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
of the Securities Exchange Act of 1934

For the month of April 2025
Commission File Number: 001-37643

PURPLE BIOTECH LTD.
(Translation of registrant's name into English)

4 Oppenheimer Street, Science Park, Rehovot 7670104, Israel
(Address of principal executive offices)

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

Form 20-F ☒ Form 40-F ☐

On April 16, 2025, Purple Biotech Ltd. (the "**Company**" or the "**Registrant**") issued a press release, "***Purple Biotech Announces Publication in the Neuro Oncology Journal Demonstrating the Potential of NT219 to Suppress Brain Metastasis of Colorectal Cancer*** ", which is attached hereto as Exhibit 99.1.

Exhibit	
99.1	***Press Release issued by Purple Biotech Ltd. on April 16, 2025***

Incorporation by Reference

This Report on Form 6-K, including all exhibits attached hereto, is hereby incorporated by reference into each of the Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on May 20, 2016 (Registration file number 333-211478), the Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on June 6, 2017 (Registration file number 333-218538), the Registrant's Registration Statement on Form F-3, as amended, originally filed with the Securities and Exchange Commission on July 16, 2018 (Registration file number 333-226195), the Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on March 28, 2019 (Registration file number 333-230584), the Registrant's Registration Statement on Form F-3 filed with the Securities and Exchange Commission on September 16, 2019 (Registration file number 333-233795), the Registrant's Registration Statement on Form F-1 filed with the Securities and Exchange Commission on December 27, 2019 (Registration file number 333-235729), the Registrant's Registration Statement on Form F-3 filed with the Securities and Exchange Commission on May 13, 2020 (Registration file number 333-238229), the Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on May 18, 2020 (Registration file number 333-238481), each of the Registrant's Registration Statements on Form F-3 filed with the Securities and Exchange Commission on July 10, 2020 (Registration file numbers 333-239807 and 333-233793), the Registrant's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on April 4, 2022 (Registration file number 333-264107) and the Registrant's Registration Statement on Form F-3 filed with the Securities and Exchange Commission on March 23, 2023 (Registration file number 333-270769), the Registrant's Registration Statement on Form F-3, as amended, originally filed with the Securities and Exchange Commission on December 8, 2022 (Registration file number 333-268710), the Registrant's Registration Statement on Form F-1, as amended, originally filed with the Securities and Exchange Commission on October 30, 2023 (Registration file number 333-275216) and the Registrant's Registration Statement on Form F-1, filed with the Securities and Exchange Commission on July 22, 2024 (Registration file number 333-280947), to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.

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.

April 16, 2025

PURPLE BIOTECH LTD.

By: */s/ Gil Efron*
Gil Efron
Chief Executive Officer

Exhibit 99.1

Purple Biotech Announces Publication in the Neuro Oncology Journal Demonstrating the Potential of NT219 to Suppress Brain Metastasis of Colorectal Cancer

Findings show combination therapy of NT219 and 5-flourouracil (5-FU) inhibits colorectal cancer brain metastasis through the IRS2 pathway

IRS2, a novel target of NT219, is identified as a driver of brain metastasis in colorectal cancer, by comprehensive research conducted by Prof. Wolf and Dr. Rubinek team at Tel Aviv University and Sourasky Medical Center

REHOVOT, Israel, April 16, 2025 (GLOBE NEWSWIRE) -- Purple Biotech Ltd. ("Purple Biotech" or "the Company") (NASDAQ/TASE: PPBT), a clinical-stage company developing first-in-class therapies that overcome tumor immune evasion and drug resistance, announced today the publication of an independent study titled "IRS2 as a driver of brain metastasis in colorectal cancer: a potential target for novel therapeutic strategies" in the peer reviewed journal, *Neuro Oncology*. NT219 is a first-in-class small molecule drug designed to target key cancer resistance mechanisms by degrading IRS1/2 and blocking downstream signaling towards AKT and β-catenin, as well as STAT3 survival pathways.

