

April 30, 2010

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VIA EDGAR

Securities and Exchange Commission
Judiciary Plaza
450 Fifth Street, N.W.
Washington, DC 20549

Re: ZIOPHARM Oncology, Inc. (the "Company")
Registration Statement on Form S-3

Ladies and Gentlemen:

Contemporaneously with the filing of this correspondence, the Company has filed with the Commission a Registration Statement on Form S-3 (the "Registration Statement").

Should you have comments or questions regarding the Registration Statement, please direct them to the undersigned at (612) 672-8381 (phone) or (612) 642-8381 (fax), or to Richard Bagley, the Company's President, Chief Operating Officer and Treasurer at (617) 259-1978 (phone) or fax: (617) 241-2855.

Regards,

/s/ Alan M. Gilbert

Alan M. Gilbert, Esq.

cc: (via email): Dr. Jonathan Lewis
Richard Bagley
Tyler Cook