion thereof, were offered and sold in a private placement pursuant to the exemption from the registration requirements of the Securities Act of 1933, as amended, afforded by Section 4(a)(2) thereof or Regulation D promulgated thereunder.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

<b>Exhibit No.</b>	<b>Description</b>
<a href="#">4.1</a>	Senior Unsecured Convertible Promissory Note, dated as of April 28, 2023, between Yield10 Bioscience, Inc. and MPC Investment LLC
<a href="#">10.1</a>	Securities Purchase Agreement, dated as of April 28, 2023, between Yield10 Bioscience, Inc. and MPC Investment LLC
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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**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.

YIELD10 BIOSCIENCE, INC.

May 1, 2023

By: /s/ Oliver P. Peoples  
Oliver P. Peoples  
President & Chief Executive Officer

## Exhibit 4.1

THIS SECURITY (INCLUDING ANY SECURITIES ISSUABLE UPON CONVERSION) HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”) OR APPLICABLE STATE SECURITIES LAWS. THIS SECURITY (INCLUDING ANY SECURITIES ISSUABLE UPON CONVERSION) HAS BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO ITS DISTRIBUTION OR RESALE, AND MAY NOT BE SOLD, PLEDGED, OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT FOR THIS SECURITY (INCLUDING ANY SECURITIES ISSUABLE UPON CONVERSION) UNDER THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS, OR AN EXEMPTION THEREFROM.

THIS NOTE (DEFINED HEREIN) HAS BEEN ISSUED WITH ORIGINAL ISSUE DISCOUNT (“OID”) FOR UNITED STATES FEDERAL INCOME TAX PURPOSES. UPON REQUEST, THE ISSUER OF THIS NOTE WILL PROMPTLY MAKE AVAILABLE TO A HOLDER OF THIS NOTE INFORMATION REGARDING THE ISSUE PRICE, AMOUNT OF OID, ISSUE DATE AND YIELD TO MATURITY OF THE NOTE BY SUBMITTING A WRITTEN REQUEST FOR SUCH INFORMATION TO: YIELD10 BIOSCIENCES, INC., 19 PRESIDENTIAL WAY, WOBURN, MA 01801, ATTENTION: CEO OR VIA E-MAIL AT PEOPLES@YIELD10BIO.COM.

### SENIOR UNSECURED CONVERTIBLE NOTE

US\$1,000,000  
April 28, 2023

FOR VALUE RECEIVED, Yield10 Bioscience, Inc., a corporation duly organized and validly existing under the laws of the state of Delaware (the “**Borrower**”), hereby promises to pay to MPC Investment LLC, at the address set forth in Section 8.01 of this Senior Unsecured Convertible Note (this “**Note**”), the principal sum of ONE MILLION DOLLARS (\$1,000,000), together with any accrued and unpaid interest thereon as provided herein, on the Maturity Date (as defined below) to the extent such principal and any such accrued and unpaid interest thereon have not been converted in accordance herewith prior to the Maturity Date. This Note is being issued pursuant to the terms of the Purchase Agreement.

### Article 1 Definitions; Interpretations

#### Section 1.01. *Definitions.*

(a) The terms defined in this Section 1.01 (except as herein otherwise expressly provided or unless the context otherwise requires) for all purposes of this Note shall have the respective meanings specified in this Section 1.01. The words “herein,” “hereof,” “hereunder,” and words of similar import refer to this Note as a whole and not to any particular Article, Section or other subdivision. The terms defined in this Article include the plural as well as the singular. Unless otherwise noted, references to “U.S. Dollars” or “\$” shall mean the currency of the United States.

“**Affiliate**” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control,” when used with respect to any specified Person means the

power to direct or cause the direction of the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“**Bankruptcy Law**” means Title 11 of the United States Code (or any successor thereto) or any similar federal or state law for the relief of debtors.

“**Board of Directors**” means the Board of Directors of the Borrower or any duly authorized committee of such Board of Directors relevant in context.

“**Borrower**” means Yield10 Bioscience, Inc., a corporation duly organized and existing under the laws of the State of Delaware, if and until a successor Person shall replace it pursuant to the applicable provisions of this Note, and thereafter “Borrower” shall mean such successor Person.

“**Business Combination Event**” shall have the meaning specified in Section 6.01.

“**Business Day**” means any day other than a Saturday, a Sunday or a day on which the Federal Reserve Bank of New York is authorized or required by law or executive order to close or be closed.

“**Capital Stock**” of any Person means any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) the equity of such Person, but excluding any debt securities convertible into such equity.

“**Cash**” or “**cash**” means such coin or currency of the United States as at any time of payment is legal tender for the payment of public and private debts.

“**Close of Business**” means 5:00 p.m. (New York City time).

“**Code**” means the Internal Revenue Code of 1986, as amended from time to time.

“**Commission**” means the U.S. Securities and Exchange Commission.

“**Common Equity**” of any Person means Capital Stock of such Person that is generally entitled (a) to vote in the election of directors of such Person or (b) if such Person is not a corporation, to vote or otherwise participate in the selection of the governing body, partners, managers or others that will control the management or policies of such Person.

“**Common Stock**” means the shares of common stock of the Borrower, par value \$0.01 per share.

“**Conversion Cap**” shall have the meaning specified in Section 4.05.

“**Default**” means any event, act or condition that with notice or lapse of time, or both, would constitute an Event of Default.

“**Equity Interests**” means, with respect to any Person, all of the shares of capital stock of (or other ownership or profit interests in) such Person, all of the warrants, options or other rights for the purchase or acquisition from such Person of shares of capital stock of (or other ownership or profit interests in) such Person, all of the securities convertible into or exchangeable for shares of capital stock of (or other ownership or profit interests in) such Person (other than, prior to the date of

conversion, indebtedness that is convertible into Equity Interests) or warrants, rights or options for the purchase or acquisition from such Person of such shares (or such other interests), and all of the other ownership or profit interests in such Person (including partnership, member or trust interests therein), whether voting or nonvoting, and whether or not such shares, warrants, options, rights or other interests are outstanding on any date of determination.

“**Event of Default**” shall have the meaning specified in Section 5.01.

“**Exchange Act**” means the Securities Exchange Act of 1934 and the rules and regulations promulgated thereunder, in each case as amended.

“**Exclusivity End Date**” means the earlier of (i) the date on which the Exclusivity Period (as defined in the LOI) expires without the execution of definitive agreements for the Proposed Transaction (as defined in the LOI) or other similar transaction or (ii) the date on which Marathon notifies Borrower that it will no longer pursue the Proposed Transaction.

“**Financing Closing Date**” means, in respect of any Qualified Financing, the closing date of such Qualified Financing.

“**Financing Conversion Rate**” means, (i) in respect of a Qualified Financing for the issuance of Common Stock, the Fixed Conversion Rate or (ii) in respect of a Qualified Financing for the issuance of Qualified Securities other than Common Stock, a number of such Qualified Securities (denominated in shares, units or notes, as applicable) equal to Outstanding principal amount, including accrued and unpaid interest, of this Note *divided by* the purchase price per share, unit or note, as applicable, of such Qualified Securities paid by the investor(s) in the Qualified Financing, rounded to the nearest 1/100th of a share, unit or note, as applicable, subject to Section 4.06 and provided that in no event shall the purchase price be less than the “Minimum Price” as defined in Nasdaq Listing Rule 5635(d).

“**Fixed Conversion Rate**” shall mean, with respect to each \$1,000 principal amount of this Note, a number of shares of Common Stock equal to \$1,000 *divided by* \$3.07<sup>1</sup>, rounded to the nearest 1/100th of a share, subject to Section 4.06 and any adjustments required pursuant to Article 4.

“**Fundamental Change**” shall be deemed to have occurred at the time after this Note is originally issued if any of the following occurs:

(a) a “person” or “group” (other than the Holder or an Affiliate thereof) within the meaning of Section 13(d) of the Exchange Act, other than the Borrower, its Wholly Owned Subsidiaries and the employee benefit plans of the Borrower and its Wholly Owned Subsidiaries, has become the direct or indirect “beneficial owner,” as defined in Rule 13d-3 under the Exchange Act, of (x) the Common Stock representing more than 50% of the voting power of the Common Stock or (y) Common Equity of the Borrower representing more than 50% of the voting power of all Common Equity of the Borrower;

(b) the consummation of (A) any recapitalization, reclassification or change of the Common Stock (other than changes resulting from a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, other property or

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<sup>1</sup> Equal to the greater of (i) 10% premium of the previous 30 day average share price preceding the Effective Date of the LOI and (ii) the “Minimum Price” as defined in Nasdaq Listing Rule 5635(d).

assets; (B) any share exchange, consolidation or merger of the Borrower pursuant to which the Common Stock will be converted into cash, securities or other property or assets; or (C) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Borrower and its Subsidiaries, taken as a whole, to any Person other than one of the Borrower's Wholly Owned Subsidiaries; *provided, however*, that a transaction described in subclauses (A) or (B) in which the holders of all classes of the Borrower's Common Equity immediately prior to such transaction own, directly or indirectly, more than 50% of all classes of Common Equity of the continuing or surviving corporation or transferee or the parent thereof immediately after such transaction in substantially the same proportions as such ownership immediately prior to such transaction shall not be a Fundamental Change pursuant to this clause (b); or

(c) the stockholders of the Borrower approve any plan or proposal for the liquidation or dissolution of the Borrower.

If any transaction in which the Common Stock is replaced by the securities of another entity occurs, following the effective date of such transaction references to the Borrower in this definition shall instead be references to such other entity.

**"Fundamental Change Borrower Notice"** shall have the meaning specified in Section 4.03(a).

**"Fundamental Change Effective Date"** means the date on which any Fundamental Change becomes effective.

**"Fundamental Change Conversion Notice"** shall have the meaning specified in Section 4.03(b).

**"Holder"** means MPC Investment LLC, a limited liability company duly organized and existing under the laws of Delaware.

