IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
CHARLESTON DIVISION

MUSC FOUNDATION FOR RESEARCH DEVELOPMENT and CHARLESTON MEDICAL THERAPEUTICS, INC., Plaintiffs, v. ASTRAZENECA PHARMACEUTICALS LP, Defendant.	CIVIL ACTION NO.: 2:13-CV-3438-CWH PLAINTIFFS' ORIGINAL COMPLAINT AND DEMAND FOR JURY TRIAL

ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs MUSC Foundation for Research Development (the "Research Foundation") and Charleston Medical Therapeutics, Inc. ("CMT") (collectively, the "Plaintiffs") file this Original Complaint against Defendant AstraZeneca Pharmaceuticals LP ("AstraZeneca" or "Defendant") for infringement of U.S. Patent No. 8,507,219 ("the '219 Patent" or "the Patent-in-Suit") under 35 U.S.C. § 271 and hereby allege as follows:

PARTIES

1. The Research Foundation is a not-for-profit entity affiliated with the Medical University of South Carolina ("MUSC") and serves as MUSC's technology transfer office. MUSC is a public institution of higher learning located in Charleston, South Carolina. MUSC was chartered by the State of South Carolina in 1823 and is located at 171 Ashley Avenue, Charleston, South Carolina 29425. The Research Foundation is located at 19 Hagood Avenue, Suite 909, Charleston, South Carolina 29403.

2. CMT is a corporation organized under the laws of South Carolina, having a principal place of business at 2637 Anchor Watch Drive, Wadmalaw Island, South Carolina 29487.

3. Upon information and belief, AstraZeneca is a limited partnership organized under the laws of Delaware and conducts business throughout the United States, including within this District. AstraZeneca has a principal place of business at 1800 Concord Pike, Wilmington, Delaware 19850. AstraZeneca's registered agent in South Carolina is CT Corporation System, 2 Office Park Court, Suite 103, Columbia, South Carolina 29223. Upon information and believe, AstraZeneca is a wholly-owned subsidiary of AstraZeneca plc.

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the patent laws of the United States, Title 35, United States Code. This Court has exclusive subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1338.

5. This Court has personal jurisdiction over AstraZeneca. AstraZeneca does extensive business in South Carolina and has committed acts of infringement within the State, as herein alleged. As set forth in Paragraph 3, AstraZeneca maintains a registered agent for service of process in South Carolina. By virtue of these contacts, this Court has personal jurisdiction over AstraZeneca.

6. Venue in this district is proper under 28 U.S.C. §§ 1391(c) and 1400 because AstraZeneca has committed, and continues to commit, acts of infringement in this District and is subject to personal jurisdiction within this state. The parties are currently involved in a related proceeding in this District related to AstraZeneca's infringement of Plaintiffs' United States Patent No. 6,511,800 ("the '800 Patent"). *See MUSC Found. for Research Dev. v. AstraZeneca*

Pharms. LP, Case No. 2:13-CV-02078-SB (D.S.C. July 31, 2013) ("the Related Action").[1] Additionally, AstraZeneca is currently involved in other litigation in this District related to Crestor®. *See Palmetto Pharms. LLC v. AstraZeneca Pharms. LP*, Case No. 2:11-CV-00807-SB-JDA (D.S.C. Apr. 5, 2011) ("the *Palmetto* Action").

INFRINGEMENT OF U.S. PATENT NO. 8,507,219

7. Plaintiffs refer to and incorporate herein the allegations of Paragraphs 1-6 above.

8. On January 28, 2003, after a full and fair examination, the United States Patent and Trademark Office duly and legally issued the '800 Patent, entitled "Methods of Treating Nitric Oxide and Cytokine Mediated Disorders," naming Dr. Inderjit Singh as the sole inventor. Dr. Singh is currently, and has been for nearly three decades, a scientist at MUSC and has been awarded the title Distinguished University Professor. A copy of the '800 Patent is attached as Exhibit 1.

