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

DIVISION OF
CORPORATION FINANCE

April 19, 2012

Via E-mail
Mr. Leon O. Moulder, Jr.
Chief Executive Officer
TESARO, Inc.
1000 Winter Street, Suite 3300
Waltham, MA 02451

**Re: TESARO, Inc.**
**Registration Statement on Form S-1**
**Filed March 23, 2012**
**File No. 333-180309**

Dear Mr. Moulder:

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.

FORM S-1
General

1. Please file as promptly as possible all exhibits required by the Exhibit Table provided in Item 601(a) of Regulation S-K. We will need time to review these documents once they are filed.

2. Please note that when you file a pre-effective amendment containing pricing-related information, we may have additional comments. As you are likely aware, you must file this amendment prior to circulating the prospectus.

3. Please note that when you file a pre-effective amendment that includes your price range, it must be bone fide. We interpret this to mean that your range may not exceed $2 if you price below $10 and 20% if you price above $10.

4. Please note that where we provide examples to illustrate what we mean by our comments, they are examples and not exhaustive lists. If our comments are applicable to portions of the filing that we have not cited as examples, make the appropriate changes in accordance with our comments.

5. Please provide us proofs of all graphic, visual or photographic information you will provide in the printed prospectus prior to its use, for example in a preliminary prospectus. Please note that we may have comments regarding this material.

6. Throughout the registration statement, you cite various estimates, statistics and other figures. For example:

    - Pages 3, 66 and 72: "…we estimate that 70% to 80% of cancer patients."
    - Pages 3 and 66: "In 2011, EMEND generated $419 million in revenues globally."
    - Pages 2 and 66: "CINV has the potential to afflict up to 90% or more of cancer patients..."
    - Pages 66 and 72: "We estimate…there are nearly 7 million treatments administered on the first day...."
    - Page 73: "We estimate that patients receiving HEC regimens make up approximately 70% of the potential NK-1 receptor antagonist treatment market."
    - Page 74: "We estimate that approximately 30% of the NK-1 receptor antagonist treatment market consists of patients receiving MEC regimens.
    - Page 74: "While the current United States NK-1 market is approximately $270 million…"
    - Page 74: "…the patient treatment market grew over 25% compared to the prior year…"
    - Page 76: "Worldwide, over 1.6 million new lung cancer cases are identified annually, of which over 200,000 of these new lung cancer cases are in the United States."

    In the prospectus, please attribute these statements and other similar statements to the source from which you obtained the information. In addition, where you cite

your own estimates, please explain how you arrived at those estimates and disclose any third-party sources you relied upon.

Cover Page

7. You disclose that you intend to apply for listing on the NASDAQ Global Market under the symbol "TSRO." Please expand your disclosure here and on page 32, to disclose whether or not you have applied for listing on the NASDAQ Global Market under the symbol "TSRO."

Prospectus Summary
Our Product Candidates
Rolapitant, page 2

8. Please describe the current standard of care for CINV and include the basis for your estimates related to number of treatments administered and the percentage of cancer patients that should also receive treatment with an NK-1 receptor antagonist.

9. Please clarify what you mean by "rapid onset" by disclosing the hours until the product is effective.

TSR-011, page 3

10. Please state the basis for your belief that TSR-011 has the potential to be effective in crizotinib-resistant cancers. Please also provide examples of crizotinib-resistant cancers.

11. Please clarify why you believe you may be permitted to pursue a rapid path to commercialization. Please also clarify the length of time you are referring to by the use of "rapid path."

Risk Factors
Risks Related to Our Financial Position and Capital Needs
"We have incurred significant losses since our inception…" page 9

12. Please enumerate the major risks incident in the development of new biopharmaceutical products and explain how such risks relate to your expected potential losses.

Risks Related to Our Business and Industry
"Clinical drug development involves a lengthy and expensive process…" page 12

13. To the extent you have experienced a delay, suspension or premature termination relating to either of your product candidates, please expand your disclosure to

describe and provide the reasons for the relevant delay, suspension or premature termination.

"Our product candidates may cause undesirable side effects…" page 15

14. Please expand your disclosure to disclose any known undesirable side effects or adverse effects that have been associated with your product candidates.

"We face substantial competition…" page 18

15. You disclose that there are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of the disease indications for which you are developing your product candidates. Please expand your disclosure to name the companies and products from which you believe you will face competition.

"If we breach the license agreements for our product candidates…" page 21

16. Please disclose whether you are aware of any material breach or have been put on notice by the licensors of any material breach.

