

**UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA**

File No. _____

Cardiovascular Systems, Inc.,

Plaintiff,

COMPLAINT

v.

Lela Nadirashvili,

Defendant.

Plaintiff Cardiovascular Systems, Inc. (“CSI”) brings this action against Defendant Lela Nadirashvili (“Nadirashvili”) for correction of inventorship and declaratory judgment of ownership interest. CSI, for its Complaint against Nadirashvili, states and alleges as follows:

PARTIES

1. Cardiovascular Systems, Inc. (“CSI”) is a Minnesota corporation with its principal place of business at 651 Campus Drive, St. Paul, Minnesota.

2. Upon information and belief, Nadirashvili is a citizen of the United States and of Russia, and resides in Switzerland.

JURISDICTION AND VENUE

3. This action arises under the patent laws of the United States, 35 U.S.C. § 1 *et. seq.*

4. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331, 1338(a), and 2201.

5. This Court has personal jurisdiction over Nadirashvili because she committed acts and/or transacted business related to this case in Minnesota. Indeed, Nadirashvili has purposely availed herself of the benefits of the Minnesota courts by initiating previous litigation in Minnesota federal court against CSI and also by recently commencing an action in Minnesota state court against CSI. The subject of these suits is the disputed ownership of a series of patents and patent applications related to an atherectomy device that has counterweights on either side of the abrasive element on the drive shaft. Upon information and belief, Nadirashvili has also attempted to sell, license, or otherwise develop in Minnesota the technology that is the subject of this disputed patent portfolio.

6. Venue is proper in this District under 28 U.S.C. §§ 1391 (b)(2)-(3), and (c)(3).¹

BACKGROUND

CSI's Business and Acquisition of Intellectual Property Rights

7. Cardiovascular Systems, Inc. ("CSI") is a medical device company based in St. Paul. CSI develops and commercializes atherectomy devices for the treatment of vascular and coronary disease. Atherectomy devices clear arteries by grinding, aspirating, or cutting away plaque build-up. CSI products are used to treat peripheral

¹ The Federal Courts Jurisdiction and Venue Clarification Act of 2011, Pub. L. No. 112-63, 125 Stat. 758 (2011), amended 28 U.S.C. § 1391 to revise the general requirements for the venue of civil actions. The amendment applies to actions commenced on or after January 6, 2012. *See id.* § 205. Accordingly, CSI refers to the amended statute.

arterial disease, or PAD – blockages in the leg arteries that lead to pain and immobility in the limbs.

8. Dr. Leonid Shturman served as CEO of CSI from 1989 until February 2002.

9. As of June 1998, CSI had developed a family of atherectomy devices and planned to manufacture and sell these products in North America, Western Europe, and various other parts of the world.

10. At this time, CSI also planed to continue developing future generations of atherectomy devices, intending to eventually manufacture and sell in Russia and other countries of the former Soviet Union.

11. Taking steps to enter the markets of Russia and the surrounding area, in June of 1998, CSI acquired from Shturman Medical Systems, Inc. (“SMS”), a company owned by Dr. Shturman, various intellectual property rights associated with atherectomy products.

12. Pursuant to this transaction, the parties entered various agreements requiring SMS employees, including Dr. Shturman, to transfer to CSI all relevant intellectual property and know-how relating to the manufacture of atherectomy products and associated accessory products.

The Development of the Technology at Issue

13. From November of 1995 through mid-2002, Dr. Shturman worked as part of a team at CSI. The other team members included engineers Aleksey Filippov and Dmitri Prudnikov.

14. The team was tasked with improving the performance of existing rotational atherectomy devices having an eccentric enlarged section of the drive shaft with an abrasive surface on the enlarged section.

15. In particular, the team's work included improving the stability of the drive shaft by reducing the level of vibration during high speed rotation, which was believed to cause shaft breakage.

16. Dmitri Prudnikov invented the solution to this design problem by using counterbalance weights on either side of the abrasive enlarged section of the drive shaft (the "Counterweight Invention").

17. In particular, Dmitri Prudnikov used distal and proximal counterweights to control the orbital amplitude of the abrasive enlarged section of the drive shaft during high-speed rotation.

18. During this time, Dmitri Prudnikov created and tested 15 to 20 samples using lead counterweights. He reported his findings to Dr. Shturman, who also viewed the product prototypes.

The Ongoing Dispute Between the Parties

Shturman's Initial Patent Applications and Subsequent Death

19. Following the end of his employment with CSI in mid-February of 2002, in 2005 and 2006, Dr. Shturman applied for eight patents in the United States and various foreign jurisdictions ("Shturman Patent Portfolio").

