# 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 September 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 September 29, 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 September 29, 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: September 29, 2026

/s/ Ying Deng
Ying Deng
Authorized Officer

**EXHIBIT 99.1**

**Acquisition of Own Shares**

**Mechelen, Belgium; 29 September 2026, 22.01 CET; regulated information**

Within the framework of the repurchase program announced on June 9, 2026, Lakefront Biotherapeutics NV (Euronext & NASDAQ: LKFT) ("Lakefront") announces that between September 21, 2026, and September 25, 2026, it has repurchased 106,060 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 (€) |
|---|---|---|---|---|---|---|
| 21/09/2026 | XAMS | 19,757 | 25.24 | 498,714.10 | 24.68 | 25.78 |
| 21/09/2026 | TQEX | 5 | 25.68 | 128.40 | 25.68 | 25.68 |
| 21/09/2026 | AQEU | 11 | 24.96 | 274.56 | 24.96 | 24.96 |
| 21/09/2026 | CEUX | 213 | 24.95 | 5,313.92 | 24.82 | 25.10 |
| 22/09/2026 | XAMS | 17,177 | 25.99 | 446,428.51 | 25.74 | 26.46 |
| 22/09/2026 | TQEX | 1,523 | 25.91 | 39,454.84 | 25.82 | 25.96 |
| 22/09/2026 | AQEU | 11 | 25.82 | 284.02 | 25.82 | 25.82 |
| 22/09/2026 | CEUX | 1,526 | 26.07 | 39,782.97 | 25.82 | 26.46 |
| 23/09/2026 | XAMS | 18,057 | 27.56 | 497,643.70 | 27.14 | 28.34 |
| 23/09/2026 | TQEX | 451 | 27.39 | 12,355.15 | 27.30 | 27.72 |
| 23/09/2026 | AQEU | 5 | 27.20 | 136.00 | 27.20 | 27.20 |
| 23/09/2026 | CEUX | 1,568 | 27.55 | 43,190.87 | 27.22 | 28.02 |
| 24/09/2026 | XAMS | 16,754 | 26.62 | 445,931.17 | 26.38 | 27.02 |
| 24/09/2026 | TQEX | 2,080 | 26.48 | 55,082.98 | 26.44 | 26.60 |
| 24/09/2026 | AQEU | 8 | 26.60 | 212.80 | 26.60 | 26.60 |
| 24/09/2026 | CEUX | 3,546 | 26.73 | 94,768.98 | 26.46 | 26.90 |
| 25/09/2026 | XAMS | 17,446 | 26.30 | 458,847.25 | 25.88 | 26.62 |
| 25/09/2026 | TQEX | 396 | 26.54 | 10,509.60 | 26.46 | 26.62 |
| 25/09/2026 | AQEU | 1,585 | 26.56 | 42,097.76 | 26.46 | 26.62 |
| 25/09/2026 | CEUX | 3,941 | 26.54 | 104,583.11 | 26.00 | 26.62 |
| Total | | 106,060 | 26.36 | 2,795,740.67 | 24.68 | 28.34 |

As of market close on September 25, 2026, Lakefront holds 1,633,594 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.