**"Interest Payment Date"** means each May 1<sup>st</sup> and November 1<sup>st</sup> of each year, beginning on November 1, 2023; *provided, however*, that if any Interest Payment Date falls on a date that is not a Business Day, such payment of interest shall be postponed until the next succeeding Business Day, and no interest or other amount shall be paid as a result of such postponement.

**"Interest Rate"** means 8.0% per annum.

**"Issue Date"** of this Note means the date on which this Note was originally issued or deemed issued as set forth on the face of this Note.

**"Last Reported Sale Price"** of the Common Stock on any date means the closing sale price per share of the Common Stock (or if no closing sale price is reported, the average of the bid and ask prices per share or, if more than one in either case, the average of the average bid and the average ask prices per share) on such date reported on The Nasdaq Global Market or other principal U.S. securities exchange on which the Common Stock is then traded. If the Common Stock is not listed for trading on a United States national or regional securities exchange on such date, the **"Last Reported Sale Price"** of the shall be the last quoted bid price for the Common Stock in the over-the-counter market on the relevant date as reported by OTC Markets Group Inc. or a similar organization. If the



Common Stock is not so quoted, the “Last Reported Sale Price” shall be the average of the mid-point of the last bid and ask prices for the Common Stock on such date from each of at least three nationally recognized independent investment banking firms selected by the Borrower for this purpose. The “**Last Reported Sale Price**” of the Common Stock will be determined without reference to extended or after hours trading or any other trading outside regular trading session hours.

“**Lien**” means any lien, mortgage, pledge, security interest, charge, or encumbrance of any kind (including any conditional sale or other title retention agreement or any lease in the nature thereof) and any agreement to give or refrain from giving any lien, mortgage, pledge, security interest, charge, or other encumbrance of any kind.

“**LOI**” means that certain letter agreement dated April 27, 2023, by and between the Borrower and Marathon, as may be amended from time to time.

“**Marathon**” means Marathon Petroleum Corporation, a corporation duly organized and existing under the laws of Delaware and an Affiliate of the Holder.

“**Maturity Date**” means the earlier of (i) the date that is one year after the Exclusivity End Date or (ii) the Fundamental Change Effective Date.

“**Merger Event**” shall have the meaning specified in Section 4.10.

“**Note**” shall have the meaning specified in the preamble.

“**Open of Business**” means 9:00 a.m. (New York City time).

“**Outstanding**,” when used with reference to this Note, shall mean, as of any particular time, any portion of the principal amount of this Note, except:

(i) The Notes in lieu of which, or in substitution for which, other Notes shall have been issued by the Borrower pursuant to the terms of Section 8.12; and

(ii) The portion of this Note converted pursuant to Article 4 or paid pursuant to Section 2.01 or 4.03(d), and, in each case, required to be canceled pursuant to Section 2.04.

“**Permitted Liens**” means (i) Liens for taxes, assessments or charges of any governmental authority for claims that are not material, or are not yet due or are being contested in good faith by appropriate proceedings that have the effect of preventing forfeiture or sale of the assets to which such Liens attach, and, in each case, with respect to which adequate reserves or other appropriate provisions are being maintained in accordance with GAAP, (ii) statutory Liens or bankers Liens, (iii) any attachment or judgment Lien not constituting an Event of Default, (iv) Liens securing equipment leases or purchase money obligations, in each case, that exist on the Issue Date or are in respect of collateral acquired after the Issue Date, (vii) Liens enacted in the ordinary course of business and (viii) such other Liens as may be permitted from time to time, with the written consent of the Holder, which shall not be unreasonably withheld, delayed or conditioned.

“**Person**” or “**person**” means any individual, corporation, partnership, limited liability company, joint venture, association, joint-stock company, trust, unincorporated organization, government or any agency or political subdivision thereof or any syndicate or group that would be deemed to be a “person” under Section 13(d)(3) of the Exchange Act or any other entity.

**“PIK Interest”** shall have the meaning specified in Section 2.02(b).

**“Purchase Agreement”** means that certain Securities Purchase Agreement, dated as of the date hereof, by and among the Borrower and the Holder, as the same may be amended from time to time.

**“Qualified Financing”** means the Proposed Transaction (as defined in the LOI) or other similar transaction between the Borrower and one or more of the Holder and any of the Holder’s Affiliates in which the Borrower sells and issues Qualified Securities to one or more of the Holder and any of the Holder’s Affiliates.

**“Qualified Securities”** means, with respect to any Qualified Financing, the Common Stock or securities convertible into, or exchangeable or exercisable for, Common Stock sold by the Borrower in such Qualified Financing.

**“Receiver”** means any receiver, trustee, assignee, liquidator, sequestrator or similar official under any Bankruptcy Law.

**“Reference Property”** shall have the meaning specified in Section 4.10(a).

**“Rule 144”** means Rule 144 as promulgated under the Securities Act.

**“Securities Act”** means the Securities Act of 1933 and the rules and regulations promulgated thereunder, in each case as amended.

**“Subsidiary”** means, with respect to any Person, any corporation, association, partnership or other business entity of which more than 50% of the total voting power of shares of Capital Stock or other interests (including partnership interests) entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers, general partners or trustees thereof is at the time owned or controlled, directly or indirectly, by (i) such Person; (ii) such Person and one or more Subsidiaries of such Person; or (iii) one or more Subsidiaries of such Person.

**“Termination of Trading”** means the Common Stock (or other common stock into which this Note is convertible) ceases to be listed or quoted on any of The New York Stock Exchange, The NYSE American, The Nasdaq Global Select Market or The Nasdaq Global Market (or any of their respective successors).

**“United States”** means the United States of America.

**“Unit of Reference Property”** shall have the meaning specified in Section 4.10(a).

**“Wholly Owned Subsidiary”** means, with respect to any Person, any Subsidiary of such Person, except that, solely for purposes of this definition, the reference to “more than 50%” in the definition of “Subsidiary” shall be deemed replaced by a reference to “100%”.

## Article 2 Issue, Description and Execution

Section 2.01. *Maturity Date.* Subject to Section 5.02, all Outstanding principal and accrued and unpaid interest on this Note shall be due and payable, in full, on the Maturity Date, unless earlier paid or converted pursuant to the terms hereof.

Section 2.02. *Interest.*

- (a) This Note shall bear interest daily at the simple, non-compounding rate equal to the Interest Rate on the unpaid principal amount of this Note from the Issue Date, or from the most recent date to which interest had been paid or provided for, to, but excluding, the date on which this Note is paid in full or converted in the manner provided for in this Note. Interest is payable semiannually in arrears on each Interest Payment Date. Interest on this Note shall be computed on the basis of a 360-day year comprised of twelve 30-day months. Interest shall be paid by wire transfer of immediately available funds to an account designated by the Holder. In the event that any amounts payable under this Note are not paid when due, interest shall accrue on all such amounts, in accordance with Section 3.01(a), including any unpaid principal or interest from the date such overdue amounts were originally due to, but excluding, the date payment of such amounts has been made or duly provided for. All such interest shall be payable on demand.
- (b) Notwithstanding anything to the contrary in Section 2.02(a), at the option of the Borrower, the Borrower may, upon not less than five Business Days' written notice to the Holder prior to any Interest Payment Date, pay the interest due on such Interest Payment Date in kind ("**PIK Interest**"), in which case PIK Interest shall be capitalized and added to the unpaid principal amount of the Note on such Interest Payment Date, and amounts representing the PIK Interest shall be treated as unpaid principal amount for purposes of this Note. The obligation of the Borrower to pay all such PIK Interest so added shall be automatically evidenced by the Note issued to the Holder (without modification or reissuance thereof).
- (c) On each Interest Payment Date ending after the fifth anniversary of the Issue Date, the Borrower shall make a payment (excluding any payment of PIK Interest) with respect to this Note such that no part of this Note will be an "applicable high yield discount obligation" within the meaning of Section 163(i)(1) of the Code or treated as having "significant original issue discount" within the meaning of Section 163(i)(2) of the Code.

Section 2.03. *Payment of Note.* Subject to Section 2.02(b), all payments due under this Note shall be paid in lawful money of the United States. Subject to Section 2.02(b), all payments shall be made by wire transfer of immediately available funds to an account designated in writing by the Holder. If an interest, principal or other payment date is other than a Business Day, such payment shall be made on the next succeeding Business Day. All payments shall be applied first, to all fees, charges and expenses permitted under this Note, second, to all accrued and unpaid interest hereon and third, to principal.

Section 2.04. *Cancellation of Portion of Note Paid.* All portions of this Note surrendered for the purpose of payment, conversion or registration of transfer, shall, if surrendered to the Borrower, be promptly canceled by it.

### **Article 3 Particular Covenants of the Borrower**

#### **Section 3.01. *Payment of Principal and Interest.***

(a) The Borrower shall promptly make all payments in respect of this Note on the dates and in the manner provided in this Note. Subject to Section 2.02(b), the Borrower shall, to the fullest extent permitted by law, pay interest in immediately available funds on any overdue principal amount and interest at the annual rate borne by this Note compounded semiannually, which interest shall accrue from the date such overdue amount was originally due to, but excluding, the date payment of such amount, including interest thereon, has been made or duly provided for. All such interest shall be payable on demand. Presentation of this Note is due at maturity.

(b) Payment of the principal of and interest, if any, on this Note shall be made in such immediately available coin or currency of the United States as at the time of payment is legal tender for payment of public and private debts by wire transfer payable in such money.

Section 3.02. *Corporate Existence.* Subject to Article 6 hereof, the Borrower shall do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence and rights (charter and statutory); *provided, however,* that the Borrower shall not be required to preserve any such right or franchise if the Borrower determines that the preservation thereof is no longer desirable in the conduct of the business of the Borrower and that the loss thereof is not disadvantageous in any material respect to the Holder.

