

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
EASTERN DIVISION  
Civil Action No. \_\_\_\_\_**

NEUROGRAFIX; NEUROGRAPHY  
INSTITUTE MEDICAL ASSOCIATES,  
INC.; IMAGE-BASED SURGICENTER  
CORPORATION; and AARON G.  
FILLER,

Plaintiffs,

v.

TOSHIBA AMERICA MEDICAL  
SYSTEMS, INC.; TOSHIBA MEDICAL  
SYSTEMS CORPORATION, INC.;  
SEASHORE IMAGING, LLC; COASTAL  
RADIOLOGY ASSOCIATES, PLLC; and  
EASTERN RADIOLOGISTS, INC.,

Defendants.

**COMPLAINT FOR PATENT  
INFRINGEMENT**

**JURY TRIAL DEMANDED**

Plaintiffs NeuroGrafix, Neurography Institute Medical Associates, Inc. (“NIMA”), Image-Based Surgicenter Corporation (“IBSC”), and Aaron G. Filler (“Dr. Filler”) (collectively, “Plaintiffs”) allege as follows:

**PARTIES**

1. Plaintiff NeuroGrafix is a California corporation, founded in 1998, with its principal place of business located in Los Angeles County at 2716 Ocean Park Boulevard, Suite 3075, Santa Monica, California 90405.

2. Plaintiff NIMA is a California corporation, founded in 1998, with its principal place of business in Los Angeles County at 2716 Ocean Park Boulevard, Suite 3075, Santa Monica, California 90405.

3. Plaintiff IBSC is a California corporation, founded in 2005, with its principal place of business in Los Angeles County at 2716 Ocean Park Boulevard, Suite 1007, Santa Monica, California 90405.

4. Plaintiff Dr. Filler with his principal place of business in Los Angeles County at 2716 Ocean Park Boulevard, Suite 3082, Santa Monica, California 90405 is a citizen of California and an inventor and owner of United States Patent No. 5,560,360.

5. On information and belief, Defendant Toshiba America Medical Systems, Inc. ("TAMS") is a California corporation with a place of business located in Gwinnett County, Georgia at 1965 Evergreen Blvd., Suite 300, Duluth, Georgia 30096.

6. On information and belief, Defendant Toshiba Medical Systems Corporation, Inc. ("TMSC") is a Japanese corporation with its principal place of business located in Tochigi Prefecture at 1385 Shimoishigami, Otawara, Japan.

7. On information and belief, Defendant Seashore Imaging, LLC ("Seashore Imaging") is a North Carolina company with its principal place of business located at 4252 Arendell St., Morehead City, North Carolina 28557.

8. On information and belief, Defendant Coastal Radiology Associates, PLLC ("CRA") is a North Carolina company with its principal place of business located at 722 Newman Road, New Bern, North Carolina 28561.

9. On information and belief, Defendant Eastern Radiologists, Inc. ("ERI") is a North Carolina corporation with its principal place of business located at 2101 W. Arlington Blvd., Suite 210, Greenville, North Carolina 27834.

10. TAMS and TMSC are collectively referred to as "Toshiba" and TAMS, TMSC, Seashore Imaging, CRA, and ERI are collectively referred to as "Defendants."

## **JURISDICTION AND VENUE**

11. This case is an action for patent infringement of United States Patent No. 5,560,360 (the “’360 Patent”) under the Patent Laws of the United States, as set forth in 35 U.S.C. §§271 and 280 through 285.

12. This Court has federal subject matter jurisdiction over this action under 28 U.S.C. §§1331, 1332(a)(1), 1332(c)(1) and 1338(a).

13. This Court has personal jurisdiction over Defendants in North Carolina, and venue is proper in this Court pursuant to 28 U.S.C. §§1391(a), 1391(c), and 1400(b), including without limitation because Defendants are advertising, marketing, using, selling, and/or offering to sell products in this Judicial District.

## **BACKGROUND**

14. The invention at issue in this action is a major transformative advance in medical science. It provides for modifications in the systems and methods of magnetic resonance imaging ("MRI") that have made it possible to see the nerves of the body and the internal tracts of the brain. These technologies are now commonly called Magnetic Resonance Neurography (“MRN”) and “Diffusion Tensor Imaging” (“DTI”). Presently, MRN and DTI—as disclosed in the ’360 Patent—are used throughout the world and have played a critical role in saving many lives and relieving many patients of their pain and disability.

15. The first inventor and current owner of the patent—Dr. Aaron G. Filler—actively practices this patent through plaintiffs NeuroGrafix, NIMA and IBSC and has done so together with one or more of these co-plaintiff entities continuously since 1998. Licenses under the patent have been granted to Siemens Aktiengesellschaft, Koninklijke Philips N.V., General Electric Company, and Medtronic Inc.

