UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

DATE OF REPORT (DATE OF EARLIEST EVENT REPORTED): October 29, 2020

MOLECULIN BIOTECH, INC.
(Exact Name of Registrant as Specified in its Charter)

DELAWARE	**001-37758**	**47-4671997**
(State or Other Jurisdiction of Incorporation or Organization)	(Commission File No.)	(I.R.S. Employer Identification No.)

5300 Memorial Drive, Suite 950, Houston ,TX 77007
(Address of principal executive offices and zip code)

(713) 300-5160
(Registrant's telephone number, including area code)
(Former name or former address, if changed from last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

☐ Written 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-14(c)).

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. ☒

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol (s)	Name of each exchange on which registered
Common Stock, par value $.001 per share	MBRX	The NASDAQ Stock Market LLC

Item 7.01 Regulation FD Disclosure.

On October 29, 2020, Moleculin Biotech, Inc. (the “Company”) issued a press release announcing additional collaboration on drug candidate targeting COVID-19 for anti-viral potential of WP1122..

A copy of the press release is attached to this report as Exhibit 99.1 and is incorporated by reference herein.

The information contained in Item 7.01 of this Current Report on Form 8-K, including Exhibit 99.1, is being furnished and shall not be deemed to be "filed" for the purpose of the Securities Exchange Act of 1934, as amended ("Exchange Act"), nor shall it be deemed incorporated by reference in any filing under the Exchange Act or the Securities Act of 1933, as amended, unless specifically identified therein as being incorporated by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	**Description**
99.1	Press Release dated October 29, 2020
104	Cover page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

SIGNATURE

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

MOLECULIN BIOTECH, INC.

Date: October 29, 2020

By: /s/ Jonathan P. Foster
Jonathan P. Foster
Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
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Exhibit 99.1

Moleculin Announces Additional Collaboration on Drug Candidate Targeting COVID-19

Initial information sharing agreement signed to further research into the anti-viral potential of WP1122

HOUSTON, October 29, 2020 /PRNewswire/ -- Moleculin Biotech, Inc., (Nasdaq: MBRX) ("Moleculin" or the "Company"), a clinical stage pharmaceutical company with a broad portfolio of drug candidates targeting highly resistant tumors and viruses, today announced it has entered into an agreement with the University of Campinas in São Paulo, Brazil to further enable collaboration into its research on the anti-viral capabilities of its drug candidate WP1122, specifically for the coronavirus.

Recently the University of Campinas published independent research demonstrating that SARS-CoV-2 infection is supported by elevated glucose levels and that inhibition of glycolysis with 2-deoxy-D-glucose ("2-DG") effectively eliminated viral load in vitro. WP1122 is a pro-drug of 2-DG. The paper was presented in Cell Metabolism journal online (Codo et al., Elevated Glucose Levels Favor SARS-CoV-2 Infection and Monocyte Response through a HIF-1a/Glycolysis-Dependent Axis, Cell Metabolism (2020)), https://doi.org/10.1016/j.cmet.2020.07.007) after peer-review and reports the findings of a research team at the Laboratory of Immunometabolism, Department of Genetics, Evolution, Microbiology and Immunology, Institute of Biology, University of Campinas, Campinas, São Paulo, Brazil.

As previously disclosed, this recently published data also further supports the findings published in the scientific journal, Nature (Bojkova, D. et al. Proteomics of SARS-CoV-2-infected host cells reveals therapy targets, Nature https://doi.org/10.1038/s41586-020-2332-7 2020), which reports that one of the therapeutic targets in SARS-CoV-2 is glycolysis. This work performed by an independent research team at the Göethe-University of Frankfurt showed that targeting glycolysis with 2-DG stopped replication of SARS CoV-2 in vitro. These results are consistent with previous research reports demonstrating the antiviral activities of 2-DG in other viruses, and with the Company's own antiviral testing of WP1122. Notwithstanding the available preclinical data, the Company believes that, without the benefit of WP1122's prodrug structure, 2-DG's rapid metabolism and limited drug-like properties prevent it from being sufficiently effective in vivo and that in vivo testing of WP1122 may make its benefits more apparent.

"Adding the University of Campinas to our current collaborations which include The Rega Institute in Belgium and our sponsored research, increases our available resources in developing WP1122," commented Wally Klemp, Chairman and CEO of Moleculin. "We are excited to be working with these great research institutions. We intend to rely on collaborations and identify development partners as well as access grants to support our WP1122 portfolio development as a part of our externally funded pipeline. We believe this approach brings broader virology expertise to the program while extending our cash runway into the second quarter of 2021."

Mr. Klemp added “As we continue to learn more about the available in vivo models for COVID-19, we have identified one in particular that may be best suited for our drug candidate. While we had previously announced plans to use one particular model available through a commercial laboratory, based on input with our members of our Science Advisory Board, we now intend to focus first on a more favored model. Given the high demand for this in vivo model, this may push our timing for a potential Investigational New Drug request from the Food and Drug Administration for a potential COVID -19 clinical trial into the first half of 2021, possibly in the first quarter.”

About Moleculin Biotech, Inc.

Moleculin Biotech, Inc. is a clinical stage pharmaceutical company focused on the development of a broad portfolio of oncology drug candidates for the treatment of highly resistant tumors and viruses. The Company's clinical stage drugs are: Annamycin, a Next Generation Anthracycline, designed to avoid multidrug resistance mechanisms with little to no cardiotoxicity, being studied for the treatment of relapsed or refractory acute myeloid leukemia, more commonly referred to as AML; WP1066, an Immune/Transcription Modulator capable of inhibiting p-STAT3 and other oncogenic transcription factors while also stimulating a natural immune response, being studied for brain tumors, pancreatic cancer and hematologic malignancies; and WP1220, an analog to WP1066, being studied for the topical treatment of cutaneous T-cell lymphoma. Moleculin is also engaged in preclinical development of additional drug candidates, including additional Immune/Transcription Modulators, as well as compounds capable of Metabolism/Glycosylation Inhibition, such as WP1122. Moleculin has the exclusive worldwide rights (subject to certain territories for which it has issued sublicenses) to all of the above technologies.

For more information about the Company, please visithttp://www.moleculin.com.

Forward-Looking Statements

Some of the statements in this release are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995, which involve risks and uncertainties. Forward-looking statements in this press release include, without limitation, the ability of WP1122 to be shown safe and effective for the treatment of COVID-19; whether in vivo testing of WP1122 will make its benefits more apparent; whether Moleculin will be able to obtain external funding for its WP1122 portfolio; whether Moleculin’s cash runway will extend into the second quarter of 2021; and whether Moleculin will be able to submit an IND for a potential anti-viral program for WP1122 in the first quarter of 2021. Although Moleculin believes that the expectations reflected in such forward-looking statements are reasonable as of the date made, expectations may prove to have been materially different from the results expressed or implied by such forward-looking statements. Moleculin Biotech has attempted to identify forward-looking statements by terminology including "believes," "estimates," "anticipates," "expects," "plans," "projects," "intends," "potential," "may," "could," "might," "will," "should," "approximately" or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors, including those discussed under Item 1A. "Risk Factors" in our most recently filed Form 10-K filed with the Securities and Exchange Commission ("SEC") and updated from time to time in our Form 10-Q filings and in our other public filings with the SEC. Any forward-looking statements contained in this release speak only as of its date. We undertake no obligation to update any forward-looking statements contained in this release to reflect events or circumstances occurring after its date or to reflect the occurrence of unanticipated events.

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