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

DIVISION OF
CORPORATION FINANCE

June 6, 2019

Bernard Coulie
Chief Executive Officer
Pliant Therapeutics, Inc.
260 Littlefield Avenue
South San Francisco, CA 94080

Re: Pliant Therapeutics, Inc.
Draft Registration Statement on Form S-1
Submitted May 10, 2019
CIK No. 0001746473

Dear Dr. Coulie:

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

Implications of Being an Emerging Growth Company, page 5

1. 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.

Use of Proceeds, page 68

2. Please revise to clarify for each of your product candidates how far into clinical development you expect the proceeds to last. Please also tell us whether the payment required to be made to UCSF pursuant to your license agreement with them upon the closing of the offering, as discussed on page 62, will be made from the offering proceeds.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Comparison of the Years Ended December 31, 2017 and 2018
Research and Development, page 79

3. We note from your Overview on page 1 that you are developing products and services in both clinical and preclinical stages, including PLN-74809 and PLN-1474. Please revise to quantify your research and development expenses by product candidate. If you do not keep track of such costs by product candidate, disclose that fact and the costs incurred by the types of costs classified as research and development.

Critical Accounting Policies and Estimates
Stock-Based Compensation, page 83

4. Once you have an estimated offering price or range, please explain to us how you determined the fair value of the common stock underlying your equity issuances and the reasons for any differences between the recent valuations of your common stock leading up to the IPO and the estimated offering price. This information will help facilitate our review of your accounting for equity issuances including stock compensation and beneficial conversion features.

Our Pipeline, page 88

5. Please revise your disclosure on page 89 to discuss the material terms and conditions of your collaboration arrangements with Stanford University and the University of California, San Francisco. If required, please also file these agreements as exhibits to the registration statement.

Our Strategy, page 90

6. Given your early stage in clinical development, please tell us the basis for your belief that PLN-74809 will be "best-in-class." Alternatively, please revise this reference.

Idiopathic pulmonary fibrosis background, page 97

7. Please provide us with the basis for your statements in this section regarding the safety, efficacy and performance of the two therapies that have been approved by the FDA to treat IPF.

License Agreements, page 128

8. The notes to your audited financial statements disclose a license agreement with the Regents of the University of California. Please revise this section to summarize the material terms and conditions of this license or advise why such agreement is no longer material to the company.

Adimab Collaboration Agreement, page 128

9. Please refer to the fourth paragraph and the associated payments. Please revise to disclose a general range of the payment amounts or, alternatively, advise why such payments are not material.

Consulting or research agreements with related parties, page 161

10. Please revise to discuss the material terms and conditions of this arrangement in greater detail, including, for example, the nature of the consulting services provided and whether the services are provided pursuant to a written agreement.

Exclusive forum, page 171

11. We note on page 63 that you state that this provision will be in the company's amended and restated by-laws and here that it will be in the company's certificate of incorporation. Please reconcile.

Part II, page II-1

12. Please revise to include the undertakings required by Item 512 of Regulation S-K. In this regard, we note that you have not addressed Item 17 of Form S-1.

Exhibits and Financial Statement Schedules, page II-3

13. Please revise to include your material license agreements in the exhibit index.

General

14. 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 Andi Carpenter at 202-551-3645 or Sharon Blume at 202-551-3474 if you have questions regarding comments on the financial statements and related matters. Please contact Donald Field at 202-551-3680 or Justin Dobbie at 202-551-3469 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Healthcare & Insurance