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

DIVISION OF
CORPORATION FINANCE

August 22, 2011

Via E-mail
Mr. Ronald A. Martell
Chief Executive Officer
Poniard Pharmaceuticals, Inc.
750 Battery Street, Suite 330
San Francisco, CA 94111

Re: Poniard Pharmaceuticals, Inc.
Form S-4
Filed July 25, 2011
File No. 333-175778

Dear Mr. Martell:

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-4

General

1. Please note that before we will declare the registration statement effective, you must revise your filing throughout to include any omitted information that is currently denoted by blanks.

2. Please note that you are required to file with the Commission any written instructions, scripts, and outlines that will be used by any person that solicits proxies on behalf of the company through personal interview, telephone, or telegram, and all other soliciting material that will be furnished to the security holders of either company.

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

4. Please file copies of Allozyne's material agreements as exhibits to this registration statement, including:
    - all material license, collaboration, promotion, manufacturing, supply, distribution, lease, loan and employment agreements;
    - the license agreement with the California Institute of Technology;
    - the license agreement with the Sigma Aldrich Family of Companies;
    - the license agreement with TSRI;
    - the lease agreement for your facility in Seattle, WA; and
    - employment agreements with each of Meenu Chhabra, John Bencich and Kenneth Grabstein

    See Item 601(b)(10) of Regulation S-K. In addition, please confirm that you have disclosed the material terms each of these agreements in Allozyne's Business section, including, but not limited to payment provisions, minimum payments/quantities, royalty provisions, exclusivity provisions, obligations/rights to defend, duration and termination provisions. We may have further comments based on your response.

5. We note that the tax opinions, legal opinions and related consents have not been filed. Please file them as soon as practicable, as we will need time to review these exhibits once they have been filed.

Questions and Answers About the Merger, page vi

6. On pages x and xi, in the questions which address the outcome to the companies if the merger is not ultimately completed, you state that the likely result for each company is bankruptcy. Please provide a full discussion in the section entitled "Reasons for the Merger" as to why you believe that is the case and why management of each company believes that the combined company would be less likely to file for bankruptcy. If you cannot provide more information as to why bankruptcy for both companies is the likely result of the merger not being consummated and why the merger reduces this risk, please revise the disclosure to eliminate this conclusion.

Questions and Answers for Allozyne Stockholders, page xi

7. On page xii, in the question styled "Will my rights as a Poniard shareholder be different from my rights as a Allozyne stockholder," please revise to disclose the jurisdiction of incorporation of each company.

Summary, page 1

Reasons for the Merger, page 3

8. Please cite a source for the revenue figure cited for currently marketed interferons in the third bullet point. Please limit the interferon revenue to the likely market indication of your most advanced pipeline product (RRMS).

9. Please identify the risks and countervailing factors related to entering into the merger agreement which the Poniard board of directors considered.

10. On page 4, please briefly identify the types of strategic alternatives considered by the Allozyne board of directors.

Termination of the Merger Agreement, page 9

11. Please summarize here the circumstances under which either Poniard or Allozyne can terminate the merger agreement.

12. Please summarize here the circumstances under which the termination fees and expenses are triggered.

Interests of Certain Persons in the Merger, page 10

13. In addition to the aggregate amount of potential severance and benefit payments you have disclosed here, please disclose here and on page 78 the amount of severance pay and benefits under the terms of the change in control agreements to be received by each of the Poniard executive officers, specifically identifying each such officer and his or her payment on an individual basis.

14. Please disclose here and on page 78 the total value of any accelerated vesting of stock options and restricted stock units that each executive officer of Poniard may expect to receive in connection with the merger.

Regulatory Approvals, page 12

15. Please revise your summary to include a statement as to whether any federal or state regulatory requirements must be complied with or approval obtained in connection with the transaction and, if so, the status of such compliance or approval. Similarly revise the disclosure in "The Merger – Regulatory Approvals" section that begins on page 91.

Comparison of the Rights of Holders of Poniard Capital Stock and Allozyne Capital Stock, page 13

16. In addition to the cross reference provided, please summarize the key material differences in the rights of each company's stockholders.

