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

DIVISION OF
CORPORATION FINANCE

April 16, 2013

Via E-mail
Steven St. Peter, M.D.
President and Chief Executive Officer
Aratana Therapeutics, Inc.
1901 Olathe Boulevard
Kansas City, KS 66103

Re: Aratana Therapeutics, Inc.
Registration Statement on Form S-1
Filed March 20, 2013
File No. 333-187372

Dear Dr. St. Peter:

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. We note that there are a number of additional exhibits that still need to be filed. Please provide these exhibits as promptly as possible. Please note that we may have comments on these materials once they are provided.

2. Please confirm that the graphics included in your registration statement are the only graphics you will use in your prospectus. If those are not the only graphics, please provide any additional graphics prior to their use for our review.

3. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications. Similarly, please supplementally provide us with any research reports about you that are published or

distributed in reliance upon Section 2(a)(3) of the Securities Act of 1933 added by Section 105(a) of the Jumpstart Our Business Startups Act by any broker or dealer that is participating or will participate in your offering.

4. We note your statement, "Our management estimates have not been verified by any independent source, and we have not independently verified any third-party information." It is not appropriate to infer that you are not liable for statements included in your registration statement. Please delete this sentence or specifically state that you are responsible for the referenced information.

Prospectus Summary
Overview
Our Company, page 1

5. In the third paragraphs of this section, please disclose when you filed Investigative New Animal Drug applications for AT-001 and AT-002 and when you plan on filing an Investigative New Drug application for AT-003.

Our Company, page 1

6. Please clarify how many animal health products your Chief Scientific Officer and Head of Drug Evaluation and Development have successfully led through regulatory approval.

7. Please describe the meaning of the terms "dose confirmation studies" and "pivotal effectiveness studies" the first time you use them.

Differences Between Human and Pet Therapeutics, page 2

8. We note your disclosure regarding your thoughts about what makes the pet therapeutics market attractive. Please expand your disclosure to discuss what makes the pet therapeutics market less attractive including the disadvantages that people will not generally spend as much to care for their pet's health as they will to care for their health or the health of their human family members and that less of the medication cost is reimbursed from medical insurance as veterinary expenses are mostly private pay.

Our Product Candidates, page 4

9. Please expand your disclosure in this section to state from which companies you have licensed your three compounds.

Our Strategy, page 4

10. We note your last bullet point in this section and your expansive disclosure on page 65 regarding your established experience in pet therapeutics. Please advise us why this disclosure is appropriate given that your experience in pet therapeutics as a corporation is

limited as you have three products in development, no commercial products and no experience in marketing and distributing commercial veterinary products. Alternatively, please delete these statements from your disclosure.

Summary Financial Data, page 7

11. You appear to exclude from your pro forma financial information certain material transactions that occurred subsequent to the balance sheet date. To the extent that these transactions will have a material impact on your financial statements and/or capital structure, it appears that these transactions should be reflected in the pro forma financial information. Please revise your disclosure or tell us why this pro forma financial information is not material to investors. Refer to Rule 11-01(a)(8) of Regulation S-X.

Risk Factors
Risks Related to Our Limited Operating History and Financial Condition
We may require substantial additional financing to achieve our goals, and a failure…, page 9

12. Please revise your disclosure in this section to quantify the amount of your cash and cash equivalents and working capital as of December 31, 2012.

Risks Related to Our Business
We rely completely on third-party manufacturers to manufacture the supplies…, page 15

13. Please expand your disclosure in this section to disclose that you agreed to develop a manufacturing process for AT-001 that is cGMP compliant and engaged a contract manufacturer that is developing the API process according to ICH standards. Please identify this contract manufacturer and disclose the risks involved.

The commercialization of any of our product candidates could be stopped…, page 16

14. We note that Pacira has the obligation to provide only a specified percentage of your requested commercial quantity of bulk finished drug product during a specified time period following commercial launch of AT-003. Please disclose the "specified percentage" and the "specified time period."

15. We note that you rely on your contract manufacturers to obtain any raw materials necessary to manufacture your products. Please expand your disclosure to identify the suppliers which your manufacturers are dependent upon and the products to which the suppliers relate.

