



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

June 17, 2015

Via E-mail

Heidi Henson
Chief Financial Officer
Kura Oncology, Inc.
11119 N. Torrey Pines Road, Suite 125
La Jolla, California 92037

**Re: Kura Oncology, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed June 2, 2015
File No. 333-203503**

Dear Ms. Henson:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and amending your registration statement. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended registration statement, we may have additional comments.

Audited Financial Statements of Kura Oncology, Inc. for the Period from August 22, 2014 (Inception) to December 31, 2014, F-3

1. Please revise these financial statements and notes to retroactively reflect the effect of the March 6, 2015 Merger, which you indicate is a reverse merger accounted for as a capital transaction.
2. Considering that the transactions that give pro forma effect in the unaudited pro forma condensed combined balance sheet and statements of operations presented beginning on page 46 are now included in the March 31, 2015 historical financial statements, please remove those unaudited pro forma condensed financial statements.
3. Since the March 6, 2015 Merger is reflected in the March 31, 2015 financial statements of the company, please remove the Zeta Acquisition Corp. III financial statements beginning at page F-32.

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Notes to Financial Statements

9. Stockholders' Equity

Restricted Stock Awards, page F-15

4. It appears that you do not recognize any expense related to a non-employee restricted stock award until it vests, which you assert is the measurement date. Tell us why you do not recognize an expense before the vesting date for these awards to account for the services you are receiving. Reference for us the applicable authoritative literature to which you rely.

You may contact Rolf Sundwall at (202) 551-3105 or James Rosenberg at (202) 551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Alla Berenshteyn at (202) 551-4325, Dan Greenspan at (202) 551-3623 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
James C. Pennington, Esq.
Cooley LLP