

**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, 2024

Mural Oncology plc
(Exact name of Registrant as Specified in Its Charter)

Ireland
(State or Other Jurisdiction
of Incorporation)

001-41837
(Commission File Number)

98-1748617
(IRS Employer
Identification No.)

10 Earlsfort Terrace
Dublin 2, D02 T380, Ireland
(Address of Principal Executive Offices)

Not Applicable
(Zip Code)

Registrant's Telephone Number, Including Area Code: +353-1-905-8020

Not Applicable
(Former Name or Former Address, if Changed Since Last Report)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Ordinary Shares, nominal value \$0.01	MURA	The Nasdaq Global Market

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

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, 2024, Mural Oncology plc (the "Company") issued a press release announcing the Company's financial results for the three months ended March 31, 2024. A copy of the press release is furnished herewith as Exhibit 99.1 and is incorporated herein by reference.

The information in this Form 8-K, including Exhibit 99.1, attached hereto, is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing by the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
99.1	Press release issued by Mural Oncology plc on May 14, 2024.
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.

Mural Oncology plc

Dated: May 14, 2024

By: /s/ Adam Cutler

Name: Adam Cutler

Title: Chief Financial Officer



Mural Oncology Announces First Quarter 2024 Financial Results and Provides Business Update

Mural's lead product candidate, nemvaleukin alfa, is in two potentially registrational trials in platinum resistant ovarian cancer and mucosal melanoma, both of which are on track with readouts expected in 1H 2025

A new, less frequent IV dose of nemvaleukin is also being evaluated both as a single agent and in combination with pembrolizumab in patients with cutaneous melanoma with preliminary data readouts anticipated in 2025

In April 2024, Mural presented preclinical data on its investigational engineered cytokine therapies targeting IL-18 and IL-12 and continues to expect candidate nominations for each program by the end of 2024

The company reiterates cash runway projection into 4Q 2025, with sufficient capital to fund key clinical readouts

WALTHAM, Mass and DUBLIN – May 14, 2024 – Mural Oncology plc (Nasdaq: MURA), a clinical-stage immuno-oncology company developing novel, investigational engineered cytokine therapies designed to address areas of unmet need for patients with a variety of cancers, today announced financial results for the first quarter of 2024 and provided a business update.

“We remain on track to share data readouts in the first half of next year from our two late-stage, potentially registrational studies of nemvaleukin. We are also excited about the potential of our less frequent dosing regimen of nemvaleukin that we are evaluating in a clinical trial as announced in March,” said Caroline Loew, Ph.D., CEO of Mural Oncology. “As we look to further strengthen our pipeline, we have made progress with our preclinical programs for interleukin-18 (IL-18) and IL-12. Both are targets that have generated a great deal of interest in the immuno-oncology space, and we are diligently working to make candidate nominations for each program. We continue to be well capitalized to achieve our key clinical readouts and are laser-focused on the delivery of our goals.”

Recent Corporate Highlights and Upcoming Milestones

- **The company's late-stage clinical trials remain on track, with details as follows:**
 - **ARTISTRY-7** is a potentially registrational, phase 3 clinical trial evaluating nemvaleukin in combination with pembrolizumab compared to investigators' choice of chemotherapy in approximately 448 patients with platinum-resistant ovarian cancer. Mural expects to report interim overall survival (OS) results based on approximately 75% of events in the first quarter of 2025. The company anticipates reporting final OS results in the second quarter of 2026.

- o Cohort 2 of **ARTISTRY-6** is a potentially registrational, phase 2 clinical trial evaluating nemvaleukin as a monotherapy in 90 patients with mucosal melanoma. The company expects to report top-line data results from cohort 2 of **ARTISTRY-6** in the first half of 2025.
 - o Mural is evaluating a newly selected dose of less-frequent intravenous (LFIV) **nemvaleukin** in open-label cohorts of patients with cutaneous melanoma in **ARTISTRY-6**. The new dosing regimen is a shift from five daily infusions (days 1-5) to two infusions (days 1 and 8), per three-week cycle. The company expects preliminary data readouts in the monotherapy cohort in the first half of 2025, and in the combination cohort with pembrolizumab in the second half of 2025.
 - o The company looks forward to presenting data from **ARTISTRY-3**, an evaluation of the LFIV dosing of nemvaleukin, at the upcoming American Society of Clinical Oncology (ASCO) annual meeting in June 2024.
- Mural presented **IL-18** and **IL-12** preclinical data for the first time at the American Association of Clinical Research (AACR) annual meeting in April 2024 that outlined the company's novel approach to protein engineering. Both poster presentations are available at www.muraloncology.com/publications.
 - o **IL-18** poster synopsis: Native IL-18 is a potent immune-stimulating cytokine, but its efficacy is blunted by IL-18 binding protein (IL-18BP), a high affinity decoy receptor that binds to, and neutralizes, IL-18, thereby rendering it ineffective. Its potency is also limited by its short half-life. **Mural's IL-18 variant** contains mutations designed to eliminate binding to IL-18BP while minimally impacting the native IL-18 structure. The company has also fused IL-18 to protein scaffolds to extend the half-life and increase IL-18's exposure. Together, these may lead to a more durable immunological effect.
 - o **IL-12** poster synopsis: Native IL-12 is a highly potent pro-inflammatory cytokine, but because of its very narrow therapeutic index, it can be toxic with systemic exposure. **Mural's IL-12 variant** splits the molecule into two inactive monomers: IL12p35 and IL-12p40. These individual subunits are then separately fused to antibody fragments, which deliver and concentrate IL-12 specifically in the tumor microenvironment with the goal of limiting systemic exposure.
 - o Mural intends to nominate development candidates for these investigational engineered IL-18 and IL-12 cytokine therapies later this year.

