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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

PAR PHARMACEUTICALS, INC. AND
HANDA PHARMACEUTICALS, LLC,

Plaintiffs,

v.

TAKEDA PHARMACEUTICAL CO., LTD.,
TAKEDA PHARMACEUTICALS NORTH
AMERICA, INC., TAKEDA
PHARMACEUTICALS AMERICA, INC.,
AND TAKEDA PHARMACEUTICALS
U.S.A., INC.,

Defendants.

Case No. 5:13-CV-1927 LHK (PSG)

**DECLARATION OF MICHAEL
MAYERSOHN, PH.D. IN SUPPORT OF
DEFENDANTS' CLAIM
CONSTRUCTION BRIEF**

Date: June 12, 2014
Time: 1:30 p.m.
Courtroom: 8, 4th Floor
Judge: Hon. Lucy H. Koh

TAKEDA PHARMACEUTICAL CO., LTD.,
TAKEDA PHARMACEUTICALS U.S.A.,
INC., AND TAKEDA
PHARMACEUTICALS AMERICA, INC.,

Plaintiffs,

v.

IMPAX LABORATORIES, INC.,

Defendant.

Case No. 5:13-CV-2416 LHK (PSG)

TAKEDA PHARMACEUTICAL CO., LTD.,
TAKEDA PHARMACEUTICALS U.S.A.,
INC., AND TAKEDA
PHARMACEUTICALS AMERICA, INC.,

Plaintiffs,

v.

TWI PHARMACEUTICALS, INC.,

Defendant.

Case No. 5:13-CV-2420 LHK (PSG)

Michael Mayersohn
EXHIBIT

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B. Construction of Disputed Claim Terms of the '158 Patent.....	9
1. “regardless of whether the patient is under fasted or fed conditions” (claim 1)	10
2. “enteric coating releases the proton pump inhibitor from the solid particle at a pH of” “about 5.0 to about 5.5” or “about 6.2 to about 6.8” (claim 1)	12
3. “enteric coating has a pH of” “about 5.5” or “about 6.75” (claims 2 and 3)	15
4. “wherein the changes in pharmacokinetics . . . under fasting or fed conditions does not produce statistically significant changes in intra-gastric pH” (claim 4).....	17

1 I, Michael Mayersohn, Ph.D., declare as follows:

2 1. I submit this declaration in support of the claim construction brief submitted by
3 defendants Impax Laboratories, Inc., Par Pharmaceutical, Inc., Handa Pharmaceuticals LLC, and TWi
4 Pharmaceuticals, Inc. (collectively, "Defendants").

5 2. In particular, I submit this declaration to provide relevant background information
6 regarding the technology at issue in U.S. Patent No. 8,173,158 (the "'158 patent"),¹ and to set forth my
7 opinions regarding the meaning of the disputed claim terms from the perspective of a person of
8 ordinary skill in the pertinent art at the relevant time.

9
10 **I. QUALIFICATIONS**

11 3. The following is a brief summary of my qualifications. My qualifications are more
12 fully set forth in my curriculum vitae, attached as Exhibit B.

13 4. I was awarded the degree of Bachelor of Science in Pharmacy in 1966 from Columbia
14 University College of Pharmaceutical Sciences and a Ph.D. in Pharmaceutics from the School of
15 Pharmacy, State University of New York at Buffalo in 1971.

16 5. I was licensed by the State of New York to practice pharmacy in 1967 and practiced
17 pharmacy in Buffalo, New York from that time until 1971.

18 6. Following receipt of my doctoral degree, I became an Assistant Professor in the Faculty
19 of Pharmacy at the University of Toronto in Canada and became an Associate Professor there in 1975.

20 7. I have been a faculty member of the College of Pharmacy at the University of Arizona
21 in Tucson since 1976, starting as an Associate Professor. I have been a full Professor since 1983.

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27 ¹ A copy of the '158 patent is attached as Exhibit A.
28

1 8. I have been a member of the Interdisciplinary Graduate Program in Pharmacology and
2 Toxicology, the Center for Toxicology, and the Southwest Environmental Health Sciences Center, all
3 of which are at the University of Arizona.

4 9. My research interests include the general area of pharmaceutical sciences with a
5 specialty in pharmaceutics, biopharmaceutics and pharmacokinetics, including (a) the examination of
6 the relationship between the physical and chemical characteristics of a drug and its dosage form and
7 the fate and performance of that drug in the body, and (b) the development of rigorous mathematical
8 models to quantitate the kinetic processes of drug absorption, distribution, excretion, metabolism, and
9 clinical or pharmacological response.

10 10. I have maintained an active research program, which has been funded by national, state
11 and private agencies. This program has involved numerous research projects and the supervision of
12 many graduate students, post-doctoral fellows and technicians.

13 11. I have conducted research studies *in vitro* to characterize the physical and chemical
14 properties of drugs and drug dosage forms including dissolution rates, stability and binding to other
15 compounds. These studies have included an examination of the properties of a variety of drug dosage
16 forms, including immediate and non-immediate release oral formulations.

17 12. I have also conducted *in vitro* and *in vivo* studies to characterize the plasma protein
18 binding of drugs and their metabolic properties in the presence of varying enzymatic preparations.

19 13. I have conducted *in situ* and whole animal studies (in mice, rats, dogs and pigs) to
20 characterize the pharmacokinetics and pharmacodynamics of drugs and their metabolites.

21 14. I have conducted clinical studies in human subjects to evaluate the pharmacokinetics of
22 selected drugs and their metabolites. In all of the above studies, I developed selective, sensitive and
23 reliable quantitative analytical methods.

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1 15. In addition, I have performed “theoretical” or *in silico* experiments using simulation
2 and other mathematical/computer techniques in order to answer specific questions concerning the
3 disposition or interaction of drugs.

4 16. I am a member of several professional societies and organizations, including the
5 American Association of Pharmaceutical Scientists, the American Society for Clinical Pharmacology
6 and Therapeutics, and the American Society of Pharmacology and Experimental Therapeutics.

7 17. I have reviewed and continue to review publications for several peer-reviewed journals,
8 including the Journal of Pharmaceutical Sciences and Pharmaceutical Research.

9 18. I have been a member of numerous national and state grant review agencies (National
10 Institutes of Health, Veterans Administration, *etc.*) for which I reviewed research grant applications.

11 19. I have published over 160 original research publications, 18 book chapters and
12 symposia, and 15 professional/educational publications. I have given more than 65 invited
13 presentations and contributed to over 160 submitted presentations.

14 20. During the years 1995-1998, I was a member of the Food and Drug Administration
15 (“FDA”) Advisory Committee for Pharmaceutical Sciences (formerly, the Generic Drug Advisory
16 Committee). This Committee advises the FDA in setting standards for bioavailability, bioequivalence,
17 and in resolving matters of scientific interest to the agency.

18 21. I served one five-year term as a member of the Dissolution and Bioavailability Expert
19 Committee of the United States Pharmacopoeia and a subsequent five-year term as Vice Chair of the
20 same Committee, whose name was changed to the Biopharmaceutics Expert Committee. This
21 Committee sets standards for dissolution testing and for drugs that are incorporated into individual
22 monographs.

23 22. I am also the Course Director and Instructor of “Principles of Pharmacokinetics and
24 Toxicokinetics for the Industrial Scientist,” which is sponsored by the University of Arizona and given
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