



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

December 6, 2010

David M. Tanen
President
Arno Therapeutics, Inc.
4 Campus Drive, 2nd Floor
Parsippany, NJ 07054

**Re: Arno Therapeutics, Inc.
Registration Statement on Form S-1
Filed November 8, 2010
File No. 333-170474**

Dear Mr. Tanen:

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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Please include updated interim financial information as required by Rule 8-08 of Regulation S-X in your next amendment. In doing so, please also file an updated, signed consent report from your independent auditors.
2. Currently there is no market for your securities, please revise to set the price at which the shares will be sold. Similarly, revise your "Plan of Distribution" discussion.
3. Please revise your disclosure to attribute the below statements and other similar statements to the sources from which you obtained the information. If you are relying upon your own estimates or conclusions, please explain how you arrived at those estimates or conclusions and disclose any third-party sources upon which you relied.

- Page 36: “Since 1990, over 18 million new cancer cases have been diagnosed.”
- Page 36: “With a 66% 5-year relative survival rate for all cancers from 1996-2004, oncology remains a significant unmet medical need.”
- Page 38: Avastin[®], Herceptin[®], Gleevec[®], Tarceva[®], Iressa[®], Nexavar[®] and tamoxifen represented approximately \$10 billion in sales in 2008.”
- Page 40: Camptothecin and its analogues had worldwide annual sales exceeding \$660 million.”
- Page 40: Irinotecan had approximately \$400 million in worldwide annual sales in 2009.

Dollar Value of Underlying Securities

4. Please disclose the total dollar value of the securities underlying the convertible shares that you have registered for resale (using the number of underlying securities that you have registered for resale and the market price per share for those securities on the date of the sale of the convertible shares).

Payments to the Investor and Affiliates

5. Please include tabular disclosure of the dollar amount of each payment (including the value of any payments to be made in common stock) in connection with the September 2010 private placement that you have made or may be required to make to any selling stockholder, any affiliate of a selling stockholder, or any person with whom any selling stockholder has a contractual relationship regarding the transaction (including any interest payments, liquidated damages, payments made to “finders” or “placement agents,” and any other payments or potential payments). Please provide footnote disclosure of the terms of each such payment. Please do not include any repayment of principal on the convertible shares in this disclosure.

Further, please disclose the total possible payments to all selling stockholders and any of their affiliates in the first year following the sale of convertible shares.

Total Potential Profit from Other Securities

6. Please include tabular disclosure of:
 - the total possible profit to be realized as a result of any conversion discounts for securities underlying any other warrants, options, notes, or other securities of the issuer that are held by the selling stockholders or any affiliate of the selling stockholders, presented in a table with the following information disclosed separately:
 - market price per share of the underlying securities on the date of the sale of that other security;

- the conversion/exercise price per share as of the date of the sale of that other security, calculated as follows:
 - if the conversion/exercise price per share is set at a fixed price, use the price per share on the date of the sale of that other security; and
 - if the conversion/exercise price per share is not set at a fixed price and, instead, is set at a floating rate in relationship to the market price of the underlying security, use the conversion/exercise discount rate and the market rate per share on the date of the sale of that other security and determine the conversion price per share as of that date;
- the total possible shares to be received under the particular securities (assuming complete conversion/exercise);
- the combined market price of the total number of underlying shares, calculated by using the market price per share on the date of the sale of that other security and the total possible shares to be received;
- the total possible shares to be received and the combined conversion price of the total number of shares underlying that other security calculated by using the conversion price on the date of the sale of that other security and the total possible number of underlying shares; and
- the total possible discount to the market price as of the date of the sale of that other security, calculated by subtracting the total conversion/exercise price on the date of the sale of that other security from the combined market price of the total number of underlying shares on that date.

To the extent that the only other securities are the warrants as disclosed in the filing, no additional disclosure shall be necessary.

Prior Transactions between the Issuer and the Selling Stockholders

7. Please include tabular disclosure of all prior securities transactions between the issuer (or any of its predecessors) and the selling shareholders, any affiliates of the selling shareholders, or any person with whom any selling shareholder has a contractual relationship regarding the transaction (or any predecessors of those persons), with the table including the following information disclosed separately for each transaction:
 - the date of the transaction;

- the number of shares of the class of securities subject to the transaction that were outstanding prior to the transaction;
- the number of shares of the class of securities subject to the transaction that were outstanding prior to the transaction and held by persons other than the selling shareholders, affiliates of the company, or affiliates of the selling shareholders;
- the number of shares of the class of securities subject to the transaction that were issued or issuable in connection with the transaction;
- the percentage of total issued and outstanding securities that were issued or issuable in the transaction (assuming full issuance), with the percentage calculated by taking the number of shares issued and outstanding prior to the applicable transaction and held by persons other than the selling shareholders, affiliates of the company, or affiliates of the selling shareholders, and dividing that number by the number of shares issued or issuable in connection with the applicable transaction;
- the market price per share of the class of securities subject to the transaction immediately prior to the transaction (reverse split adjusted, if necessary); and
- the current market price per share of the class of securities subject to the transaction (reverse split adjusted, if necessary).