#### **Section 3.03. *No Debt; Liens.***

- (a) The Borrower shall not, and shall not permit any of its Subsidiaries to, directly or indirectly, create, incur, assume or permit to exist any debt of any kind other than the principal amount Outstanding under this Note.
- (b) The Borrower shall not, and shall not permit any of its Subsidiaries to, directly or indirectly, create, incur, assume or permit to exist any Lien, other than Permitted Liens, upon any of their respective property or assets, whether now owned or hereafter acquired.

#### **Section 3.04. *Rule 144 Information Requirement and Annual Reports.***

(a) The Borrower, at all times while it shall be a reporting company under the Exchange Act, covenants to file timely (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Borrower after the Issue Date pursuant to Sections 13(a) or 15(d) of the Exchange Act and to promptly furnish the Holder with true and complete copies of all such filings; provided that any documents publicly filed or furnished with the Commission pursuant to the Electronic Data Gathering, Analysis and Retrieval (EDGAR) System shall be deemed to have been furnished or delivered to the Holder pursuant to this Section 3.04(a). The Borrower further covenants that it shall take such further action as the Holder may reasonably request, all to the extent required from time to time to enable the Holder to resell or otherwise dispose of this Note or shares of Common Stock issuable upon conversion hereof without registration under the Securities Act within the limitation of the exemptions provided by Rule 144, including providing any customary legal opinions. Upon the request of the Holder, the Borrower shall deliver to the Holder a

written certification of a duly authorized officer as to whether it has complied with such requirements.

- (b) Without limiting the generality of Section 3.04(a), at any time the Borrower is not subject to Section 13 or 15(d) of the Exchange Act, the Borrower shall, so long as this Note or any shares of Common Stock issuable upon conversion thereof shall, at such time, constitute “restricted securities” within the meaning of Rule 144(a)(3) under the Securities Act, make publicly available the information concerning the Borrower as described in Rule 144(c)(2) under the Securities Act to facilitate the resale of this Note or shares of Common Stock issuable upon conversion thereof pursuant to Rule 144.
- (c) The Borrower shall deliver to the Holder, within 15 days after the same are required to be filed with the Commission, copies of any documents or reports that the Borrower is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act (giving effect to any grace period provided by Rule 12b-25 under the Exchange Act). Any such document or report that the Borrower files with the Commission via the Commission’s EDGAR system shall be deemed to be delivered to the Holder for purposes of this Section 3.04(c) at the time such documents are filed via the EDGAR system.

Section 3.05. *Transfers.* Except for a transfer from the Holder to an Affiliate of the Holder, this Note may not be transferred by the Holder without the prior written consent of the Borrower. In case this Note or any portion hereof shall be transferred by the Holder, with delivery to the Borrower of a duly completed assignment by the Holder in a form reasonably acceptable to the Borrower, the Borrower shall promptly upon written request (and in any event, within two Business Days) execute and deliver to (a) the Holder a new Note in authorized denominations in an aggregate principal amount equal to the portion of this Note not transferred and (b) each such transferee a new Note in authorized denominations in an aggregate principal amount equal to the portion of this Note so transferred to such transferee, without payment of any service charge by the Holder or any such transferee but, if required by the Borrower, with payment of a sum sufficient to cover any documentary, stamp or similar issue or transfer tax or similar governmental charge required by law or that may be imposed in connection therewith as a result of the name of the Holder of the new Note being different from the name of the Holder of the old Note.

#### **Article 4 Conversion of Note<sup>2</sup>**

Section 4.01. [Reserved.]

Section 4.02. *Mandatory Conversion upon a Qualified Financing.*

- (a) If, at any time any principal amount, including any accrued and unpaid interest thereon, remains Outstanding, the Borrower consummates a transaction or event that constitutes a Qualified Financing, then, on the Financing Closing Date in respect of such Qualified Financing, this Note shall convert, in whole, into Qualified Securities in respect of such Qualified Financing at the Financing Conversion Rate.
- (b) In connection with the conversion of this Note in accordance with Section 4.02(a), the Holder agrees to (1) execute and deliver (or to cause the Person(s) designated by the Holder to execute and deliver) to the Borrower all transaction documents entered into

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<sup>2</sup> Final Note may contain provisions delaying conversion upon Qualified Financing or Fundamental Change at the discretion of the Holder.

by any other purchasers participating in the relevant Qualified Financing, including any purchase agreement, any investor rights agreement and other ancillary agreements, with representations and warranties and transfer restrictions substantially similar to those provided by the investor(s) in such Qualified Financing and (2) to deliver the original of this Note (or a notice to the effect that the original Note has been lost, stolen or destroyed and an agreement acceptable to the Borrower whereby the Holder agrees to indemnify the Borrower from any loss incurred by it in connection with this Note) to the Borrower, in each case, on or within two Business Days of the relevant Financing Closing Date.

- (c) Upon conversion of this Note pursuant to Section 4.02(a), the Borrower shall, as soon as practicable thereafter (but in any event within two Business Days of the Financing Closing Date), issue and deliver to the Holder a certificate or certificates (or a notice of issuance of uncertificated shares, units or notes, if applicable) for the applicable number of shares, units or notes, or principal amount, as applicable, of the Qualified Securities, in substantially the same form and manner as such Qualified Securities are delivered to any other investors in the applicable Qualified Financing together with cash, if applicable, in lieu of delivering any fractional share, unit or note in accordance with Section 4.06. Any conversion of this Note pursuant to Section 4.02(a) shall be deemed to have been made concurrently with the closing of the Qualified Financing, and on and after such date, the Persons entitled to receive the Qualified Securities issuable upon such conversion shall be treated for all purposes as the record holder of such Qualified Securities.

*Section 4.03. Optional conversion upon a Fundamental Change at the election of Holder or mandatory payment on the Fundamental Change Effective Date.*

- (a) Subject to Section 4.10, if, at any time any principal amount, including any accrued and unpaid interest thereon, remains Outstanding on this Note, a transaction or event constituting a Fundamental Change occurs or is publicly announced, then, this Note shall, at the election of the Holder, be convertible, in whole or in part, into shares of Common Stock at the Fixed Conversion Rate effective immediately prior to the Fundamental Change Effective Date. The Borrower shall deliver written notice to the Holder (the “**Fundamental Change Borrower Notice**”) (x) as promptly as practicable following the date the Borrower publicly announces such Fundamental Change transaction but in no event less than 35 Business Days prior to the anticipated Fundamental Change Effective Date or (y) if the Borrower does not have knowledge of such transaction at least 35 Business Days prior to the anticipated Fundamental Change Effective Date, within one Business Day of the date upon which the Borrower receives notice, or otherwise becomes aware, of such Fundamental Change transaction, but in no event later than ten (10) days prior to the Fundamental Change Effective Date.
- (b) To elect conversion pursuant to Section 4.03(a), the Holder shall (1) deliver to Borrower an irrevocable notice to the Borrower stating the principal amount of this Note to be converted in connection with the Fundamental Change transaction and the name or names (with addresses) of the Persons to receive the shares of Common Stock to be delivered upon conversion (the “**Fundamental Change Conversion Notice**”) and (2) surrender this Note (or a notice to the effect that the original Note has been lost, stolen or destroyed and an agreement acceptable to the Borrower whereby the

Holder agrees to indemnify the Borrower from any loss incurred by it in connection with this Note) on or within five (5) Business Days of the date of the Fundamental Change Borrower Notice, but in no event later than one (1) Business Day prior to the Fundamental Change Effective Date.

- (c) Upon conversion of this Note in whole or in part pursuant to this Section 4.03, the Borrower shall deliver to the Holder, in respect of each \$1,000 principal amount of this Note being converted, a number of shares of Common Stock equal to the Fixed Conversion Rate effective immediately prior to the Fundamental Change Effective Date, together with cash, if applicable, in lieu of delivering any fractional share of Common Stock in accordance with Section 4.06. The Borrower shall issue or cause to be issued to the Holder (or other Person(s) designated by the Holder) certificates with restrictive legend (or book-entry with restricted security notation on the books of the Borrower's transfer agent, as applicable) for the full number of shares of Common Stock to which the Holder (or other Person(s) designated by the Holder) shall be entitled upon such conversion. The Person(s) in whose name the certificate with restrictive legend (or book-entry with restricted security notation on the books of the Borrower's transfer agent, if applicable) for any shares of Common Stock delivered upon conversion pursuant to this Section 4.03(c) is registered shall be treated as a shareholder of record as of the close of business on the relevant conversion date (and, in any case, prior to the closing of the Fundamental Change).
- (d) Any portion of the Note that is not converted in connection with the Fundamental Change (including any accrued and unpaid interest thereon) shall be due and payable on the Fundamental Change Effective Date.

Section 4.04. *Partial Conversion.* Provisions of this Note that apply to conversion of this entire Note also apply to conversion of a portion of this Note. In case this Note shall be subject to any partial conversion, the Borrower shall execute and deliver to the Holder a new Note in authorized denominations in an aggregate principal amount equal to the unconverted portion of this Note, without payment of any service charge by the Holder but, if required by the Borrower, with payment of a sum sufficient to cover any documentary, stamp or similar issue or transfer tax or similar governmental charge required by law or that may be imposed in connection therewith as a result of the name of the Holder of the new Note issued upon such conversion being different from the name of the Holder of the old Note surrendered for such conversion.

Section 4.05. *Conversion Cap.* Notwithstanding anything to the contrary in this Note, the Borrower shall not issue any shares of Common Stock or other Qualified Securities upon conversion of this Note pursuant to this Article 4 if the issuance of such Common Stock or other Qualified Securities, as the case may be, together with any securities issued in connection with any other related transactions that may be considered part of the same series of transactions for purposes of the rules of Nasdaq Stock Market LLC, would exceed the aggregate number of shares of Common Stock or shares, units or notes, as applicable, of other Qualified Securities that the Borrower may issue in a transaction without first obtaining stockholder approval in compliance with the Borrower's obligations under the rules or regulations of Nasdaq Stock Market LLC (such aggregate number of shares, units or notes, as applicable, the "Conversion Cap"), except that such limitation shall not apply if the Borrower's stockholders have approved issuances in excess of the Conversion Cap in accordance with the rules of Nasdaq Stock Market LLC. In the event that the number of shares of Common Stock or other Qualified Securities upon conversion of this Note pursuant to this Article 4 would exceed the Conversion Cap and the Conversion Cap applies to such issuance, then the

Borrower shall issue the maximum number of shares of Common Stock or other Qualified Securities allowable at the then effective Fixed Conversion Rate or Financing Conversion Rate, as the case may be, and the portion of the principal amount of this Note that is not converted will remain Outstanding and be subject to subsequent conversion or repayment pursuant to the terms of this Note.

