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 2, 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 2, 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 2, 2026

/s/ Ying Deng
Ying Deng
Authorized Officer

EXHIBIT 99.1

Lakefront Biotherapeutics Welcomes Dr. Mehdi Shahidi to its Board of Directors

Dr. Shahidi brings extensive drug development experience, regulatory success, and transformative operational expertise to the Board

Mechelen, Belgium; November 2, 2026, 22.01 CET; Lakefront Biotherapeutics NV (Euronext & NASDAQ: LKFT) today announced the appointment by way of co-optation of Dr. Mehdi Shahidi as Non-Executive Independent Director to its Board of Directors, effective November 2, 2026. He replaces Dr. Paulo Fontoura, who resigned from the Board in July 2026 following his appointment as the Global Head of R&D at Sanofi SA.

"We are thrilled to welcome Mehdi to the Board. I'm confident his extensive experience in drug development, history of regulatory success, and track record of building organizations will strengthen the Board's ability to provide strategic guidance to Lakefront as it continues to advance gamgertamig and its preclinical assets, while maintaining a disciplined approach to deploying its strategic capital," said Gino Santini, Chair of the Board of Directors.

Biography
Dr. Mehdi Shahidi is a physician-scientist and an accomplished drug development and R&D leader with over 20 years of biopharma experience spanning translational research, clinical development, regulatory and successful introduction of innovative medicines to patients worldwide. His career combines senior leadership in global pharmaceutical R&D with entrepreneurial, venture capital, and board-level experience. He is currently Head of Development and Chief Medical Officer at Ottimo Pharma, Venture Partner at Medicxi, and a founder of Petalion Therapeutics. Previously, Dr. Shahidi served as SVP, Global Head of Medicine and CMO at Boehringer Ingelheim, where he led a large, global organization with a broad therapeutic mandate. During his tenure, he provided strategic and scientific oversight across a diverse portfolio of drug development programs, from early clinical development through multiple successful global regulatory approvals across various therapeutic areas. Dr. Shahidi previously served on the Supervisory Board of CureVac through its acquisition by BioNTech, as well as on the Innovation Committees of EFPIA and TransCelerate and the PhRMA R&D Leadership Forum. A clinical oncologist and GMC-registered specialist in pharmaceutical medicine, Dr. Shahidi completed his oncology training at the Royal Marsden Hospital and conducted clinical research at the Institute of Cancer Research, London.

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 may include forward-looking statements, all of which involve certain risks and uncertainties. These statements are often, but not always, made through the use of words or phrases such as "will," "long-term," and "forward," and any similar expressions. These statements include, but are not limited to, statements regarding the appointment of a new director, the expected benefits associated with the changes to Lakefront's Board, and Lakefront's ability to deliver meaningful impact for patients and sustainable value for shareholders. Any forward-looking statements in this press release are based on Lakefront's management's current expectations and beliefs and are not guarantees of future performance. Forward-looking statements may involve unknown and known risks, uncertainties and other factors which might cause Lakefront's actual results, performance, or achievements to be materially different from any historic or future results, performance, or achievements expressed or implied by such statements. These risks, uncertainties and other factors include, without limitation, the risk that Lakefront may not be able to realize the expected benefits from the appointment of the new director. A further list and description of these risks, uncertainties and other factors can be found in Lakefront's filings and reports with the Securities and Exchange Commission (SEC), including in Lakefront's most recent annual report on Form 20-F filed with the SEC, as supplemented and/or modified by any other filings and reports that Lakefront has made or will make with the SEC in the future. Given these risks and uncertainties, the reader is advised not to place any undue reliance on such forward-looking statements. In addition, even if Lakefront's results, performance, or achievements 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 press release. Lakefront expressly disclaims any obligation to update any forward-looking statements in this press release, unless required by law or regulation.