Financial Results for the Quarter Ended March 31, 2024

- **Cash Position:** As of March 31, 2024, cash, cash equivalents, and marketable securities were \$231.7 million.
 - **R&D Expenses:** Research and development expenses were \$26.9 million for the first quarter of 2024 compared to \$40.4 million for the first quarter of 2023. The decrease in expenses was primarily related to decreased headcount compared to the headcount
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allocated to the company by the former parent prior to the separation, decreased spend on the ARTISTRY-1 and ARTISTRY-2 trials as activities related to the ARTISTRY-1 and ARTISTRY-2 trials wound down in 2023, and decreased manufacturing spend on other programs. These decreases were partially offset by increased spend on the ARTISTRY-7 trial related to increased enrollment and associated clinical trial expenses.

- **G&A Expenses:** General and administrative expenses were \$7.2 million for the first quarter of 2024 compared to \$3.7 million for the first quarter of 2023. The increase in expenses was primarily due to increases in employee-related expenses and professional fees associated with operating as a standalone public company after the separation.
- **Net Loss:** Net loss was \$30.9 million for the first quarter of 2024 compared to \$46.5 million for the first quarter of 2023.

Financial Guidance

- The company reaffirms guidance that its cash, cash equivalents, and marketable securities are expected to fund its operations into the fourth quarter of 2025.
- As noted in the 2023 year-end financial results press release, Mural anticipates reporting lower year-over-year operating expenses in 2024. Also, management forecasts higher operating expenses in 2024 versus 2025 due to the timing of clinical trial expenses.

About Nemvaleukin

Nemvaleukin alfa (nemvaleukin) is a novel, engineered cytokine designed to leverage antitumor effects of the IL-2 pathway while mitigating its hallmark toxicities that limit its use. Nemvaleukin selectively binds to the intermediate-affinity IL-2 receptor (IL-2R) and is sterically occluded from binding to the high-affinity IL-2R. Because of this molecular design, nemvaleukin treatment leads to preferential expansion of antitumor CD8+ T cells and natural killer cells, with minimal expansion of immunosuppressive regulatory T cells. Nemvaleukin is currently being evaluated in two potentially registrational late-stage trials.

About Mural Oncology's IL-18 Program

IL-18 is a potent immune-stimulating cytokine, but its efficacy is blunted by IL-18 binding protein (IL-18BP), a high affinity decoy receptor that binds to, and neutralizes, IL-18, thereby rendering it ineffective. Native IL-18's potency is also limited by its short half-life. Mural Oncology's novel approach to protein engineering is designed to mitigate these issues. First, Mural introduced mutations to IL-18 that eliminate binding to IL-18BP while minimally impacting the native IL-18 structure. Second, it fused IL-18 to protein scaffolds which extend the half-life and increase IL-18's exposure. Together, these have demonstrated more durable immunological effect in preclinical studies. Mural intends to nominate a development candidate for its IL-18 program by the end of this year.

About Mural Oncology's IL-12 Program

Native IL-12 is a highly potent pro-inflammatory cytokine, but because of its very narrow therapeutic index, it can also be toxic with systemic exposure. To mitigate this hallmark toxicity, Mural, through its novel approach to protein engineering, split the IL-12p70 heterodimer into two inactive monomers: IL12p35 and IL-12p40. These individual subunits are then separately fused to antibody fragments and sequentially injected, which deliver and concentrate IL-12 specifically

in the tumor microenvironment to limit systemic exposure. In preclinical studies, Mural's engineered IL-12 achieved the desired reduction in serum while maintaining tumor concentrations providing the potential to reduce systemic toxicities. Mural intends to nominate a development candidate for its IL-12 program by the end of this year.