Comparison of Issuer Proceeds to Potential Investor Profit

8. Please include tabular disclosure of:

- the gross proceeds paid or payable to the issuer in the September 2010 private placement transaction;
- all payments that have been made or that may be required to be made by the issuer that are disclosed in response to comment two;
- the resulting net proceeds to the issuer; and
- the combined total possible profit to be realized as a result of any conversion discounts regarding the securities underlying the convertible shares and any other warrants, options, notes, or other securities of the issuer that are held by the selling stockholders or any affiliates of the selling stockholders that is disclosed in response to comment three.

Further, please disclose – as a percentage – of the total amount of all possible payments as disclosed in response to comment two divided by the net proceeds to the issuer from the sale of the convertible shares.

Intention and Ability to Make All Note Payments and the Presence or Absence of Short Selling by the Stockholders

9. Please disclose whether, based on information obtained from the selling stockholders, any of the selling stockholders have an existing short position in the company's common stock. If any of the selling stockholders have an existing short position in the company's stock, also disclose the following additional information:
- the date on which each such selling stockholder entered into that short position; and
 - the relationship of the date on which each such selling stockholder entered into that short position to the date of the announcement of the convertible shares transaction and the filing of the registration statement (*e.g.*, before or after the announcement of the convertible shares transaction, before the filing or after the filing of the registration statement, etc.).

The Method by which the Number of Registered Shares Was Determined

10. Please include a description of the method by which the company determined the number of shares it seeks to register in connection with this registration statement. In this regard, please ensure that the number of shares registered in the fee table is consistent with the shares listed in the "Selling Stockholders" section of the prospectus.

Recent Developments, page 5

11. Please disclose the preferred stock conversion ratio.

Risk Factors, page 7

12. Please delete the statement "Additional risks not presently known to us or that we currently deem immaterial may also affect our business, operating results, prospects or financial condition." It is not appropriate to warn investors about risks that are not described in your registration statement.

"We currently have no product revenues....," page 7

13. We note your statement that you believe cash from the September 2010 private placement will fund your operations through 2011. Please reconcile this with your

disclosure on page 34 that you expect such proceeds to fund operations through the second half of 2012.

14. Additionally, clarify the stage of development you expect to be able to achieve using your current cash on hand.

“We are not currently profitable and may never become profitable.” page 8

15. Please provide loss and cash flow information through September 30, 2010.

“The relationships between Two River Consulting...,” page 9

16. Please advise us as to any other biopharmaceutical or biotechnology companies in which Two River, Riverbank Capital Securities or either of their affiliates have a significant investment interest or for which officers or directors serve as officers or directors. Please describe the extent to which any such companies would compete with you or your products. To the extent that such investments may create further risks to your business, please expand your disclosure to identify and describe such risks.

“Our president provides his services on a part-time basis...,” page 9

17. Please disclose the number of hours per week David Tanen devotes to managing your business.

“We may incur substantial liabilities and may be required to limit commercialization...,” page 10

18. Please discuss the limitations of your clinical trial insurance coverage.

“We may be exposed to liability claims associated with the use of hazardous materials and chemicals...,” page 15

19. Please expand your disclosure to disclose whether you carry liability insurance coverage in connection with your use of hazardous material. If you do carry such insurance coverage, briefly describe what potential liabilities are and are not covered. Please also disclose the limitations of your coverage and the cost to you, if material. If you do not carry such insurance coverage, please revise your risk factor to clarify that you do not have insurance to cover potential contamination expenses.

“If we fail to protect or enforce our intellectual property rights adequately...,” page 16

20. To the extent that you have experienced problems in the past or are aware of any claims regarding infringement of your licensed or owned intellectual property rights, please revise to describe these problems or claims. Similarly, please expand your risk factor on

page 14 captioned, "If we infringe on the rights of third parties..." to include disclosure of any potential claims regarding infringement of third party intellectual property.

