

Reply Declaration of Nicholas Hill in Support of  
Petition for *Inter Partes* Review  
of U.S. Patent No. 10,716,793 B2

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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LIQUIDIA TECHNOLOGIES, INC.,  
Petitioner

v.

UNITED THERAPEUTICS CORPORATION,  
Patent Owner

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IPR2021-00406  
U.S. Patent No. 10,716,793 B2

**REPLY DECLARATION OF NICHOLAS HILL, M.D.**

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I, Nicholas Hill, M.D., declare as follows:

**I. INTRODUCTION**

1. I am over the age of eighteen and otherwise competent to make this declaration.

2. Counsel for Liquidia Technologies, Inc. (“Liquidia” or “Petitioner”) retained me to offer technical opinions with respect to U.S. Patent No. 10,716,793 (“the ’793 Patent”) and the prior art references cited in the inter partes review (IPR) proceedings for the ’793 Patent, Ex. 1001.

3. I am being compensated for my time in connection with this IPR at my standard consulting rate of \$550 per hour for review of materials and report preparation, and \$650 per hour for any time I might spend testifying. For any weekend review and report preparation, I will be paid \$600 per hour, and I will be paid \$750 per hour for any time spent testifying on a weekend. My compensation does not depend on the outcome of, or the content of my testimony in, the current IPR.<sup>1</sup>

4. I incorporate by reference the opinions set forth in my First Declaration

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<sup>1</sup> Any allegation by UTC that I am being “paid by Liquidia to say the opposite” of what I believe or to provide testimony is baseless. *See* Patent Owner Response at 35. As Dr. Waxman explained, I am “well regarded” within the field of pulmonary hypertension. Ex. 1108 at 141:3-5. Additionally, I am currently working on clinical trials sponsored by UTC. UTC’s arguments regarding the non-obviousness of the ’793 Patent claims, however, lack merit, so UTC instead stoops to denigration.

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submitted as Ex. 1002 on January 7, 2021 (“Hill First Decl.”), as well as the exhibits cited therein.

5. I have assessed the ’793 Patent. In doing so, I have considered the teachings of the scientific literature before May 15, 2006, in light of general knowledge in the art before that date.

6. Counsel informs me that the Patent Trial and Appeal Board (“the Board”) has instituted *inter partes* review of the ’793 Patent based on the petition submitted by Liquidia. Since IPR institution, I understand that United Therapeutics Corporation (“UTC”) has filed a Patent Owner Response as well as declarations from Dr. Aaron Waxman, Dr. Jason McConville, and Ms. Pilar Wyman in support thereof.

7. This declaration presents my additional expert opinions considering UTC’s Patent Owner Response and Supporting Declarations of Dr. Waxman, Dr. McConville, and Ms. Wyman, that Claims 1-8 of the ’793 Patent would have been obvious to a person of ordinary skill in the art (“POSA”) before May 15, 2006.

## II. QUALIFICATIONS

### A. Qualifications and Experience

8. I summarized my background, qualifications, and experience relevant to the issues raised in the present IPR in Exhibit 1002, which I incorporate by reference. As part of my first declaration, I also provided a copy of my curriculum vitae, which includes a full description of my background and qualifications as Exhibit 1003. The

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