

CERTAIN PORTIONS OF THIS LETTER AS FILED VIA EDGAR HAVE BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED FOR THE OMITTED PORTIONS, WHICH HAVE BEEN REPLACED WITH THE PLACEHOLDER “[*]”.**

September 6, 2017

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attention: Keira Nakada
Kenneth Vaughn
Jeffrey Gabor
Mary Beth Breslin

**Re: NuCana plc (formerly NuCana BioMed Limited)
Registration Statement on Form F-1 (File No. 333-220321)**

Ladies and Gentlemen:

On behalf of NuCana plc (the “**Company**”), set forth below is additional information to supplement the Company’s prior response to comment 6 contained in the letter dated July 24, 2017 from the staff (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) relating to the Draft Registration Statement on Form F-1, confidentially submitted by the Company to the Commission on June 26, 2017. Such Draft Registration Statement has been updated by the Company as reflected in the amended Draft Registration Statement submitted on August 4, 2017 and the registration statement referenced above (File No. 333-220321), which was publicly filed by the Company on September 1, 2017 (the “**Registration Statement**”). The supplemental response set forth below is based on information provided to Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. by representatives of the Company.

Confidential Treatment Request

Due to the commercially sensitive nature of information contained herein, the Company hereby requests, pursuant to 17 C.F.R. § 200.83, that certain portions of this letter be maintained in confidence, not be made part of any public record and not be disclosed to any person as they contain confidential information. A redacted letter has been filed on EDGAR, omitting the confidential information contained in the letter. The Company has separately provided to the Staff a copy of this letter, marked to show the portions redacted from the version filed via EDGAR and for which the Company is requesting confidential treatment. In accordance with 17 C.F.R. § 200.83(d)(1), if any person (including any governmental employee who is not an employee of the Commission) should request access to or an opportunity to inspect this letter, we request that we be immediately notified of any such request, be furnished with a copy of all written materials pertaining to such request (including, but not limited to, the request itself) and be given at least ten business days advance notice of any intended release so that the Company may, if deemed necessary or appropriate, pursue any remedies available to it. In such an event, we request that you telephone the undersigned rather than rely upon the U.S. mail for such notice. The address and telephone number for John T. Rudy, the responsible representative, is c/o Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, MA 02111, telephone number (617) 542-6000.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

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Staff Comment and Company Response

Critical Accounting Policies, Judgements and Estimates

Valuation of Ordinary Shares, p. 81

Comment 6: We may have additional comments on your accounting for equity issuances including stock based compensation and convertible instruments. Once you have an estimated offering price, please provide us an analysis explaining the reasons for the differences between the recent valuations of your common stock leading up to the IPO and the estimated offering price.

Response:

During 2016, the Company issued options for its ordinary shares on June 30, August 22, October 28 and December 12. During the six months ended June 30, 2017, the Company issued options for its ordinary shares on May 16. Consistent with the Company's historical practice, the fair value of the ordinary shares underlying each of these option grants was determined on each grant date and, in the absence of a public trading market for the Company's ordinary shares or American Depositary Shares ("ADSs"), various objective and subjective factors were considered to determine fair value, as described in detail in the Registration Statement, including:

- the lack of an active public market for the Company's ordinary shares or ADSs, as well as the Company's series A and series B convertible participating shares;
- the prices of the Company's series A and series B convertible participating shares sold to outside investors in arm's length transactions, and the rights, preferences and privileges of the series A and series B convertible participating shares relative to its ordinary shares;
- the data generated from the Company's research and development programs and financial condition;
- the material risks related to the Company's business and industry;
- the Company's business strategy;
- the market performance of publicly traded companies in the life sciences and biotechnology sectors; and
- the likelihood of achieving a liquidity event for the holders of the Company's ordinary shares, such as an initial public offering ("IPO"), given prevailing market conditions.

In addition, as part of its assessment of the fair value of the Company's ordinary shares for purposes of making stock option grants, the Company directed an independent valuation firm to complete *retrospective* valuations for June 30, 2016, August 22, 2016, October 28, 2016 and December 1, 2016 and a *contemporaneous* valuation for May 16, 2017 using methodologies, approaches and assumptions consistent with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation (the "**Practice Aid**").

