May 20, 2019

John A. Orwin
Chief Executive Officer
Atreca, Inc.
500 Saginaw Dr.
Redwood City, CA
94063

Re: Atreca, Inc.
Draft Registration Statement on Form S-1
Submitted April 24, 2019
CIK No. 0001532346

Dear Mr. Orwin:

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.

Draft Registration Statement on Form S-1

Prospectus Summary, page 1

1. We note your statement in the second sentence of the first paragraph that your approach differs from traditional oncology drug discovery approaches. Please revise your disclosure here and in the Business section to explain in greater detail how your approach is different and why you believe that difference is a competitive advantage for your business. In addition, please tell us whether to your knowledge other companies are pursuing drug discovery approaches that are similar to or the same as your approach.
2. In the last sentence of the first paragraph, please disclose that the initiation of a Phase 1b clinical trial is subject to the FDA approving your IND application. In addition, please

clarify your disclosure regarding the expectation that you will file an IND application in late 2019 by disclosing any uncertainty inherent in the proposed timetable. Please make conforming revisions as necessary throughout the prospectus.
3. Please explain briefly what you mean by "open-aperture approach" the first time you use the term.

4. Please expand the disclosure in the second paragraph of the Overview to explain the relationship between the worldwide market for immune-oncology products for all types of cancer worldwide, and the products that the company is currently trying to develop, whose potential application at this point seems to be less than all types of

cancer. Similarly,
please reconcile the disclosure in the Overview with the statements in the risk factor on
page 22 regarding the use of estimates to determine the market opportunities for your
business.
5. In the last paragraph on page 1, please add the examples of first-mover advantages and
barriers to entry that you identify on page 97.
6. Please clarify what you mean by the phrase "clinically meaningful responses" in the first
paragraph on page 2. Further, please clarify what, if any, bearing the fact that the patients
with such responses have received "approved cancer treatment" has on your drug
discovery platform.
7. Please refer to the fifth bullet point under "Key Attributes" on page 2. Please explain
briefly why it would be desirable to generate candidates that "direct the immune system to
tumor," or revise to clarify what this statement means.

Our Lead Generation Programs , page 3

8. We note your statements that you have identified more than 1,400 antibodies and believe
you will be able to exploit them to develop product candidates. Please balance these
statements here and in the Business section by providing more context about the potential
for development of these antibodies, the extent to which you have actually engaged in
development activities with any of them, and the challenges associated with developing
them into product candidates. In addition, please discuss how you will or plan to go about
allocating your resources among the development candidates.

Implications of Being an Emerging Growth Company, page 5

9. 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.

Risk Factors, page 11

10. Please revise your disclosure to reconcile the various inconsistencies between the
description of your choice of forum provision on page 166 and the description of it in the
risk factor on page 61 (e.g., clarify in which documents the provision or provisions will be
contained, clarify the scope and terms of the provision, including addressing any
application to the federal securities laws, and which courts shall serve as the exclusive
forum under which circumstances). Please note that we may have additional comments
upon review of your revised disclosure and associated organizational documents.
11. Please explain briefly what you mean by "companion diagnostics" for your product
candidates, why they are necessary for your products, and whether you or a third party
will develop such diagnostics.

Use of Proceeds, page 66

12. Please disclose how far in the clinical development of ATRC-101 you expect the net
proceeds to last. If a material amount of funds other than those raised in the offering will
be necessary to complete the clinical development of ATRC-101, please

state the amount
and the expected sources of such funds.
Management's Discussion and Analysis of Financial Condition and Results of Operations
Critical Accounting Policies and Estimates
Stock-Based Compensation, page 84

13. Once you have an estimated offering price range, please explain to us how you determined
the fair value of the common stock underlying your equity issuances and the reasons for
any difference between recent valuations of your common stock leading up to the planned
offering and the midpoint of your estimated offering price range. This information will
help facilitate our review of your accounting for equity issuances, including stock
compensation.
Business, page 88

14. Please revise the second bullet point under "Our Strategy" on page 89 to clarify that the
only product candidate you are currently developing is ATRC-101, and that you have not
yet established a pipeline for other antibody-based candidates for oncology, or advise us
as to products currently in development and the phase each such product is in.
Our Lead Candidate: ATRC-101 for the Treatment of Solid Tumors, page 98

15. Please revise the table to add columns for the additional phases of the FDA clinical trials
process and reflect in the diagram where your product candidate is in that process. In
doing so, please ensure that your revisions present the process in a fair and balanced
manner.

Notes to the Consolidated Financial Statements
Summary of Significant Accounting Policies
Collaboration Arrangement, page F-9

16. Please expand your disclosure to describe and quantify the key terms governing the
collaboration agreements in force during the periods presented, including your
agreements with the Bill & Melinda Gates Foundation, Bristol-Myers Squibb and the
Genome Institute of Singapore and your accounting treatment for payments under these
collaborations. Refer us to the technical guidance upon which you have relied and revise
your disclosures accordingly.
General

17. Please provide us mockups of any pages that include any additional pictures or graphics to
be presented, including any accompanying captions. Please keep in mind, in scheduling
your printing and distribution of the preliminary prospectus, that we may have comments
after our review of these materials.

You may contact Franklin Wyman at 202-551-3660 or Kevin Vaughn at 202-551-3494 if you have questions regarding comments on the financial statements and related matters. Please contact Julia Griffith at 202-551-3267 or Dietrich King at 202-551-8071 with any other questions.

Sincerely,

Division of Corporation Finance

Office of

Healthcare & Insurance
FirstName LastName