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

DIVISION OF
CORPORATION FINANCE

May 7, 2014

Via Email
Mr. Michael Raab
President and Chief Executive Officer
Ardelyx, Inc.
34175 Ardenwood Blvd.
Fremont, California 94555

**Re: Ardelyx, Inc.**
**Draft Registration Statement on Form S-1**
**Submitted on April 11, 2014**
**CIK No. 0001437402**

Dear Mr. Raab:

We have reviewed your draft 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

General

1. Please file all exhibits as soon as practicable. We may have further comments upon examination of these exhibits.

2. Prior to its use please provide us proofs of all graphic, visual or photographic information you will provide in the printed prospectus. Please note that we may have comments regarding this material.

3. Please supplementally provide us with any written materials that you or anyone authorized to do so on your behalf provides in reliance on Section 5(d) of the Securities Act to potential investors that are qualified institutional buyers or institutional accredited investors. 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. Comments regarding your application for confidential treatment will be delivered under separate cover.

5. We note that in several places in your prospectus you refer to prior clinical studies of tenapanor and you characterize the drug as "safe." For example, on page 2, in discussing your Phase 1 and Phase 2 studies, you state that tenapanor has been safe and well-tolerated, and on page 77 you state that tenapanor has generally been observed to be safe and well-tolerated in preclinical, nonclinical and clinical studies. Because regulatory approval of tenapanor is dependent on the FDA making a statutory finding that a drug is both safe and effective enough to be approved for commercial sale, it is premature for you to describe tenapanor, in any of the dosages administered, as safe. Accordingly, please delete the language stating that tenapanor is safe throughout your prospectus, as applicable. You may include a statement, if true, to the effect that no serious adverse side-effects have been observed in clinical studies or that the drug has been observed to be generally well-tolerated in clinical trials. Also, as the observations regarding pre or non-clinical studies are of limited usefulness or relevance once clinical studies have begun, you should consider deleting the "safety-related" information regarding pre or non-clinical studies. The reader may derive more significance for FDA-approval to these pre or non-clinical observations than is warranted.

Prospectus Summary, page 1

6. Please explain the following technical terms the first time they appear in the summary;

   - Hyperphosphatemia, and
   - Albuminuria.

7. We note the pipeline tables on pages 1 and 76 contain two indications related to ESRD; ESRD Pi and ESRD Fluid. The text discusses one indication for ESRD; the treatment of hyperphosphatemia in ESRD patients. Please provide disclosure in the section entitled "Our Pipeline Products" in pages 1 to 2 and in the section entitled "Overview" on pages 72 to 73 explaining the two separate ESRD indications identified in the table. If these two rows represent separate studies but not separate indications or target populations, please eliminate one of the rows as the inclusion of two rows may imply to the reader that you have two separate indications or market opportunities related to ESRD. We also note that on pages 2 and 76 you list three rather than four indications for tenapanor.

8. In the sentence preceding the bullets in the last paragraph on page 2 and on page 73, please clarify whether drug molecules have actually been identified for the RDX009, RDX013 and RDX020 Programs. If no molecules have been identified as to any of these

three programs, please eliminate any such programs from the pipeline tables on pages 1 and 76.

9. Please expand the fourth bullet on page 4 under "Risks Associated with Our Business" to state that as tenapanor is the first-in-its-class of drug to undergo clinical testing, there is a higher likelihood that approval may not be attained as compared to a class of drugs with approved products.

Use of Proceeds, page 52

10. Please indicate the extent to which such proceeds are expected to be adequate to advance and expand the APECCS program.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Research and Development Expenses, page 62

11. Please disclose the research and development expenses incurred from inception to date for tenapanor.

Business, page 72

12. We note on page 52 that you plan to advance and expand the development of APECCS. Please amend your disclosure to discuss your plans and strategy to expand APECCS.

13. Please amend your disclosure to describe the INDs submitted for tenapanor by indication and disclose when these INDs were filed and by whom. If no INDs were filed, please disclose why INDs were not required.

Summary of Clinical Results, page 84

14. We note the last column of the table entitled "Selected Results". Please revise the disclosure under that column heading to provide results related to all primary and secondary endpoints. Also, in the notes to the tables appearing on pages 86 to 88, please revise the disclosure to provide p-values and conclusions as to statistical significance of all primary and secondary endpoints discussed. If no statistical analysis was performed please disclose that also. The first time you use the term p-value please explain what it measures and the p-value that you have to achieve in order to conclude a statistically significant result.