Selected Historical Financial Data, page 14
Comparative Historical and Unaudited Pro Form Per Share, page 17

17. Please revise your tables to include the equivalent per share pro forma information required by Item 3(f) of Form S-4.

Risk Factors, page 21

Risks Related to the Proposed Merger, page 21

"The rights of Allozyne stockholders who become Poniard shareholders in the merger will be governed by Washington law...." page 22

18. Revise this risk factor to state the most material differences between the current rights of Allozyne shareholders under Delaware law and the rights such shareholders will have under Washington law.

Risks Related to Poniard, page 24

"Poniard may not be able to complete the merger with Allozyne...." page 24

19. You state, "Poniard estimates that its current cash resources will be sufficient to continue operations at substantially their current level into the fourth quarter of 2011." Please revise this risk factor to quantify the cash resources and provide a brief description of expected operational costs.

20. Please describe the liabilities that would accelerate under the picoplatin license agreement and the commercial supply contracts in the event that Poniard files for bankruptcy protection.

"Poniard's Phase 3 trial of picoplatin in small cell lung cancer...." page 25

21. Please revise this risk factor to address whether the failure of the Phase 3 trial of picoplatin has already negatively impacted Poniard's ability to obtain funding for future clinical trials and/or enter into strategic transactions. Have any funding arrangements been cancelled to date as a result of the failed clinical trial? Has the failure of the clinical trial caused Poniard to lose strategic opportunities?

"If the merger is not completed and Poniard is unable to protect its proprietary rights...." page 26

22. Please address the risks of any known infringement of your patents.

23. Please identify the third party which co-owns RE41209 with Genzyme.

"The use of Poniard's technologies could potentially conflict...." page 27

24. Please disclose the risks related to any entities which currently have legally blocking proprietary rights of which Poniard is aware.

"Product liability claims...." page 27

25. Please revise to disclose the risks related to any material product liability claims that have been filed against Poniard. Please disclose the risks related to any product liability claims that have arisen out of the failed Phase 3 SPEAR clinical trial of picoplatin.

"Poniard has never paid cash dividends on its common stock…" page 33

26. Please clarify whether, to date, dividends payable on the Series 1 preferred stock have been in arrears and unpaid for three semi-annual periods. If so, please state whether the Series 1 preferred stock voting rights were triggered. Please disclose the aggregate amount of accrued but unpaid dividends.

Risks Related to Allozyne's Business, page 35

27. You state that "current cash and cash equivalent balances will provide adequate resources to fund operations into the fourth quarter of 2011." Please revise this risk factor to quantify the cash resources and provide a brief description of expected operational costs.

"Allozyne depends on its senior management…" page 44

28. To the extent that you have experienced difficulties attracting and retaining key personnel, please revise to discuss these difficulties. Also, disclose whether any key personnel have plans to retire or leave your company in the near future.

"Allozyne faces potential product liability exposure…" page 47

29. Please revise this risk factor to describe the type of liabilities that are included under your current insurance coverage and the limitations on coverage.

30. Please quantify your level of insurance coverage and disclose the cost to you of your product liability insurance coverage, if material.

"Allozyne's management and auditors have identified a material weakness…" page 48

31. Please revise this risk factor to address whether steps are being taken presently to address the material weakness and what those steps are. If steps are not being taken presently to address the material weakness, disclose what risks might occur.

The Merger, page 59

Background of the Merger, page 59

32. Please disclose the overall size of the Phase 3 SPEAR trial.

33. Please describe in more detail the "statistically significant survival trends evidenced in the preliminary SPEAR data" and "statistically significant efficacy benefit in a large subset of patients." Disclose the overall study size and the size and attributes of the subset of patients you reference.

34. Please describe the general attributes of the entities which the board considered partnering with for picoplatin.

35. Please clarify at what stage Mr. Simon disclosed his affiliation with Allozyne. Please disclose the number of meetings Mr. Simon attended or participated in related to the potential merger with Allozyne. Please state the date at which Mr. Simon recused himself from the discussions.

Background of Development of Transaction Between Poniard and Allozyne, page 64

36. Please expand the discussion of the negotiations between the parties to specifically address the exchange of offers and counter-offers, including date and terms of such offers or counter-offers, consideration of the offer or counter-offer and response to the offer or counter-offer.