"Most cancer-associated deaths occur due to metastasis. Exploring how cancer cells choose where to metastasize, we reveal IRS2 as a major target in brain metastasis of colorectal cancer," said the research's Principal Investigator Dr. Tami Rubinek. "Furthermore, our findings suggest that suppressing IRS2 by NT219 may serve as a powerful strategy to suppress brain metastasis and overcome chemo-resistance. Our study shows that a combination of 5-FU and NT219 inhibited the formation of colorectal cancer brain metastasis and extended animal survival. To our knowledge, this is the first successful preclinical use of drug combination to treat colorectal cancer-associated brain metastasis."

"These compelling findings suggest a potential opportunity to make a significant impact on prolonging the life of colorectal cancer patients, approximately 20% of whom have distant metastasis at diagnosis, with another 50% developing metastasis at a later stage," stated Gil Efron, Purple Biotech CEO. "We are currently advancing NT219 into a Phase 2 study in patients with recurrent and/or metastatic squamous cell carcinoma of the head and neck a and may pursue additional opportunities to expand the clinical development of NT219 in colorectal and other cancers, leveraging its novel mechanism of action."

Background and Mechanism of Action

Colorectal cancer (CRC) has become the fourth leading cause of brain metastasis (BM), yet the mechanisms driving CRC BM formation remain largely elusive. CRC is the third most diagnosed cancer and the second-leading cause of cancer deaths worldwide.

The study analyzed over 35,000 CRC samples, providing insight into the biology of CRC BM. The study identifies a distinct genomic profile associated with CRC BM, highlighting the possible role of IRS2 in promoting BM formation. Additionally, the study found that heightened levels of IRS2 expression are more prevalent and clinically significant phenomenon in CRC BM. At the mechanistic level, the study suggests that IRS2 facilitates CRC BM through modulation of the β-catenin pathway and oxidative phosphorylation.

"The impact of NT219 on the β-Catenin, AKT and metabolic pathways downstream to IRS2 may correspond with its potential to suppress cancer stem cells, delay tumor recurrence and overcome drug resistance, as demonstrated in multiple preclinical models, and opens new opportunities to patients whose disease involves upregulation of these pathways," said Dr. Hadas Reuveni, VP R&D at Purple Biotech. "The unique mechanism by which NT219 covalently binds to IRS2 and triggers its degradation and elimination from cancer cells, introduces a novel modality of treatment that may address drug resistance in advanced tumors where other treatments have not succeeded."

Importantly, the study demonstrates that combining 5-FU with NT219, an IRS2 inhibitor currently in early-phase clinical trials, may significantly impede the development of brain metastasis and extend survival rates. These findings advocate for the utilization of the novel IRS2 degrader NT219 as a potential therapeutic strategy against CRC BM, offering possible avenues for improved treatment strategies.

The study was conducted and published by a team of researchers led by Dr. Tami Rubinek, Head of the Oncology Research Lab, and Prof. Ido Wolf, MD, Head of Oncology Division, Tel Aviv Medical Center, Head of Tel Aviv University Medical School, and Head of Israeli National Council for the Prevention, Detection and Treatment of Malignant Diseases, in collaboration with Purple Biotech.