Section 4.06. *Fractional Shares.* The Borrower shall not issue any fractional share of Common Stock or any fractional share, unit or note of Qualified Securities upon conversion of this Note and shall instead pay cash in lieu of delivering any fractional share of Common Stock or any fractional share, unit or note of Qualified Securities issuable upon conversion based on the Last Reported Sale Price on the relevant conversion date for a conversion into shares of Common Stock or the purchase price of each share, unit or note of Qualified Securities paid by the investor(s) in the relevant Qualified Financing (in the case of Qualified Securities deliverable in respect of any conversion pursuant to Section 4.02).

Section 4.07. *Taxes on Conversion.* Except as provided in the next sentence, the Borrower shall pay any and all documentary, stamp or similar issue or transfer tax due and duties on the issuance of Common Stock or Qualified Securities upon conversion of this Note pursuant hereto. The Holder shall be liable for and shall be required to pay any tax or duty which may be payable in respect of any transfer involved in the issue and delivery of Common Stock or Qualified Securities in a name other than that of the Holder, and no such issue or delivery shall be made unless the Person requesting such issue has paid to the Borrower the amount of any such tax or duty, or has established to the satisfaction of the Borrower that such tax or duty has been paid.

Section 4.08. *Certain Covenants.*

- (a) The Borrower covenants that all shares of Common Stock or other Qualified Securities issued upon conversion of this Note shall be (as applicable) newly issued, duly authorized, validly issued, fully paid and non-assessable, enforceable against the Borrower in accordance with their terms, and shall be free from preemptive or similar rights and free from all taxes, liens and charges with respect to the issue thereof.
- (b) The Borrower covenants that, if any shares of Common Stock or other Qualified Securities to be provided for the purpose of conversion of this Note require registration with or approval of any governmental authority under any federal or state law before such shares of Common Stock or Qualified Securities may be validly issued upon conversion, the Borrower shall, to the extent then permitted by the rules and interpretations of the Commission, secure such registration or approval, as the case may be.
- (c) The Borrower further covenants that if at any time the Common Stock or other Qualified Securities shall be listed on any national securities exchange or automated quotation system, the Borrower will use commercially reasonable efforts to list and keep listed, so long as the Common Stock or such other Qualified Securities shall be so listed on such exchange or automated quotation system, any Common Stock or Qualified Securities issuable upon conversion of this Note.
- (d) The Borrower shall reserve, free from preemptive rights, out of its authorized but unissued shares or shares held in treasury, sufficient shares of Common Stock to provide for conversion of this Note at the then effective Fixed Conversion Rate.



Section 4.09. *Adjustment of Conversion Rate.* If the Borrower, at any time while this Note is Outstanding: (a) subdivides outstanding shares of Common Stock into a larger number of shares by means of a stock dividend or otherwise, (b) combines (including by way of reverse split) outstanding shares of Common Stock into a smaller number of shares, (c) issues, by reclassification of shares of Common Stock, any other Equity Interests, (d) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Note). Any adjustment made pursuant to this Section 4.09 shall become effective after the effective date of such subdivision, combination, issuance or re-classification, as the case may be. Whenever the Fixed Conversion Rate is required to be adjusted pursuant to this Note, the Borrower shall promptly deliver to the Holder a notice of the adjustment, briefly stating the facts requiring the adjustment, the adjusted Fixed Conversion Rate and the manner of computing it. Failure to deliver such notice or any defect therein shall not affect the validity of any such adjustment.

Section 4.10. *Effect of Reclassification, Consolidation, Merger or Sale other than a Fundamental Change On Conversion Privilege.*

(a) If any of the following events occur:

(i) any recapitalization or reclassification of the outstanding shares of Common Stock (other than changes resulting from a subdivision or combination);

(ii) any consolidation, merger, combination or similar transaction involving the Borrower; or

(iii) any statutory share exchange,

in each case, other than any such event that is a Fundamental Change, and as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, other property or assets (including cash or any combination thereof) (any such event, a “**Merger Event**”), then, at and after the effective time of such Merger Event, the right of the Holder to convert each \$1,000 principal amount of this Note pursuant to this Article IV shall be changed into a right of the Holder to convert such principal amount of this Note into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of shares of Common Stock equal to the Fixed Conversion Rate immediately prior to such Merger Event would have owned or been entitled to receive (the “**Reference Property**,” with each “**Unit of Reference Property**” meaning the kind and amount of Reference Property that a holder of one share of Common Stock is entitled to receive) upon such Merger Event and, prior to or at the effective time of such Merger Event, this Note shall be deemed to provide for such change in the convertibility of this Note, including anti-dilution and other adjustments that shall be as nearly equivalent as is possible to the adjustments provided for in this Article 4, and the Borrower or the successor or purchasing Person, as the case may be, shall execute a supplement to this Note at such time to evidence the foregoing.

If the Merger Event causes the Common Stock to be converted into, or exchanged for, the right to receive more than a single type of consideration (determined based in part upon any form of shareholder election), then (i) the Reference Property into which this Note will be convertible shall be deemed to be the weighted average of the types and amounts of consideration actually received by the holders of Common Stock and (ii) the Unit of Reference Property for purposes of the immediately preceding paragraph shall refer to the consideration referred to in clause (i) attributable to one share

of Common Stock. If the holders of the Common Stock receive only cash in such Merger Event, then for all conversions pursuant to Section 4.03 for which the relevant conversion date occurs after the effective date of such Merger Event (A) the consideration due upon conversion of each \$1,000 principal amount of this Note shall be solely cash in an amount equal to the Fixed Conversion Rate in effect on the relevant conversion date, *multiplied by* the price paid per share of Common Stock in such Merger Event and (B) the Borrower shall satisfy the conversion obligation pursuant to Section 4.03 by paying cash to the converting Holder on the second Business Day immediately following the relevant conversion date. The Borrower shall notify the Holder of such weighted average as soon as practicable after such determination is made but in no event later than the third (3rd) Business Day following the effective date of the Merger Event.

If, in the case of any Merger Event, the Reference Property includes shares of stock, securities or other property or assets (including cash or any combination thereof) of a Person other than the successor or purchasing corporation, as the case may be, in such Merger Event, then an assumption of this Note shall also be executed by such other Person and shall contain such additional provisions to protect the interests of the Holder as the Board of Directors shall reasonably consider necessary by reason of the foregoing.

- (a) If this Note is modified or amended pursuant to subsection (a) of this Section 4.10, the Borrower shall promptly provide to the Holder a notice briefly stating the reasons therefor, the kind or amount of cash, securities or property or asset that will comprise a Unit of Reference Property after any such Merger Event, any adjustment to be made with respect thereto and that all conditions precedent have been complied with. Failure to deliver such notice shall not affect the legality or validity of such modification or amendment to this Note.
- (b) The Borrower shall not become a party to any Merger Event unless its terms are consistent with this Section 4.10.
- (c) The above provisions of this Section 4.10 shall similarly apply to any successive Merger Events. For the avoidance of doubt, a Fundamental Change shall not be deemed a Merger Event pursuant to the terms of this Note and, pursuant to Section 4.03(d), any portion of the Note that is not converted in connection with the Fundamental Change (including any accrued and unpaid interest thereon) shall be due and payable on the Fundamental Change Effective Date.

Section 4.11. *Voluntary Increase; Nasdaq Compliance.* The Borrower from time to time may increase the Fixed Conversion Rate, to the extent permitted by law and subject to any applicable shareholder approval requirements pursuant to the listing standards of The Nasdaq Global Market or such other United States securities exchange on which the Common Stock is traded, by any amount for any period of at least 20 days, if the Board of Directors determines that such increase shall be in the Borrower's best interests. The Borrower may (but is not required to) make such increase in the Fixed Conversion Rate as the Board of Directors deems advisable to avoid or diminish any income tax to holders of Common Stock resulting from a dividend or distribution of stock, or rights to acquire stock, or similar event as permitted under applicable laws. The Borrower shall provide at least 15 days' written notice to the Holder of any increase under this Section 4.11, and such notice shall state the increased Fixed Conversion Rate and the period during which it will be in effect.

## Article 5 DEFAULT AND REMEDIES

Section 5.01. *Events of Default*. The occurrence of any one or more of the following events shall constitute an event of default (hereinafter “**Event of Default**”) under this Note:

- (a) the Borrower fails to pay when due the principal of this Note at the Maturity Date, upon exercise of a purchase right hereunder or otherwise;
- (b) the Borrower fails to pay an installment of interest on this Note for 30 days or more after the date when due, subject to Section 2.02(b);
- (c) the Borrower fails to deliver consideration due in respect of its conversion obligation upon conversion of this Note within the time periods specified in Section 4.03, and such failure continues for a period of three Business Days;
- (d) the Borrower fails to provide a Fundamental Change Borrower Notice when due in accordance with Section 4.03(a), and such failure continues for a period of four Business Days;
- (e) the Borrower fails to comply with its obligations under Section 3.03;
- (f) the Borrower fails to perform or observe any other term, covenant or agreement contained in this Note for a period of 60 days after written notice of such failure, requiring the Borrower to remedy the same, shall have been given to the Borrower by the Holder;
- (g) the default by Borrower or any Subsidiaries under any contract, agreement or instrument evidencing or creating on any indebtedness for borrowed money in excess of \$500,000 that results in such indebtedness becoming due and payable before its scheduled maturity;
- (h) a final non-appealable judgment for the payment of greater than \$500,000 is rendered against the Borrower or any of its Subsidiaries and is not discharged, stayed or waived within 60 days;
- (i) an involuntary case or other proceeding shall be commenced against the Borrower seeking liquidation, reorganization or other relief with respect to the Borrower or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of the Borrower or any substantial part of its property, and such involuntary case or other proceeding shall remain undismitted and unstayed for a period of 30 consecutive days;
- (j) the Borrower pursuant to or within the meaning of any Bankruptcy Law:
  - (i) commences as a debtor a voluntary case or proceeding;
  - (ii) consents to the entry of an order for relief against it in an involuntary case or proceeding or the commencement of any case against it;
  - (iii) consents to the appointment of a Receiver of it or for all or substantially all of its property;

- (iv) makes a general assignment for the benefit of its creditors;
  - (v) files a petition in bankruptcy or answer or consent seeking reorganization or relief; or
  - (vi) consents to the filing of such a petition or the appointment of or taking possession by a Receiver; or
- (k) a Termination of Trading shall have occurred.

