

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

---

**FORM 6-K**

---

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

**For the month of October 2019**

**(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.

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):

---

## Other Events

On October 29, 2019, NuCana plc (the “Company”) issued a press release announcing the presentation of interim data from its Phase Ib NuTide:302 study in patients with advanced colorectal cancer and the presentation of data from non-clinical studies of NUC-7738, which is currently being evaluated in the Phase 1 NuTide:701 study in patients with advanced solid tumors, at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics in Boston, Massachusetts. 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 29, 2019.](#)

**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 29, 2019

**NuCana Presents Data at AACR-NCI-EORTC International Conference on  
Molecular Targets and Cancer Therapeutics**

***NUC-3373: Favorable Pharmacokinetic Profile Demonstrated***

***NUC-7738: Multiple Anti-Cancer Mechanisms of Action Identified, including Inhibition of  
the mTOR Pathway***

Boston, MA, October 29, 2019 (GLOBE NEWSWIRE) — NuCana plc (NASDAQ: NCNA) announced results from two of its clinical stage ProTides, NUC-3373 and NUC-7738, at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics in Boston, Massachusetts.

NuCana presented interim data from the Phase Ib NuTide:302 study in patients with advanced colorectal cancer confirming the previously reported favorable pharmacokinetic profile of NUC-3373. The anti-cancer mechanism of action of NUC-3373 has been previously observed in non-clinical studies, which NuCana believes further supports the biological advantages of NUC-3373 over 5-FU. NUC-3373 is a ProTide transformation of 5-fluorouracil (5-FU), one of the most widely prescribed anti-cancer agents, and is currently being investigated in two clinical studies (NuTide:301 and NuTide:302).

Hugh S. Griffith, NuCana's Chief Executive Officer, said: "Our aim is to replace 5-FU as the backbone of treatment for patients with colorectal cancer, so we are excited about these data. The next stage of NUC-3373's development will investigate NUC-3373 in patients with advanced colorectal cancer in combination with oxaliplatin and irinotecan."

NUC-7738, NuCana's third ProTide to enter the clinic, is a transformation of 3'-deoxyadenosine (3'-dA). Six patients have received NUC-7738 to date in the Phase I NuTide:701 study. In non-clinical studies of NUC-7738, NuCana has observed additional anti-cancer mechanisms of action to those previously reported for 3'-dA. Significantly higher levels of anti-cancer metabolites are generated inside cancer cells than with 3'-dA, causing increased cell injury. Furthermore, the non-clinical data demonstrated that NUC-7738 activates AMPK, which may inhibit the mTOR pathway, resulting in further cancer cell death.

Mr. Griffith added: "Our early clinical experience with NUC-7738 has been encouraging and we look forward to sharing further data as the study progresses."

Details of NuCana's poster presentations at AACR-NCI-EORTC are as follows:

Abstract Title: Inhibition of thymidylate synthase by the ProTide NUC-3373 (Abstract #CO59, Poster #59)

SESSION: Poster Session C: Therapeutic Agents- Other

DATE: Tuesday, October 29, 2019, 12:30 p.m. – 04:00 p.m. EDT

LOCATION: Level 2, Hall D

Abstract Title: NUC-7738, a novel ProTide transformation of 3'-deoxyadenosine, activates AMPK and kills renal cancer cells  
(Abstract #C122, Poster #122)  
SESSION: Poster Session C: Tumor Suppressors  
DATE: Tuesday, October 29, 2019, 12:30 p.m. – 04:00 p.m. EDT  
LOCATION: Level 2, Hall D

Additional details can be found on the [AACR website](#).

### **About NuCana plc**

NuCana is a clinical-stage biopharmaceutical company focused on significantly improving treatment outcomes for cancer patients 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, their efficacy is limited by cancer cell resistance mechanisms and they are often poorly tolerated. Utilizing our proprietary technology, we are developing new medicines, ProTides, designed to overcome key cancer resistance mechanisms and generate much higher concentrations of anti-cancer metabolites in cancer cells. Our most advanced ProTide candidates, Acelarin and NUC-3373, are new chemical entities derived from the nucleoside analogs gemcitabine and 5-fluorouracil, respectively, two widely used chemotherapy agents. Acelarin is currently being evaluated in three clinical studies, including a Phase Ib study for patients with biliary tract cancer, a Phase II study for patients with ovarian cancer and a Phase III study for patients with metastatic pancreatic cancer for which enrollment has been suspended. NUC-3373 is currently in a Phase I study for the potential treatment of a wide range of advanced solid tumors and a Phase Ib study for patients with advanced colorectal cancer. Our third ProTide, NUC-7738, is a transformation of a novel nucleoside analog (3'-deoxyadenosine or cordycepin) and is in a Phase I study for patients with advanced solid tumors.

### **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 NuTide:301, NuTide:302 and NuTide:701 clinical studies; the Company’s planned and ongoing clinical studies for the Company’s product candidates and the potential advantages of those product candidates, including Acelarin, NUC-3373 and NUC-7738; the initiation, enrolment, timing, progress, release of data from and results of those planned and ongoing clinical studies; the Company’s goals with respect to the development 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, 2018 filed with the Securities and Exchange Commission ("SEC") on March 7, 2019, 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.*

For more information, please contact:

Hugh S. Griffith  
Chief Executive Officer  
NuCana plc  
Tel: +44 131 357 1111  
[info@nucana.com](mailto:info@nucana.com)

Westwicke, an ICR Company  
Chris Brinzey  
Tel: +1 339-970-2843  
[chris.brinzey@westwicke.com](mailto:chris.brinzey@westwicke.com)

RooneyPartners  
Marion Janic  
Tel: +1 212-223-4017  
[mjanic@rooneyco.com](mailto:mjanic@rooneyco.com)