"If our results do not meet analysts' forecasts and expectations..." page 18

21. Do you currently have an analyst following? If not, please revise the risk factor to clarify that there currently are no analysts following your developments and clarify that you might not attract an analyst following.

Note Regarding Forward-Looking Statements, page 19

22. As you are not currently a reporting company, you are not eligible to rely on the safe harbors provided for by Section 27A of the Securities Act or Section 21E of the Exchange Act. Please delete these references.

Selling Stockholders, page 20

23. Please expand your tabular disclosure to include the amount of shares to be owned by each selling stockholder after the offering in addition to the percentage beneficial ownership.

Management's Discussion and Analysis of Financial Condition and Results of Operations
General

24. In Note 4 to the Financial Statements you disclose on page F-9 certain estimates such as services performed by third parties but not yet invoiced, estimates of the fair value of stock options issued to employees and consultants, and estimates of the probability and potential magnitude of contingent liabilities that appear to be critical in understanding the quality and variability of information regarding your financial condition and operating performance. Please revise your disclosure to identify and discuss critical accounting policies and estimates consistent with the guidance in Release FR-72.

Results of Operations, page 31

25. Please expand your disclosure to discuss the other income recognized during the six months ended June 30, 2010.

Business, page 36

AR-67, page 40

26. Please disclose whether your rights with respect to the technology underlying AR-67 are owned or licensed.

License Agreements and Intellectual Property, page 43

27. For each of your license agreements with The Ohio State University, please disclose on an individual basis for each agreement payments made to date, aggregate potential milestone payments and the royalty rate or a reasonable range within which the royalty rate falls, for example “single digits,” “teens,” “twenties,” etc. Further, please confirm that you will disclose your obligation to pay a specific milestone when it becomes probable and the minimum annual royalties due under each agreement when your obligation to pay royalties becomes probable.
28. With respect to your agreement with Pitt, please revise your disclosure to include the aggregate potential performance-based cash payments, the annual maintenance fee payable to Pitt and the royalty rate or a reasonable range within which the royalty rate falls, for example “single digits,” “teens,” “twenties,” etc.
29. Please revise your disclosure to identify your material licensed and owned patents and indicate the products to which each relates. Further please indicate the duration of such patents.

Employees, page 51

30. We note your statement on page 9 that you “expect to directly hire employees, including at the senior management level, in the future as we further the development of our clinical programs.” Please disclose any plans to fill particular management positions and, if available, a proposed timetable for filling such positions.

Executive Compensation, page 56

31. Please file the August 26, 2010 amendment to your agreement with J. Chris Houchins.

Transactions with Related Persons, Promoters and Certain Control Persons, page 62

32. Section 2.1 of the Services Agreement with TRC indicates that monthly compensation shall be \$50,000. Please reconcile this disclosure or advise us as to any amendment to the Services Agreement. As applicable, please file a copy of any such amendment.

Financial Statements

Notes to Financial Statements

Note 3 – The Merger

Accounting Treatment of the Merger; Financial Statement Presentation, page F-11

33. Refer to your disclosure regarding the guidance in Appendix B of SEC Accounting Disclosure Rules and Practices Official Text. Please note this publication has been superseded by the Division of Corporation Finance Financial Reporting Manual which is

noted in ASC 805-40-25-1.D: Merger of a Private Entity Into a Public Shell Corporation which refers to Topic 12: Reverse Acquisitions and Reverse Recapitalizations, 12100.1, General of the Financial Reporting Manual. Please revise your disclosure to refer to the Interpretation of ASC 805-40-25-1.

Note 6 - Intangible Assets and Intellectual Property, page F-16
AR-67 License Agreement
AR-12 and AR-42 License Agreements

34. Please revise your disclosure to indicate the aggregate amount of the milestone payments due to Pitt and Ohio State under your licensing agreements.

Note 10 – Stock Option Plan, page F-18

35. Please disclose in the financial statements, at a minimum, the following information for equity instruments granted during the periods presented:

- For each grant date, the number of options or shares granted, the exercise price, the fair value of the common stock, and the intrinsic value, if any, per option;
- Whether or not the valuation used to determine the fair value of the equity instruments was contemporaneous or retrospective; and,
- If the valuation specialist was a related party, please state that fact.

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.

David Tanen
Arno Therapeutuics, Inc.
December 6, 2010
Page 10

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.

You may contact Ibolya Ignat at (202) 551-3656 or Donald Abbot at (202) 551-3608 if you have questions regarding comments on the financial statements and related matters. Please contact Karen Ubell at (202) 551-3873, Suzanne Hayes at (202) 551-3675 or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey Riedler
Assistant Director

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