Our ability to use our net operating loss carryforwards to offset future taxable…, page 20

16. Please expand your disclosure in this section to quantify your net operating loss carry forwards and disclose when they begin to expire.

Generic products may be viewed as more cost-effective than our products, page 20

17. Please expand your disclosure in this section to provide the expiration dates of your material patents.

Risks Related to Our Intellectual Property
We currently own one patent application, license the issued patents covering…, page 20

18. Please expand your disclosure in this risk factor to describe the one patent application covering part of your AT-002 product candidate and your other material patents which you license from RaQualia and Pacira.

We may become subject to third parties' claims alleging infringement of…, page 21

19. To the extent you have received notice of patent infringement, patent challenges or related legal action or you are aware that RaQualia or Pacira have received such notices, please discuss the situation and potential consequences in this risk factor discussion. Similarly, revise the risk factor entitled "We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time-consuming and unsuccessful" if you, RaQualia or Pacira have initiated any actions related to possible infringement of your intellectual property.

If our efforts to protect the proprietary nature of the intellectual property…, page 22

20. To the extent that you have initiated any claims regarding the wrongful use or disclosure of trade secrets or other proprietary information, please revise your disclosure to discuss such claims and the potential consequences. Similarly, revise the risk factor entitled "We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties" if you have received notice of any claims regarding the wrongful use or disclosure of trade secrets or other proprietary information by one of your employees to discuss such claims and the potential consequences.

Obtaining and maintaining our patent protection depends on compliance…, page 24

21. To the extent that you or your licensors have not complied with any procedural, documentary, fee payment or other requirements during the patent process, please expand your disclosure to discuss the situation and consequences.

Risks Related to government Regulation
The regulatory approval process is uncertain, requires us to utilize significant…, page 25

22. To the extent that you have failed to comply with CVM and other applicable United States and foreign regulatory requirements and have become subject to administrative or judicially imposed sanctions, please describe the situation and consequences.

Use of Proceeds, page 34

23. We note that you have not determined the amount you plan to spend on any of the purposes listed in this section or the timing of these expenditures. We understand that your use of the proceeds of this offering is subject to change based upon the factors disclosed elsewhere in your registration statement. Nevertheless, you should provide your best estimate of the amount of proceeds that will be used for each of the purposes listed in this section as of the date of this prospectus. In regard to the funds that will be used to develop your current products candidates, please describe how far in the development process these funds will bring each of your three product candidates.

Dilution, page 37

24. It appears that your calculation of historical net tangible book value include convertible preferred stock. The amounts attributable to preferred shareholders would only be available to common shareholders upon the conversion of preferred stock to common stock. Please revise your calculations of historical net tangible book value to exclude convertible preferred stock or explain to us the basis for your calculation.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Critical Accounting Policies and Significant Judgments and Estimates
Research and Development, page 44

25. You disclose that "if we do not identify costs that have been incurred or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates." Please revise to disclose how accurate the estimates have been in the past, including any material changes in estimates in the periods presented. Please refer to Section 501.14 of the Financial Reporting Codification added by FR-72.

Grants of Stock-Based Awards, page 47

26. Please revise your disclosure to further explain the increases in the common stock values between each valuation date. In your disclosure, describe how your research and development projects have progressed, quantify the inputs you utilized in valuing the common stock at each valuation date, and explain why those inputs have changed from the previous valuation date. Continue to update your disclosure for all equity related transactions through the effectiveness date of the registration statement

Retrospective Valuation of Common Stock as of October 4, 2012, October 22, 2012 and December 22, 2012, page 49

27. You disclose that you determined that a retrospective valuation of the fair value of our common stock as of October 4, 2012 and December 22, 2012 was appropriate due to acceleration of the timeframe to a liquidity event. Please revise your disclosure to discuss

the significant assumptions used by your board of directors to determine the retrospective value of your common stock as of October 4, 2012 and October 22, 2012. Also regarding your retrospective valuation as of December 22, 2012, revise your disclosure to explain the why the revised OPM was prepared assuming four years to liquidity when the OPM in the May 2012 valuation assumed 2.6 years to liquidity.