The following table summarizes by grant date the number of ordinary shares subject to options granted between January 1, 2016 and June 30, 2017, the per share exercise prices, and the estimated per share fair values of the ordinary shares for financial reporting purposes. Except for the numbers set forth in the "Pre-Split" column of the table, all share numbers, as well as all option exercise prices and estimated fair values of ordinary shares referred to in this letter, have been adjusted to reflect an estimated 1(one) for [***] ([***)] reverse stock split of the Company's capital stock (the "**Stock Split**"), which the Company plans to reflect in a subsequent pre-effective amendment to the Registration Statement.

<i>Date of Grant</i>	<u>Pre-Split</u>			<u>Post-Split</u>		
	<i>Number of Options Granted</i>	<i>Per Share Exercise Price</i>	<i>Per Share Value of Ordinary Shares for Financial Reporting Purposes</i>	<i>Number of Options Granted</i>	<i>Per Share Exercise Price</i>	<i>Per Share Value of Ordinary Shares for Financial Reporting Purposes</i>
6/30/2016	1,082,760	£ 1.00	£ 1.74	270,690	£ 4.00	£ 6.96
8/22/2016	50,000	£ 0.70	£ 2.15	12,500	£ 2.80	£ 8.60
8/22/2016	150,000	£ 0.75	£ 2.15	37,500	£ 3.00	£ 8.60
8/22/2016	100,000	£ 0.85	£ 2.15	25,000	£ 3.40	£ 8.60
8/22/2016	45,000	£ 0.90	£ 2.15	11,250	£ 3.60	£ 8.60
8/22/2016	20,000	£ 0.90	£ 2.15	5,000	£ 3.60	£ 8.60
8/22/2016	150,000	£ 0.90	£ 2.15	37,500	£ 3.60	£ 8.60
10/28/2016	50,000	£ 0.85	£ 2.19	12,500	£ 3.40	£ 8.76
10/28/2016	200,000	£ 1.00	£ 2.19	50,000	£ 4.00	£ 8.76
12/12/2016	183,000	£ 1.00	£ 2.30	45,750	£ 4.00	£ 9.20
5/16/2017	93,000	£ 1.00	£ 2.77	23,250	£ 4.00	£ 11.08

A discussion of each valuation and related award is as follows:

Valuations

The retrospective and contemporaneous valuation appraisals used the market-based approach to determine an equity value. The Company utilized the guideline public company (“GPC”) method under the market-based approach to determine the estimated fair value of its ordinary shares because it determined that this approach was the most appropriate for a clinical-stage biopharmaceutical company at this point in its development. In application of the GPC method under the market-based approach, the Company considered the pricing of initial public offerings completed by clinical-stage oncology companies between April 2015 and May 2017. The Company calculated the median equity values for nine companies at the time of their IPOs, not including the IPO proceeds. To convert the prospective IPO value to present value, the Company applied a discount rate which was derived from studies of rates of return required by venture investors in IPO-stage companies. In addition to these GPCs, the Company considered the median enterprise value indicated by a group of eight trading GPCs whose trading prices provided contemporaneous indications of value as of each appraisal date. The Company’s equity

value was calculated as a weighted average of values indicated by the two groups of GPCs. To account for lack of access to an active public market, the Company applied a discount for lack of marketability (“**DLOM**”) to the equity value. The DLOM was estimated using an Asian put model. Inputs to the Asian put model included time to liquidity and volatility. A Black-Scholes calculation was used to allocate the non-marketable equity value among issued shares and options. Inputs to the Black-Scholes calculation included option life and volatility. The Black-Scholes calculation relied on the expected life and volatility assumptions derived from the DLOM analysis.

A discussion of the discount rate, life and volatility assumptions associated with each grant and related award subject to a retrospective or contemporaneous valuation follows below.

June 30, 2016 Retrospective Valuation. A discount rate of 25.0% was used to convert prospective IPO value to present value. In making the life and volatility assumptions, the Company assumed an IPO date of September 30, 2017 and a non-IPO liquidity date of June 30, 2019. The Company estimated it would be approximately 1.25 years until the Company’s IPO with a 40% probability of an IPO occurring. The Company estimated it would be approximately 3.00 years until a non-IPO liquidity event with a 60% probability of such event occurring. The Company estimated a probability-weighted years to liquidity of 2.30. The corresponding volatility applied was 77%. Based on these assumptions, the DLOM was estimated as 28%. The resulting fair value of the Company’s ordinary shares was £6.96 per share.

