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September 15, 2016

Ms. Suzanne Hayes
Assistant Director
Office of Health Care and Insurance
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, N.E.
Mail Stop 4546
Washington, D.C. 20549

Re: **Mustang Bio, Inc.**
Form 10-12G
Filed July 28, 2016
File No. 000-55668

Dear Ms. Hayes:

At the request and on behalf of our client, Mustang Bio, Inc., a Delaware corporation (the "***Company***"), we hereby submit the following responses to the comments of the Staff of the Securities and Exchange Commission (the "***Commission***") received by letter on August 25, 2016, relating to the Company's Form 10-12G, filed on July 28, 2016 (the "***Form 10***"). Amendment No. 1 to the Form 10-12G (the "***Amendment***") is being filed concurrently with this letter to respond to the comments. These responses have been prepared by the Company with our assistance.

General

Comment:

1. Please note that pursuant to Exchange Act Section 12(g)(1), this registration statement on Form 10 becomes effective automatically 60 days after its initial filing. You will then be subject to the reporting requirements of the Exchange Act of 1934, including the requirements to file Forms 10-K, 10-Q, and 8-K even if comments remain open on the Form 10. If you do not wish to become subject to these reporting requirements before completion of our review, you may wish to consider withdrawing the Form 10 before it becomes effective automatically and submitting a new Form 10 that includes changes responsive to our comments. Please note that we will continue to review your filing until all of our comments have been addressed.

Response:

We acknowledge that this Amendment will become effective automatically 60 days after its initial filing and, if deemed necessary, we will file a request for withdrawal prior to the automatic effectiveness date.

Licensing Agreements and Collaborations, page 9

Comment:

2. We note that you plan to submit an application for confidential treatment with respect to one of the documents you have filed as an exhibit to your registration statement. Please be advised that we will review this application independently and will forward you any comments relating to your confidential treatment request under separate cover.

Response:

We have revised the application for confidential treatment referenced above and acknowledge that we may receive further comments relating to such confidential treatment request.

Item 1: Business, page 1

Overview, page 1

Comment:

3. We note the use of the word "proprietary" to describe CAR-T cell technology. Please revise your disclosure to clarify in what way the CAR-T cell technology is proprietary.

Response:

We have revised our disclosure in response to this comment. Please see the second paragraph on page 1.

Products Under Development, page 2

Comment:

4. We note your disclosure that you currently have open investigational new drug applications ("INDs") for the treatment of glioblastoma patients and the treatment of patients with acute myeloid leukemia. Please revise your disclosure to disclose when each IND was submitted and clarify the sponsor(s) of the IND.

Response:

We have revised our disclosure in response to this comment. Please see the fourth paragraph on page 2 and the second paragraph on page 4.

Comment:

5. Where you discuss trial results, please explain what you mean by "well tolerated" and "complete response to treatment" and how these conclusions correlate to the trial endpoints. Please also disclose the trial endpoints.

Response:

We have revised our disclosure in response to this comment. Please see the fourth and fifth paragraphs on page 2 and the third paragraph on page 4.

Intellectual Property and Patents, page 3

Comment:

6. Please revise your disclosure to identify the number of patent applications that have been filed relating to CAR-T technology and the number of countries in which they have been filed.

Response:

We have revised our disclosure in response to this comment. Please see the fourth paragraph on page 6.

Licensing Agreements and Collaborations, page 4

Comment:

7. Please revise your disclosure about the Exclusive License Agreement to add information about the duration of the agreement, the royalty term and termination provisions.

Response:

We have revised our disclosure in response to this comment. Please see page 7.

Comment:

8. Please revise your disclosure regarding the Sponsored Research Agreement to add information about termination provisions.

Response:

We have revised our disclosure in response to this comment. Please see the last paragraph on page 7.

Employees, page 5

Comment:

9. Please revise to disclose the number of hours per week that your three part-time employees will devote to the business. Please also add risk factor disclosure to highlight risks related to not having full-time employees.

Response:

We have revised our disclosure in response to this comment. Please see the disclosure under "Employees" on page 8.

Supply and Manufacturing, page 5

Comment:

10. We note your disclosure in the third sentence of this section. To the extent you have established contract manufacturing relationships for the preliminary supplies of your product candidates, please revise your disclosure to include the name of the principal supplier. To the extent you have entered into an agreement with the supplier, please also disclose the material terms of the agreement and, if you are substantially dependent on such agreement, please file a copy of the agreement as an exhibit to this registration statement. Refer to Items 101(h)(4) and 601(b)(10) of Regulation S-K.

Response:

We have revised our disclosure in response to this comment. Please see the fifth paragraph on page 8.

Item 1A. Risk Factors, page 9

Pre-clinical development is highly speculative and has a high risk of failure, page 10

Comment:

11. We note your statement that "All but two of our current product candidates are in pre-clinical development...." Please expand your disclosure to include the number of product candidates that you have in pre-clinical development.

Response:

We have expanded our disclosure to include the number of product candidates that we have in pre-clinical development. Please see page the second paragraph on page 15.

We have incurred significant losses since our inception…, page 30

Comment:

12. Please expand this risk factor to disclose that your auditor's report contains an explanatory paragraph that substantial doubt exists as to your ability to continue as a going concern. Also, here or in the appropriate section of your document, such as Management's Discussion and Analysis, please indicate how long you will be able to fund your current operations based on your current financial standing.

Response:

We have revised our disclosure in response to this comment. Please see page 42.

Item 2. Financial Information, page 36 Forward-Looking Statements, page 36

13. Please revise the last sentence in this section to clarify that you assume no obligation to update any forward-looking statement except as required by applicable law.

Response:

We have revised our disclosure in response to this comment. Please see page 50.

Comment:

Item 5. Directors and Executive Officers, page 42

14. Please expand your disclosure in the biographical information provided for Michael S. Weiss and Neil Herskowitz to discuss briefly the specific experiences, qualifications, attributes or skills that led to the conclusion that each director should serve in that capacity pursuant to Item 401(e)(1) of Regulation S-K.

Response:

We have expanded our disclosure in the biographical information provided for Michael S. Weiss and Neil Herskowitz in response to this comment. Please see the last paragraph on page 59 and the third paragraph on page 60.

Code of Ethics, page 44

Comment:

15. We note your statement that your Code of Ethics is available on your website at www.mustangbio.com, but we are unable to locate the Code of Ethics on your website. Please advise.

Response:

We have updated our website to make our Code of Ethics available to the public in connection with this assertion in the Amendment.

Item 11. Description of Registrant's Securities to be Registered, page 51

Comment:

16. It is not appropriate to qualify disclosure to information not included in the registration statement or filed as an exhibit. Please revise the first paragraph accordingly.

Response:

We have revised our disclosure in response to this comment. Please see page 72.

Comment:

17. We note your disclosure that the holders of the Class A Common Stock have the right to appoint one member of your board of directors for a period of ten years from issuance. Please expand your disclosure to discuss whether City of Hope has exercised this right and, if so, to identify such member of the board of directors.

Response:

We have revised our disclosure in response to this comment. Please see page 45 and the first paragraph on page F-20 of the Notes to the Financial Statements.

The Company acknowledges that it is responsible for the adequacy and accuracy of the disclosure in the filing, that staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing and that the Company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you have any further questions, comments or informational requests relating to this matter, please do not hesitate to contact me at the telephone number above.

Sincerely,

/s/ Mark F. McElreath

Mark F. McElreath