

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARGENTUM PHARMACEUTICALS LLC, MYLAN PHARMACEUTICALS
INC., BRECKENRIDGE PHARMACEUTICAL, INC., and ALEMBIC
PHARMACEUTICALS, LTD.,

Petitioners,

v.

RESEARCH CORPORATION TECHNOLOGIES, INC.,
Patent Owner.

Case IPR2016-00204
Patent RE38,551 E¹

DECLARATION OF DEFOREST MCDUFF, Ph.D.

¹ Petitioners Mylan (IPR2016-01101), Breckenridge (IPR2016-01242), and Alembic (IPR2016-01245) have each been joined as Petitioner to this proceeding.

I, DeForest McDuff, Ph.D., declare as follows:

I. Introduction

A. Qualifications

1. I am a Vice President of Intensity Corporation (“Intensity”) and an expert in applied business economics, with more than ten years of experience in consulting, finance, and economic research. I provide expert witness testimony and consulting in a variety of areas, including lost profits, reasonable royalties, unjust enrichment, commercial success, irreparable harm, finance, statistics, valuation, and business optimization.

2. My expertise and experience span a variety of topics, including intellectual property, competition, business, antitrust, finance, labor, employment, and class action. I am an expert in the economics of technology and intellectual property. My work spans the life sciences (including pharmaceuticals, biotechnology, diagnostics, and medical devices), electronics (including consumer electronics, semiconductors, computers, and telecommunications), and has included projects on a diverse range of other industries.

3. I have significant experience evaluating the economics of the pharmaceuticals industry. I have provided expert analysis and consulting in over 50 cases involving pharmaceuticals and related products, including evaluations of economic damages, competition, commercial success, irreparable harm, and other

issues. I have evaluated a number of pharmaceutical product launches, both in a litigation setting and an advisory role, and have published articles and taught continuing legal education on pharmaceutical products as well.

4. I earned my Ph.D. in economics from Princeton University. At Princeton, I received a National Science Foundation Graduate Research Fellowship for academic research studying economic and statistical properties of housing markets and financial derivatives. I have published research in several peer-reviewed academic journals. I graduated *summa cum laude* with undergraduate degrees in economics and mathematics from the University of Maryland.

5. My curriculum vitae, provided in Ex. 1088, Attachment A, contains more details on my background, experience, publications, and prior expert testimony.

B. Scope of Work

6. In connection with my work on this matter, Intensity has been retained by Dowd PLLC on behalf of Argentum Pharmaceutical, Inc., Wilson Sonsini Goodrich & Rosati on behalf of Mylan Pharmaceuticals, Inc.; by Merchant & Gould P.C. on behalf of Breckenridge Pharmaceutical, Inc.; and Carlson, Caspers, Vandeburgh, Lindquist & Schuman, P.A. on behalf of Alembic. Intensity is being compensated at a rate of \$700 per hour for my work and at lower rates for

time spent by others on my team. The compensation of Intensity is not dependent on the substance of my testimony or the outcome of this matter.

7. For this declaration, I was asked to review and discuss the declaration of Dr. Christopher A. Velluro relating to the alleged commercial success of Vimpat (lacosamide; the “product-at-issue”) and U.S. Patent No. RE38,551 E (“the ’551 patent” or “patent-at-issue,” Ex. 1001) submitted on August 15, 2016 (“Velluro Declaration”).² This declaration is a statement of my opinions in this matter and the basis and reasons for those opinions. In forming the opinions expressed in this declaration, I have relied upon my education, experience, and knowledge of the subjects discussed.

8. This declaration summarizes only my current opinions, which are subject to change depending upon additional information and/or analysis. The entirety of my declaration, including exhibits Ex. 1088 (CV) & Ex. 1158 (attachments) and referenced materials, supplies the basis for my analysis and conclusions. The organizational structure of the declaration is for convenience. To the extent that facts, economic analysis, and other considerations overlap, I generally discuss such issues only once for the sake of brevity. Neither the specific

² Ex. 2132: Velluro Declaration.

order in which each issue is addressed nor the organization of my declaration or attachments affects the ultimate outcome of my analysis.

II. Background

A. Epilepsy

9. Epilepsy is a central nervous system disorder in which nerve cells in the brain become disrupted, causing seizures or unusual behavior.³ Seizures seen in epilepsy are temporary changes in behavior caused by problems with the electrical and chemical activity of the brain.⁴ Approximately 1 in 26 people in the United States will develop a seizure disorder in their lifetimes.⁵

³ Ex. 1159: Mayo Clinic, Epilepsy: Overview, <http://www.mayoclinic.org/diseases-conditions/epilepsy/home/ovc-20117206>.

⁴ Ex. 1160: Epilepsy Foundation, About Epilepsy: The Basics, <http://www.epilepsy.com/start-here/about-epilepsy-basics>.

⁵ Ex. 1159 : Mayo Clinic, Epilepsy: Overview, <http://www.mayoclinic.org/diseases-conditions/epilepsy/home/ovc-20117206>.

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