August 22, 2016 Retrospective Valuation. A discount rate of 25.0% was used to convert prospective IPO value to present value. In making the life and volatility assumptions, the Company assumed an IPO date of September 30, 2017 and a non-IPO liquidity date of June 30, 2019. The Company estimated it would be approximately 1.11 years until the Company’s IPO with a 50% probability of an IPO occurring. The Company estimated it would be approximately 2.85 years until a non-IPO liquidity event with a 50% probability of such event occurring. The Company estimated a probability-weighted years to liquidity of 1.98. The corresponding volatility applied was 71%. Based on these assumptions, the DLOM was estimated as 23%. The resulting fair value of the Company’s ordinary shares was £8.60 per share.

October 28, 2016 Retrospective Valuation. A discount rate of 25.0% was used to convert prospective IPO value to present value. In making the life and volatility assumptions, the Company assumed an IPO date of September 30, 2017 and a non-IPO liquidity date of June 30, 2019. The Company estimated it would be approximately 0.92 years until the Company’s IPO with a 60% probability of an IPO occurring. The Company estimated it would be approximately 2.67 years until a non-IPO liquidity event with a 40% probability of such event occurring. The Company estimated a probability-weighted years to liquidity of 1.62. The corresponding volatility applied was 70%. Based on these assumptions, the DLOM was estimated as 21%. The resulting fair value of the Company’s ordinary shares was £8.76 per share.

December 1, 2016 Retrospective Valuation. A discount rate of 25.0% was used to convert prospective IPO value to present value. In making the life and volatility assumptions, the Company assumed an IPO date of September 30, 2017 and a non-IPO liquidity date of June 30, 2019. The Company estimated it would be approximately 0.83 years until the Company's IPO with a 70% probability of an IPO occurring. The Company estimated it would be approximately 2.67 years until a non-IPO liquidity event with a 30% probability of such event occurring. The Company estimated a probability-weighted years to liquidity of 1.35. The corresponding volatility applied was 69%. Based on these assumptions, the DLOM was estimated as 19%. The resulting fair value of the Company's ordinary shares was £9.20 per share.

May 16, 2017 Contemporaneous Valuation. A discount rate of 25.0% was used to convert prospective IPO value to present value. In making the life and volatility assumptions, the Company assumed an IPO date of September 30, 2017 and a non-IPO liquidity date of December 31, 2019. The Company estimated it would be approximately 0.38 years until the Company's IPO with an 80% probability of an IPO occurring. The Company estimated it would be approximately 2.63 years until a non-IPO liquidity event with a 20% probability of such event occurring. The Company estimated a probability-weighted years to liquidity of 0.83. The corresponding volatility applied was 56%. Based on these assumptions, the DLOM was estimated as 12%. The resulting fair value of the Company's ordinary shares was £11.08 per share.

The Company advises the Staff that it may grant additional options to certain employees in September 2017 and prior to the IPO. To the extent that such options are granted, the Company also advises the Staff that once the *bona fide* initial offering price range has been determined, the Company anticipates retrospectively reassessing, solely for financial accounting purposes, the ordinary share fair value related to such option grants.

Preliminary IPO Price Range

The Company supplementally advises the Staff that, while not yet reflected in the Registration Statement, on September 5, 2017, representatives of the lead underwriters (the "Underwriters") of its proposed IPO advised the Company that, based on then-current market conditions, they currently anticipated recommending to the Company a preliminary estimated initial public offering price range of \$[***] to \$[***] per share (the "**Preliminary IPO Price Range**") with a midpoint of \$[***], if the Company were to commence marketing of the transaction on such date. Solely for purposes of comparing this Preliminary IPO Price Range, which is expressed in U.S. dollars, with the valuations of the Company's ordinary shares discussed above, which are expressed in pounds sterling, the Preliminary IPO Price Range as converted to pounds sterling at the noon buying rate of the Federal Reserve Bank of New York as of June 30, 2017 (£1.2995 to \$1.00) is £[***] to £[***] and the midpoint of that range is £[***].

