Case IPR2018-00943 Patent No. 7,919,499 Declaration of Kinam Park, Ph.D. Attorney Docket No. AMNEAL 7.1R-005

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMNEAL PHARMACEUTICALS LLC, Petitioner,

V.

ALKERMES PHARMA IRELAND LIMITED,

Patent Owner.

Patent No. 7,919,499 to Elliot Ehrich Issue Date: May 19, 2015 Title: NALTREXONE LONG ACTING FORMULATIONS AND METHODS OF USE

Inter Partes Review No. IPR2018-00943

(Exhibit 1030)

DECLARATION OF KINAM PARK, Ph.D. IN SUPPORT OF *INTER PARTES* REVIEW OF U.S. PATENT NO. 7,919,499



TABLE OF CONTENTS

	Page			
INTRODUCTION				
MY BACKGROUND AND QUALIFICATIONS				
THE '499 PATENT				
PERTINENT PROSECUTION HISTORY OF THE '499 PATENT				
A PERSON OF ORDINARY SKILL IN THE ART				
CLAIM CONSTRUCTION				
A. "a long acting formulation"	16			
B. "the serum AUC of naltrexone than that achieved by 50 mg/day oral administration"	17			
C. "about three"	20			
D. "five or more days"	21			
E. "initial oral dose"	22			
F. "about 35% by weight"				
TECHNICAL BACKGROUND AND STATE OF THE ART				
A. The Area Under The Curve (AUC)	25			
B. AUC Does Not Meaningfully Impact Efficacy	28			
C. A POSA Would Find The Claimed Comparison Inapt	30			
D. The Claimed AUC Differential Is Known Or Would Be Apparent				
1. The AUC Of Comer	33			
2. The AUC Of Nuwayser	39			
3. The AUC Of Vivitrex	41			
	MY BACKGROUND AND QUALIFICATIONS THE '499 PATENT PERTINENT PROSECUTION HISTORY OF THE '499 PATENT A PERSON OF ORDINARY SKILL IN THE ART CLAIM CONSTRUCTION A. "a long acting formulation" B. "the serum AUC of naltrexone than that achieved by 50 mg/day oral administration" C. "about three" D. "five or more days" E. "initial oral dose" F. "about 35% by weight" TECHNICAL BACKGROUND AND STATE OF THE ART A. The Area Under The Curve (AUC) B. AUC Does Not Meaningfully Impact Efficacy C. A POSA Would Find The Claimed Comparison Inapt D. The Claimed AUC Differential Is Known Or Would Be Apparent 1. The AUC Of Comer. 2. The AUC Of Nuwayser			



	E.	AU	C Differential Varies With The Data Used	44
VIII.	THE CHALLENGED CLAIMS WERE TAUGHT BY COMER AND NUWAYSER			
	A.		mer Discloses The Subject Matter Claims 1, 3-5, And 10-12	46
	B.		wayser Discloses The Subject Matter Claims 1, 3-5, And 11-12	50
IX.	THE CHALLENGED CLAIMS WERE READILY APPARENT TO A POSA			
	A.	A. Comer In View Of Nuwayser And/Or Nuwayser In View Of Comer And Either In View Of Wright And Rubio		
	B.	Nu	wayser In View Of Kranzler, Wright, And Rubio	59
	C. Alkermes' 10-K In View Of The Vivitrex Specimen, Wright, And Rubio			65
		1.	Alkermes' 10-K	66
		2.	Vivitrex Specimen.	67
		3.	Wright	67
v	CO	NCI	LICION	76



I, KINAM PARK, declare and state as follows:

I. INTRODUCTION

- 1. I am a U.S. citizen and a resident of the State of Indiana.
- 2. I have been retained by Lerner, David, Littenberg, Krumholz & Mentlik, LLP ("counsel") to provide my opinions in the field of pharmaceutical formulation for purposes of supporting a petition for *Inter Partes* Review ("IPR"). I have read and understand U.S. Patent No. 7,919,499 ("the '499 Patent") (Ex. 1001) as well as all other references discussed in this declaration. I am being compensated for my time in an amount consistent with my customary consulting fee, and my compensation is not contingent on my opinion or the outcome of this proceeding.

II. MY BACKGROUND AND QUALIFICATIONS

3. I am the Showalter Distinguished Professor of Biomedical Engineering, as well as a full Professor of Pharmaceutics at Purdue University. A copy of my CV is attached as Exhibit 1031. It contains a description of my education, academic appointments, professional activities, service on the editorial board of professional journals, books, referenced articles in scholarly journals, journal cover stories, patents, presentations, book reviews, teaching responsibilities, and thesis supervision.



- 4. I obtained my Ph.D. in Pharmaceutics from the University of Wisconsin in 1983, and completed a postdoctoral training in Chemical Engineering from the University of Wisconsin in 1985. I joined Purdue University as an Assistant Professor in 1986, and since 1994, I have been a Professor in the Department of Pharmaceutics at Purdue University. I also have been a Professor in the Department of Biomedical Engineering since 1998, and became the Showalter Distinguished Professor of Biomedical Engineering at Purdue University in 2006.
- 5. Since about 1986, I have been involved in the research, development, and manufacture of pharmaceutical formulations, and in particular controlled/sustained release drug delivery systems. I have conducted numerous research activities at Purdue University related to drug delivery technologies utilizing various polymers.
- 6. Since about 1994, one of my research interest has been developing long-acting microparticle formulations for oral administration. Since 2000, my research focused on injectable long-acting depot formulations based on biodegradable poly(lactide-co-glycolide) (PLGA), also known as poly(lactic-co-glycolic acid), using different manufacturing technologies, such as microenvironment-controlled encapsulation process, solvent exchange method, microfabrication, and double emulsion methods.



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