Section 5.02. *Acceleration of Maturity.*

- (a) If an Event of Default (other than an Event of Default specified in Section 5.01(i) or Section 5.01(j) hereof) occurs and is continuing, the Holder may declare the portion of this Note that is Outstanding due and payable at its principal amount plus any accrued and unpaid interest, and thereupon the Holder may, at its discretion, proceed to protect and enforce its rights by the appropriate judicial proceedings. Such declaration may be rescinded and annulled by the written consent of the Holder.
- (b) If an Event of Default specified in Section 5.01(i) or Section 5.01(j) hereof occurs and is continuing, then all unpaid principal of, and accrued and unpaid interest on, the portion of this Note that is Outstanding shall become immediately due and payable, without any declaration or other act on the part of the Holder.

Section 5.03. *Other Remedies.* If any Event of Default occurs and is continuing, in addition to the remedies set forth in Section 5.02, the Holder may (i) pursue any available remedy by proceeding at law or in equity to collect the payment of principal of, or interest on, this Note or to enforce the performance of any provision of this Note, (ii) exercise on behalf of itself all rights and remedies available to it under this Note, and/or (iii) exercise all rights and remedies available to the Holder under this Note or at law or equity.

Section 5.04. *Waiver of Past Defaults.* The Holder may waive an existing Default or Event of Default. Upon any such waiver, such Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Note; *provided, however*, that no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon

Section 5.05. *Unconditional Right of Holder to Receive Payment and to Convert.* Notwithstanding any other provision in this Note, the Holder of this Note shall have the right, which is absolute and unconditional, to receive payment of the principal amount and interest in respect of this Note in accordance with the terms hereof, on or after the respective due dates expressed in this Note, and to convert this Note in accordance with Article 4, and to bring suit for the enforcement of any such payment on or after such respective due dates or for the right to convert in accordance with Article 4, and shall not be impaired or affected without the consent of the Holder.

Section 5.06. *Restoration of Rights and Remedies.* If the Holder has instituted any proceeding to enforce any right or remedy under this Note and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Holder, then and in every such case, subject to any determination in such proceeding, the Borrower and the Holder shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Holder shall continue as though no such proceeding had been instituted.

Section 5.07. *Rights and Remedies Cumulative.* Except as otherwise provided with respect to the replacement or payment of a mutilated, destroyed, lost or stolen Note in Section 8.12, no right or

remedy conferred in this Note upon or reserved to the Holder of this Note is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 5.08. *Delay or Omission Not Waiver.* No delay or omission of the Holder to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or any acquiescence therein. Every right and remedy given by this Article 5 or by law to the Holder may be exercised from time to time, and as often as may be deemed expedient, by the Holder.

Section 5.09. *Waiver of Stay or Extension Laws.* The Borrower covenants (to the extent that it may lawfully do so) that it shall not at any time insist upon, or plead, or in any manner whatsoever claim to take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Note; and the Borrower (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it shall not hinder, delay or impede the execution of any power herein granted to the Holder, but shall suffer and permit the execution of every such power as though no such law had been enacted.

### **Article 6 Consolidations; Merger; Conveyance; Transfer or Lease**

Section 6.01. *Consolidations; Merger; Conveyance; Transfer or Lease.* The Borrower may, without the consent of the Holder, consolidate with, merge into or convey, transfer or lease all or substantially all of the property and assets of the Borrower and its Subsidiaries, taken as a whole, to another Person (other than a transfer of all or substantially all of the assets of the Borrower and its Subsidiaries, taken as a whole, to one or more direct or indirect wholly-owned Subsidiaries) (a “**Business Combination Event**”).

Section 6.02. *Successor Substituted.* At the effective time of any Business Combination Event, the successor entity (if not the Borrower) shall succeed to, and be substituted for, and may exercise every right and power of, the Borrower under this Note with the same effect as if such successor Person had been named as the Borrower herein, and thereafter, except in the case of a lease, and except for obligations the predecessor Person may have under an assignment and assumption agreement, the predecessor Person shall be relieved of all obligations and covenants under the this Note.

### **Article 7 Tax Treatment**

Section 7.01. *Tax Treatment.* Each of the Borrower and the Holder agrees to treat this Note as debt that is not subject to the application of the rules of United States Treasury regulation Section 1.1275-4 for U.S. federal and other applicable income tax purposes and to perform all tax reporting, withholding and other tax compliance in manner consistent with such treatment unless otherwise required pursuant to a “determination” within the meaning of Section 1313(a) of the Code. Payments under this Note shall be made net of any applicable withholding tax (and, for the avoidance of doubt, such withheld amounts shall be treated for all purposes of this Note as having been paid to the person in respect of whom such withholding was made). The Borrower and the Holder agree to cooperate with each other to minimize any taxes to the extent reasonably practicable. For purposes of tax

compliance or in the event of a tax audit, the Borrower and the Holder agree to cooperate with timely sharing information in a good faith and a commercially reasonable manner as permitted by applicable law.

#### **Article 8 MISCELLANEOUS**

Section 8.01. *Notices.* All notices and other communications given or made pursuant to this Note shall be in writing and shall be deemed effectively given upon (a) personal delivery to the party to be notified on such date of delivery, (b) delivery by electronic mail or, with verification of receipt, facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next Business Day, (c) delivery by registered or certified mail, return receipt requested, postage prepaid, on such date of delivery or (d) delivery by nationally recognized overnight courier, freight prepaid, specifying next Business Day delivery, with written verification of receipt, on such date of delivery. All communications shall be sent to the respective parties at the addresses set forth below:

If to the Holder:

MPC Investment LLC  
539 S. Main St.  
Findlay, OH 45840  
Attn: Chief Financial Officer

w/ copy to:

MPC Investment LLC  
539 S. Main St.  
Findlay, OH 45840  
Attn: General Counsel

If to the Borrower:

Yield10 Bioscience, Inc. 19 Presidential Way  
Woburn, MA 01801  
Attn: Chief Executive Officer  
Email: peoples@yield10bio.com

with a copy (which shall not constitute notice) to:

Foley Hoag LLP 155 Seaport Boulevard  
Boston, MA 02210  
Attn: John A. Harre and Ryan M. Rourke Reed  
Email: jharre@foleyhoag.com and rroukereed@foleyhoag.com

Any party may change the address for notices by providing written notice to the party in accordance with this Section 8.01. Any notice sent by electronic mail shall only be valid if an original of such notice was subsequently received by the notified party, in which case such notice shall be deemed received at such time specified above. Any such notice may be given on behalf of a party hereto by such party's counsel, or by any other person authorized in writing by such party.

Section 8.02. *Counterparts*. This Note may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, [www.docuSign.com](http://www.docuSign.com)) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

Section 8.03. *GOVERNING LAW; Jurisdiction*. THIS NOTE AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS NOTE, SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAWS PROVISIONS THEREOF TO THE EXTENT THAT SUCH PROVISIONS WOULD RESULT IN THE SELECTION OF THE LAW OF A DIFFERENT JURISDICTION AS THE GOVERNING LAW OF THIS NOTE.

The Borrower irrevocably consents and agrees, for the benefit of the Holder from time to time of this Note, that any legal action, suit or proceeding against it with respect to obligations, liabilities or any other matter arising out of or in connection with this Note may be brought in the courts of the State of New York or the courts of the United States located in the Borough of Manhattan, New York City, New York and, until amounts due and to become due in respect of this Note have been paid, hereby irrevocably consents and submits to the non-exclusive jurisdiction of each such court in personam, generally and unconditionally with respect to any action, suit or proceeding for itself in respect of its properties, assets and revenues.

The Borrower irrevocably and unconditionally waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of venue of any of the aforesaid actions, suits or proceedings arising out of or in connection with this Note brought in the courts of the State of New York or the courts of the United States located in the Borough of Manhattan, New York City, New York and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum.

Section 8.04. *WAIVER OF JURY TRIAL*. EACH OF THE BORROWER AND THE HOLDER HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS NOTE.

Section 8.05. *Legal Holidays*. In any case where any Interest Payment Date, conversion date or Maturity Date is not a Business Day, then any action to be taken on such date need not be taken on such date, but may be taken on the next succeeding Business Day with the same force and effect as if taken on such date, and no interest shall accrue for the period from and after such date.

Section 8.06. *Benefits of Note*. Nothing in this Note, expressed or implied, shall give to any Person, other than the parties hereto, any benefit or any legal or equitable right, remedy or claim under this Note.

Section 8.07. *Headings*. The headings of the sections of this Note are inserted for convenience only and shall not be deemed to constitute a part hereof.

Section 8.08. *Successors and Assigns*. Subject to the limitations contained herein, this Note shall be binding upon the Borrower, and its respective successors and assigns (including by merger,

consolidation, amalgamation or otherwise), and shall inure to the benefit of the Holder, and its designees, successors and assigns. This Note may not be assigned by the Borrower without the prior written consent of the Holder.