Poniard's Reasons for the Merger, page 65

37. On page 66, please explain why the board determined that the strategic alternatives considered weighed in favor of approving the business combination with Allozyne.

38. On page 67, please expand your discussion to provide a complete description of the "various other risks" associated with the combined company.

Allozyne's Reasons for the Merger, page 68

39. Please explain why Allozyne's board determined that the strategic alternatives considered weighed in favor of approving the business combination with Poniard.

40. On page 69, please expand your discussion to provide a complete description of the "various other risks" associated with the combined company.

Opinion of the Poniard Financial Adviser, page 69

41. Please supplementally provide us with copies of any materials provided to Leerink or prepared by Leerink in connection with its fairness opinion, including, among other things, any "board books," draft of fairness opinions provided to the board of directors, and any summaries of presentations made to the board of directors. We may have further comments on your disclosure once we have had the opportunity to review these materials.

42. Please disclose in this section that Leerink has consented to use of its opinion in your filing and reference that such consent is an exhibit to your filing.

43. Please disclose the fees Leerink will receive in connection with its fairness opinion and the merger transaction.

Interests of Poniard's Executive Officers and Directors in the Merger, page 78

44. In the first bullet point on page 80, please state how long the salary continuation for each of Mr. Martell, Dr. Perry and Mr. Jackson will last.

Material United States Federal Income Tax Consequences of the Merger, page 91

45. The disclosure regarding material tax consequences in this section is not adequate. The disclosure must identify each party's counsel, state that each counsel has rendered its opinion and disclose a conclusion of each counsel regarding each material tax consequence. Please revise this section accordingly. We understand that the counsels will deliver tax opinions at the time of closing as a condition to the merger. However, the registrant should file executed opinions of counsels prior to effectiveness of the registration statement.

The Merger Agreement, page 97
Other Agreements Related to the Merger Agreement, page 112

46. Please state the maturity date of the Loan and Security Agreement described on page 114.

Allozyne's Business, page 116

47. Please disclose the size and scope of the clinical trials described on page 116.

Biociphering Platforms, page 117

48. Please define the term "moieties"

49. On page 117 you state that Allozyne has received approximately $42.4 million in funding. Please disclose the source or sources of these funds, any material agreements related to the funding and the terms of such agreements. Please file any material agreements as exhibits to this filing. See comment 4 above.

50. Please describe the material terms of the licensing agreements with the California Institute of Technology, the Sigma Aldrich Family of Companies and TSRI and file these agreements as an exhibit to the filing. See comment 4 above.

AZ 17, page 124

51. Please cite the source for the statistic on page 125 that approximately one-third of patients fail to demonstrate efficacy.

Intellectual Property, page 126

52. Please disclose whether you are aware of any third-party infringement of the patents you hold or license.

Manufacturing, page 129

53. To the extent that any of the manufacturing or supply arrangements are material to Allozyne's business, please disclose the material terms and file the related agreements as exhibits to the filing.

Properties, page 133

54. Please disclose the name of the related-party investor who entered into a lease agreement with Allozyne and file the lease agreement as an exhibit to the filing.

Allozyne's Management's Discussion and Analysis of Financial Condition and Results of Operations, page 135

55. Please include a caption in this section to address the impact that the material weakness reported by your independent auditor in your internal controls discussed on page 48 had on the financial reporting processes addressed in the periods presented. Please include disclosure on the steps you have taken to remedy the material weakness.

Critical Accounting Policies and Significant Judgments and Estimates
Preclinical Study, Clinical Trial and Manufacturing Accruals, page 138

56. Please revise your disclosure to clarify whether changes in estimates have been material for each period presented, quantifying any material changes in estimate.

Results of Operations
Comparison of Three Months Ended March 31, 2011 and 2010
Research and Development Expenses, page 144

57. Please disclose the costs incurred during each period presented and to date for both AZ01 and preclinical studies, separately. 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.

Liquidity and Capital Resources
Operating Activities, page 147

58. Please revise your disclosure to include an explanation for the increase in accounts payable from December 31, 2010 to March 31, 2011.

