UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MERCK SHARP & DOHME CORP.
Petitioner

v.

GENENTECH, INC. AND CITY OF HOPE
Patent Owners

U.S. Patent No. 6,331,415

"Methods of Producing Immunoglobulins, Vectors and Transformed Host Cells for Use Therein"

Inter Partes Review No. 2017-00047

DECLARATION OF MARGARET H. BARON IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,331,415

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I, Margaret H. Baron, hereby declare and state as follows:

1. I have been retained as an expert by counsel for Merck Sharp & Dohme Corp. ("Merck"). I have prepared this declaration in connection with Merck's related petition for *Inter Partes* Review of U.S. Patent No. 6,331,415 ("the '415 patent," Ex. 1001), which I am informed is being filed concurrently with this declaration. I have been asked to provide certain opinions relating to the patentability of the '415 patent. Specifically, I have been asked to provide my opinion regarding whether claims 1, 2, 3, 4, 9, 11, 12, 14, 15, 16, 17, 18, 19, 20, and 33 of the '415 patent would have been obvious in view of the prior art.

I. BACKGROUND AND QUALIFICATIONS, PRIOR TESTIMONY, AND COMPENSATION

A. Background and Qualifications

2. As further detailed in my CV, attached as Exhibit A, I received a bachelor's degree from Harvard University (Cambridge, MA) in 1976 *summa cum laude* in Biochemical Sciences. My senior thesis involved a structural analysis of the aqueous central cavity (containing the active site) of the enzyme Aspartate Transcarbamylase (ATCase) of *Escherichia coli*. The research for this thesis was performed in the Department of Chemistry under the direction of the late William N. Lipscomb, Ph.D. (Nobel Laureate, 1976).

3. In September 1976, I started medical and Ph.D. graduate studies in the Harvard-M.I.T. Program in Health Sciences and Technology (HST Program) at

Harvard Medical School (Boston, MA) and Massachusetts Institute of Technology (M.I.T., Cambridge MA). I took medical school courses at Harvard Medical School and at M.I.T. and graduate courses in Biology at M.I.T. From July 1978 through December 1981, I performed Ph.D. dissertation research in the laboratory of Nobel Laureate (1975) David Baltimore, Ph.D., in the Department of Biology at M.I.T. This research focused on the mechanism of replication of poliovirus, using protein and RNA nucleic acid biochemistry techniques. I received my Ph.D. from M.I.T. in March, 1982.

4. From January 1982 through December 1982, I returned to Harvard Medical School to complete the clinical clerkship requirements for my M.D. degree, which was awarded in June 1983.

5. From January 1983 through June 1983, I returned to David Baltimore's laboratory at M.I.T. and carried out recombinant DNA studies of Abelson murine leukemia virus.

6. From July 1983 through June 1984, I completed an internship in Internal Medicine at Massachusetts General Hospital. I subsequently became licensed in medicine and surgery (Diplomate, National Board of Medical Examiners) in the Commonwealth of Massachusetts.

7. From August 1984 through March 1989, I was a postdoctoral fellow in the laboratory of Tom Maniatis, Ph.D., in the Department of Biochemistry and

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