"If we are unable to attract and retain highly qualified employees…" page 25

17. To the extent that you have experienced any difficulties to date managing growth, including retaining a sufficient number of skilled personnel, please expand this risk factor to describe these challenges. If any of your key personnel intend to retire or resign in the near future, please revise to address such departure and the potential impact on your organization.

"We are relying on the commercial availability of diagnostic tests…" page 26

18. You disclose that diagnostic tests for the identification of ALK fusions will facilitate rapid and efficient development of your lead ALK inhibitor product candidate, TSR-011. You also disclose that these diagnostic tests are provided by third parties who have no contractual obligation to you to continue to manufacture these tests or make them available commercially. Please disclose the number of manufacturers that make the tests available commercially.

Risks Related to Our Dependence on Third Parties
"If we lose our relationships with CROs…" page 27

19. Please identify here the third-party vendors and CROs upon whom you are substantially dependent, disclose the material terms of your contract with any

such vendors and CROs in the Business section and file the related contracts as exhibits to your registration statement.

"Adverse developments affecting one or more of our third-party suppliers…" page 28

20. Please disclose if you are substantially dependent on any of your suppliers. If so, please identify them here and identify the materials supplied. Additionally, disclose the material terms of your arrangement with any such suppliers in the Business section and file any related material contracts as exhibits to your registration statement.

Risks Related to Our Intellectual Property
"We may become involved in lawsuits to protect or enforce…" page 30

21. Disclose any known infringement of your intellectual property by third parties.

"We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets…" page 31

22. Disclose whether any member of your senior management team was required to execute non-disclosure or non-competition agreements with his or her prior biotechnology or pharmaceutical employers. If so, please disclose whether you are aware of any threatened or pending litigation related to such agreements.

Use of Proceeds, page 40

23. We note that you intend to use the net proceeds of this offering to fund the clinical development of rolapitant; to advance the development of TSR-011; to in-license or acquire, product candidates, technologies, compounds, other assets or complementary businesses; for general corporate purposes; and for working capital. Please revise your disclosure:

    - Concerning rolapitant and TSR-011 to specifically and separately identify the amount of proceeds you intend to use to fund that respective product and the stage of development or commercialization you expect the amount of proceeds to bring those each product; and
    - To separately identify the amount of proceeds you intend to use to fund in-licenses or acquisition, general corporate purposes and working capital.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Critical Accounting Policies and Significant Judgments and Estimates
Accrued Research and Development Expenses, page 54

24. Please disclose any adjustments to Research and Development expenses based on any changes in assumptions reflected in your most recent estimate of your

contracts or state that there has been no adjustments, if true, or adjustments have been immaterial.

Stock Based Compensation, page 55

25. Please address the following relating to your stock-based compensation:
    - For your retrospective valuation at June 30, 2011 you state that you selected an expected market capitalization based upon your estimated invested capital at the time of your IPO multiplied by the guideline public company's median multiple of paid in capital. Please tell us why your estimated invested capital is used to compute your expected market capitalization. In addition, please tell us why the guideline public company's median multiple of paid in capital is used to compute market capitalization.
    - For your contemporaneous valuation at December 31, 2011 you state that you selected guideline public companies that completed their initial public offerings in 2010 or 2011 and had drug candidates beyond Phase 2 clinical trials. For your retrospective valuation at June 30, 2011 you state that you selected guideline public companies that had product candidates in Phase 2 or Phase 3 clinical trials. For each of these disclosures, please clarify the number of guideline public companies that you selected and what similarities existed between you and the guideline public company selected such as number of products, types of products, collaboration agreements, size, etc.
    - Please clarify how you considered the preferred stock issuances in determining the fair value of your common stock. Clarify if your valuation method determined an enterprise value at each valuation date, how the enterprise value was determined, and how you allocated the enterprise value between the preferred and common stock.
    - You disclose on pages 50 and 51 that you acquired a license for a Phase 3 product, Rolapitant in December 2010 and a license for a preclinical product, TSR-011, an ALK inhibitor, in March 2011. Tell us why the change in the valuation from September 2010 to December 2010 and the change in valuation from December 2010 to March 2011 are appropriate. It is unclear to us why the license acquired for a preclinical product would be valued higher than the license for a Phase 3 product.
    - You state on page 58 that the fair value of the common stock increased from December 31, 2010 to June 30, 2011 due to the license agreement with Amgen and the additional preferred stock issuance. Please clarify in the filing why the preferred stock issuance would add value to the fair value of the common stock. It appears that the enterprise value should be allocated between the fair value of the preferred stock and the fair value of the common stock.
    - You state on page 59 that the fair value of the common stock increased from June 30, 2011 to December 30, 2011 due to several factors. One of those factors was that you entered into arrangements with your key vendors for your Phase 3 clinical program for rolapitant. Please elaborate on the nature of these

arrangements and why these arrangements added value to your common stock. You also state that interest from the investment banking community had increased as a result of the status and timing of your Phase 3 clinical program for rolapitant. Please elaborate on any changes in the status or timing of your Phase 3 clinical programs from June 30, 2011 to December 31, 2011. In addition, clarify how long rolapitant was in Phase 3 when you acquired the rights, the progress made during each period on Rolapitant in 2011 and 2012 and your anticipated timing of completing phase 3. Lastly, clarify why adding seven new employees to your development team added value to your common stock.

