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 24, 2026, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

(c) Exhibit 99.1. Press release dated November 24, 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 24, 2026

/s/ Ying Deng
Ying Deng
Authorized Officer

EXHIBIT 99.1

Acquisition of Own Shares

Mechelen, Belgium; November 24, 2026, 22.01 CET; regulated information

Within the framework of the repurchase program announced on November 16, 2026, Lakefront Biotherapeutics NV (Euronext & NASDAQ: LKFT) ("Lakefront") announces that between November 16, 2026 and November 20, 2026, it has repurchased 131,592 Lakefront shares via a discretionary mandate to an independent financial intermediary, as follows:

Date of purchase	Market/MTF	Number of shares	Average price paid (€)	Total (€)	Lowest price paid (€)	Highest price paid (€)
11/16/2026	XAMS	19,268	31.30	603,167.40	31.08	31.76
11/16/2026	CEUX	2,289	31.24	71,500.81	31.10	31.54
11/16/2026	TQEX	212	31.20	6,614.23	31.10	31.26
11/16/2026	AQEU	301	31.24	9,402.22	31.14	31.44
11/17/2026	XAMS	20,915	31.78	664,716.35	31.46	32.00
11/17/2026	CEUX	5,090	31.62	160,957.51	31.52	31.92
11/17/2026	TQEX	56	31.73	1,777.12	31.72	31.74
11/17/2026	AQEU	57	31.72	1,807.88	31.60	31.74
11/18/2026	XAMS	21,300	31.51	671,248.20	31.14	31.74
11/18/2026	CEUX	4,657	31.46	146,499.91	31.20	31.68
11/18/2026	TQEX	1,259	31.54	39,714.90	31.48	31.58
11/18/2026	AQEU	15	31.55	473.28	31.42	31.72
11/19/2026	XAMS	21,731	30.88	670,948.97	30.48	31.46
11/19/2026	CEUX	3,230	31.07	100,358.04	30.60	31.38
11/19/2026	TQEX	1,756	31.11	54,620.56	30.80	31.38
11/19/2026	AQEU	1,105	31.15	34,420.09	30.60	31.32
11/20/2026	XAMS	22,512	30.60	688,853.69	30.32	30.86
11/20/2026	CEUX	2,917	30.64	89,370.75	30.56	30.74
11/20/2026	TQEX	1,548	30.68	47,496.51	30.66	30.72
11/20/2026	AQEU	1,374	30.72	42,206.39	30.66	30.76
Total		131,592	31.20	4,106,154.80	30.32	32.00

As of market close on November 20, 2026, Lakefront holds 2,116,749 of its own ordinary shares.

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.

For further information, contact Lakefront Biotherapeutics:
Investor Relations
Sherri Spear
+1 412 522 6418
sherri.spear@lakefrontbio.com

Richie Livingston
+1 312 636 7072
richie.livingston@lakefrontbio.com

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,” and “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, those risks and uncertainties that 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.