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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

May 26, 2017

Via E-mail
Scott Murcray
Chief Financial Officer
AirXpanders, Inc.
1047 Elwell Court
Palo Alto, California 94303

Re: AirXpanders, Inc.
Registration Statement on Form 10
Filed May 1, 2017
File No. 000-55781

Dear Mr. Murcray:

We have reviewed your filing 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response and any amendment you may file in response to these comments, we may have additional comments.

Item 1. Business, page 1

1. Please tell us whether your product or a similar product would be used for patients with early stage breast cancer or patients who undergo a prophylactic mastectomy, as you mention on page 2, if reconstruction immediately follows the mastectomy.

2. Refer to the bullet points starting on page 2. Here and throughout your disclosure, provide additional objective support for your conclusions about the drawbacks of current available methods and the benefits of your product, or identify them as management's beliefs.

Expand the breast reconstruction market through general awareness, page 2

3. Please tell us whether more recent relevant data is available than the U.S. study published in 2008 you cite.

Utilize traditional and social media to inform patients about AeroForm, page 2

4. We note your reference here to prophylactic mastectomy with reconstruction. Please tell us whether this procedure is reimbursable by third party payors and, if so, any conditions to reimbursement.

Results of our clinical trials to date, page 3

5. Explain in more detail the following:

   - "Device related" adverse events where you say that there were none. Were there other adverse events, and, if so, what were they? Were there device related adverse events in the ASPIRE trial?
   - The inputs for the average expansion time. Was each number of days close to the average?
   - How you measure "patient and surgeon satisfaction."
   - Did you collect any comparison data to the control group in the XPAND trial?

6. Explain the indications for use of your product in the FDA clearance.

Competition, page 7

7. Discuss your ability to compete on the basis of price.

Intellectual Property, page 7

8. Disclose the number of patents subject to the license agreement and co-owned with Shalon Ventures, and disclose how your license may be terminated.

Shalon Ventures – Royalty Agreement, page 12

9. Please disclose here your director's affiliation with Shalon Ventures.

Item 1A. Risk Factors, page 13

10. Provide risk factor disclosure identifying and discussing the extent of any known risks of using your product. In this regard, we note your disclosure on page 4 regarding device related adverse events including carbon dioxide permeation that occurred during one of your clinical studies.

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 22

11. Revise your overview section to discuss the uncertainty of whether your product will obtain reimbursement at all or at sufficient levels by third-party payors and how this uncertainty may impact your prospects, or advise.

Item 4. Security Ownership of Certain Beneficial Owners and Management, page 30

12. Please revise the security ownership table to identify the natural person or persons with voting and dispositive power of the shares owned by GBS Venture Partners Pty Ltd. and Regal Funds Management Pty Ltd.

Item 5. Directors and Executive Officers, page 32

13. Disclose when Mr. Condon served in his capacity at Mentor Aesthetics and what his current occupation is.

Item 7. Certain Relationships and Related Party Transactions, page 43

14. Please revise your disclosure under your Convertible Note Financing and Initial Public Offering subsections to identify the "certain entities" affiliated with your affiliates and to clarify the "financial interest" of your related parties in those entities.

Corporate Governance, page 44

15. Please provide us your analysis for determining that Mr. Shalon and Mr. Cheskin are independent directors as disclosed on page 44, given Mr. Shalon's affiliation with Shalon Ventures and the percent of royalty payments made to Mr. Shalon and Mr. Cheskin as disclosed on page F-15. We also note Mr. Shalon's membership on the Audit and Risk Committee as disclosed on page 43, which oversees related party transactions. Please provide risk factor disclosure as appropriate.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Jeanne Bennett at (202) 551-3606 or Gary Todd, Senior Accountant, at (202) 551-3605 if you have questions regarding comments on the financial statements and related matters. Please contact Heather Percival at (202) 551-3498 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Mark Weeks
Cooley LLP