Contractual Obligations and Commitments, page 55

28. Please revise your footnote 5 to quantify the amount of milestones you may be obligated to pay in the future under the agreements with RaQualia.

Kansas Programs, page 56

29. Please identify the purchasers of your series B convertible preferred stock and series C convertible preferred stock that received approximately $1.5 million in Kansas income tax credits from the Kansas Department of Commerce.

30. You disclose that if you move your principal place of business, your domicile or certain of your operations outside of the State of Kansas, you may be required to repay certain awards or income tax credits. Please revise your disclosure to clarify the terms of the agreements that require you to repay certain awards or income tax credits and the circumstances that do not require repayment. Also, please quantify the amount of awards or income tax credits that you may have to repay.

Business
Products in Development
AT-001, page 66

31. We note that AT-001 has shown through endoscopic exams that it is safer for the gastrointestinal tract than a NSAID. Please describe the results of the endoscopic exams which led to the conclusion that AT-001 if safer for the gastrointestinal tract.

32. Please identify the studies that have demonstrated that EP4 is a major receptor in mediating pain associated with both rheumatoid arthritis and osteoarthritis and inflammation.

33. We note that you intend to use the results from a nine-month GLP toxicology study of oral AT-001 given daily as the pivotal study to be submitted to the regulatory authorities to demonstrate target animal safety in dogs. Please provide a description of the study including, the number of dogs enrolled in the study, the blood or other tests that were taken during the study and what they were attempting to measure, the results of the study and any adverse effects and serious adverse events that were observed during the study.

34. Please identify and describe the “validated pain scoring system” which you are using as part of your current proof of concept study for AT-001.

35. Please clarify whether you plan to submit the results from the two laboratory studies to test the safety of AT-001 in cats to regulatory authorities. If so, please expand your disclosure to describe each of the studies including, the number of cats enrolled in the studies, the blood or other tests that were taken during the study and what they were attempting to measure, the results of the studies and all adverse effects and serious adverse events that were observed during the studies, in addition to the adverse effects to the liver.

AT-002, page 70

36. We note that you intend to use the results from a dog GLP 12-month toxicology study as the pivotal safety data to be submitted to the regulatory authorities to demonstrate safety in dogs. Please provide a description of the study, including the number of dogs enrolled in the study, the blood or other tests that were taken during the study and what they were attempting to measure, the results of the study and any adverse effects and serious adverse events that were observed during the study.

37. In regard to your current study evaluating the effectiveness of AT-002 compared to placebo for the treatment of inappetance, we note that an interim statistical analysis demonstrated statistically significant increases in both owner assessed appetite scores and body weights in AT-002 treated dogs compared to placebo. Please expand your disclosure to provide the interim results of the study, including the p-value obtained regarding any statistically significant results as well as the endpoints that were not statistically significant. Also, please explain what the p-value measures.

AT-003

38. We note your belief that your pivotal dog safety study for AT-003 is the subcutaneous toxicity study with twice-weekly dosing for four weeks in dogs. Please provide a description of the study, including the number of dogs enrolled in the study, the blood or other tests that were taken during the study and what they were attempting to measure, the results of the study and any adverse effects and serious adverse events that were observed during the study.

Manufacturing, page 76

39. Please identify the contract manufacturer that is developing a manufacturing process for AT-001 that is cGMP compliant. To the extent that you have entered into an agreement with this contract manufacturer, please describe the material terms of the agreement and file it as exhibit pursuant to Item 601(b)(10) of Regulation S-K.

Exclusive Supply Agreement with Pacira, page 76

40. Please provide the duration of the supply agreement with Pacira. We note that the agreement states that it will continue as long as the license agreement with Pacira, which has an initial term of fifteen years and can be renewed for an additional five years, continues in force.

API Development Agreement with RaQualia, page 76

41. Please expand your disclosure to describe the material terms of the agreement with RaQualia including, the upfront payment you received from RaQualia, the remaining payment you will receive upon delivery of a certain quantity of AT-001 and the duration of the agreement.

Competition, page 76

42. We note the list of companies which are you potential competitors and that at the product level, you will face competition for AT-001 from Rimadyl, Deramaxx, Previcox and Metacam. Please clarify which companies make these products.

