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June 14, 2019

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VIA EDGAR AND OVERNIGHT DELIVERY

U.S. Securities and Exchange Commission Division of Corporation Finance 100 F Street, NE Washington, DC 20549

Attention: Jeffrey Gabor

Joe McCann SiSi Cheng Jim Rosenberg

Re: Morphic Holding, Inc.

Registration Statement on Form S-1

Filed May 30, 2019 File No. 333-231837

Ladies and Gentlemen:

We are submitting this letter on behalf of Morphic Holding, Inc. (the "Company") in response to the comments of the staff (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") in its letter dated June 7, 2019 (the "Letter") regarding the Company's Registration Statement on Form S-1 (File No. 333-231837) initially filed with the Commission on May 30, 2019 ("Registration Statement"). The Company advises the Staff that it has filed Amendment No. 1 ("Amendment No. 1") to the Registration Statement on June 14, 2019. The numbered paragraphs below correspond to the numbered comments in the Staff's Letter, and the Staff's comments are presented in bolded italics. For the convenience of the Staff, we are also sending, by overnight courier, a copy of this letter and two copies of Amendment No. 1 in paper format, marked to show changes from the Registration Statement as initially filed.

In addition to addressing the comments raised by the Staff in the Letter, the Company has revised the Registration Statement to update certain other disclosures.

Registration Statement on Form S-1

Prospectus Summary, page 1

1. We note your revised disclosures and presentation in response to prior comment 4 and refer to the final row of your Research Pipeline table. To the extent that one or more of the three research programs covered by the Janssen Agreement is material to your Business and the offering, please revise to disclose the applicable indication or indications that you are targeting so that investors will have a basis to understand the research program(s) and the market potential. Alternatively, please revise your presentation so that it does not prominently highlight these programs in the Summary.

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The Company acknowledges the Staff's comment and has revised its disclosure on pages 3 and 4 accordingly.

Restated Certificate of Incorporation and Restated Bylaw Provisions, page 160

2. Your response to prior comment 15 indicates that it is your position that the reference "to the fullest extent permitted by law" in your certificate of incorporation is sufficient to indicate that your exclusive forum provision will not apply to actions brought under the Exchange Act. However, this may not be clear to investors. If you do not intend to state in your certificate of incorporation that the provision does not apply to actions arising under the Exchange Act, please tell us how you will inform investors in future filings that the provision does not apply to any actions arising under the Exchange Act. In addition, please expand your risk factor to state that your exclusive forum provision applies to claims under the Securities Act and to address any uncertainty as to whether a court would enforce an exclusive forum provision with respect to claims under the Securities Act. Please also revise your risk factor to disclose that the provision does not apply to actions arising under the Exchange Act. In addition, revise to provide risk factor disclosure concerning the exclusive forum provision under a separately captioned heading.

The Company acknowledges the Staff's comment and advises the Staff that it in response, it has added a separate risk factor on page 63 titled "The exclusive forum provision in our restated of incorporation may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, or other employees, which may discourage lawsuits with respect to such claims." In addition, the Company advises the Staff that it will include similar language in future filings. For example, the Company will include such language in the risk factors that it will include in each annual report on Form 10-K (irrespective of any exemptions which may be available to the Company), and to the extent that the Company includes risk factors with its quarterly reports on Form 10-Q, as it currently anticipates doing for the foreseeable future, it will include the same language there. Furthermore, the Company will include the related disclosure on page 63 in all future filings that call for disclosure under Item 202 of Regulation S-K. The Company believes that by adding these disclosures to its future filings, investors will be informed that the reference "to the fullest extent permitted by law" will not apply to actions brought under the Exchange Act.

Consolidated Statements of Convertible Preferred Stock and Stockholders' (Deficit) Equity, page F-6

3. Please revise to clearly label all the interim financial information as unaudited in your statement of convertible preferred stock and stockholder' (deficit) equity.

The Company acknowledges the Staff's comment and has revised its disclosure on page F-6 accordingly.

Notes to Consolidated Financial Statements

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12. Option and License Agreements, page F-42

4. Please disclose, for each the AbbVie and Janssen Agreements, the costs incurred for each period for which a consolidated statement of operations is presented. Refer to 730-20-50-1b.

The Company acknowledges the Staff's comment and has revised its disclosure on pages F-43 and F-44 accordingly.

5. Please clarify in the fourth paragraph under Janssen agreement – Accounting Analysis whether the "estimated payments to be received from Janssen for the Company's on-going research services" are the same as those that "Janssen will reimburse the Company for all internal and external costs and expenses incurred" at "agreed upon contractual rates" as discussed under Janssen Agreement - Overview.

The Company acknowledges the Staff's comment and confirms that the "estimated payments to be received from Janssen for the Company's on-going research services" are the same as those that "Janssen will reimburse the Company for all internal and external costs and expenses incurred" at "the agreed upon contractual rates". As such, the disclosure on page F-44 has been updated accordingly.

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Should the Staff have additional questions or comments regarding the foregoing, please do not hesitate to contact the undersigned at (650) 335-7292, or, in his absence, Julia Forbess at (415) 875-2420.

Sincerely,

FENWICK & WEST LLP

/s/ Robert A. Freedman

Robert A. Freedman Partner

cc: Praveen P. Tipirneni, Chief Executive Officer
 William D. DeVaul, General Counsel
 Robert E. Farrell, Vice President of Finance and Operations
 Morphic Holding, Inc.

Effie Toshav, Esq. Julia Forbess, Esq. **Fenwick & West LLP**