About Mural Oncology

Mural Oncology is leveraging its novel protein engineering platform to develop cytokine-based immunotherapies for the treatment of cancer. By combining our expertise in cytokine biology and immune cell modulation and our protein engineering platform, we are developing medicines to deliver meaningful and clinical benefits to people living with cancer. Our mission is to broaden the potential, and reach, of cytokine-based immunotherapies to improve the lives of patients. Our lead candidate, nemvaleukin, is currently in potentially registrational trials in mucosal melanoma and platinum-resistant ovarian cancer. Mural Oncology has its registered office in Dublin, Ireland, and its primary facilities in Waltham, Mass. For more information, visit Mural Oncology's website at www.muraloncology.com and follow us on LinkedIn and X.

Forward-Looking Statements

Statements contained in this press release regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Such statements include, but are not limited to, statements regarding: the company's pipeline and development programs, including the expected timing of clinical updates and candidate selection, the potential of the company's product candidates and programs to address unmet medical needs, the continued progress of its pipeline and programs, the amount of operating expense to be incurred by the company in future periods and the sufficiency of its cash resources to fund its operations for the period anticipated. Any forward-looking statements in this statement are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. Risks that contribute to the uncertain nature of the forward-looking statements include, among others, the inherent risks and uncertainties associated with competitive developments, preclinical development, clinical trials, recruitment of patients, product development activities and regulatory approval requirements; that preclinical or interim results and data from ongoing clinical studies of the company's cytokine programs and product candidates may not be predictive of future or final results from such studies, results of future clinical studies or real-world results; future clinical trials or future stages of ongoing clinical trials may not be initiated or completed on time or at all; the company's product candidates, including nemvaleukin, could be shown to be unsafe or ineffective; changes in the cost, scope and duration of development activities; the U.S. Food and Drug Administration may make adverse decisions regarding the company's product candidates; the separation may adversely impact the company's ability to attract or retain key personnel that support the company's oncology business; and those other risks and uncertainties set forth in the company's filings with the Securities and Exchange Commission ("SEC"), including its Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2024 and in subsequent filings the company may make with the SEC. All forward-looking statements contained in this press release speak only as of the date of this press release. The company anticipates that subsequent events and developments will cause its views to change. However, the company undertakes no obligation to update such statements to

reflect events that occur or circumstances that exist after the date of this press release, except as required by law.

Mural Oncology plc and Subsidiaries
Consolidated Balance Sheets
(in thousands)

	March 31, 2024	December 31, 2023
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 107,263	\$ 270,852
Marketable securities	124,411	—
Receivable from Former Parent	1,895	5,548
Prepaid expenses	5,239	150
Other current assets	620	787
Total current assets	<u>239,428</u>	<u>277,337</u>
Property and equipment, net	10,612	11,403
Right-of-use assets	11,418	12,747
Restricted cash	1,969	258
Other assets	77	—
TOTAL ASSETS	<u>\$ 263,504</u>	<u>\$ 301,745</u>
LIABILITIES AND EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 1,567	\$ 5,973
Accrued expenses	13,524	16,946
Operating lease liabilities—short-term	6,156	6,098
Total current liabilities	<u>21,247</u>	<u>29,017</u>
Operating lease liabilities—long-term	7,330	8,911
Total liabilities	<u>28,577</u>	<u>37,928</u>
Preferred shares, nominal value \$0.01; 50,000,000 shares authorized at March 31, 2024 and December 31, 2023; no shares issued or outstanding at March 31, 2024 or December 31, 2023	—	—
Ordinary shares, nominal value \$0.01; 450,000,000 ordinary shares authorized at March 31, 2024 and December 31, 2023; 16,922,550 and 16,689,740 shares issued and outstanding at March 31, 2024 and December 31, 2023, respectively	169	167
Additional paid-in capital	296,606	294,507
Unrealized loss on marketable securities	(74)	—
Accumulated deficit	(61,774)	(30,857)
Total equity	<u>234,927</u>	<u>263,817</u>
TOTAL LIABILITIES AND EQUITY	<u>\$ 263,504</u>	<u>\$ 301,745</u>

Mural Oncology plc and Subsidiaries
Consolidated Statements of Operations and Comprehensive Loss
(in thousands except share and per share amounts)

	<u>Three Months Ended March 31,</u>	
	<u>2024</u>	<u>2023</u>
Operating expenses		
Research and development	\$ 26,868	\$ 40,410
General and administrative	7,165	3,746
Total operating expenses	<u>34,033</u>	<u>44,156</u>
Operating loss	(34,033)	(44,156)
Other income	3,116	—
Income tax provision	—	(2,311)
Net loss	<u>\$ (30,917)</u>	<u>\$ (46,467)</u>
Other comprehensive loss:		
Unrealized loss on marketable securities	\$ (74)	\$ —
Other comprehensive loss	(74)	—
Comprehensive loss	<u>\$ (30,991)</u>	<u>\$ (46,467)</u>
Net loss per ordinary share - basic and diluted	<u>\$ (1.84)</u>	<u>\$ (2.78)</u>
Weighted average ordinary shares outstanding - basic and diluted	<u>16,793,657</u>	<u>16,689,740</u>

Investors:

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