- You discuss on page 60 the difference between the IPO price and the fair value at March 31, 2012. Please elaborate on how the fair value at March 31, 2012 was determined taking into consideration any sales of preferred stock to unrelated parties. Explain why the fair value changed from December 31, 2011 to March 31, 2012 and from March 31, 2012 to the date of the IPO price determination.

Business, page 66
Our Product Candidates, page 71

26. Please disclose whether you made any material alterations or changes to the patient rankings chart.

27. On page 75, you disclose that data from the Phase II clinical study demonstrated that a dose of 200mg rolapitant administered with a 5-HT3 receptor antagonist and dexamethasone achieved statistically significant improvement in preventing CINV than did 5-HT3 receptor antagonist and dexamethasone alone. Please expand your disclosure to provide the relevant P-values.

Licensing Agreements, page 77

28. Please revise your disclosure regarding each of the agreements with OPKO and Amgen to disclose the potential range of royalty payments (for example, “low-teens” or “high-teens”).

29. You obtained an exclusive, royalty-bearing, sublicensable worldwide license for Rolapitant. The last sentence of your second paragraph reads “We will share future profits from the commercialization, if any, by OPKO of licensed products in Japan, and OPKO retains an option to market the products in Latin America.” Please clarify what “licensed products” you are referring to. If OPKO will also have commercialization rights to Rolapitant, please make this clear in your disclosure.

30. In addition, on page 51 you state “There were no ongoing clinical trials for Rolapitant or the additional compound…” Please clarify what “additional

compound" you are referring to and your rights and obligations related to the additional compound.

Manufacturing, page 91

31. Please disclose whether you are substantially dependent upon the CMOs referenced in this section. If so, please describe the material terms of your contract with any such CMO and file the agreement as an exhibit to your Form S-1. Please disclose whether you have identified any alternate suppliers in the event that the current CMOs you utilize are unable to scale production.

Executive and Director Compensation
Summary Compensation Table, page 104

32. As you entered into employment agreements with your named executive officers in May 2010, please provide compensation data for fiscal year 2010.

Certain Relationships and Related Party Transactions
Preferred Stock Issuances, page 120

33. Please file as exhibits to your Form S-1, each of the material agreements related to the issuances of your Series A-1, A-2 and Series B Preferred Stock.

Underwriting, page 137

34. Please file the underwriting agreement and form of lock-up agreement.

35. Please disclose whether the underwriters and their affiliates have provided services to the company and its affiliates in the past.

Preferred Stock
Conversion, page F-15

36. You issued 10 million shares of Series A convertible preferred stock and 19.6 million shares of Series B convertible preferred stock in 2011 and 26.9 million shares of Series B convertible preferred stock in March 2012. Please tell us what consideration was given to recording a beneficial conversion feature pursuant to ASC 470. Please provide us a detailed analysis, including the effect the IPO price had on your analysis.

Note 6. Stock Based Compensation
Stock Option, page F-20

37. You disclose that you granted 3,077,500 options to purchase common stock at a weighted average price of $.38 per share in 2011. Please disclose in the filing the

number and terms of all equity issuances subsequent to December 31, 2011, including the fair value assigned to each equity issuance and any expected stock compensation or beneficial conversion feature that will be recorded as a result of the issuance. Provide us a list of each equity issuance, the number of options or shares issued, the date issued, the fair value used, and the terms of the equity instrument. In addition, please clarify to us how the change in the fair value under the retrospective method affected your stock compensation. We will evaluate your disclosures relating to equity issuances once an IPO price has been determined.

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.

You may contact Sasha Parikh at (202) 551-3627 or Mary Mast at (202) 551-3613 if you have questions regarding comments on the financial statements and related matters. Please contact Nandini Acharya at (202) 551-3495, Jennifer Riegel at (202) 551-3575 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jennifer Riegel for

Jeffrey Riedler
Assistant Director

Via E-mail
cc: Asher M. Rubin, Esq.
Hogan Lovells US LLP
100 International Drive, Suite 2000
Baltimore, MD 21202