The Preliminary IPO Price Range and the related Stock Split are based on existing conditions in the public capital markets for biotechnology companies, the Company's financial position and prospects (assuming the completion of proposed IPO), the market valuations of comparable

publicly traded companies and preliminary discussions with the underwriters regarding potential valuations for the Company. These factors were considered in communications that took place between August 31, 2017 and September 5, 2017 among senior management of the Company, the Company's board of directors and representatives of the Underwriters for the proposed IPO. On September 1, 2017, the Company publicly filed the Registration Statement with the Commission registering a public offering with a maximum aggregate offering price of \$115,000,000. Until such time as the Company revises the Registration Statement through a pre-effective amendment to include the price range and other details of the offering and to commence the road show, the actual price range and the Stock Split remain under discussion between the Company and the Underwriters and subject to adjustment based on factors outside the Company's control, such as changes in market conditions, the Company's business and prospects and the valuation of comparable publicly traded companies.

The Company advises the Staff that it will set forth a *bona fide* initial offering price range in a pre-effective amendment to the Registration Statement prior to the distribution of any preliminary prospectus, which price range will be within the Preliminary IPO Price Range. The Company currently expects this pre-effective amendment to be filed on or near September 15, 2017.

The Company respectfully submits to the Staff that the difference between the valuations described above, compared to the Preliminary IPO Price Range, is reasonable. The probability of completing an IPO was determined to be 70% at December 1, 2016 and 80% at May 16, 2017. A 30% probability and a 20% probability, respectively, were assumed for a longer term to liquidity, which corresponds to a higher DLDM. In contrast, the Preliminary IPO Price Range is a single outcome which necessarily assumes that the IPO has occurred and a public market for the Company's ADSs has been created. As a result, unlike the valuation performed in connection with the Company's option grants as a private company, the Preliminary IPO Price Range excludes any marketability or illiquidity discount for the Company's ordinary shares and takes into account that the IPO would provide significant additional cash proceeds to the Company to help fuel its growth and substantially strengthen the Company's balance sheet.

Finally, there are other factors that support the discounted valuation determinations, compared to the Preliminary IPO Price Range, including (i) the inherent uncertainty of completing a successful IPO, (ii) the possibility that the actual IPO price could be substantially lower than the Preliminary IPO Price Range recommended by the Company's underwriters and (iii) the 180-day lock-up agreement to which the shares underlying the stock options will be subject following the IPO.

Additional Disclosures to be Included in a Subsequent Pre-Effective Amendment

In a subsequent pre-effective amendment, the Company expects to insert the following disclosure as a new final paragraph in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies and Significant Judgments and Estimates — Share-Based Payments — Valuation of Ordinary Shares" on page 86 of the Registration Statement:

The mid-point of the initial public offering price range set forth on the cover of this prospectus, \$[***] per share, was determined as a result of negotiations between us and the underwriters. As is typical in initial public offerings, the initial public offering price was not derived using a formal determination of fair value, but was determined by negotiation between us and the underwriters. Among the factors that were considered in setting this price were the following: (i) the history and prospects for the industry in which we compete; (ii) our financial information; (iii) the ability of our management and our business potential and earning prospects; (iv) the prevailing securities markets at the time of this offering; and (v) the recent market prices of, and the demand for, publicly traded shares of generally comparable companies.

The Company respectfully requests the Staff's assistance in completing its review of the supplemental information contained herein as soon as possible. Please advise us if we can provide any further information or assistance to facilitate your review. And please contact me at (617) 542-6000 if you have any questions regarding the Registration Statement or the foregoing information.

We thank you for your time and attention.

Sincerely,

/s/ John T. Rudy

John T. Rudy

cc: Securities and Exchange Commission

Keira Nakada
Kenneth Vaughn
Jeffrey Gabor
Mary Beth Breslin

NuCana plc

Hugh S. Griffith
Donald Munoz

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

William C. Hicks
William T. Whelan
Adam Davey

Cooley LLP

Divakar Gupta
Brent B. Siler
Courtney T. Thorne

Ernst & Young

Mark Harvey
Laura Segert