

Edinburgh, U.K. 27th February 2019

NuCana to Present at the American Association for Cancer Research (AACR) Annual Meeting 2019

NUC-3373 Inhibits Thymidylate Synthase and Induces Endoplasmic Reticulum Stress in Colorectal Cancer Cells

Edinburgh, United Kingdom, February 27, 2019 (GLOBE NEWSWIRE) – NuCana plc (NASDAQ:NCNA) today announced that two abstracts related to NUC-3373 were selected for presentation at the AACR Annual Meeting 2019 to be held March 29 to April 3, 2019, in Atlanta, Georgia. NUC-3373, NuCana’s second ProTide™ in clinical development, is a transformation of the active anti-cancer metabolite of 5-fluorouracil (5-FU), one of the most widely prescribed anti-cancer agents. NuCana is a clinical-stage biopharmaceutical company focused on significantly improving treatment outcomes for patients with cancer.

The scientific findings from these non-clinical studies demonstrate that NUC-3373 has an additional mechanism of action for promoting anti-cancer activity that is independent of the DNA damage pathway. NUC-3373 inhibits the target enzyme, thymidylate synthase (TS), causing nuclear to cytoplasmic translocation and induction of endoplasmic reticulum stress.

Hugh Griffith, NuCana’s Chief Executive Officer, said: “These latest scientific data highlight NUC-3373’s mechanisms of action and further support the clinical development program of this ProTide.” These non-clinical data build upon the interim results from the ongoing Phase 1 study of NUC-3373 in patients with advanced solid tumors, which were presented at the European Society for Medical Oncology (ESMO) 2018 Congress in Munich, Germany. Those results showed that NUC-3373 has the potential to overcome the key cancer resistance mechanisms associated with 5-FU and capecitabine and may be capable of achieving anti-cancer activity even in patients who have progressed on prior treatment with a fluoropyrimidine.

Mr. Griffith continued: “We look forward to presenting additional data in 2019 from the ongoing clinical study with single agent NUC-3373 in patients with advanced solid tumors. We are also excited about announcing in 2019 the first data from the NuTide:302 study, evaluating NUC-3373 in combination with other agents typically administered with 5-FU in patients with advanced colorectal cancer.”

Details of NuCana’s poster presentations at AACR are as follows:

Abstract Title:	NUC-3373 induces a cytoplasmic translocation of thymidylate synthase in colorectal carcinoma cell lines (Abstract #2081, Poster #18)
Session Category:	Experimental and Molecular Therapeutics
Session Title:	Cellular Responses to Anticancer Agents 2 / Overcoming Resistance
Session Date and Time:	Monday April 1, 2019 1:00 PM - 5:00 PM
Location:	Georgia World Congress Center, Exhibit Hall B, Poster Section 10

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Abstract Title: NUC-3373 induces endoplasmic reticulum stress in colorectal cancer cells
(Abstract #2082, Poster #19)

Session Category: Experimental and Molecular Therapeutics

Session Title: Cellular Responses to Anticancer Agents 2 / Overcoming Resistance

Session Date and Time: Monday April 1, 2019 1:00 PM - 5:00 PM

Location: Georgia World Congress Center, Exhibit Hall B, Poster Section 10

Abstracts and full session details can be found at www.aacr.org

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 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 pancreatic cancer. 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.

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 non-clinical and 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 the planned and ongoing clinical studies; and the utility of 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

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Company's Annual Report on Form 20-F for the year ended December 31, 2017 filed with the Securities and Exchange Commission ("SEC") on March 22, 2018, 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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