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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): **May 14, 2025**

Xenetic Biosciences, Inc.

(Exact name of registrant as specified in charter)

Nevada	**001-37937**	**45-2952962**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

945 Concord Street **Framingham, Massachusetts** (Address of principal executive offices)	**01701** (Zip Code)

(781) 778-7720
(Registrant's telephone number, including area code)

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.001 par value per share	XBIO	The Nasdaq Stock Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 2.02. Results of Operations and Financial Condition.

On May 14, 2025, Xenetic Biosciences, Inc. (the "Company") issued a press release announcing results for the three months ended March 31, 2025.

The full text of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K and hereby incorporated in this Item 2.02 by reference. The information in this Item 2.02, including Exhibit 99.1 attached hereto, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing.

FORWARD-LOOKING STATEMENTS

This Form 8-K, including the press release, contains forward-looking statements that we intend to be subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements contained in this Form 8-K, including the press release, other than statements of historical facts may constitute forward-looking statements within the meaning of the federal securities laws. These statements can be identified by words such as "expects," "plans," "projects," "will," "may," "anticipates," "believes," "should," "intends," "estimates," and other words of similar meaning. Any forward-looking statements contained herein are based on current expectations, and are subject to a number of risks and uncertainties. Many factors could cause our actual activities, performance, achievements or results to differ materially from the activities and results anticipated in forward-looking statements. These risks and uncertainties include those described in the "Risk Factors" section as detailed from time to time in the Company's reports filed with the Securities and Exchange Commission ("SEC"), including the Company's annual report on Form 10-K, periodic quarterly reports on Form 10-Q, current reports on Form 8-K and other documents filed with the SEC. In addition, forward-looking statements may also be adversely affected by general market factors, general economic and business conditions, including potential adverse effects of public health issues and geopolitical events, such as the conflicts in the Ukraine and in the Middle East, on economic activity, competitive product development, product availability, federal and state regulations and legislation, the regulatory process for new product candidates and indications, manufacturing issues that may arise, patent positions, litigation, and shareholder activism, among other factors. The forward-looking statements contained in this Form 8-K, including the press release, speak only as of the date the statements were made, and the Company does not undertake any obligation to update forward-looking statements, except as required by law.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press Release dated May 14, 2025 pertaining to the financial results of the Company for the three months ended March 31, 2025.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

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 hereunto duly authorized.

XENETIC BIOSCIENCES, INC.

By: /s/ James Parslow
Name: James Parslow
Title: Interim Chief Executive Officer & Chief Financial Officer

Date: May 14, 2025

Exhibit 99.1

Xenetic Biosciences, Inc. Reports First Quarter 2025 Financial Results and Provides Business Update

Strategic focus on exploratory investigator-initiated clinical studies with institutional partners

Continued progress of DNase I development program towards IND and first-in-human study for treatment of pancreatic carcinoma

Ended the quarter with $5.2 million of cash to fund operations

FRAMINGHAM, MA – (May 14, 2025) – Xenetic Biosciences, Inc. (NASDAQ: XBIO) ("Xenetic" or the "Company"), a biopharmaceutical company focused on advancing innovative immuno-oncology technologies addressing difficult to treat cancers, today reported its financial results for the quarter ended March 31, 2025.

Recent Highlights

- Announced that its collaboration partner, PeriNess Ltd., entered into a Clinical Study Agreement to advance development of DNase platform for the treatment of relapsed/refractory osteosarcoma and Ewing sarcoma; and
- Continued pursuit of other strategic collaborations to advance the Company's technology.

"We remain focused on engaging with our strategic partners to participate in a series of exploratory studies to evaluate our systemic DNase I in combination with immunotherapy, chemotherapy, and radiotherapy in various oncology indications where there remains significant unmet need to advance our development programs forward. These partnerships allow us to advance our technology toward the clinic while utilizing our resources efficiently and minimizing our internal investment. Additionally, this development strategy opens up valuable opportunities to continue expanding our growing body of positive preclinical data that supports the use of DNase I across several cancer indications," commented James Parslow, Interim Chief Executive Officer and Chief Financial Officer of Xenetic.

Xenetic continues to advance its DNase-based technology towards Phase 1 clinical development for the treatment of pancreatic carcinoma and other locally advanced or metastatic solid tumors. Preliminary preclinical studies evaluating the combinations of DNase I with chemotherapy and DNase I with immuno-therapies in colorectal cancer models as well as CAR-T therapy have been completed.