16. Until December 17, 2013, the University of Washington, a public institution of higher education in the state of Washington, was the owner by assignment of the '360 Patent entitled "Image Neurography and Diffusion Anisotropy Imaging." The '360 Patent issued on October 1, 1996. A true and correct copy of the '360 Patent is attached as Exhibit A.

17. Washington Research Foundation ("WRF"), a not-for-profit corporation incorporated and existing under the laws of the State of Washington, had substantially all rights in the '360 Patent since March 23, 1994. On December 17, 2013, the University of Washington assigned the '360 Patent to WRF.

18. On December 27, 2013, WRF assigned the '360 Patent to NeuroGrafix. NeuroGrafix then assigned the '360 Patent to Dr. Filler. Dr. Filler and NeuroGrafix then entered into a Non-Terminable Exclusive License Agreement in which Dr. Filler granted an exclusive license in the '360 Patent to NeuroGrafix.

19. Prior to the assignment, on June 15, 2012, WRF and NeuroGrafix entered into an Amended and Restated Non-Terminable Exclusive License Agreement in which WRF granted NeuroGrafix an exclusive license to substantially all rights in the '360 Patent and retained no reversionary rights to the '360 Patent.

20. On September 14, 2011, NeuroGrafix and NIMA entered into an amended license agreement in which NIMA received the exclusive right to practice the '360 Patent in all fields of use, but granted back to NeuroGrafix an exclusive license to practice the '360 Patent in the field of use of non-human, non-surgical medicine. On September 14, 2011, NIMA and IBSC entered into an exclusive license agreement in which NIMA granted to IBSC an exclusive license to practice the '360 Patent in the field of human, surgical medicine. These agreements remained in effect after the December 27, 2013 assignment and license agreements.

21. Accordingly, as of the date of filing of this action, NeuroGrafix has an exclusive license to the '360 Patent in the field of use of non-human, non-surgical medicine, IBSC has an exclusive license in the field of use of human, surgical medicine, NIMA has an exclusive license in the field of use of human, nonsurgical medicine, and Aaron G. Filler, an individual, is the patent owner.

22. Aaron G. Filler, Jay S. Tsuruda, Todd L. Richards, and Franklyn A. Howe are the inventors of the '360 Patent.

23. NeuroGrafix and NIMA have been investing in and practicing the technology disclosed in the '360 Patent since at least 2000, and ISBC has been investing in and practicing the technology disclosed in the '360 Patent since at least 2005.

24. In May 2000, NeuroGrafix shared its business plan with Toshiba, and, in July 2000, Dr. Filler, acting on behalf of NeuroGrafix, met in person in Otawara, Japan with senior Toshiba management, including the Board of Directors and Chairman of TSMC. NeuroGrafix also met in a series of meetings with representatives of TAMS. Among other things, NeuroGrafix's business plan and the discussions with Toshiba disclosed the '360 Patent (including copies of the patent), how NeuroGrafix practiced the '360 Patent, and how the performance of and provision of equipment and methods for DTI and diffusion anisotropy based tractography by Toshiba would practice the '360 Patent, as well as the potential for Toshiba to gain an exclusive license under the patent.

25. In November 2008, NeuroGrafix contacted TAMS' medical imaging research and development arm, Toshiba Medical Research Institute USA, Inc., by email regarding the '360 Patent. In December 2008, the Intellectual Property Division of Toshiba Corporation responded

to NeuroGrafix's November 2008 email by stating that it was the contact for "patent proposals" from third parties and confirming that it would conduct a review.

**COUNT I**  
**PATENT INFRINGEMENT**

26. Plaintiffs repeat and reallege the allegations contained in paragraphs 1 through 25 above, inclusive, as if fully repeated and restated herein.

27. Defendants have directly (literally and under the doctrine of equivalents) infringed at least claim 36 of the '360 Patent by making, using, selling, offering to sell, or importing, without license or authority, products and services that include, without limitation, the performance of and provision of equipment and methods for DTI and diffusion anisotropy based tractography, all such activities involving Seashore Imaging, CRA and/or ERI. Such products include the Toshiba Vantage Titan 3T, Toshiba Vantage, Toshiba Excelart, Toshiba Vantage Atlas, and Toshiba Vantage Titan, and gradients for DTI and diffusion anisotropy based tractography, including AGV, XGV, ZGV, Octave, Atlas, standard gradients, Helios gradients, and HSR, and related workstations and software, such as mTensor and Diffusion Tensor Tractography. Thus, by making, using, importing, offering for sale, and/or selling such products and software, Defendants have injured Plaintiffs and are thus liable to Plaintiffs for infringement of the '360 Patent under 35 U.S.C. § 271(a).