Section 8.09. *Registered Form.* This Note is registered with respect to principal and interest and any permitted transfer of this Note may be effected only by the surrender of this Note to the Borrower and either the reissuance of this Note by the Borrower and/or the issuance of a new Note by the Borrower to the transferee.

Section 8.10. *Amendment; Waiver.* The terms and conditions of this Note shall not be amended, changed, terminated or waived except by a writing, duly executed by the Borrower and the Holder. Upon the effectuation of such amendment, change, termination or waiver with the consent of the Holder in conformance with this Section 8.10, such amendment, change, termination or waiver shall be effective as to, and binding against the Holder of this Note.

Section 8.11. *Severability.* In the event any one or more of the provisions contained in this Note shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Note shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

Section 8.12. *Lost, Mutilated or Stolen Note.* Upon receipt of evidence reasonably satisfactory to the Borrower of the loss, theft, destruction or mutilation of this Note and, in the case of any such mutilation, upon the surrender of this Note to the Borrower at its principal office, the Borrower will execute and deliver, in lieu thereof, a new Note of like tenor containing the same terms as this Note, dated so that there will be no loss of interest on such lost, stolen, destroyed or mutilated Note. Any Note in lieu of which any such new Note has been so executed and delivered by the Borrower shall not be deemed to be an Outstanding Note for any purpose. If the Holder applies for a substituted Note, the Holder shall furnish to the Borrower such security or indemnity as may be required by the Borrower to save the Borrower harmless from any loss, liability, cost or expense caused by or connected with such substitution, and, in case of destruction, loss or theft, the Holder shall also furnish to the Borrower evidence to its satisfaction of the destruction, loss or theft of such Note and of the ownership thereof. Every substitute Note issued pursuant to the provisions of this Section 8.12 by virtue of the fact that any old Note is destroyed, lost or stolen shall constitute an additional contractual obligation of the Borrower, whether or not the destroyed, lost or stolen Note shall be found at any time.

Section 8.13. *Calculations.* Except as explicitly stated herein, the Borrower shall be responsible for making all calculations required pursuant to this Note, including, without limitation, calculations with respect to determinations of the Last Reported Sale Price, accrued interest payable on this Note, the Fixed Conversion Rate and the Financing Conversion Rate. The Borrower shall make all such calculations in good faith and, absent manifest error, the Borrower's calculations shall be binding on the Holder. The Borrower shall provide a written schedule of such calculations to the Holder upon the Holder's written request.

Section 8.14. *No Personal Liability of Shareholders, Employees, Officer or Directors.* No director, officer, employee, incorporator or shareholder of the Borrower, as such, will have any liability for any obligation of the Borrower under this Note or for any claim based on, in respect of, or by reason of, such obligation or its creation. By accepting this Note, the Holder waives and releases all such liability as part of the consideration for issuance of this Note.



*[Remainder of Page Intentionally Left Blank]*

IN WITNESS WHEREOF, the undersigned has executed this Senior Unsecured Convertible Note as of the date first set forth above.

BORROWER: YIELD10 BIOSCIENCE, INC.

By: /s/ Oliver P. Peoples

Name: Oliver P. Peoples

Title: President and Chief Executive Officer

*[Signature Page to Senior Unsecured Convertible Note]*

ACCEPTED AND AGREED TO BY: HOLDER **MPC**  
**INVESTMENT LLC**

By: /s/ Maryann Mannen  
Name: Maryann Mannen  
Title: Executive Vice President

*[Signature Page to Senior Unsecured Convertible Note]*

## SECURITIES PURCHASE AGREEMENT

This Securities Purchase Agreement (the “**Agreement**”) is made effective as of April 28, 2023, by and among Yield10 Bioscience, Inc., a Delaware corporation (the “**Company**”) and MPC Investment LLC, a Delaware limited liability company (the “**Purchaser**”).

### RECITALS:

WHEREAS, the Purchaser desires to purchase, and the Company desires to issue and sell the Note (as defined herein) described in this Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises hereof and the agreements set forth herein below, the parties hereto hereby agree as follows:

### ARTICLE I AUTHORIZATION AND SALE OF THE NOTE SECURITIES

1.1 Authorization of the Note Securities. The Company has authorized the sale and issuance of a Senior Unsecured Convertible Note (the “**Note**”). The Form of Note is attached hereto as Exhibit A. The Note will, in certain circumstances and upon the satisfaction of certain conditions specified in the Note, be convertible into (a) the Company’s common stock, par value \$0.01 per share (the “**Common Stock**”) or (b) Common Stock or securities convertible into, or exchangeable or exercisable for, Common Stock (together, “**Qualified Securities**”). Common Stock that may be issued upon conversion of the Note is referred to herein as “**Underlying Common Stock**” and Qualified Securities (including Common Stock) that may be issued upon any conversion are referred to herein as (“**Underlying Securities**”). The Company has authorized the sale and issuance of the Underlying Securities as set forth herein. The Note and the Underlying Securities are referred to herein as the “**Securities.**”

1.2 Sale of Note Securities. Subject to the terms and conditions hereof, the Company will issue and sell to the Purchaser the Note, and the Purchaser will buy from the Company, the Note. The Note will be issued in an aggregate principal amount of \$1,000,000, and the purchase price for the Note will be \$1,000,000 (the “**Purchase Price**”).

### ARTICLE II CLOSING DATE; DELIVERY

2.1 Closing Date. The purchase and sale of the Note to the Purchaser shall be consummated at a closing (the “**Closing**”) to be held at the offices of Foley Hoag LLP, 155 Seaport Boulevard, Boston, Massachusetts 02210 at 10:00 a.m., Eastern Time, on the date hereof (the “**Closing Date**”), upon the physical or electronic exchange among the parties and their counsel of all documents and deliverables required under this Agreement.

2.2 Delivery and Payment. At the Closing, the Company will issue the Note, against payment of the Purchase Price therefor by wire transfer of immediately available funds per the

Company's instructions, and the Company shall cause the Note to be registered in the name of the Purchaser.

**ARTICLE III**  
**REPRESENTATIONS AND WARRANTIES OF THE COMPANY**

Except as set forth in the SEC Reports (as defined below), the Company hereby represents and warrants to the Purchaser that:

3.1 **Organization and Standing.** The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the state of Delaware, with corporate power and authority to own its properties and conduct its business as now conducted. Each subsidiary of the Company has been duly organized and is validly existing as a corporate entity in good standing under the laws of its jurisdiction of organization. Each of the Company and its subsidiaries is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in such good standing would not have a Material Adverse Effect. A **"Material Adverse Effect"** shall mean any material adverse effect on (i) the assets, liabilities, business, properties, operations, financial condition, prospects or results of operations of the Company and its subsidiaries, taken as a whole, (ii) the transactions contemplated hereby or by the agreements or instruments to be entered into in connection herewith or (iii) the authority or the ability of the Company to perform its obligations under this Agreement or the Note.

3.2 **Corporate Power.** The Company has all requisite legal and corporate power and authority to execute and deliver this Agreement and the Note (together, the **"Transaction Documents"**), to sell and issue the Note, to issue the Underlying Common Stock or other Underlying Securities, of the Company upon conversion of the Note, and to carry out and perform its obligations under the terms of the Transaction Documents.

3.3 **Governmental Consents, Etc.** No consent, approval or authorization of, or designation, declaration or filing with, any governmental authority on the part of the Company is required in connection with the valid execution, delivery and performance of the Transaction Documents to which it is a party, or the offer, sale or issuance of the Note or the Underlying Securities, or the consummation of any other transaction contemplated hereby or thereby, except the qualification (or taking of such action as may be necessary to secure an exemption from qualification, if available) of the offer and sale of the Note and the Underlying Securities under applicable Blue Sky laws, which filings and qualifications, if required, will be accomplished in a timely manner. For the avoidance of doubt, any required filing under the Securities Exchange Act of 1934, as amended (the **"Exchange Act"**) on Form 8-K disclosing the transactions contemplated hereby and filing any form of the Transaction Documents as required shall not be deemed to be a violation of this Section 3.03. The Company is in compliance in all material respects with the applicable listing and corporate governance rules and regulations of Nasdaq and the Nasdaq Global Market (the **"Exchange"**) and has not received any written notice from Nasdaq of an event or condition that would reasonably be expected to cause the Common Stock to be delisted by Nasdaq.

3.4 **Noncontravention.** Assuming compliance with the matters referred to in Section 3.03, the issue and sale of the Note and the performance by the Company of its obligations under the Transaction Documents, including the Company's obligation to issue Underlying Securities upon conversion of the Note, and the consummation of the transactions therein contemplated will not (i)

conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any of its subsidiaries is a party or by which the Company or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject, (ii) result in any violation of the provisions of the certificate of incorporation or bylaws of the Company or (iii) result in any violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the properties or assets of the Company or any of its subsidiaries or any of their properties, except, with respect to clauses (i) and (iii), for such conflicts, breaches, violations or defaults as would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

3.5 Authorization. All corporate action on the part of the Company, its officers, directors and stockholders necessary for the authorization, execution, delivery and performance by the Company of the Transaction Documents to which it is a party, the authorization, sale, issuance and delivery by the Company of the Note and the Underlying Securities and the performance by the Company of all of its respective obligations under this Agreement and the other Transaction Documents to which it is a party, has been taken.

3.6 The Note. The Note constitutes valid and binding obligations of the Company enforceable in accordance with their terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent transfer, preference or other similar laws affecting the enforcement of creditors' rights generally or by equitable principles relating to enforceability (the "**Enforceability Exceptions**").

3.7 Underlying Securities. The maximum number of shares of Underlying Common Stock initially issuable upon conversion of the Note (based on "Fixed Conversion Rate" as defined in the Note) have been duly authorized and reserved and the Company shall duly authorize and reserve the maximum number of Underlying Securities as may be issuable from time to time under the Note. When and, to the extent issued upon conversion of the Note in accordance with its terms, any Underlying Securities will be validly issued, fully paid and non-assessable, and the issuance of any Underlying Securities will not be subject to any preemptive or similar rights.

