IN THE UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF FLORIDA

UNIVERSITY OF FLORIDA RESEARCH FOUNDATION, INC.,) Civil Action No
Plaintiff,) Jury Trial Demanded
VS.)
LOND HALL HALL DIGHT IDO NAME OF T)
KONINKLIJKE PHILIPS N.V., and)
PHILIPS ELECTRONICS	
NORTH AMERICA CORP.,)
Defendants.)
)

PLAINTIFF'S ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT AND JURY DEMAND

Plaintiff University of Florida Research Foundation, Inc. ("UFRF") hereby pleads the following claims of patent infringement against Defendants Koninklijke Philips N.V. ("PHILIPS-NV") and Philips Electronics North America Corp. ("PHILIPS-NA") (PHILIPS-NV and PHILIPS-NA are collectively referred to as "PHILIPS"):

PARTIES

1. The University of Florida ("UF") is a non-profit educational institution based in Gainesville, Florida. UF is consistently ranked among the nation's top universities. It has more than 50,000 students annually, and has more than 4,000 faculty members including 34 Eminent Scholar chairs and 42 members Plaintiff's Original Complaint for Patent Infringement and Jury Demand Page 1

of the National Academy of Sciences, National Academy of Engineering, the Institute of Medicine, and the American Academy of Arts and Sciences. UF generates more than 100,000 Florida jobs, including more than 41,000 university employees. In 2014, UF ranked third among public universities in the number of start-up companies created, fifth among public universities in licensed options granted, and sixth among public universities in the total number of patent applications filed.

- 2. UFRF was established in June of 1986 by the Legislature of the State of Florida as a direct support organization ("DSO") under Title XLVIII, Chapter 1004 of the Florida Statutes, Section 1004.28. UFRF is tasked with promoting, encouraging, and providing assistance to the research activities of UF faculty, staff, and students. UFRF is a not-for-profit organization that provides a means by which research can be conducted flexibly and efficiently and by which discoveries, inventions, processes, and work products of UF faculty, staff, and students can be transferred from the laboratory to the public. Funds generated by licensing UF innovations are channeled back to UF to enhance UF's research and education mission.
- 3. UFRF is a corporation established by the Legislature of the State of Florida to act as an agency and instrumentality of the State of Florida. As a statutory DSO for UF, UF has been granted the statutory authority and Plaintiff's Original Complaint for Patent Infringement and Jury Demand Page 2

administrative discretion to supervise and control UFRF's day-to-day operations.

UFRF enjoys sovereign immunity, including sovereign immunity under Title XLV,

Chapter 768 of the Florida Statutes, Section 768.28.

- 4. UFRF is the assignee and exclusive owner of more than 900 patents originated at UF, including U.S. Patent No. 7,573,978 (the "'978 patent."). UFRF has a principal place of business at 288 Grinter Hall, Gainesville, Florida 32611-5500.
- 5. Upon information and belief, Defendant PHILIPS-NV is a Dutch entity located at Philips Center, Amstelplein 2, Amsterdam, 1096 BC, Netherlands.
- 6. Upon information and belief, Defendant PHILIPS-NA is a Delaware corporation having an address at 3000 Minuteman Road, Andover, Massachusetts, 01810. Defendant PHILIPS-NA is a wholly-owned subsidiary of PHILIPS-NV and can be served with process through its agent for service of process at Corporation Service Company, 1201 Hays Street, Tallahassee, Florida 32301.

JURISDICTION AND VENUE

7. This is an action for patent infringement arising under the patent laws of the United States of America, Title 35 of the United States Code and this Court has subject matter jurisdiction over the matters pled herein under 28 U.S.C. §§ 1331 and 1338(a).

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- 8. Defendants regularly and deliberately engage in and continue to engage in activities that result in at least using, selling, offering for sale, and/or importing the patented invention in and/or into the United States, the State of Florida and this judicial district, and thus violate UFRF's United States patent rights under the '978 patent. This Court has personal jurisdiction over Defendants because, among other things, patent infringement is a cause of action arising under the laws of the United States, and Defendants conduct business in the United States and the State of Florida such that they enjoy the privileges and protections of federal and Florida law.
- 9. Venue is proper in the Northern District of Florida pursuant to 28 U.S.C. §§ 1391(b), (c) and (d) and 1400(b).

U.S. PATENT NO. 7,573,978

- 10. UFRF is the owner of all rights, title and interest in and under the '978 patent, titled "Variable Feathering Field Splitting for Intensity Modulated Fields of Large Size," which issued on August 11, 2009. A true and correct copy of the '978 patent is attached hereto as Exhibit A. The '978 patent is valid and enforceable.
- 11. All requirements under 35 U.S.C. § 287 have been satisfied with respect to the '978 patent.

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DIRECT INFRINGEMENT

- 12. On information and belief, Defendants have been and continue to directly infringe the '978 patent by making, using, offering for sale, selling, and/or importing in or into the United States, without authority, a family and product line of planning systems and products known as "Pinnacle³."
- 13. Radiation therapy utilizes high-energy particles or waves, such as x-rays, electron beams, or protons, to destroy or damage cancer cells in tumors. The high-energy particles or waves can originate as a beam from a linear accelerator or "LINAC" source that is rotated on a gantry about a patient. A multi-leaf collimator ("MLC") is used in conjunction with the LINAC source to shape the beam. This allows the high-energy particles or waves to be selectively applied to treatment areas and blocked from healthy tissue.
- 14. One type of radiation therapy is known as intensity modulated radiation therapy ("IMRT"). IMRT can modulate radiation doses as the LINAC source is rotated about the patient and tumor at different gantry angles, thereby resulting in a radiation therapy treatment plan that encompasses the cancerous tissue.
- 15. For each gantry angle, the radiation dose is represented by an intensity matrix, which is controlled by the movement and sequencing of radiation-absorbing leaves within MLC. The MLC has a maximum aperture to PLAINTIFF'S ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT AND JURY DEMAND PAGE 5

accommodate the radiation beam, thus when a field to receive radiation according to the prescribed intensity matrix is larger than the MLC's maximum aperture, the field must be split into two or more overlapping sub-fields.

