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 October 2020

(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 13, 2020, NuCana plc (the "Company") issued a press release announcing the appointment of Bali Muralidhar, M.D., Ph.D. to the Company's Board of Directors. The press release is attached as Exhibit 99.1 and is incorporated by reference herein.

Exhibits

99.1 Press Release, dated October 13, 2020

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 13, 2020

Exhibit 99.1

NuCana Expands its Board of Directors with the Appointment of Bali Muralidhar

Abingworth Makes Significant Investment in NuCana's Recent $80 million Public Offering

Edinburgh, United Kingdom, October 13, 2020 (GLOBE NEWSWIRE) – NuCana plc, a clinical-stage biopharmaceutical company focused on significantly improving treatment outcomes for patients with cancer, announced the appointment of Bali Muralidhar, M.D., Ph.D. to its Board of Directors.

"We are delighted to welcome Bali to NuCana's Board," said Hugh S. Griffith, NuCana's Founder and Chief Executive Officer. "He is internationally recognized for his investing acumen in the life sciences sector and we believe his financial and clinical experience will bring significant value to NuCana as we advance our ProTide pipeline. We believe Abingworth's decision to make a substantial investment in NuCana as part of our recent successful public offering further validates the potential of our ProTides to transform the treatment of patients with cancer. We were pleased that we were able to attract several new specialist healthcare investors to this financing in addition to the significant support from our existing investors. This financing will enable NuCana to advance the development of our ProTides and achieve several important milestones."

Dr. Muralidhar said, "We are excited to be a substantial new investor in NuCana. I look forward to serving on the NuCana Board as they leverage their ProTide technology platform to develop more efficacious and safer medicines for patients with cancer."

About Abingworth

Abingworth is a leading transatlantic life sciences investment firm. Abingworth helps transform cutting-edge science into novel medicines by providing capital and expertise to top calibre management teams and building world-class companies. Since 1973, Abingworth has invested in 167 life science companies, leading to more than 40 M&A/exits and close to 70 IPOs. Abingworth's therapeutic focused investments fall into 3 categories: seed and early-stage, development stage, and clinical co-development. Abingworth supports its portfolio companies with a team of experienced professionals at offices in London, Menlo Park (California) and Boston.

About NuCana

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. NuCana's robust pipeline includes three ProTides in clinical development. 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 four clinical studies, including a Phase III study for patients with biliary tract

cancer, a Phase Ib study for patients with biliary tract cancer, a Phase II study for patients with platinum-resistant 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 metastatic colorectal cancer. Our third ProTide, NUC-7738, is a transformation of a novel nucleoside analog (3'-deoxyadenosine) 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 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, enrollment, timing, progress, release of data from and results of those planned and ongoing clinical studies; 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, 2019 filed with the Securities and Exchange Commission ("SEC") on March 10, 2020, 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:

NuCana plc
Hugh S. Griffith
Chief Executive Officer
T: +44 131 357 1111
E: info@nucana.com

Westwicke, an ICR Company
Chris Brinzey
T: +1 339-970-2843
E: chris.brinzey@westwicke.com

RooneyPartners
Marion Janic
T: +1 212-223-4017
E: mjanic@rooneyco.com