



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

DIVISION OF
CORPORATION FINANCE

February 8, 2013

Via E-Mail

Glenn R. Mattes
President and Chief Executive Officer
Arno Therapeutics, Inc.
200 Route 31 North, Suite 104
Flemington, NJ 08822

**Re: Arno Therapeutics, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed January 29, 2013
File No. 333-185690**

Dear Mr. Mattes:

We have reviewed your amendment and correspondence dated January 29, 2013, and we have the following additional comment.

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

After reviewing any further amendment to your registration statement and the information you provide in response to this comment, we may have additional comments.

We note your response to our prior comment 1. We have carefully considered your analysis of your proposed offering, and we respectfully disagree that the totality of the facts and circumstances permit characterizing this transaction as one eligible to be made under Rule 415(a)(1)(i). In this regard, we would highlight the following factors:

- The size of your proposed offering is greatly disproportionate to the number of issued and outstanding shares of common stock currently held by non-affiliates;
- Your registration statement was filed 30 days after the initial closing, and eight days after the subsequent closing, of the 2012 Debenture and Warrant Offering;
- Both the Debentures and the Warrants appear to have toxic features in that (a) they were issued with a conversion/exercise price that was at a substantial discount to the market price at the time the 2012 Debenture and Warrant Offering was completed and (b) they possess anti-dilution features that provide for a downward adjustment in the conversion/exercise price in the event that you any grant any right to purchase or issue

any common stock and/or securities convertible or exchangeable into common stock at an effective price per share less than the conversion/exercise price of the Debentures or Warrants, as applicable; and

- Since you have approximately \$594,000 in cash and cash equivalents as of September 30, 2012, it does not appear that you have the ability to service the convertible notes in cash.

Based on the factors noted above, this appears to us to be a primary offering. You should therefore amend your registration statement to identify the selling stockholders as underwriters and state the price at which they will sell the securities. Alternatively, please withdraw this registration statement with a view toward filing one at the time of each conversion/exercise.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

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Please contact Amy Reischauer at (202) 551-3793, Jennifer Riegel at (202) 551-3575 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jennifer Riegel for

Jeffrey P. Riedler
Assistant Director

cc: Via E-Mail
Christopher J. Melsha, Esq.
Fredrikson & Byron, P.A.
200 South Sixth Street, Suite 4000
Minneapolis, MN 55402-1425