About Purple Biotech

Purple Biotech Ltd. (NASDAQ/TASE: PPBT) is a clinical-stage company developing first-in-class therapies that seek to overcome tumor immune evasion and drug resistance. The Company's oncology pipeline includes CM24, NT219, and CAPTN-3. CM24 is a humanized monoclonal antibody that blocks CEACAM1, which supports tumor immune evasion and survival through multiple pathways. CEACAM1 on tumor cells, immune cells, and neutrophil extracellular traps is a novel target for the treatment of multiple cancer indications. As proof of concept of these novel pathways, the Company completed a Phase 2 study for the treatment of pancreatic ductal adenocarcinoma (PDAC) with CM24 as a combination therapy with the anti-PD-1 checkpoint inhibitor nivolumab and chemotherapy, demonstrating clear and consistent improvement across all efficacy endpoints and the identification of two potential serum biomarkers. NT219 is a dual inhibitor, novel small molecule that simultaneously targets IRS1/2 and STAT3. A Phase 1 dose escalation study was concluded as a monotherapy and in combination with cetuximab, in which NT219 demonstrated anti-tumor activity in combination with cetuximab in second-line patients with recurrent and/or metastatic squamous cell carcinoma of the head and neck (R/N SCCHN). The Company is advancing NT219 into a Phase 2 study in collaboration with the University of Colorado, to treat R/M SCCHN patients in combination with cetuximab or pembrolizumab. The Company is advancing CAPTN-3, a preclinical platform of conditionally activated tri-specific antibodies, which engage both T cells and NK cells to induce a strong, localized immune response within the tumor microenvironment. The cleavable capping technology confines the compound's therapeutic activity to the local tumor microenvironment, thereby potentially increasing the anticipated therapeutic window in patients. The third arm specifically targets the Tumor Associated Antigen (TAA). The technology presents a novel mechanism of action by unleashing both innate and adaptive immune systems to mount an optimal anti-tumoral immune response. IM1240 is the first tri-specific antibody in development that targets the 5T4 antigen, which is expressed in a variety of solid tumors and is associated with advanced disease, increased invasiveness, and poor clinical outcomes. The Company's corporate headquarters are located in Rehovot, Israel. For more information, please visit https://purple-biotech.com/.

Forward-Looking Statements and Safe Harbor Statement

Certain statements in this press release that are forward-looking and not statements of historical fact are forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements include, but are not limited to, statements that are not statements of historical fact, and may be identified by words such as "believe", "expect", "intend", "plan", "may", "should", "could", "might", "seek", "target", "will", "project", "forecast", "continue" or "anticipate" or their negatives or variations of these words or other comparable words or by the fact that these statements do not relate strictly to historical matters. You should not place undue reliance on these forward-looking statements, which are not guarantees of future performance. Forward-looking statements reflect our current views, expectations, beliefs or intentions with respect to future events, and are subject to a number of assumptions, involve known and unknown risks, many of which are beyond our control, as well as uncertainties and other factors that may cause our actual results, performance or achievements to be significantly different from any future results, performance or achievements expressed or implied by the forward-looking statements. Important factors that could cause or contribute to such differences include, among others, risks relating to: the plans, strategies and objectives of management for future operations; product development for NT219, CM24 and IM1240; the process by which such early stage therapeutic candidates could potentially lead to an approved drug product is long and subject to highly significant risks, particularly with respect to a joint development collaboration; the fact that drug development and commercialization involves a lengthy and expensive process with uncertain outcomes; our ability to successfully develop and commercialize our pharmaceutical products; the expense, length, progress and results of any clinical trials; the impact of any changes in regulation and legislation that could affect the pharmaceutical industry; the difficulty in receiving the regulatory approvals necessary in order to commercialize our products; the difficulty of predicting actions of the U.S. Food and Drug Administration or any other applicable regulator of pharmaceutical products; the regulatory environment and changes in the health policies and regimes in the countries in which we operate; the uncertainty surrounding the actual market reception to our pharmaceutical products once cleared for marketing in a particular market; the introduction of competing products; patents obtained by competitors; dependence on the effectiveness of our patents and other protections for innovative products; our ability to obtain, maintain and defend issued patents; the commencement of any patent interference or infringement action against our patents, and our ability to prevail, obtain a favorable decision or recover damages in any such action; and the exposure to litigation, including patent litigation, and/or regulatory actions, and other factors that are discussed in our Annual Report on Form 20-F for the year ended December 31, 2024 and in our other filings with the U.S. Securities and Exchange Commission ("SEC"), including our cautionary discussion of risks and uncertainties under "Risk Factors" in our Registration Statements and Annual Reports. These are factors that we believe could cause our actual results to differ materially from expected results. Other factors besides those we have listed could also adversely affect us. Any forward-looking statement in this press release speaks only as of the date which it is made. We disclaim any intention or obligation to publicly update or revise any forward-looking statement or other information contained herein, whether as a result of new information, future events or otherwise, except as required by applicable law. You are advised, however, to consult any additional disclosures we make in our reports to the SEC, which are available on the SEC's website, https://www.sec.gov.

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