

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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COALITION FOR AFFORDABLE DRUGS II LLC,  
Petitioner,

v.

NPS PHARMACEUTICALS, INC.,  
Patent Owner.

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Case IPR2015-01093

Patent 7,056,886

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**DECLARATION OF GORDON RAUSSER, Ph.D. UNDER 37 C.F.R. § 1.68  
IN SUPPORT OF PATENT OWNER'S RESPONSE TO THE PETITION**

NPS EX. 2149  
CFAD v. NPS  
IPR2015-01093

## TABLE OF CONTENTS

I. Qualifications .....	1
II. Scope of Work.....	4
A. Assignment.....	4
B. Data and documents considered .....	6
C. Compensation .....	7
III. Summary of Opinions .....	7
IV. Background.....	9
A. Short bowel syndrome and SBS-IF .....	10
1. Treatment with parenteral nutrition .....	13
2. Drugs to increase absorptive capacity of the intestines.....	19
3. Incidence and prevalence of SBS-IF .....	22
4. Prognosis for SBS-IF patients .....	23
B. Gattex® .....	25
V. Opinion 1: Gattex® addressed a long-felt, unresolved need for an SBS drug that could reduce patients’ dependence on PN .....	27
A. There was a long-felt need.....	27
1. Medical costs of PN dependence .....	31
2. Cost of inability to work .....	32
3. Reducing reliance on PN can increase life-expectancy and greatly improve quality of life and economic well- being.....	34
B. Before Gattex®, no medication successfully reduced SBS-IF patients’ dependence on PN.....	34
C. Gattex® addressed this long-felt need by reducing SBS-IF patient dependence on PN .....	37
VI. Opinion 2: Gattex® has been a commercial success .....	40
A. Gattex® has steadily grown its base of SBS patients .....	41
B. Gattex’s® ability to command a strong price in the market is further evidence of commercial success .....	43
C. Gattex® has had high sales and rapid sales growth.....	45
D. Gattex® exceeded the pre-launch sales expectations of NPS .....	48

E.	Gattex’s value contributed to a quadrupling of NPS’s stock price.....	49
F.	Gattex® was a key value driver in Shire’s \$5.2 billion acquisition of NPS .....	55
VII.	Opinion 3. There is a clear nexus between Gattex®’s commercial success and the claims of the ‘886 patent .....	56
A.	Gattex® would not have been commercially viable if it had not been stable; therefore, all sales of Gattex® have a nexus to the ‘886 patent .....	57
B.	Gattex®’s commercial success cannot be attributed to factors unrelated to its patented properties .....	62
C.	Gattex® patient support program is consistent with programs offered for other similarly positioned drugs.....	65

1. I am an economist with expertise in intellectual property valuation and the commercial performance of pharmaceutical products. I was retained by counsel for NPS Pharmaceuticals, Inc. (“NPS”) to evaluate, from an economic perspective, objective evidence regarding the non-obviousness of U.S. Patent No. 7,056,886. The claims of this patent are directed to stable formulations of GLP-2 or analogs thereof, and encompass the formulation for Gattex<sup>®</sup>,<sup>1</sup> a drug product used to treat patients suffering from short bowel syndrome who are dependent upon parenteral (intravenous) nutrition. This declaration addresses three types of objective evidence: 1) long-felt unmet need, 2) commercial success, and 3) nexus between commercial success and the invention claimed by the challenged patent.

## I. QUALIFICATIONS

2. I am the Robert Gordon Sproul Distinguished Professor at the University of California, Berkeley, where I teach both Economics and Statistics at the graduate and undergraduate levels. I received a Ph.D. with Highest Honors from the University of California at Davis in 1971, and in 1973 I was awarded a Postdoctoral Fellowship in Economics and Statistics at the University of Chicago. I am an elected Fellow of the American Association for the Advancement of Science (1994), the American Statistical Association (1991), and the Agricultural &

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<sup>1</sup> Gattex<sup>®</sup> is a registered trademark.

Applied Economics Association (1990). In 1987, I was a Fulbright Scholar in Australia.

3. In my academic career, I have held positions teaching economics and statistics at many universities including the University of Chicago, Harvard University, the University of California at Berkeley, University of Illinois, Iowa State University, the University of California at Davis, and Hebrew University. I served as Dean of the College of Natural Resources at the University of California, Berkeley from 1994–2000, and have three times been selected by my colleagues as Chair of my academic department. I have won 18 national awards and honors for my teaching and research.

4. I have published extensively in academic and professional journals on the application of statistical methods, market dynamics, industrial organization, environmental and resource economics, public policy, and futures and options. During my academic career, I have published more than 250 articles, books and book chapters. In addition, I have written more than 100 commissioned papers, governmental reports, and working papers. My upcoming book, entitled *Structuring Public-Private Research Partnerships for Success: Empowering University Partners*, is devoted to the topic of research partnerships and how they can best enhance the value of intellectual property. I am currently the Editor of the *Annual Review of Resource Economics*. I am a past Associate Editor of the

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