On Behalf Of:

Novartis AG and LTS Lohmann Therapie-Systeme AG

By:

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NOVEN PHARMACEUTICALS INC.,
Petitioner

v.

NOVARTIS AG AND LTS LOHMANN THERAPIE-SYSTEME AG,
Patent Owners

Inter Partes Review No. 2014-00549

U.S. Patent 6,316,023

DECLARATION OF PROFESSOR ALEXANDER M. KLIBANOV

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I, Alexander M. Klibanov, Ph.D., declare as follows:

I. QUALIFICATIONS

1. I am a Novartis Endowed Chair Professor of Chemistry and Bioengineering at the Massachusetts Institute of Technology ("M.I.T."), where I have been teaching and conducting research for over 35 years. In 2012-2013, I held the Roger and Georges Firmenich Endowed Chair Professorship in Chemistry and Bioengineering, and in 2007-2012, a Novartis Endowed Chair Professorship of Chemistry and Bioengineering at M.I.T.[1] Prior to that, I was a Professor of Chemistry and a Professor of Bioengineering at M.I.T., positions I held from 1988 and 2000, respectively. From 1979 to 1988, I was an Assistant Professor, then Associate Professor, and thereafter a Full Professor of Applied Biochemistry in the Department of Applied Biological Sciences (formerly the Department of Nutrition and Food Science) at M.I.T.

2. I obtained my M.S. in Chemistry from Moscow University in Russia in 1971 and Ph.D. in Chemical Enzymology from the same University in 1974. Thereafter, I was a Research Chemist at Moscow University's Department of Chemistry for three years. From 1977 to 1979, following my immigration to the

[1] Novartis does not decide who receives this position, and this position in no way affects the content of this declaration.

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United States, I was a Post-Doctoral Associate at the Department of Chemistry, University of California in San Diego.

3. Over the last 45 years as a practicing chemist, I have extensively researched, published, taught, and lectured in many areas of biological, medicinal, bioorganic, formulation, and polymer chemistry, including oxidations, oxidative degradation, and antioxidants.

4. I have earned numerous prestigious professional awards and honors. For example, I was elected to the U.S. National Academy of Sciences (considered among the highest honors that can be given to an American scientist) and also to the U.S. National Academy of Engineering (considered among the highest honors that can be given to an American engineer or applied scientist). I am also a Founding Fellow of the American Institute for Medical and Biological Engineering and a Corresponding Fellow of the Royal Society of Edinburgh (Scotland's National Academy of Science and Letters). In addition, I have received the Arthur C. Cope Scholar Award, the Marvin J. Johnson Award, the Ipatieff Prize, and the Leo Friend Award, all from the American Chemical Society, as well as the International Enzyme Engineering Prize.

5. I currently serve on the Editorial Boards of 12 scientific journals, including "Open Journal of Pharmacology," "Applied Biochemistry and Biotechnology," "Nanocarriers," "Open Access Academic Books in Chemistry,"

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