Mail Stop 4720

March 25, 2010

Marshall Woodworth
Vice President-Finance
Furiex Pharmaceuticals, Inc.
3900 Paramount Parkway, Suite 150
Morrisville, North Carolina 27560

Re: Furiex Pharmaceuticals, Inc.
Registration Statement on Form 10-12B, filed February 24, 2010
File No. 001-34641

Dear Mr. Woodworth:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Summary

General

1. Please balance the discussion of the positive attributes of your business, your pipeline products and the reasons for the spin-off with any negative aspects of your business, as well as the risks and obstacles related to the spin-off and the implementation of your business strategy.

Our Company, page 1

2. Please explain the basis for your belief that your approach is novel and that expedites research and development decision-making and shortens development timelines.

Risk Factors

"We might not realize the potential benefits from the spin-off . . .," page 10

3. Please briefly describe the anticipated benefits of the spin-off in this risk factor.

"The ownership by our executive officers and some of our directors of shares of common stock and/or options to purchase common stock of PPD…," page 13

4. Please identify your officers and directors who own or have a right to acquire shares of PPD and disclose each individual's beneficial ownership.

"We anticipate that we will incur losses for the foreseeable future . . .," page 14

5. Please quantify your net losses for each of the last three fiscal years.

6. We note your statement that you might need to raise capital to acquire businesses or technologies. To the extent you have any plans or agreements to acquire businesses or technologies, please describe them.

"Our near-term success is largely dependent on the success of Priligy and our lead drug candidate, alogliptin…," page 15

7. In this risk factor, please state the current stage of development of alogliptin and disclose the state of FDA approval of both product candidates in the U.S.

"We must attract and retain key employees in order to succeed," page 17

8. We note your statement that you rely on the services of your senior management. In this risk factor, please identify senior management employees and any other employees that you are substantially dependent on and state whether you have key person insurance policies for any of these employees.

"If our collaborators are not successful or are terminated by our collaborators . . .," page 21

9. Please identify your material collaborative agreements that are terminable on short notice.

"We might be subject to product liability claims…," page 24

10. Please disclose the policy limitations of your liability insurance in this risk factor.

The Spin-Off

Reasons for the Spin-Off, page 29

11. In this discussion, please briefly describe the other strategic alternatives PPD considered before deciding to spin-off its compound partnering business.

Distribution Conditions and Termination, page 35

12. Please state the basis of your belief that you have the discretion to waive each of these conditions and still consummate this spin-off. Please also consider including risk factor disclosure to describe the potential consequences if the Board were to waive any of the conditions, e.g. the condition that the Nasdaq Global Market approve your common stock for listing, the condition that the Internal Revenue Service issue a favorable private letter ruling and that you receive an independent tax opinion, etc.

Capitalization, page 37

13. Please ensure that December 31, 2009 historical financial information agrees to your combined balance sheet provided on page F-4.

Our Business, page 38

14. Please revise the description of alogliptin and aglogliptin-containing products to explain what a "complete response letter" is.

15. Please describe the types of dermatalogical indications in the anti-proliferative and anti-inflammatory areas you expect the therapeutic candidates developed by Eli Lilly to address.

16. We note that the chart on page 40 indicates that you have submitted a marketing application in the U.S. for Priligy. Additionally, we note your disclosure on page 43 that Janssen-Cilag received a not approvable letter from the FDA in December 2004. Please tell what the basis for the not approvable letter was in 2004 and if you have submitted a new NDA. If you have not, please tell us the basis for your statement that the current stage of development for Priligy is "Submission of Marketing Application."

17. Please reformat the chart on page 40 so that it is entirely visible when printed.

Drug Development Industry, page 41

18. Please identify the source or sources of the estimate of the fully capitalized cost of developing and commercializing a new pharmaceutical product.

19. Please provide the basis of your statement that there are multiple upcoming patent expirations valued at $75 billion through 2013. If this statistic has been published, please cite to the publication as support of your statement.

Our Solution, page 41

20. Please provide an explanation as to how your approach to drug development can be considered "novel."

Our Pipeline, page 43

21. In your discussion of Priligy, please disclose the aggregate payments received to date, the aggregate milestone payments you may receive from sales of dapoxetine, as well as an indication of the percentage of royalty payments you may earn, e.g. "low single-digits," "high single-digits," etc.

22. We note your statement that PPD will contribute to you all of its rights and obligations with respect to dapoxetine. Please describe all of the obligations referenced and any rights in addition to the rights to receive royalties and milestone payments.

23. In your discussion of alogliptin, please disclose the aggregate payments to date and provide an indication of the percentage of royalty payments you may earn if the FDA grants approval to an NDA containing this compound, e.g. "low single-digits," "high single-digits," etc. Additionally, we note your statement that PPD will contribute to you all of its other rights and obligations with respect to Takeda's DPP4. Please describe each of these rights and obligations.

