UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of November 2026

Commission File Number: **001-37384**

Lakefront Biotherapeutics
(Translation of registrant's name into English)

Schaliënhoevedreef 20T, 2800 Mechelen, Belgium
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.
Form 20-F [X] Form 40-F [ ]

The information contained in this Report on Form 6-K, including Exhibit 99.1, is hereby incorporated by reference into the Company's Registration Statements on Form S-8 (File Nos. 333-204567, 333-208697, 333-211834, 333-215783, 333- 218160, 333-225263, 333-231765, 333-249416, 333-260500, 333-268756, 333-275886, 333-283361, and 333-292050).

On November 16, 2026, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Exhibit 99.1. Press release dated November 16, 2026

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, thereunto duly authorized.

Lakefront Biotherapeutics
(Registrant)

Date: November 16, 2026

/s/ Ying Deng
Ying Deng
Authorized Officer

EXHIBIT 99.1

Lakefront Initiates New €50 Million Share Repurchase Program Following Completion of Initial Share Repurchase Program

Mechelen, Belgium; November 16, 2026; 7.30 AM CET regulated information – Lakefront Biotherapeutics NV (Euronext & NASDAQ: LKFT) today announced the initiation of a new share repurchase program of up to €50 million, following completion of its initial €50 million program announced on June 9, 2026.

Under the initial program, completed on October 16, 2026, Lakefront repurchased approximately 1.99 million ordinary shares for a total consideration of €50 million. The repurchased shares are held as treasury shares.

The new program will be carried out by Morgan Stanley & Co International PLC, acting as an independent financial intermediary under a discretionary mandate and making its trading decisions independently of Lakefront. Purchases will be made in the open market on Euronext under the terms and conditions approved by the Extraordinary Shareholders' Meeting on April 28, 2026, and executed in accordance with industry best practices.

In accordance with the limits of the repurchase authorization granted, under the program, the Company may repurchase up to 4,604,550 ordinary shares for an aggregate amount of up to €50 million. The program will commence on November 16, 2026, and will end on the earlier of March 31, 2027, or completion of the mandate.

"Having successfully completed our initial buyback, we believe our current share price does not reflect the value of our business and its future prospects. This additional €50 million program provides an opportunity to create shareholder value while continuing to invest in our pipeline," said Aaron Cox, Chief Financial Officer of Lakefront.

The shares purchased under the program will be held as treasury shares, which can be used to meet obligations under the Company's equity-based incentive programs.

During the program, regular updates will be published in accordance with applicable legislation. Lakefront is entitled to suspend or stop the program at any time, and any such decision will be disclosed in a company announcement.

About Lakefront Biotherapeutics

Lakefront Biotherapeutics is a biotechnology company dedicated to building a differentiated pipeline of medicines for patients with serious diseases in areas of high unmet need. The Company has established a clinical-stage portfolio in immunology and inflammation, anchored by gamgertamig, a potential first-in-class and best-in-class BCMAxCD3 T-cell engager for autoimmune diseases. Backed by deep deal-making expertise, operational flexibility, and a strong capital position, Lakefront identifies, acquires, and advances high-quality assets with clear potential to deliver meaningful patient impact and long-term shareholder value. For more information, visit https://www.lakefrontbio.com or follow us on LinkedIn or X.

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Forward-looking statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, all of which involve certain risks and uncertainties. These statements are often, but are not always, made through the use of words or phrases such as "believe," "anticipate," "expect," "intend," "plan," "seek," "upcoming," "future," "estimate," "may," "will," "could," "would," "potential," "forward," "goal," "next," "continue," "should," "encouraging," "aim," "progress," "remain,' "explore," "further" as well as similar expressions. These statements include, but are not limited to, statements regarding Lakefront's plans to repurchase its ordinary shares. Lakefront cautions the reader that forward-looking statements are based on our management's current expectations and beliefs and are not guarantees of future performance. Forward-looking statements may involve known and unknown risks, uncertainties and other factors which might cause actual events, financial condition and liquidity, performance or achievements, or the industry in which we operate, to be materially different from any historic or future results, financial conditions, performance or achievements expressed or implied by such forward-looking statements. In addition, even if our results, performance, financial condition and liquidity, and the development of the industry in which Lakefront operates are consistent with such forward-looking statements, they may not be predictive of results or developments in future periods. Such risks include, but are not limited to, the risk that Lakefront's financial estimates, including cash position, may be incorrect (including because one or more of its assumptions may not be realized); risks associated with the changes to our capital allocation strategies; the risk that we will not be able to execute on our currently contemplated business plan or strategy and/or will revise our business plan or strategy; risks related to our ability to successfully identify, pursue and consummate new transformational business development transactions, including our ability to identify product candidates that will have commercial success and/or be profitable; the risk that the commercial potential of gamgertamig

proves to be inaccurate; the risk that the businesses will not be integrated successfully and that other anticipated benefits from the transactions will not be realized; the inherent risks and uncertainties associated with competitive developments, clinical trials, recruitment of patients, product development activities and regulatory approval requirements; risks related to our reliance on collaborations with third parties (including, but not limited to, our collaboration partner Gilead); the impact of competitive products and pricing; and the risk that our estimates regarding the commercial potential of our product candidates (if approved) or expectations regarding the costs and revenues associated with the commercialization rights may be inaccurate. A further list and description of these risks, uncertainties and other risks can be found in our filings and reports with the Securities and Exchange Commission (SEC), including in our most recent annual report on Form 20-F filed with the SEC and our subsequent filings and reports filed with the SEC. Given these risks and uncertainties, the reader is advised not to place any undue reliance on such forward-looking statements. In addition, even if the result of our operations, financial condition and liquidity, or the industry in which we operate, are consistent with such forward-looking statements, they may not be predictive of results, performance or achievements in future periods. These forward-looking statements speak only as of the date of publication of this release. We expressly disclaim any obligation to update any such forward-looking statements in this release to reflect any change in our expectations or any change in events, conditions or circumstances, unless specifically required by law or regulation.