

June 28, 2013

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

Attention: Jim B. Rosenberg

Vanessa Robertson Joel Parker

RE: Ziopharm Oncology, Inc.

Form 10-K for the Fiscal Year Ended December 31, 2012

Filed March 18, 2013 (File No. 001-33038)

Response to Comment Letter dated June 14, 2013

Dear Mr. Rosenberg, Ms. Robertson and Mr. Parker:

We are filing this supplemental information via EDGAR on behalf of ZIOPHARM Oncology, Inc. (the "Company"), in response to the June 14, 2013 comment letter (the "Comment Letter") from the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") regarding the Company's Form 10-K for the Fiscal Year Ended December 31, 2012 (the "Form 10-K") originally filed with the Commission on March 18, 2013.

On behalf of the Company, we have filed via EDGAR Amendment No. 1 to the Form 10-K ("Amendment No. 1"). We have incorporated the text of the comments in the Comment Letter into this response letter in the paragraphs below for convenience. Except where otherwise indicated, page references in the text of the responses below correspond to the page numbers of Amendment No. 1. We are submitting this letter via EDGAR and a courtesy package of this letter, Amendment No. 1 and a version that is marked to show changes to the Form 10-K is being sent to the Staff in traditional non-EDGAR format.

1180 Avenue of the Americas, New York, NY 10036 T + 1 646 214 0700 F + 1 646 214 0711 www.ziopharm.com

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Staff Comments and Company Responses

Report of Independent Registered Public Accounting Firm, page F-1

1. The audit report of McGladrey LLP references the reports of other auditors for the period from September 9, 2003 (date of inception) to December 31, 2009. Please amend your filing to include the other auditors' reports as reissued by them as required by Rule 2-05 of Regulation S-X.

Response: The Company respectfully acknowledges the Staff's comment and in response thereto, has added the other auditors' report on page F-3 of Amendment No. 1 as required by Rule 2-05 of Regulation S-X and the consent of such auditors to the inclusion of such report in Amendment No. 1 is filed as Exhibit 23.2 thereto.

In addition, the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing;
 and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please advise us if we can provide any further information or assistance to facilitate your review. Please direct any further comments or questions regarding the Amendment No. 1 or this response letter to me at (617) 259-1641, Marc Recht at (617) 937-2316 or Joshua Rottner at (617) 937-2338.

Sincerely,

/s/ Caesar J. Belbel Executive Vice President, Secretary and Chief Legal Officer