

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARGENTUM PHARMACEUTICALS LLC
Petitioner v.

ICOS CORPORATION,
Patent Owner

U.S. Patent No. 6,943,166 B1
Inter Partes Review No. IPR2017-01762

DECLARATION OF DR. JACKIE CORBIN, PH.D.

I, Jackie Corbin, do declare as follows:

1. I am over the age of eighteen (18) and otherwise competent to make this declaration.

2. My name is Jackie Corbin. I am currently a Professor Emeritus of Molecular Physiology and Biophysics at the Vanderbilt University Medical Center's Ingram Cancer Center. I understand that my declaration is being submitted in connection with a Petition for *Inter Partes* Review of U.S. Patent No. 6,943,166 (the "166 patent") (Ex. 1001).

3. I received a B.S. in Biology from Tennessee Polytechnic Institute in Cookeville, Tennessee in 1963 and a Ph.D. in Physiology from Vanderbilt University in Nashville, Tennessee in 1968. I completed my postdoctoral training at the University of California, Davis in 1971.

4. I have extensive experience in the field of pharmacology, physiology, and enzymology, including the uses of cyclic nucleotides, phosphodiesterases, and phosphodiesterase inhibitors.

5. A more complete recitation of my professional experience including a list of my journal publications, patents, conference proceedings, book authorship, and committee memberships may be found in my Curriculum Vitae and Publication List, which are attached to my declaration as Appendix A.

6. I have been retained in this matter by Argentum Pharmaceuticals LLC (“Petitioner”) as a technical expert to provide analysis and opinions regarding the ’166 patent. I am being compensated for my work in this matter at my usual and customary rate of \$650 per hour. I have no personal or financial stake or interest in the outcome of the Petition for *Inter Partes* Review or any related action. My compensation in no way depends upon my testimony or the outcome of the Petition for *Inter Partes* Review.

7. I have been advised that Laurence & Phillips IP Law LLP represents Argentum Pharmaceuticals LLC (collectively, “Argentum” or “Petitioner”) in this matter and that ICOS Corporation (“Patent Owner”) owns the ’166 patent. I have no personal or financial stake or interest in Argentum, ICOS Corporation, or the ’166 patent.

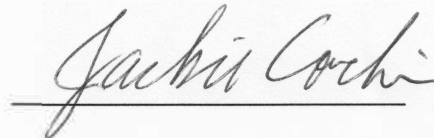
8. I understand that the ’166 patent is currently subject to a previous IPR, *Mylan Pharmaceuticals Inc. v. ICOS Corporation*, IPR2017-00323 (“Mylan IPR”). I understand that the Mylan IPR has been instituted as of June 12, 2017 and that Petitioner Argentum seeks to become a party to the Mylan IPR.

9. In the context of my retention, I have reviewed the Declarations of Dr. George Grass, Pharm.D., Ph.D. and Dr. Muta M. Issa, M.D., M.B.A. IPR2017-00323, Exs. 1002, 1004. Upon careful review and analysis of the two declarations, I agree

with their findings and conclusions in full and hereby incorporate those findings and conclusions.

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are, to the best of my knowledge, believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: July 12, 2017

A handwritten signature in cursive script that reads "Jackie Corbin". The signature is written in black ink and is positioned above a horizontal line.

Dr. Jackie Corbin, Ph.D.

APPENDIX A

CURRICULUM VITAE

Jackie D. Corbin

A. Personal Data

Birthdate: February 8, 1941

Citizenship Status: United States of America

Office Address: Department of Molecular Physiology and Biophysics

766 Medical Research Building

Vanderbilt University School of Medicine

Nashville, TN 37232-0615 USA

(615) 322-4384

B. Educational Background

1963 B.S. Tennessee Polytechnic Institute, Cookeville, Tennessee

1968 Ph.D. Vanderbilt University, Nashville, TN (Advisor: Dr. C.R. Park)

1971 Postdoctoral University of California, Davis, CA (Advisor: Dr. E.G. Krebs)

C. Professional Experience and Positions Held

2012-present Professor Emeritus, Dept. of Molecular Physiology & Biophysics,
Vanderbilt University School of Medicine, Nashville, TN

1980-2012 Professor, Dept. of Molecular Physiology & Biophysics,
Vanderbilt University School of Medicine, Nashville, TN

1975-1980 Associate Professor, Dept of Molecular Physiology & Biophysics, Vanderbilt
University School of Medicine, Nashville, TN

1971-1975 Assistant Professor, Dept. of Molecular Physiology & Biophysics, Vanderbilt
University School of Medicine, Nashville, TN

Jan-Jul 1978 Visiting Scientist, Department of Clinical Biochemistry,
University of Otago, Dunedin, New Zealand. Studies of insulin action on
phosphodiesterase in collaboration with Drs. Loten and J.G.T. Sneyd.

July 1972- Investigator, Howard Hughes Medical Institute,
Sept. 1989 Dept. of Physiology, Vanderbilt University, Nashville, TN

1968-1971 USPHS Predoctoral Trainee and ADA Research Awardee, Department of
Biological Chemistry, University of California

Sept. 1963- Ph.D. Thesis Research, Department of Physiology,
Oct. 1968 Vanderbilt University, Nashville, TN

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