20. In these applications, Dr. Shturman incorporated claims that use counterweights on either side of the abrasive element of the drive shaft of an atherectomy

device, technology invented by Dmitri Prudnikov during his employment with CSI. The Shturman Patent Portfolio included application nos. 11/919,686; 11/919,687; 11/920,463; 12/373,418, 12/373,445; 12/373,461; 12/373,477; and 12/515,524.

21. Dr. Shturman is named as the sole inventor on these applications. Dmitri Prudnikov is not named as a co-inventor.

22. Dr. Shturman died in November 2009. Upon information and belief, Nadirashvili is the widow of Dr. Shturman and is the sole heir to Dr. Shturman's estate.

Prior Litigation and Arbitration

23. The disputed ownership of the Shturman Patent Portfolio has spawned a series of lawsuits between the parties in a variety of forums.

24. At the conclusion of an arbitration regarding the issue in May of 2008, SMS was directed to transfer to CSI its interest in the "Counterweight Invention," defined as "certain know-how, comprised of one or more counterbalance weights on or near the abrasive element of the drive shaft." The Arbitrator concluded that SMS should have transferred the Counterweight Invention to CSI in 2002 and that SMS breached its agreements with CSI by failing to transfer the Counterweight Invention in 2002.

25. In July 2008, SMS transferred to CSI any ownership interest in the Counterweight Invention.

26. In September 2008, in a settlement agreement reached at the conclusion of a related lawsuit in Minnesota federal court, Dr. Shturman admitted that he was not the author or owner of the Counterweight Invention as defined in the arbitration award. Additionally, CSI reserved the right to argue that the Counterweight Invention is

incorporated in the Shturman Patent Portfolio, and Dr. Shturman reserved the right to argue that the Counterweight Invention is not incorporated in the Shturman Patent Portfolio.

27. In March 2010, CSI protected its interests in the Counterweight Invention by submitting to the United States Patent Office a Recordation that alerts interested parties of its contention that the Shturman Patent Portfolio incorporates the Counterweight Invention owned by CSI.

28. Other related litigation also includes: 1) a lawsuit in Switzerland regarding the ownership of a European Patent issued from one of Dr. Shturman's foreign applications, which is still pending; 2) a lawsuit in Minnesota federal court seeking to enjoin the Swiss action, which was dismissed without prejudice by stipulation; 3) a lawsuit in Minnesota federal court, which Nadirashvili voluntarily dismissed due to her inability to show subject matter jurisdiction.

Subsequent History of the Shturman Patent Portfolio and the Present Litigation

29. On December 7, 2011, Nadirashvili abandoned two of the eight applications of the Shturman Patent Portfolio, Nos. 11/919,686 and 11/919,687 .

30. On February 7, 2012, United States Patent No. 8,109,954 ("the '954 Patent"), titled "Rotational Atherectomy Device with Distal Protection Capability and Method of Use," was issued from application No. 11/920,463 of the Shturman Patent Portfolio. Nadirashvili filed a continuation of this application, Serial No. 13/343,156, on January 4, 2012.

31. The ‘954 Patent names Dr. Shturman as the sole inventor and does not list Dimitri Prudnikov as a co-inventor.

32. Also on February 7, 2012, United States Patent No. 8,109,955 (“the ‘955 Patent”), titled “Rotational Atherectomy Device with Fluid Inflatable Support Elements and Distal Protection Capability,” issued from Application No. 12/515,524 of the Shturman Patent Portfolio. Nadirashvili filed a continuation of this application, Serial No. 13/344,993, on January 6, 2012.

33. The ‘955 Patent names Dr. Shturman as the sole inventor and does not list Dimitri Prudnikov as a co-inventor.

34. In February 2012, Nadirashvili filed an action against CSI in Minnesota state court, *Lela Nadirashvili v. Cardiovascular Systems, Inc.*, 27-cv-12-4188, Minn. St. Dist. Ct. (2012), seeking a declaration of the scope of the term “Counterweight Invention” contained in the May 2008 arbitration award; a declaration that she is the sole owner of all rights to the Shturman Patent Portfolio; and claims based on alleged false statements made by CSI regarding its interest in the Shturman Patent Portfolio. CSI intends to remove Nadirashvili’s state court action under 28 U.S.C. §§ 1441 and 1446.