Intellectual Property and License Agreements
Exclusive License Agreements with RaQualia, page 77

43. Please expand your disclosure to identify the foreign jurisdictions where you have foreign counterparts to the issued U.S. patents and the jurisdictions where you have pending patent applications.

44. Please expand your disclosure to provide the material terms of the two agreements with RaQualia, including the amount of the upfront fees, aggregate potential milestones to be paid and royalty rates.

Exclusive License Agreement with Pacira, page 78

45. Please expand your disclosure to discuss the types of patents you have licensed from Pacira (e.g., composition of matter, use of process), expiration dates of the issued patents and the jurisdictions where you have foreign counterparts to the issued U.S. patents and patent applications.

46. Please expand your disclosure to provide the material terms of the license agreement with Pacira, including the amount of the upfront fee, the royalty rates and the number of years of sales of AT-003 before you are responsible for meeting minimum annual revenue requirements.

Regulatory, page 78

47. We note that you plan to file for approval of your products in both the United States and Europe. Please revise your disclosure to include a section which describes the regulatory process at the EMA.

Shares Eligible for Future Sale
Lock-Up Agreements, page 113

48. Please file the lock-up agreements as exhibits.

Notes to Financial Statements
2. Summary of Significant Accounting Policies
Accounting for Stock-Based Compensation, page F-11

49. You state here that you have the option to repurchase stock-based awards that were exercised prior to vesting at the "lesser" of (1) the original purchase price per share or (2) the fair value of the common share on the date of termination. However, based on the disclosure you provided on page F-25, you may, in practice, repurchase the unvested awards at the greater of the two price points. Please revise your disclosure to resolve this discrepancy and clarify whether the employees are restricted from selling their unvested shares.

8. Agreements
RaQualia Pharma Inc. ("RaQualia"), page F-16

50. Please revise your disclosure to quantify the aggregate amount of milestone payments you may become obligated to pay under the December 27, 2010 Exclusive License Agreements with RaQualia. In addition, please disclose the milestones you expect to meet in the near future and the amount of payments you will be obligated to pay for meeting those milestones.

51. Please revise your disclosure to clarify what the payment of $800,000 upon execution of the API Development Agreement presents to explain why recognition of this amount is deferred until delivery of the API. If the upfront payment is refundable to RaQualia, disclose the refund terms.

Pacira Pharmaceuticals, Inc. ("Pacira"), page F-17

52. Please revise your disclosure to describe the milestones you achieved as of December 31, 2012 that triggered your payment obligation of $500,000 and disclose the milestones you expect to meet in the near future and the amount you will be obligated to pay for meeting those milestones. Also, tell us why you classify these milestone obligations as IPR&D, rather than as R&D.

9. Convertible Preferred Stock Issuances, page F-18

53. You issued Series A and Series A-1 convertible preferred stock on the same date. Please revise your disclosure to explain how you determined the Series A-1 convertible preferred stock fair value to be $1.70 per share when the Series A had an issuance price of $1 per share. Include in your disclosure a description of any rights or preferences the Series A-1 has over the Series A that explain the differences in issuance price or fair value and how you considered the voting right and the liquidation preference that Series A appears to have over Series A-1.

54. You disclose that you issued Series A-1 convertible preferred stock to RaQualia as partial consideration to purchase intellectual property rights from RaQualia for $7,350. The amount charged to in-process research and development was $6,525 which was net of $825 excess cash proceeds over the fair value of the shares issued. Please revise to disclose how you accounted for the $825 excess amount.

10. Common Stock, page F-22

55. Please disclose how you account for the common stock forfeited by former employees when you decide not to reacquire the shares.

11. Stock-Based Awards
Stock Options, page F-23

56. The ASC Master Glossary defines intrinsic value as "the amount by which the fair value of the underlying stock exceeds the exercise price of an option" Please revise your disclosure of the calculation of intrinsic value of the options and the restricted stock awards to remove the word "deemed" when you refer to fair value.

Restricted Common Stock, page F-25

57. Please revise your disclosure to describe the restrictions imposed on the common stock issued and the duration of these restrictions.

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 Keira Ino 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 Johnny Gharib at (202) 551-3170 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

cc: Via E-mail
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