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 September 2023

(Commission File No. 001-38215)

NUCANA PLC

(Translation of registrant's name into English)

3 Lochside Way Edinburgh EH12 9DT United Kingdom (Address of registrant's principal executive office)

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

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101 (b) (1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101 (b) (7):

Other Events

On September 18, 2023, NuCana plc (the "Company") issued a press release announcing presentations from the following ongoing studies: (i) NuTide:302 study of NUC-3373, (ii) NuTide:323 study of NUC-3373, (iii) NuTide:303 study of NUC-3373, and (iv) NuTide:701 study of NUC-7738 at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics 2023. The press release is attached as Exhibit 99.1 hereto and is incorporated by reference herein.

The information in the attached Exhibit 99.1 is being furnished and shall not be deemed "filed" for the 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 made by the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as otherwise set forth herein or as shall be expressly set forth by specific reference in such a filing.

Exhibits

99.1 Press Release, dated September 18, 2023

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.

NuCana plc

By: /s/ Donald Munoz

Name: Donald Munoz Title: Chief Financial Officer

Date: September 18, 2023

NuCana Announces Presentations at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics 2023

Edinburgh, United Kingdom, September 18, 2023 (GLOBE NEWSWIRE)—NuCana plc (NASDAQ: NCNA) announced four presentations at the upcoming AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics 2023 being held October 11-15, 2023 in Boston, Massachusetts.

The details of NuCana's presentations at the meeting are as follows:

Abstract title: NUC-3373 in combination with irinotecan (NUFIRI) or oxaliplatin (NUFOX) and bevacizumab for second-line treatment of patients with advanced colorectal cancer (NuTide:302) Poster number: B048 Session: Poster Session B Session date and time: Friday, October 13 from 12:30pm-4:00pm Presenting Author: Dr. Khurum Khan

Abstract title: Phase II study of NUC-3373, leucovorin, irinotecan (NUFIRI) + bevacizumab vs FOLFIRI + bevacizumab for the second-line treatment of patients with advanced/metastatic colorectal cancer (NuTide:323) Poster number: B049 Session: Poster Session B Date and time: Friday, October 13 from 12:30pm-4:00pm Presenting Author: Professor Richard Wilson

Abstract title: Phase Ib/II open label, multi-arm, parallel cohort dose finding and expansion study of NUC-3373 in combination with pembrolizumab in patients with advanced solid tumors or docetaxel in patients with lung cancer (NuTide:303) Poster number: C029 Session: Poster Session C Session date and time: Saturday, October 14 from 12:30pm-4:00pm Presenting Author: Professor Richard Wilson

Abstract title: NUC-7738 in combination with pembrolizumab in patients with metastatic melanoma: Phase 2 results from the NuTide:701 study Poster number: C032 Session: Poster Session C

Session date and time: Saturday, October 14 from 12:30pm-4:00pm Presenting Author: Professor Sarah Blagden

About NuCana

NuCana is a clinical-stage biopharmaceutical company focused on significantly improving treatment outcomes for patients with cancer by applying our ProTide technology to transform some of the most widely prescribed chemotherapy agents, nucleoside analogs, into more effective and safer medicines. While these conventional agents remain part of the standard of care for the treatment of many solid and hematological tumors, they have significant shortcomings that limit their efficacy and they are often poorly tolerated. Utilizing our proprietary technology, we are developing new medicines, ProTides, designed to overcome the key limitations of nucleoside analogs and generate much higher concentrations of anti-cancer metabolites in cancer cells. NuCana's pipeline includes NUC-3373 and NUC-7738. NUC-3373 is a new chemical entity derived from the nucleoside analog 5-fluorouracil, a widely used chemotherapy agent. NUC-3373 is currently being evaluated in three ongoing clinical studies: a Phase 1b/2 study (NuTide:302) in combination with leucovorin, irinotecan or oxaliplatin, and bevacizumab in patients with metastatic colorectal cancer; a randomized Phase 2 study (NuTide:323) in combination with leucovorin, irinotecan, and bevacizumab for the second-line treatment of patients with advanced colorectal cancer; and a Phase 1b/2 modular study (NuTide:303) of NUC-3373 in combination with the PD-1 inhibitor pembrolizumab for patients with advanced solid tumors and in combination with docetaxel for patients with lung cancer. NUC-7738 is a transformation of 3'-deoxyadenosine, a novel anti-cancer nucleoside analog. NUC-7738 is in the Phase 2 part of a Phase 1/2 study in patients with advanced solid tumors which is evaluating NUC-7738 as a monotherapy and in combination with pembrolizumab.

Forward-Looking Statements

This press release may contain "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are based on the beliefs and assumptions and on information currently available to management of NuCana plc (the "Company"). All statements other than statements of historical fact contained in this press release are forward-looking statements, including statements concerning the Company's planned and ongoing clinical studies for the Company's product candidates and the potential advantages of those product candidates, including NUC-3373 and NUC-7738; the initiation, enrollment, timing, progress, release of data from and results of those planned and ongoing clinical studies; the Company's goals with respect to the development, regulatory pathway and potential use, if approved, of each of its product candidates; the utility of prior non-clinical and clinical data in determining future clinical results; and the sufficiency of the Company's current cash, cash equivalents and marketable securities to fund its planned operations into 2025. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other comparable terminology. Forward-looking statements involve known any future results, performance or achievements to be materially different from any future results, performance or achievements to be materially different from any future results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These risks and uncertainties include, but are not limited to, the risks and uncertainties set forth in the "Risk Factors" section of the Company's Annual Report on Form 20-F for the year ended December 31, 2022 filed with the Securities and Exchange Commission ("SEC") on April 4, 2023, and subsequent assumptions only as of the date of this press release. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, the Company assumes no obligation to publicly update any forward-looking statements for any reason after the date of this press release to conform any of the forward-looking statements to actual results or to changes in its expectations.

For more information, please contact:

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