COUNT I
(Correction of Inventorship of the ‘954 Patent)

35. CSI realleges its previous allegations.

36. Dmitri Prudnikov contributed in a significant manner to the conception and reduction to practice of at least one element of one claim of the ‘954 Patent. Dmitri

Prudnikov's contributions included more than the mere explanation of well-known concepts or the current state of the art.

37. Dmitri Prudnikov was omitted as a named inventor of the '954 Patent.

38. The error of omitting Dmitri Prudnikov was done without any deceptive intention on Dmitri Prudnikov's part.

39. CSI, as assignee of Dmitri Prudnikov's and Dr. Shturman's rights in the Counterweight Invention, seeks correction of the inventorship of the '954 Patent to name Dmitri Prudnikov as a co-inventor.

40. CSI has, and will continue to, incur harm caused by the incorrect inventorship because CSI was and is the assignee to all of Dmitri Prudnikov's and Dr. Shturman's rights, title, and interest in the Counterweight Invention, which is incorporated in the '954 Patent.

COUNT II
(Correction of Inventorship of the '955 Patent)

41. CSI realleges its previous allegations.

42. Dmitri Prudnikov contributed in a significant manner to the conception and reduction to practice of at least one element of one claim of the '955 Patent. Dmitri Prudnikov's contributions included more than the mere explanation of well-known concepts or the current state of the art.

43. Dmitri Prudnikov was omitted as a named inventor of the '955 Patent.

44. The error of omitting Dmitri Prudnikov was done without any deceptive intention on Dmitri Prudnikov's part.

45. CSI, as assignee of Dmitri Prudnikov's and Dr. Shturman's rights in the Counterweight Invention, seeks correction of the inventorship of the '955 Patent to name Dmitri Prudnikov as a co-inventor.

46. CSI has, and will continue to, incur harm caused by the incorrect inventorship because CSI was and is the assignee to all of Dmitri Prudnikov's and Dr. Shturman's rights, title, and interest in the Counterweight Invention, which is incorporated in the '955 Patent.

COUNT III

(Declaratory Judgment of Ownership in the '954 Patent)

47. CSI realleges its previous allegations.

48. CSI seeks a declaratory judgment that, by reason of the co-inventorship by Dmitri Prudnikov and Dr. Shturman, CSI has an ownership interest in the '954 Patent.

49. There is a substantial and continuing justiciable controversy between CSI and Nadirashvili as to CSI's ownership interest in the '954 Patent.

50. A valid case and controversy exists sufficient for this Court to declare the rights and remedies of the parties, because there is a dispute between the parties as to the ownership of the '954 Patent.

COUNT IV

(Declaratory Judgment of Ownership in the '955 Patent)

51. CSI realleges its previous allegations.

52. CSI seeks a declaratory judgment that, by reason of the co-inventorship by Dmitri Prudnikov and Dr. Shturman, CSI has an ownership interest in the '955 Patent.

53. There is a substantial and continuing justiciable controversy between CSI and Nadirashvili as to CSI's ownership interest in the '955 Patent.

54. A valid case and controversy exists sufficient for this Court to declare the rights and remedies of the parties, because there is a dispute between the parties as to the ownership of the '955 Patent.

WHEREFORE, CSI demands judgment against Nadirashvili as follows:

1. Awarding CSI judgment and declaring that Dmitri Prudnikov is a co-inventor of the '954 Patent;

2. Awarding CSI judgment and declaring that Dmitri Prudnikov is a co-inventor of the '955 Patent;

3. Awarding CSI judgment and declaring that CSI is a co-owner of the '954 Patent.

4. Awarding CSI judgment and declaring that CSI is a co-owner of the '955 Patent.

5. Entering judgment ordering the Director of the United States Patent and Trademark Office to issue a certificate correcting the inventorship of the '954 Patent, adding Dmitri Prudnikov as a co-inventor.

6. Entering judgment ordering the Director of the United States Patent and Trademark Office to issue a certificate correcting the inventorship of the '955 Patent, adding Dmitri Prudnikov as a co-inventor.

7. Entering judgment ordering the Director of the United States Patent and Trademark Office to list CSI as an owner or co-owner of the '954 Patent.

8. Entering judgment ordering the Director of the United State Patent and Trademark Office to list CSI as an owner or co-owner of the '955 Patent.
9. Awarding CSI its costs and attorneys' fees incurred herein; and
10. Granting such further relief as the Court deems just and equitable.

Dated: March 8, 2012

Respectfully submitted,

s/ Lora M. Friedemann

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