9. On August 13, 2013, after a full and fair examination, the United States Patent and Trademark Office duly and legally issued the '219 Patent, entitled "Use of Statins to Inhibit Inflammation and Vascular Disease," naming Dr. Singh as the sole inventor. The '219 Patent is a continuation of the '800 Patent and the specification of the '219 Patent is virtually identical to that of the '800 Patent. Plaintiffs are the assignees of all right, title, and interest in and to the '219 Patent and possess all rights of recovery under the '219 Patent. A copy of the '219 Patent is attached as Exhibit 2.

10. AstraZeneca manufactures, uses, sells, and/or markets the drug rosuvastatin calcium throughout the United States and in this District under the trade name Crestor®. Rosuvastatin calcium belongs to a class of drugs called statins. *See* FDA, Crestor Product Label

[1] All citations to "[Doc. __]" are to the Related Action.

Supp. (rev. Aug. 17, 2013), *available at* www.accessdata.fda.gov/drugsatfda_docs/label/2013/021366s028s029lbl.pdf (attached as Ex. 3); *see also* Crestor.com, Prescribing Information with Patient Information (rev. Aug. 2013) (attached as Ex. 4). There is currently no generic form of Crestor® available in the United States.

11. AstraZeneca sponsored a clinical trial known as the "JUPITER" Trial ("Justification for the Use of statins in Primary prevention: an Intervention Trial Evaluating Rosuvastatin") in order to obtain approval by the U.S. Food & Drug Administration ("FDA") for the use of Crestor® as a treatment to prevent or reduce the risk of cardiovascular disease or stroke.

12. The purpose of the JUPITER Trial was to evaluate whether patients who had an indication of vascular inflammation could benefit from taking Crestor® to prevent or reduce the risk of cardiovascular disease or stroke.

13. In approximately 2008, following the successful completion of the JUPITER Trial, AstraZeneca requested approval by the FDA to market Crestor® for the treatment of cardiovascular disease and/or stroke in patients who possess an indication of vascular inflammation but who do not have high cholesterol ("the JUPITER Indications").

14. On December 15, 2009, an Advisory Committee of the FDA convened a meeting to consider AstraZeneca's request to market Crestor® for the JUPITER Indications. At that meeting, the Advisory Committee received presentations and public comments relating to the JUPITER Indications, including several presentations from AstraZeneca personnel or consultants urging the FDA Advisory Committee to approve the use of Crestor® for the JUPITER Indications.

15. Dr. Paul Ridker, a researcher at the Brigham and Women's Hospital in Boston, Massachusetts and consultant for AstraZeneca, served as the Principal Investigator of the JUPITER Trial and chaired the Independent Steering Committee of the JUPITER Trial. At the December 15, 2009 FDA Advisory Committee Meeting, Dr. Ridker made presentations in support of FDA approval to sell, market, and distribute Crestor® for the JUPITER Indications.

16. Also presenting at the FDA Advisory Committee Meeting on behalf of AstraZeneca were the following individuals: (a) Dr. Jonathan Fox, Vice President of Clinical Development for Cardiovascular and Gastrointestinal Diseases at AstraZeneca; (b) Dr. Michael Cressman, Medical Science Director for the rosuvastatin calcium (i.e., Crestor®) clinical development program at AstraZeneca; and (c) Dr. Antonio Gotto, who served on the steering committee of the JUPITER Trial and as a consultant to AstraZeneca.

17. The FDA approved the use of Crestor® for the JUPITER Indications on February 8, 2010. The FDA announced on its website: "This is the first time Crestor® has been approved for use in the prevention of heart disease in individuals with 'normal' low-density lipoprotein (LDL) cholesterol levels and no clinically evident heart disease."

18. The FDA requires drug labels to include material information supporting the use, safety, and efficacy of the drug for all indicated uses by prescribers and their patients. On February 10, 2013, the FDA approved adding to the Crestor® product label a separate indication for the use of Crestor® for the primary prevention of cardiovascular disease and adding to the label additional material information supporting the use, safety, and efficacy of Crestor® for that use by prescribers and their patients. In both 2010 and 2011, AstraZeneca spent approximately $1.1 billion on promotional activities related to Crestor®.[2]

[2] *See* http://www.mmm-online.com/pfizer-crestor-tops-for-global-promotional-spend-in-2011/article/238922/ (last visited Dec. 8, 2013).