Unaudited Pro Forma Condensed Combined Financial Statements, page 171

59. On page 16 you disclose that the unaudited pro forma information was prepared using the acquisition method of accounting. On page 171 you state that the merger will be accounted for under the purchase method of accounting and on page 177 you state that the purchase price will be allocated. Please revise your disclosure on pages 171 and 177 to clarify, if true, that you are using the acquisition method of accounting and that identifiable assets acquired and liabilities assumed will be recognized and measured at their acquisition-date fair values.

60. You disclose in Note 2 that the value assigned to the licensed product is based on the carrying value of this asset at March 31, 2011 and that you are in the process of performing a valuation of the tangible and intangible assets of Poniard. It is unclear whether you have made an estimate of the fair value of the licensed product and other intangible assets. Please revise your pro forma financial statements to include estimated fair value adjustments for these items. If you believe that the carrying value of the licensed product approximates fair value please state this fact. Please also revise your pro forma information to highlight the uncertainties regarding the effects of amortization periods assigned to the assets. Please refer to Instruction 2 to Item 11-02(b) of Regulation S-X.

61. Please revise your disclosure to include a qualitative description of the factors that make up the goodwill in Note 2. Please refer to ASC 805-30-50-1a.

62. It appears that the reference to note 3(d) in footnote (h) should be 3(c). Please revise or advise.

Matters to Be Presented to the Poniard Shareholders, page 197
Certain U.S. Federal Income Tax Consequences of the Reverse Stock Split, page 202

63. Please change the title of this sub-heading to “Material U.S. Federal Income Tax Consequences of the Reverse Stock Split” and confirm that you have summarized all material tax consequences.

Poniard's Business, page 204
Overview, page 204

64. Please provide more detail regarding the clinical studies that suggest that picoplatin has an improved safety profile relative to existing platinum-based cancer therapies.

65. Please disclose the size of the patient populations in the Phase 3 SPEAR trial.

Picoplatin and Platinum-Based Chemotherapeutics, page 204

66. Please describe the material terms of the agreement or agreements through which Poniard acquired the rights to develop, manufacture and commercialize picoplatin in 2004 and the worldwide, exclusive rights to picoplatin in 2006. We note that you have included this information in the risk factor on page 25, but this is material information which should be also be addressed in the Business section.

Employees, page 215

67. Please describe any ongoing obligations of Poniard such as severance pay or benefits related to the two reductions in force.

Financial Statements

68. Please update your financial statements as required by Rule 8-08 of Regulation S-X.

Poniard Financial Statements
Note 8. Commitments and Contingencies, page F-31

69. We note that you have entered into an equipment lease that qualifies as a capital lease. Please provide the disclosures required by paragraph ASC 840-30-50.

Allozyne Financial Statements
Report of Independent Accountants, page F-46

70. Please have PricewaterhouseCoopers LLC provide you with a revised audit report that indicates the City and State where issued in compliance with Article 2-02(a) of Regulation S-X.

Notes to Financial Statements
6. Preferred Stock Warrants, page F-63

71. Please revise your disclosure to describe the significant terms of the warrant agreement to clarify why the warrants are classified as liabilities.

10. Commitments and Contingencies, page F-67

72. Please clarify in your disclosure, if true, that the company is not currently a party to any proceedings that individually or in the aggregate would have a material adverse effect on your financial condition or results of operations. To the extent that the putative class action lawsuit precludes you from making the disclosure requested in the previous sentence, please revise your disclosure throughout the filing to clarify whether you have recorded a contingent liability or disclose an estimate of the possible loss or range of loss. The statement that you believe the claims are without merit and that you intend to defend them vigorously does not alleviate your obligation to assess whether a liability should be recorded under ASC 450-20-25 or to provide the disclosures required by ASC 450-20-50-1 through 50-4.

12. Significant Agreements
License Agreement - Scripps, page F-69

73. Please disclose the total amount of the potential milestone payments in connection with the license agreement.

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 Vanessa Robertson at (202) 551-3649 or Joel Parker at (202) 551-3651 if you have questions regarding comments on the financial statements and related matters. Please contact Nandini Acharya at (202) 551-3495 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey Riedler

Jeffrey Riedler
Assistant Director

Via E-mail
cc: James R. Lisbakken, Esq.
Perkins Coie LLP
1201 Third Avenue, Suite 4800
Seattle, WA 98101-3099