3.8 SEC Reports. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by it under the Exchange Act, including without limitation pursuant to Section 13(a) or 15(d) thereof, since the filing of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 (the "**2021 Form 10-K**") through the date hereof on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports (as defined below) prior to the expiration of any such extension. As of its respective filing date, (or, if amended or superseded by a filing prior to the date hereof, on the date of such filing), the 2021 Form 10-K, and all other reports of the Company filed with the Securities and Exchange Commission (the "**SEC**") pursuant to the Exchange Act from the filing date of the 2021 Form 10-K through the date of this Agreement (including the exhibits and schedules thereto and documents incorporated by reference therein, being collectively referred to herein as the "**SEC Reports**") complied in all material respects with the applicable requirements of the Securities Act of 1933, as amended (the "**Securities Act**") and the Exchange Act. As of its filing date (or, if amended or superseded by a filing prior to the date hereof, on the date of such filing), each SEC Report filed pursuant to the Exchange Act did not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the

circumstances under which they were made, not misleading. As of their respective dates, the financial statements of the Company included in the SEC Reports complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto. Such financial statements have been prepared in accordance with United States generally accepted accounting principles, consistently applied, during the periods involved (except (i) as may be otherwise indicated in such financial statements or the notes thereto, or (ii) in the case of unaudited interim statements, to the extent they may not include footnotes or may be condensed or summary statements) and fairly present in all material respects the consolidated financial position of the Company and its consolidated subsidiaries as of the dates thereof and the consolidated results of their operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments).

3.9 Capitalization. The Company has an authorized capitalization as of December 31, 2022 (the “**Capitalization Date**”) as set forth in its Form 10-K for the year ended December 31, 2022. All of the issued shares of capital stock of the Company have been duly and validly authorized and issued and are fully paid and non-assessable; and all of the issued shares of capital stock of each subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and are owned directly or indirectly by the Company, free and clear of all liens, encumbrances, equities or claims, except to the extent that it would not reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect. No shares of capital stock of the Company are subject to preemptive rights or any other similar rights of the stockholders of the Company or any liens or encumbrances imposed through the actions or failure to act of the Company. As of the date hereof, (i) there are no outstanding options, warrants, scrips, rights to subscribe for, puts, calls, rights of first refusal, agreements, understandings, claims or other commitments or rights of any character whatsoever relating to, or securities or rights convertible into or exchangeable for any shares of capital stock of the Company or any of its subsidiaries, or arrangements by which the Company or any of its subsidiaries is or may become bound to issue additional shares of capital stock of the Company or any of its subsidiaries except (w) as set forth in the SEC Reports and the exhibits attached and incorporated by reference thereto, (x) as were granted or issued after the Capitalization Date pursuant to the Company’s equity compensation plans described in the SEC Reports, and (y) as a result of the purchase and sale of the Note; and (ii) there are no anti-dilution or price adjustment provisions contained in any security issued by the Company (or in any agreement providing rights to security holders) that will be triggered by the issuance of the Note Securities or the Underlying Securities. The Company's certificate of incorporation as in effect on the date hereof and the Company's bylaws as in effect on the date hereof have been filed as part of the SEC Reports and are available on the SEC’s EDGAR system as of the business day prior to the date hereof. Other than the Note, the terms of all securities convertible into or exercisable for Common Stock of the Company and the material rights of the holders thereof in respect thereto are as described in the SEC Reports and exhibits attached or incorporated by reference thereto.

3.10 Litigation. As of the date hereof, there is no action, suit, investigation or proceeding pending against, or, to the knowledge of the Company, threatened against or affecting, the Company or any of its subsidiaries before (or, in the case of threatened actions, suits, investigations or proceedings, would be before) or by any court, public board, government agency or self-regulatory organization or body, that would reasonably be expected to have, individually or in the aggregate, a Material Adverse Effect.

3.11 Placement. Subject to the accuracy of the Purchaser's representations in this Agreement, the offer, sale and issuance of the Note and the Underlying Securities (the "**Placement**") constitute transactions exempt from the registration requirements of Section 5 of the Securities Act.

3.12 Transactions Not Enjoined. No governmental authority has enacted, issued, promulgated, enforced or entered any order, writ, judgment, injunction, decree, stipulation, determination or award which is in effect and has the effect of making the transactions contemplated by this Agreement illegal, otherwise restraining or prohibiting consummation of such transactions or causing any of the transactions contemplated hereunder to be rescinded following completion thereof. No action or proceeding by or before any court or other governmental body has been instituted or threatened by any governmental authority or person whatsoever which shall seek to restrain, prohibit or invalidate the transactions contemplated by this Agreement.

#### **ARTICLE IV**

#### **REPRESENTATIONS AND WARRANTIES OF THE PURCHASERS**

The Purchaser hereby represents and warrants to the Company as follows:

4.1 Organization and Standing. The Purchaser is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization, with the corporate or other entity power and authority to own and operate its business as presently conducted, except where the failure to be or have any of the foregoing would not have a material and adverse effect on the legality, validity or enforceability of the Transaction Documents to which it is a party, and the Purchaser is duly qualified as a foreign corporation or other entity to do business and is in good standing in each jurisdiction where the character of its properties owned or held under lease or the nature of their activities makes such qualification necessary, except for such failures to be so qualified or in good standing, individually or in the aggregate, as would not have a material adverse effect on it.

4.2 Authorization.

(a) The Purchaser has the requisite corporate or other entity power and authority to execute and deliver Transaction Documents to which it is a party and perform its obligations under the Transaction Documents. The execution and delivery of each such Transaction Document by the Purchaser, the performance by the Purchaser of its obligations thereunder, and all other necessary corporate or other entity action on the part of the Purchaser have been duly authorized by its board of directors or similar governing body, and no other corporate or other entity proceedings on the part of such Purchaser is necessary for such Purchaser to execute and deliver the relevant Transaction Documents and perform its obligations thereunder.

(b) Each of the relevant Transaction Documents has been duly and validly authorized, and when executed and delivered by the Purchaser, shall constitute valid and binding obligations of the Purchaser, enforceable in accordance with their terms, subject to the Enforceability Exceptions.

4.3 Noncontravention. Neither the execution and delivery of the Transaction Documents to which the Purchaser is a party by the Purchaser nor the performance by such Purchaser of its obligations thereunder will (i) conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Purchaser or any of its subsidiaries is a party or by which



Purchaser or any of its subsidiaries is bound or to which any of the property or assets of the Company or any of its subsidiaries is subject, (ii) result in any violation of the provisions of the certificate of incorporation, bylaws or similar organizational and governing documents of Purchaser or (iii) result in any violation of any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the properties or assets of the Purchaser or any of its subsidiaries or any of their properties, except, with respect to clauses (i) and (iii), for such violations, breaches, conflicts, defaults or other occurrences which, individually or in the aggregate, would not have a material adverse effect on its obligation to perform its obligations under the Transaction Documents to which the Purchaser is a party.

4.4 Accredited Investor. The Purchaser is an “accredited investor” within the meaning of Regulation D, Rule 501(a), under the Securities Act. The Purchaser was not formed for the specific purpose of acquiring the Securities.

4.5 No Government Review. The Purchaser understands that neither the SEC nor any securities commission or other governmental authority of any state, country or other jurisdiction has approved the issuance of the Securities or passed upon or endorsed the merits of this Agreement, the Securities, or any of the other documents relating to the Placement, or confirmed the accuracy of, determined the adequacy of, or reviewed this Agreement, the Securities or such other documents.

4.6 Investment Experience. The Purchaser has such knowledge, sophistication and experience in financial, tax and business matters in general, and investments in securities in particular, that it is capable of evaluating the merits and risks of this investment in the Securities, and the Purchaser has made such investigations in connection herewith as it deemed necessary or desirable so as to make an informed investment decision without relying upon the Company for legal or tax advice related to this investment. In making its decision to acquire the Securities, the Purchaser has not relied upon any information other than information provided to it by the Company or its representatives and contained herein, including the representations and warranties and covenants of the Company contained herein.

4.7 Investment Intent; Blue Sky. The Purchaser is acquiring the Securities for investment for its own account, not as a nominee or agent, and not with the view to, or for resale in connection with, any distribution thereof, other than the transfer of shares to an affiliated investment fund under common control with Purchaser. It understands that the sale of the Securities has not been, and will not be, registered under the Securities Act by reason of an exemption from the registration provisions of the Securities Act, the availability of which depends upon, among other things, the bona fide nature of the Purchaser’s investment intent and the accuracy of the Purchaser’s representations as expressed herein. The Purchaser’s address set forth in Section 6.2 represents the Purchaser’s true and correct state of domicile, upon which the Company may rely for the purpose of complying with applicable “Blue Sky” or similar laws.

4.8 Rule 144. The Purchaser acknowledges that the Securities must be held indefinitely unless subsequently registered under the Securities Act or unless an exemption from such registration is available. It is aware of the provisions of Rule 144 (“**Rule 144**”) promulgated under the Securities Act which permit limited resale of securities purchased in a private placement subject to the satisfaction of certain conditions.

4.9 Restrictions on Transfer; Restrictive Legends. The Purchaser understands that the transfer of the Note is restricted by this Agreement and applicable state and federal securities laws

and the transfer of the Underlying Securities is restricted by applicable state and federal securities laws, and that each certificate, instrument, or book entry representing the Note and, if applicable, the Underlying Securities will be imprinted with legends restricting transfer except in compliance therewith. The Company need not register a transfer of a legended Note or Underlying Securities, and may also instruct its transfer agent or other applicable agent not to register the transfer of the Note or Underlying Securities and to enforce applicable stop transfer instructions, unless the conditions specified in each of these legends is satisfied.