Additionally, as previously announced in December 2024, Xenetic entered into a Clinical Trial Services Agreement with PeriNess, under which PeriNess will lead in the regulatory approval, operational execution and management of potential exploratory, investigator initiated studies of recombinant DNase as an adjunctive treatment in patients with pancreatic carcinoma and other locally advanced or metastatic solid tumors receiving chemotherapy and immunotherapy in Israeli medical centers.

Summary of Financial Results for First Quarter 2025

Net loss for the quarter ended March 31, 2025 was approximately $0.9 million. Revenue increased by approximately $0.1 million, or 16.1%, to approximately $0.6 million during the three months ended March 31, 2025 from approximately $0.5 million in the comparable quarter in 2024. Total operating costs and expenses for the three months ended March 31, 2025 decreased by approximately $244,000, or 13.7%, to approximately $1.5 million from approximately $1.8 million in the comparable quarter in 2024. The decrease was primarily due to a decrease in personnel costs and share-based expense related to the departures of the Company's former Chief Executive Officer and Chief Scientific Officer during the second quarter of 2024.

The Company ended the quarter with approximately $5.2 million of cash.

About Xenetic Biosciences

Xenetic Biosciences, Inc. is a biopharmaceutical company focused on advancing innovative immuno-oncology technologies addressing difficult to treat cancers. The Company's proprietary DNase technology is designed to improve outcomes of existing treatments, including immunotherapies, by targeting neutrophil extracellular traps (NETs), which are involved in the progression of many human cancers. Xenetic is currently focused on advancing its systemic DNase program into the clinic as an adjunctive therapy for pancreatic carcinoma and other locally advanced or metastatic solid tumors.

For more information, please visit the Company's website at www.xeneticbio.com and connect on X, LinkedIn, and Facebook.

Forward-Looking Statements

This press release contains forward-looking statements that we intend to be subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release other than statements of historical facts may constitute forward-looking statements within the meaning of the federal securities laws. These statements can be identified by words such as "expects," "plans," "projects," "will," "may," "anticipates," "believes," "should," "intends," "estimates," "remain," "focus", "confidence in", "potential", "continues" and other words of similar meaning, including, but not limited to, all statements regarding expectations for our DNase-base oncology platform, including statements regarding: our focus on exploratory investigator-initiated clinical studies with institutional partners, our strategic collaborations, including expectations under our Clinical Trial Services Agreement with PeriNess regarding certain investigator initiated studies of recombinant DNase in Israeli medical centers, our overall development strategy, our continued pursuit of other strategic collaborations to advance the Company's technology, our focus on leveraging strategic partners to advance out technology toward the clinic, our commitment to the DNase program, our expectations regarding further expansion of our body of clinical data, our focus on advancing innovative immune-oncology technologies addressing difficult to treat cancers, the DNase technology improving outcomes of existing treatments, including immunotherapies, by targeting neutrophil extracellular traps (NETs), which are involved in the progression of many human cancers, and our focus on advancing our systemic DNase program into the clinic as an adjunctive therapy for pancreatic carcinoma and locally advanced or metastatic solid tumors. Any forward-looking statements contained herein are based on current expectations and are subject to a number of risks and uncertainties. Many factors could cause our actual activities, performance, achievements, or results to differ materially from the activities and results anticipated in forward-looking statements. Important factors that could cause actual activities, performance, achievements, or results to differ materially from such plans, estimates or expectations include, among others, (1) unexpected costs, charges or expenses resulting from our manufacturing and collaboration agreements, including the Clinical Trial Services Agreement with PeriNess; (2) unexpected costs, charges or expenses resulting from the licensing of the DNase

platform; (3) uncertainty of the expected financial performance of the Company following the licensing of the DNase platform; (4) failure to realize the anticipated potential of the DNase technologies; (5) the ability of the Company to obtain funding and implement its business strategy; and (6) other risk factors as detailed from time to time in the Company's reports filed with the SEC, including its annual report on Form 10-K, periodic quarterly reports on Form 10-Q, current reports on Form 8-K and other documents filed with the SEC. The foregoing list of important factors is not exclusive. In addition, forward-looking statements may also be adversely affected by general market factors, general economic and business conditions, including potential adverse effects of public health issues and geopolitical events, such as the conflicts in the Ukraine and in the Middle East, on economic activity, competitive product development, product availability, federal and state regulations and legislation, the regulatory process for new product candidates and indications, manufacturing issues that may arise, patent positions, litigation, and shareholder activism, among other factors. The forward-looking statements contained in this press release speak only as of the date the statements were made, and the Company does not undertake any obligation to update forward-looking statements, except as required by law.

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