15. Please include the D5611C00001 study in the table beginning on page 84.

16. In the table on pages 85, you state that the results of the Phase 2a trial labeled RDX5791-201 provide preliminary evidence of the ability of tenapanor to alleviate symptoms associated with IBS-C. We also note that on page 87 you disclose that this trial did not

produce a statistically significant improvement in CSBMs. We also note that there was no significant difference between tenapanor and the placebo in the change of IDWG for trial D5611C00001. Please amend your disclosure in the table and the related notes regarding each of these two studies to clarify that these two trials did not produce a statistically significant improvement in these selected endpoints.

Other Development Programs, page 91

17. Please define UC the first time this term is used.

Collaboration Partnerships, page 92

18. We note that on page 93 for the agreement with AstraZeneca and on page 94 for the agreement with Sanofi, that the royalty term for each licensed product in each country is the period commencing with the first commercial sale of the applicable licensed product in the applicable country and ending on the later of expiration of specified patent coverage or a specified period of years. Please expand your disclosure to include the minimum specified period of years for the royalty term in each material jurisdiction.

Collaboration Partnership with AstraZeneca, page 92

19. We note on page 92 that AstraZeneca has agreed to reimburse you for internal and external expenses incurred related to the licensed compounds subject to an agreed upon cap on AstraZeneca's obligation to reimburse your cost for development of tenapanor for IBS-C. Please advise us of the amount agreed upon under this cap and whether you believe that you will reach this cap prior to the commercialization of tenapanor for IBS-C. If you believe you will reach this cap prior to the commercialization of tenapanor, please expand your disclosure to include the cap, the approximate amount that you have received as reimbursement under this cap, and any future development support that you plan to provide. Additionally, please advise us if there are any other caps on the reimbursement of your expenses under your collaboration agreements.

Collaboration Partnership with Sanofi, page 94

20. Please disclose the time period within which Sanofi must exercise its option to acquire the exclusive license to develop, manufacture and commercialize NaP2B inhibitors.

Intellectual Property, page 97

21. We note on pages 98 and 99 that you have patent applications in a number of other countries and PCT applications, under which you may file national patent applications. For each of the set of patents covering NHE3, NaP2b, and TGR5 agonist, if you have filed or intend to file patents in any additional material jurisdictions, please expand your patent disclosure to discuss the patent applications and patents in these jurisdictions. In

that regard, we note disclosure throughout your prospectus discussing the EU systems and the market for these drug candidates in the EU, such as your disclosure on pages 20, 36, 40, 79, 82, and 83. Please amend your disclosure in this section to explain your actions related to your intellectual property in Europe. Alternatively, if you do not intend to pursue the commercialization of your products in Europe in reasonable proximity to pursuing commercialization in the US and Japan, please clarify throughout the prospectus and consider eliminating or modifying your disclosure regarding EU systems and markets, as may be applicable.

Management
Director Compensation, page 114

22. Please update your disclosure to include the new director compensation if you determine the terms of your director compensation program prior to this offering.

Shares Eligible for Future Sale, page 136

23. Once available please file copies of each of the lock-up agreements.

Index to Financial Statements
Notes to Financial Statements
5. License Agreement with AstraZeneca, page F-12

24. Please revise your disclosure to state the reason why the license does not qualify for a separate unit of accounting. Refer to ASC 605-25-50-2f. Additionally, please clarify whether the initial supply of the compound of the license product represents a separate unit of accounting.

General

If you intend to respond to these comments with an amended draft registration statement, please submit it and any associated correspondence in accordance with the guidance we provide in the Division's October 11, 2012 announcement on the SEC website at http://www.sec.gov/divisions/corpfin/cfannouncements/drsfilingprocedures101512.htm.

Please keep in mind that we may publicly post filing review correspondence in accordance with our December 1, 2011 policy (http://www.sec.gov/divisions/corpfin/cfannouncements/edgarcorrespondence.htm). If you intend to use Rule 83 (17 CFR 200.83) to request confidential treatment of information in the correspondence you submit on EDGAR, please properly mark that information in each of your confidential submissions to us so we do not repeat or refer to that information in our comment letters to you.

You may contact Tabatha McCullom at 202-551-3658 or Joel Parker at 202-551-3651 if you have questions regarding comments on the financial statements and related matters. Please contact Matt Jones at 202-551-3786 or me at 202-551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler
Assistant Director

cc: Brian Cuneo
Mark Roeder
Elizabeth Grammer