4.10 Access to Information. The Purchaser acknowledges that it has had access to and has reviewed all documents and records relating to the Company, including, but not limited to, the SEC Reports, that it has deemed necessary in order to make an informed investment decision with respect to an investment in the Securities; that it has had the opportunity to ask representatives of the Company certain questions and request certain additional information regarding the terms and conditions of such investment and the finances, operations, business and prospects of the Company and has had any and all such questions and requests answered to its satisfaction; and that it understands the risks and other considerations relating to such investment. The Purchaser understands any statement contained in the SEC Reports shall be deemed to be modified or superseded for the purposes of this Agreement to the extent that a statement contained herein or in any other document subsequently filed with the SEC modifies or supersedes such statement.

4.11 No General Solicitation. The Purchaser is unaware of, and in deciding to participate in the Placement is in no way relying upon, and did not become aware of the Placement through or as a result of, any form of general solicitation or general advertising including, without limitation, any article, notice, advertisement or other communication published in any newspaper, magazine or similar media, or broadcast over television or radio or the internet, in connection with the Placement.

4.12 Purchaser's Counsel. The Purchaser acknowledges that it has had the opportunity to review the Transaction Documents, all exhibits and schedules thereto, and the transactions contemplated thereby with its own legal counsel.

4.13 Tax Liability. The Purchaser has reviewed with its own tax advisors the tax consequences of the transactions contemplated by this Agreement. It relies solely on such advisors and not on any statements or representations of the Company or any of the Company's agents regarding such tax consequences. It understands that it, and not the Company, shall be responsible for its own tax liability that may arise as a result of the transactions contemplated by this Agreement.

## **ARTICLE V** **COVENANTS**

### 5.1 Transfer Restrictions; Legends.

(a) The Securities may only be disposed of in compliance with applicable federal and state securities laws. Except for a transfer to an affiliate, the Purchaser may not transfer the Note, in whole or in part, without the prior written consent of the Company. As a condition of transfer of the Note, any such transferee shall agree in writing to be bound by the terms of the Securities.

(b) The certificates, agreements, instruments, or book entries evidencing the Securities shall have endorsed thereon the legends set forth in the Note as required by the terms of the Note.

## 5.2 Confidentiality; MNPI.

(a) The Purchaser acknowledges and agrees that: (i) certain of the information contained herein is of a confidential nature and may be regarded as material non-public information (“**MNPI**”) under Regulation FD of the Securities Act; (ii) except as provided in Section 5.03, until the time the information contained herein has been adequately disseminated to the public, the existence of this Agreement and the information contained herein shall not, without the prior written consent of the Company, be disclosed by the Purchaser to any person or entity, other than its employees, officers, directors, consultants financial and legal advisors and other representations (collectively, “**Representatives**”) for the sole purpose of evaluating the entering into and the consummation of the transactions contemplated under the Transaction Documents, and Purchaser will not, directly or indirectly, disclose or permit its Representatives to disclose, any of such information without the prior written consent of the Company; and (iii) the Purchaser shall make its Representatives aware of the terms of this Section 5.02 and be responsible for any breach of this Agreement by such Representatives.

(b) Any party may disclose, or permit the disclosure of, information which would otherwise be confidential if and to the extent (i) required by law or any securities exchange, regulatory or governmental body; (ii) disclosed to its respective affiliates and its and their respective directors, officers, employees, shareholders, finance providers and their respective professional advisers or officers on a need-to-know basis (but it shall remain responsible for the compliance with this Section by any such person); or (iii) it comes into the public domain other than as a result of a breach by any party hereto.5.2

(c) The Purchaser acknowledges that certain information concerning the matters that are the subject matter of this Agreement may constitute MNPI under U.S. federal securities laws, and that U.S. federal securities laws prohibit any person who has received MNPI relating to the Company from purchasing or selling securities of the Company, or from communicating such information to any person under circumstances in which it is reasonably foreseeable that such person is likely to purchase or sell securities of the Company. Accordingly, until such time as any such non-public information has been adequately disseminated to the public, each Purchaser shall not purchase or sell any securities of the Company, or communicate such information to any other person save as provided in Section .5.3

(d) The Purchaser shall not, and shall cause its affiliates not to, engage, directly or indirectly, in any transactions in the securities of the Company (including, without limitation, any Short Sales (as such term is defined in Rule 200 promulgated under Regulation SHO under the Exchange Act)) during the period from the date hereof until such time as (i) the transactions contemplated by this Agreement are first publicly announced or (ii) this Agreement is terminated.

5.3 Securities Law Disclosure. On or prior to the second (2nd) business day following the Closing Date, the Company will file a Current Report on Form 8-K with the SEC describing the terms of the Transaction Documents and filing such Transaction Documents or forms thereof as may be required under the Exchange Act; *provided* that the Company shall furnish the Purchaser with a copy of such 8-K at least 36 hours in advance of filing to review and shall not file any such 8-K to which the Purchaser reasonably objects. The Company may also issue a press release describing the material terms of the transactions contemplated thereby; *provided* that the Company shall furnish the Purchaser with a copy of such press release for review within a reasonable time in

advance of issuance and shall not issue any such press release to which the Purchaser reasonably objects.

5.4 Registration of Underlying Securities. The Company covenants that it will use commercially reasonable efforts to cause the Underlying Securities to be registered for resale pursuant to the Securities Act promptly following the earliest to occur of (i) the closing of the transactions contemplated by the Definitive Agreements (as defined in that certain letter agreement dated April [•], 2023, by and between the Company and Marathon Petroleum Corporation (the “**LOI**”)), (ii) the date on which the Exclusivity Period (as defined in the LOI) expires without the execution of Definitive Agreements for the Proposed Transaction (as defined in the LOI) or other similar transaction or (iii) the date on which Marathon Petroleum Corporation notifies the Company that it will no longer pursue the Proposed Transaction.

## **ARTICLE VI MISCELLANEOUS**

6.1 Entire Agreement; Amendment; Assignment. This Agreement and the other Transaction Documents constitute the full and entire understanding and agreement among the parties with regard to the subjects hereof and thereof, and no party shall be liable or bound to any other party in any manner by any warranties, representations or covenants except as specifically set forth herein or therein. Any prior agreements, understandings or representations with respect to the subject matter hereof are superseded by this Agreement and shall have no further force or effect. Except as expressly provided herein, neither this Agreement nor any term hereof may be amended, waived, discharged or terminated other than by a written instrument signed by the parties hereto. The provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto.

6.2 Notices. All notices and other communications required or permitted hereunder shall be in writing and shall be sent by e-mail, by registered or certified mail, postage prepaid, or otherwise delivered by facsimile transmission, by hand or by messenger, addressed:

(a) if to the Purchaser, to:

MPC Investment LLC  
539 S. Main Street  
Findlay, Ohio 45840  
Attn: Chief Financial Officer

with a copy to:

MPC Investment LLC  
539 S. Main Street  
Findlay, Ohio 45840  
Attn: General Counsel

(b) if to the Company, to:

Yield10 Bioscience, Inc.  
19 Presidential Way

Woburn, MA 01801  
Attention: Chief Executive Officer  
Email:

with a copy to:

Foley Hoag LLP  
155 Seaport Boulevard  
Boston, MA 02210  
Attention: John A. Harre and Ryan M. Rourke Reed  
Email: jharre@foleyhoag.com and rroukereked@foleyhoag.com

All such notices, requests and other communications hereunder shall be deemed duly given on the date of receipt by the recipient thereof if received before 5:00 p.m. local time on a business day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed to have been received on the next succeeding business day in the place of receipt.

6.3 Governing Law. This Agreement shall be governed in all respects by the internal laws of the State of New York without regard to conflict of law rules of such state.

6.4 Jurisdiction. The parties hereto agree that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with, this Agreement or the transactions contemplated hereby shall be brought in the United States District Court for the Southern District of New York or any New York State court sitting in New York City, so long as one of such courts shall have subject matter jurisdiction over such suit, action or proceeding, and that any cause of action arising out of this Agreement shall be deemed to have arisen from a transaction of business in the State of New York, and each of the parties hereby irrevocably consents to the jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court. Without limiting the foregoing, each party agrees that service of process on such party as provided in Section 6.02 shall be deemed effective service of process on such party.

6.5 Waiver of Jury Trial. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

6.6 Delays or Omissions. Except as expressly provided herein, no delay or omission to exercise any right, power or remedy accruing to any party, upon any breach or default of another party under this Agreement, shall impair any such right, power or remedy of such party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions

of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.7 Finder's Fees. Each party represents that it neither is, nor will be, obligated for any finders' fee or commission in connection with this transaction. The Purchaser agrees to indemnify and to hold harmless the Company from any liability for any commission or compensation in the nature of a finders' fee (and the costs and expenses of defending against such liability or asserted liability) for which such Purchaser or any of its officers, partners, employees, or representatives is responsible. The Company agrees to indemnify and hold harmless the Purchaser from any liability for any commission or compensation in the nature of a finders' fee (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

6.8 Expenses. The Company, on the one hand, and the Purchaser, on the other hand, shall bear its or their own expenses incurred with respect to this Agreement and the transactions contemplated hereby.

6.9 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, and all of which together shall constitute one instrument. Counterparts may be delivered via facsimile, electronic mail (including any electronic signature covered by the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act, the Electronic Signatures and Records Act or other applicable law, e.g., www.docuSign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

6.10 Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision, which shall be replaced with an enforceable provision closest in intent and economic effect as the severed provision; provided that no such severability shall be effective if it materially changes the economic benefit of this Agreement to any party.

6.11 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

*[Remainder of this page intentionally left blank]*

**IN WITNESS WHEREOF**, the undersigned have executed this Agreement as of the date first written above.

YIELD10 BIOSCIENCE, INC.

By:           /s/ Oliver P. Peoples

Name: Oliver P. Peoples, Ph.D.

Title: President and Chief Executive Officer

MPC INVESTMENT LLC

By:           /s/ Maryann Mennen

Name: Maryann Mennen

Title: Executive Vice President

*[Signature Page to Securities Purchase Agreement]*

**EXHIBIT A**

**Form of Note**