24. Please define the acronym EMEA.

25. In your discussion of the two compounds you are developing with Janssen Pharmaceutica N.V., please disclose the aggregate payments to date and provide an indication of the percentage of royalty payments you may earn on sales of each compound if approved for marketing, e.g. "low single-digits," "high single-digits," etc.

26. In your discussion of PPD 10558, please explain, using plain English, what the affliction "dyslipidemia" is.

27. Please revise the description of your agreement with Ranbaxy Laboratories to disclose the aggregate payments to date, potential aggregate milestone payments and an indication of the royalty percentage.

28. Please revise the description of the agreement with Magen BioSciences to disclose the aggregate amounts paid/received to date, aggregate potential milestone payments and royalty range.

Our Patents and Other Proprietary Rights, page 45

29. Please identify all material patents or groups of related patents, identify your product candidates that are dependent on these patents, and disclose the jurisdiction and scheduled expiration dates. You may do this in either narrative or tabular form.

30. To the extent that any of the material patents are licensed from third parties, identify the licensor and disclose when the license expires.

Manufacturing and Supply, page 46

31. To the extent you obtain products or materials from sole source suppliers or other parties upon which you are substantially dependent, please identify the manufacturer or supplier and the product that is dependent on the agreement. Additionally, describe the material terms and file the agreements as exhibits. If you believe you are not required to file them, please provide the basis for your determination.

Government Regulation, page 47

32. Please provide additional disclosure about the regulatory requirements imposed on you in foreign countries. We note that Priligy has been approved for marketing in ten countries outside the United States. To the extent that any of these countries has a material effect on your business or operations, you should describe the effects of any of these regulations and explain the effects on your business.

Management's Discussion and analysis of Financial Condition and Results of Operations

Executive Overview, page 52

33. Your disclosure "the timing and amount of any future expenses, completion dates, and revenues related to our drug candidates is not readily determinable due to the early stage of these development programs." Refer to your disclosures on page F-10 that the fair value of IPR&D is determined "by estimating the costs to develop the acquired technology into commercially viable products, estimating the resulting net cash flows

from the projects, and discounting the net cash flows to present value", and in Note 5 to the combined financial statements. Please clarify why you can estimate this information for acquired technology but this information is not readily determinable for your drug candidates.

Results of Operations, page 56

34. Please revise your discussion to quantify the research and development expenses that were incurred by each of your projects. If you do not maintain any research and development costs by project, disclose that fact and explain why management does not maintain and evaluate research and development costs by project. Provide other quantitative or qualitative disclosure that indicates the amount of the company's resources being used on the project

Contractual Obligations, page 62

35. Please revise your contractual obligations table to include your estimated future milestone obligations and royalty payments under the existing collaboration agreements. Provide a footnote describing the methods and assumptions utilized to estimate these payments. If you do not believe that these payments should be shown in the contractual obligations table, state this fact and expand your disclosure in the liquidity and capital resources section, to the extent material, the amount and timing of milestones and royalties that have been paid and are reasonably likely to be paid.

Management

Management, page 71

36. Please disclose Mr. Covington's employment history from 2008 to 2010.

Board Committees, page 73

37. Please indicate the number of members of each of the three Board committees, if you have determined such.

38. Please state whether you expect that one of the members of you Audit Committee will qualify as an "audit committee financial expert," as defined in Item 407(d)(5)(ii) of Regulation S-K. If one or more of the current members of your Board does so qualify, please revise your disclosure to identify the member(s).

Executive Compensation

Potential Payments Upon Termination or Change in Control, page 85

39. Please include a table disclosing the amounts payable to each named executive officer upon a termination or change in control. We refer you to Item 402(j) of Regulation S-K.

Combined Financial Statements of Furiex Pharmaceuticals, Inc.

1. Summary of Operations and Significant Accounting Policies

Revenue Recognition, page F-9

40. It appears that your agreements in connection with the out-licensing of compounds contain multiple revenue-generating activities as described in FASB ASC 605-25. Please tell us how you have complied with the accounting guidance and the disclosure requirements of this subtopic.

2. Acquisitions and Dispositions

Dispositions, page F-13

41. Please describe the terms under which you have the right to receive a percentage of future revenues in connection with the disposition of PPD Biomarker.

9. Income Taxes, page F-21

42. Please disclose the amounts and expiration dates of operating loss and tax credit carryforwards in accordance with FASB ASC 740-10-50.

Financial Statements of Magen Biosciences

3. Commitments and Contingencies

License Agreements, page F-42

43. Please revise your disclosure to describe the provisions that survived termination. In addition, clarify whether these provisions were transferred to PPD.

* * * * *

As appropriate, please amend your filings in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a

cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please file your cover letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that,

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;

- staff comments or changes to disclosure in response to staff comments in the filings reviewed by the staff 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Keira Nakada at (202) 551-3659 or Donald Abbott at (202) 551-3608 if you have questions regarding comments on the financial statements and related matters. Please contact Scot Foley at (202) 551-3383 or Suzanne Hayes at (202) 551-3675 with any other questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: Alexander M. Donaldson, Esq.
Wyrick Robbins Yates & Ponton LLP
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