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

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**FORM 6-K**

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**REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16  
OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the month of October 2023**

**(Commission File No. 001-38215)**

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**NUCANA PLC**

**(Translation of registrant's name into English)**

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**3 Lochside Way  
Edinburgh EH12 9DT  
United Kingdom**

**(Address of registrant's principal executive office)**

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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

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):

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**Other Events**

On October 16, 2023, NuCana plc (the “Company”) issued a press release announcing the presentation of data from the ongoing from the ongoing 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 October 16, 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: October 16, 2023

**NuCana Presents Promising Data on NUC-7738 at the AACR-NCI-EORTC  
International Conference on Molecular Targets and Cancer Therapeutics 2023**

***Data from the NuTide:701 Study Indicate NUC-7738 May Potentiate the Activity of Anti-PD-1 Agents in Patients who were Refractory to or Progressed on Prior Immunotherapy, including Anti-PD-1 Therapy***

***Several Patients Achieved Reductions in Tumor Volume and Prolonged Time on Treatment***

Boston, Massachusetts, October 16, 2023 (GLOBE NEWSWIRE) - NuCana plc (NASDAQ: NCNA) announced a presentation on the ongoing NuTide:701 study of NUC-7738 at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics 2023 that took place October 11-15, 2023 in Boston, Massachusetts.

The NuTide:701 study is in the Phase 2 part investigating NUC-7738 both as a monotherapy in solid tumors and in combination with the anti-PD-1 therapy pembrolizumab in patients with metastatic cutaneous melanoma. All patients had exhausted standard available therapies.

NUC-7738 has been well tolerated both as a monotherapy and in combination with pembrolizumab. Encouraging signs of efficacy, including tumor volume reductions and prolonged time on treatment have been observed in both the monotherapy and combination cohorts.

In the combination cohort of melanoma patients, who had all been previously treated with anti-PD-1 based therapy, numerous patients achieved tumor volume reductions and prolonged time on treatment. One patient who was refractory to the anti-PD-1 plus anti-CTLA-4 therapy combination of nivolumab plus ipilimumab achieved a 50% reduction in tumor volume on NUC-7738 plus pembrolizumab and remains on treatment. Seven of the eleven patients recruited to date remain on treatment.

Patient tumor biopsy data showed that, following treatment with NUC-7738 plus pembrolizumab, expression of PD-1 was reduced and CD8+ T-cells increased, indicating that NUC-7738 may have the ability to potentiate immunotherapy. This finding provides a rationale as to why NUC-7738 plus pembrolizumab may be effective in patients who have progressed on prior immunotherapy.

Hugh S. Griffith, NuCana's Founder and Chief Executive Officer said: "We are excited to have reported the first data on NUC-7738 in combination with pembrolizumab in patients with melanoma who had previously received immunotherapy. The patient biopsy data indicate that NUC-7738 may make tumors sensitive to treatment with immunotherapy, including anti-PD-1 agents. We look forward to sharing additional updates as these data continue to mature."

## 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; and the utility of prior non-clinical and clinical data in determining future clinical results. 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 and unknown risks, uncertainties and other factors that may cause the Company's actual 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 reports that the Company files with the SEC. Forward-looking statements represent the Company's beliefs and 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.*

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For more information, please contact:

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