UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIQUIDIA TECHNOLOGIES, INC.,
Petitioner

v.

UNITED THERAPEUTICS CORPORATION,
Patent Owner

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

REPLY DECLARATION OF IGOR GONDA, Ph.D.

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I, Igor Gonda, Ph.D. declare as follows:

I. INTRODUCTION AND QUALIFICATIONS

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

2. I have been retained by counsel for the Petitioner to offer technical opinions with respect to U.S. Patent No. 10,716,793 ("the '793 Patent") and prior art references cited in *inter partes* review proceedings for the '793 Patent.

3. I am being compensated for my time in connection with this IPR at my standard consulting rate, which is $850 per hour, plus reasonable expenses. My compensation is not dependent on the outcome of, or the content of my testimony in, the present IPR.

4. I understand 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 Technologies, Inc. ("Liquidia"). Since IPR institution, I understand that United Therapeutics Corporation ("UTC") has filed a Patent Owner Response as well as declarations from Ms. Pilar Wyman, Dr. Aaron Waxman, and Dr. Jason McConville in support thereof.

5. This declaration presents my additional expert opinions, considering the Institution Decision rendered by the Board, as well as UTC's Patent Owner Response and Supporting Declarations of Drs. Aaron Waxman and Jason

McConville, that Claims 1-8 of the '793 Patent would have been obvious to a person of ordinary skill in the art before May 15, 2006.

6. My background, qualifications, and experience relevant to the issues raised in this proceeding are summarized in Section I.A of my original declaration. Ex. 1004 at ¶¶ 1-7. A full description of my background and qualifications is set forth in my curriculum vitae. Ex. 1005.

B. Materials Considered

7. In addition to the materials that I considered in connection with my prior declaration (Ex. 1004), in forming the opinions in this declaration, I have reviewed the Institution Decision, Patent Owner Response, the supporting declaration of Professor Jason McConville and exhibits, the supporting declaration of Dr. Aaron Waxman, the deposition testimony of Professor McConville, and the deposition testimony of Dr. Waxman. In arriving at my opinions, I have also reviewed and considered additional documents that are cited in this declaration. I have listed the additional documents below. To the extent I am provided additional documents or information, including additional expert declarations in this proceeding, I may offer further opinions.

Exhibit No.	Description of Document
1087	Butler Affidavit

Exhibit No.	Description of Document
1089	Voswinckel JESC, UWash
1090	Voswinckel JESC, UWisc
1091	Voswinckel JESC, British Library
1093	Voswinckel JAHA, British Library
1094	Voswinckel JAHA, Library of Congress
1095	Voswinckel JAHA, Stanford
1096	Voswinckel JAHA, UC Davis
1097	Rhind, G.B. et al., "Effect of Spirometry of Distilled Water and Cromoglycate Solutions Nebulised by a Small Portable Ultrasonic Nebuliser," *Respiration*, 51:86-90 (1987) ("Rhind 1987")
1098	Hager, J., et al., "Measurement of Particle and Mass Distribution of Pentamidine Aerosol by Ultrasonic and Air Jet Nebulizers," *Journal of Aerosol Medicine*, Vol. 5, No. 2 (1992) ("Hager 1992")
1099	Leigh, T.R., et al., "Performance characteristics of the DeVilbiss Ultraneb 99 ultrasonic nebuliser with reference to use in sputum induction," *International Journal of Pharmaceutics*, 67 (1991) 275-282 ("Leigh 1991")
1100	Ventavis EU Summary of Product Characteristics
1101	Denyer, J., et al., "Adaptive Aerosol Delivery (AAD®) technology," Expert Opinion on Drug Delivery, 1:1, 165-176 ("Denyer 2004")
1102	Byrne, N.M., et al., "Comparison of lung deposition of colomycin using the HaloLite and the Pari LC Plus nebulisers in patients with cystic fibrosis," *Arch Dis Child* 2003;88:715–718 ("Byrne 2003")
1103	Leung, K., et al., "Comparison of Breath-Enhanced to Breath-Actuated Nebulizers for Rate, Consistency, and Efficiency," *CHEST* 2004; 126:1619–1627 ("Leung 2004")

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