19. On July 31, 2013 Plaintiffs filed their Original Complaint in the Related Action asserting allegations of direct infringement, indirect infringement, and willful infringement of the '800 Patent against AstraZeneca [Doc. 1]. The '219 Patent issued on August 13, 2013, and Plaintiffs filed their First Amended Complaint to include allegations of indirect and willful infringement of the '219 Patent [Doc. 16]. Plaintiffs' First Amended Complaint expressly disclosed the existence of the '219 Patent and detailed, with specificity, Plaintiffs' infringement allegations regarding the '219 Patent. With full knowledge of the '219 Patent, Plaintiffs' allegations with respect to the same, and no reasonable defense to infringement, AstraZeneca continued to commit acts that induced others to infringe the '219 Patent. On October 23, 2013, AstraZeneca filed a Motion to Dismiss each of Plaintiffs' infringement allegations [Doc. 36]. After Plaintiffs filed a Response [Doc 49] and AstraZeneca filed a Reply [Doc. 50], the Court heard argument on AstraZeneca's Motion on December 4, 2013. On December 6, 2013, the Court denied AstraZeneca's Motion as to the '800 Patent and granted it as to the '219 Patent without prejudice [Doc. 54]. As a result, each of Plaintiffs' claims of infringement of the '219 Patent was dismissed from the Related Action.

20. AstraZeneca generates billions of dollars in revenue from sales of its blockbuster drugs such as Crestor®. Upon information and belief, AstraZeneca monitors activities at the United States Patent and Trademark Office ("PTO") that could potentially preclude AstraZeneca from fully realizing such revenues. *See generally* the *Palmetto* Action. Upon information and belief, AstraZeneca acquired knowledge of the application that would lead to the '219 Patent at least by August 13, 2013, for example, through its monitoring of the PTO's website. In addition, AstraZeneca was placed on actual notice of the '219 Patent when Plaintiffs filed their First Amended Complaint in the Related Action on August 13, 2013.

COUNT ONE: INDIRECT INFRINGEMENT OF THE '219 PATENT

21. The allegations of Paragraphs 1-20 are re-alleged and incorporated as if fully alleged herein.

22. Through its marketing materials, label/package insert, website, and other promotional materials, AstraZeneca encourages, aids, instructs, and causes the public, including doctors and other health care professionals, to use Crestor® in a manner that infringes the claims of the '219 Patent. *See* Ex. 3; *see also* Ex. 4.

23. Through its marketing materials, label/package insert, website, and funded publications related to Crestor®, AstraZeneca encourages, aids, instructs, and causes doctors and/or other medical professionals to prescribe and/or provide Crestor® in a manner that infringes the claims of the '219 Patent. *See id.*

24. In addition, AstraZeneca employs pharmaceutical sales specialists in South Carolina, and throughout this country who encourage, aid, and/or instruct, *inter alia*, doctors and/or other medical professionals to prescribe and/or provide Crestor® in a manner that infringes the claims of the '219 Patent. *See id.*

25. AstraZeneca has had knowledge of the invention described and claimed in the Patent-in-Suit since before the JUPITER Trial and was previously informed that the manufacture, use, sale, and/or provision of Crestor® for the JUPITER Indications would infringe at least the claims of the related '800 Patent, of which the '219 Patent is a continuation. *See* E-mail from Mr. Yochim to Mr. Brostoff and Attached E-mail Chain (July 15, 2003, 2:00 PM) (attached as Ex. 5); E-mail from Mr. Witcher to Mr. Brostoff and Attached E-mail Chain (July 18, 2003, 6:59 AM) (attached as Ex. 6); E-mail from Mr. Brostoff to Mr. Henderson and Attached E-mail Chain (Jan. 13, 2004, 16:25) (attached as Ex. 7); E-mail from Mr. Carling to Mr. Brostoff and Attached E-mail Chain (Apr. 21, 2004, 2:45 PM) (attached as Ex. 8); E-mail

from Mr. Witcher to Mr. Brostoff (Nov. 25, 2003, 8:21 PM) (attached as Ex. 9); E-mail from Mr. Brostoff to Mr. Witcher and Attached E-mail Chain (July 18, 2003, 8:21 AM) (attached as Ex. 10); Email from Mr. Brostoff to Mr. Carling (Dec. 16, 2003, 10:15 AM) (attached as Ex. 11).