28. Toshiba has also indirectly infringed, by way of inducing infringement by others of the '360 Patent, by, among other things, making, using, importing, offering for sale, and/or selling, without license or authority, products and services, including without limitation, the performance of and provision of equipment and methods for DTI and diffusion anisotropy based tractography that induce others to infringe at least claim 36 of the '360 Patent, all such activities involving Seashore Imaging, CRA and/or ERI. Such products include the Toshiba Vantage

Titan 3T, Toshiba Vantage, Toshiba Excelart, Toshiba Vantage Atlas, and Toshiba Vantage Titan, and gradients for DTI and diffusion anisotropy based tractography, including AGV, XGV, ZGV, Octave, Atlas, standard gradients, Helios gradients, and HSR, and related workstations and software, such as mTensor and Diffusion Tensor Tractography. These products are used in infringing products and services made, used, imported, offered for sale, and/or sold by Seashore Imaging, CRA and/or ERI. Toshiba induced Seashore Imaging, and physicians providing services at Seashore Imaging, including through CRA and ERI, to directly infringe by inducing or encouraging the use of its products and software to perform DTI and diffusion anisotropy based tractography. Since at least 2000, and likely earlier, Toshiba has had knowledge of the '360 Patent and that performance of and provision of equipment and methods for DTI and diffusion anisotropy based tractography would infringe the '360 Patent, and, by continuing the actions described above, has had the specific intent to, or should have known that its actions would, induce infringement of the '360 Patent. Thus, because Toshiba was given specific notice that it would be inducing direct infringement if it proceeded without a license to '360 Patent and then, notwithstanding this notice, did in fact proceed by making, using, importing, offering for sale, and/or selling such products and software, Toshiba has injured Plaintiffs and is thus liable to Plaintiffs for infringement of the '360 Patent under 35 U.S.C. § 271(b).

29. Toshiba has also indirectly infringed, by way of contributing to the infringement by others of the '360 Patent, by, among other things, making, using, importing, offering for sale, and/or selling, without license or authority, software for use in systems that thereby fall within the scope of at least claim 36 of the '360 Patent, all such activities involving Seashore Imaging, CRA and/or ERI. Such products include the Toshiba Vantage Titan 3T, Toshiba Vantage, Toshiba Excelart, Toshiba Vantage Atlas, and Toshiba Vantage Titan, and gradients for DTI and

diffusion anisotropy based tractography, including AGV, XGV, ZGV, Octave, Atlas, standard gradients, Helios gradients, and HSR, and related workstations and software, such as mTensor and Diffusion Tensor Tractography. These products are used in infringing products and services made, used, imported, offered for sale, and/or sold by Seashore Imaging, CRA and/or ERI. Toshiba induced Seashore Imaging, CRA and/or ERI to directly infringe by inducing or encouraging the use of their products and software to perform DTI and diffusion anisotropy based tractography. Toshiba's accused products and software are a material part of the invention, are especially made or especially adapted for use in the infringement of '360 Patent, and are not a staple article or commodity of commerce suitable for substantial noninfringing uses. Since at least 2000, and likely earlier, Toshiba has had knowledge of the '360 Patent and has had the specific knowledge that the combination of its software and computer systems described above infringe the '360 Patent. Thus, by making, using, importing, offering for sale, and/or selling such products and software, Toshiba has injured Plaintiffs and is thus liable to Plaintiffs for infringement of the '360 Patent under 35 U.S.C. § 271(c).

30. As a result of Toshiba's use of the claimed invention after receiving notice of the '360 Patent, Toshiba has willfully infringed the '360 Patent.

31. To the extent that facts learned in discovery show that Seashore Imaging's, CRA's or ERI's infringement of the '360 Patent has been willful, Plaintiffs reserve the right to request such a finding at the time of trial.

32. As a result of Defendants' infringement of the '360 Patent, Plaintiffs have suffered monetary damages in an amount not yet determined.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs respectfully request that this Court enter:



1. A judgment in favor of Plaintiffs that Defendants have infringed, directly and/or indirectly, by way of inducing and/or contributing to the infringement of the '360 Patent;
2. A judgment and order requiring Defendants to pay Plaintiffs their damages, costs, expenses, and prejudgment and post-judgment interest for Defendants' infringement of the '360 Patent as provided under 35 U.S.C. § 284;
3. An award to Plaintiffs for enhanced damages, as provided under 35 U.S.C. § 284, resulting from the knowing, deliberate, and willful nature of Toshiba's prohibited conduct;
4. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiffs their reasonable attorneys' fees; and
5. Any and all other relief to which Plaintiffs may show themselves to be entitled.

**JURY TRIAL DEMANDED**

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

Respectfully submitted this the 6th day of January, 2015.

By: /s/ Lynne A. Borchers  
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