26. Furthermore, AstraZeneca obtained actual notice of the '219 Patent at least as of August 13, 2013, the date that Plaintiffs filed their First Amended Complaint in the Related Action [Doc. 16]. The First Amended Complaint expressly informed AstraZeneca of the existence of the '219 Patent, as well as Plaintiffs' theories of infringement.

27. Nevertheless, since August 13, 2013, AstraZeneca has continued to intentionally encourage, aid, instruct, or otherwise cause others (including physicians and other healthcare professionals) to infringe the claims of the '219 Patent. *See*, *e.g.*, Exs. 3 & 4. Upon information and belief, AstraZeneca will continue to intentionally encourage, aid, instruct, or otherwise cause others (including physicians and other healthcare professionals) to infringe the claims of the '219 Patent. For example, AstraZeneca, through its website, promoted the Crestor® product label with the JUPITER Indications before the Related Action was filed and continued to promote the Crestor® product label thereafter. *See* Ex. 4; *see also* the Related Action. It can be reasonably inferred that AstraZeneca will continue to promote the Crestor® product label with the JUPITER Indications through its website even after this action is commenced.

28. AstraZeneca has performed and continues to perform the acts that constitute induced infringement, and induces actual infringement, with the knowledge of the '219 Patent and with the knowledge that the induced acts would constitute infringement.

29. To the extent that AstraZeneca contends that it did not have actual knowledge of the '219 Patent before this action was commenced, AstraZeneca was willfully blind to the existence of the '219 Patent and the fact that its acts would induce infringement of the '219

patent. Given the extensive pre-suit correspondence between the parties regarding the technology of the Patent-in-Suit (including correspondence and pleadings in the Related Action), AstraZeneca knew that there was a high probability that the provision or use of Crestor® by others (including physicians and other medical professionals) for the JUPITER Indications would infringe the claims of the '219 Patent and that its acts of inducement would cause others (including physicians and other medical professionals) to infringe, and took deliberate steps to avoid learning of that infringement. *See*, *e.g.*, Exs. 5-11.

30. Since AstraZeneca first received notice that its conduct would unlawfully infringe the Patent-in-Suit and after having an opportunity to assess Plaintiffs' claims in the Related Action, AstraZeneca has not provided Plaintiffs with any reasonable defense to the alleged infringement.

31. AstraZeneca's acts constitute active inducement of infringement of the '219 Patent, and it is liable as an infringer.

COUNT TWO: WILLFUL INFRINGEMENT OF THE '219 PATENT

32. The allegations of Paragraphs 1-31 are re-alleged and incorporated as if fully alleged herein.

33. As early as June 2003, AstraZeneca and Plaintiffs engaged in a series of discussions about Plaintiffs' patented inventions. As early as June 2003, AstraZeneca was notified that Plaintiffs owned the family of patents that includes the '800 Patent and the related '219 Patent, and which covers the use of statins, such as Crestor®, to treat inflammatory diseases such as cardiovascular disease. *See, e.g.*, Exs. 5 & 6; *see also* Exs. 8 & 11. AstraZeneca also was notified that expanding the use of statins to treat inflammatory diseases would require a license to the Plaintiffs' patented technology. *See* Ex. 8. As a result of these discussions, AstraZeneca appreciated that Plaintiffs' patented technology was applicable to Crestor®, *see*

Ex. 5, and specifically applicable to the use of Crestor® to treat inflammation, *see* Exs. 5, 7 & 9, and the use of Crestor for the JUPITER Indications, *see* Exs. 6 & 8. For over a year, AstraZeneca and Plaintiffs discussed a potential business partnership or license and although AstraZeneca ultimately declined to take a license, AstraZeneca did not, and has not, asserted any reasonable defense to infringement. *See* Ex. 8.

34. As early as June 2003, there existed an objectively high risk that AstraZeneca's use and promotion of Crestor® for the JUPITER Indications would infringe Plaintiffs' patents, either directly or by inducing others to infringe. Prior to this lawsuit, Plaintiffs specifically indicated to AstraZeneca that the JUPITER Trial would infringe the claims of at least the '800 Patent, of which the '219 Patent is a continuation. *See, e.g.*, Ex. 8. Despite the objectively high risk of infringement, AstraZeneca continued to engage in infringing conduct, including, for example, encouraging, promoting, and instructing physicians and other medical professionals to prescribe or otherwise use Crestor® for the JUPITER Indications via its product label and website. *See* Exs. 3 & 4. This objectively high risk was either known to AstraZeneca or so obvious that it should have been known.

35. AstraZeneca has had actual knowledge of the '219 Patent and the objectively high risk that AstraZeneca's use and promotion of Crestor® for the JUPITER Indications would infringe the claims of the '219 Patent, by inducing physicians and medical professionals to infringe since at least August 13, 2013. On August 13, 2013, Plaintiffs filed their First Amended Complaint in the Related Action [Doc. 16], which provided AstraZeneca with notice of the '219 Patent as well as Plaintiffs' infringement claims. Despite the objectively high risk of infringement, AstraZeneca continued to engage in conduct that infringes the claims of the '219 Patent including, for example, encouraging, promoting, and instructing physicians and other

medical professionals to prescribe or otherwise use Crestor® for the JUPITER Indications via its product label and website. *See* Exs. 3 & 4. This objectively high risk was either known to AstraZeneca or so obvious that it should have been known.

36. At least as of the date of this filing, AstraZeneca has not indicated to Plaintiffs that it has a good faith, reasonable defense to any of Plaintiffs' intellectual property claims herein.

37. AstraZeneca's continuing infringement of the '219 Patent is intentional and willful. Plaintiffs have been harmed by AstraZeneca's infringement and will continue to suffer harm as a result of AstraZeneca's continuing unlawful conduct.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs seek judgment against AstraZeneca as follows:

1. A judgment that AstraZeneca has infringed the '219 Patent indirectly by way of inducing infringement of the '219 Patent since AstraZeneca acquired knowledge of this patent, as alleged herein;

2. A judgment and order requiring AstraZeneca to pay Plaintiffs' monetary damages sufficient to compensate Plaintiffs for AstraZeneca's infringement of the '219 Patent, including treble damages for willful infringement;

3. A judgment and order requiring AstraZeneca to pay Plaintiffs' pre-judgment and post-judgment interest on the damages awarded;

4. A judgment and order finding this to be an exceptional case under 35 U.S.C. § 285 and requiring AstraZeneca to pay costs of this action (including all disbursements) and attorneys' fees;

5. A permanent injunction prohibiting AstraZeneca, its officers, agents, servants, employees, and those persons in active concert or participation with any of them, from infringing the ’219 Patent in the future; and

6. For such further relief as to which Plaintiffs may be entitled.

JURY DEMAND

Plaintiffs hereby demand a trial by jury as to all issues so triable.

Dated: December 9, 2013

Respectfully submitted,

By: s/ *Joshua C. Littlejohn*
Joseph F. Rice, Fed. ID No. 3445
jrice@motleyrice.com
Joshua C. Littlejohn, Fed. ID No. 10426
jlittlejohn@motleyrice.com
MOTLEY RICE LLC
28 Bridgeside Blvd.
Mt. Pleasant, SC 29464
Telephone: (843) 216-9000
Facsimile: (843) 216-9450

William H. Narwold
bnarwold@motleyrice.com
MOTLEY RICE LLC
One Corporate Center
20 Church St., 17th Floor
Hartford, CT 06103
Telephone: (860) 882-1681
Facsimile: (860) 882-1682

Of Counsel:

Samuel F. Baxter
sbaxter@mckoolsmith.com
Stacie Greskowiak
sgreskowiak@mckoolsmith.com
Ryan Hargrave
rhargrave@mckoolsmith.com
MCKOOL SMITH, P.C.
300 Crescent Court, Suite 1500
Dallas, TX 75201
Telephone: (214) 978-4000
Facsimile: (214) 978-4044

John F. Garvish, II
jgarvish@mckoolsmith.com
MCKOOL SMITH, P.C.
300 W. 6th Street, Suite 1700
Austin, TX 78701
Telephone: (512) 692-8700
Facsimile: (512) 692-8744

Attorneys for Plaintiffs