- 16. The '978 patent teaches and claims an innovative field splitting technology known as "variable feathering," which covers configurations wherein the overlap between sub-fields is not predefined. Pinnacle³ directly infringes the '978 patent because it employs the claimed "variable feathering" technology. One preliminary example of how a claim of the '978 patent is infringed by Pinnacle³ is illustrated in detail in Exhibit B.
- 17. Defendants have never, either expressly or impliedly, been licensed under the '978 patent.
- 18. Defendants' direct infringement of the '978 patent has caused and will continue to cause substantial and irreparable damage to UFRF. UFRF is, therefore, entitled to an award of damages adequate to compensate for Defendants' infringement of the '978 patent, but in no event less than a reasonable royalty for Defendants' use and/or sale of UFRF's invention, together with interest and costs as fixed by the court under 35 U.S.C. § 284.

INDIRECT INFRINGEMENT

- 19. Defendants indirectly infringe and induce infringement under 35
 U.S.C. § 271(b) by actively and knowingly aiding and abetting the direct infringement of the '978 patent by medical practitioners and related health care entities through Defendants' sales literature, advertising, updating, training, and instructions that inform medical providers how to use Pinnacle³ to infringe the '978 patent. For example and without limitation, Defendants' Pinnacle³ instructional and marketing literature directs medical practitioners and related health care entities to "Reduce[] the total time required to create an IMRT or SmartArc plan" by employing Pinnacle³'s "smart automation tools that enable the creation of high-quality plans the first time with limited intervention" and Pinnacle³'s preconfigured "editable database" to practice the "variable feathering" claimed by the '978 patent.
- 20. Neither Defendants nor any medical practitioners or related health care entities have at any time, either expressly or impliedly, been licensed under the '978 patent.
- 21. Defendants have had knowledge of the '978 patent since at least as early as April 9, 2015. On that date, UFRF provided Defendants an in-person presentation that identified UFRF's claims of direct and induced infringement of the '978 patent by Pinnacle³.

- 22. Defendants knew, or at a minimum should have known, that the acts described and exemplified above would result in direct infringement of the '978 patent by medical practitioners and related health care entities, as Defendants knew of the '978 patent and UFRF's allegations that Pinnacle³ infringed the '978 patent.
- 23. Defendants' specific intent to encourage medical practitioners and related health care entities to directly infringe the '978 patent may be reasonably inferred from the specific acts discussed above coupled with Defendants' actual knowledge of the '978 patent and UFRF's infringement allegations.
- 24. Defendants' indirect and induced infringement of the '978 patent has caused and will continue to cause substantial and irreparable damage to UFRF.

 UFRF is, therefore, entitled to an award of damages adequate to compensate for Defendants' infringement of the '978 patent, but in no event less than a reasonable royalty for Defendants' use and/or sale of UFRF's patented invention, together with interest and costs as fixed by the court under 35 U.S.C. § 284.

WILLFUL INFRINGEMENT

25. Defendants have been willfully infringing the '978 patent since at least as early as April 9, 2015, when Defendants were given actual knowledge of the '978 patent and UFRF's infringement allegations. Defendants continue to have actual knowledge of, or a deliberate disregard for the '978 patent and its infringement by Pinnacle³, but have nonetheless continued to infringe the '978 PLAINTIFF'S ORIGINAL COMPLAINT FOR PATENT INFRINGEMENT AND JURY DEMAND PAGE 8

patent by using, commercializing, and selling Pinnacle³ to customers, consumers, medical practitioners, and related health care entities located in the U.S. and by inducing infringement by actively and knowingly aiding and abetting the direct infringement of medical practitioners and related health care entities as alleged above.

26. Despite an objectively high likelihood that their actions infringe the '978 patent Defendants continue making, using, selling, and/or offering to sell Pinnacle³. UFRF should receive enhanced damages up to three times the amount of its actual damages for the Defendants' willful infringement under 35 U.S.C. § 284.

PRAYER

WHEREFORE, UFRF respectfully requests that judgment be entered in its favor and against Defendants and respectfully request that the Court grant the following relief:

- (a) Declare that the '978 patent is valid and enforceable;
- (b) Declare that Defendants are liable for past and present direct infringement of the '978 patent;
- (c) Declare that Defendants are liable for inducing infringement of the '978 patent;

- (d) Award damages to the Plaintiff University of Florida Research Foundation, Inc. to which it is entitled for Defendants' infringement of the '978 patent;
- (e) Award Plaintiff University of Florida Research Foundation treble damages for Defendants' willful infringement;
- (f) That Plaintiff University of Florida Research Foundation be awarded any other supplemental damages and interest on all damages, including, but not limited to attorney fees available under 35 U.S.C. § 285;
- (g) That Plaintiff University of Florida Research Foundation be awarded such other and further relief as this Court may deem just and proper, including but not limited to equitable relief and all remedies available at law.

JURY DEMAND

Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiff University of Florida Research Foundation hereby demands a trial by jury on all issues triable to a jury.

Respectfully submitted this ______ day of January, 2016, by the following attorneys for the University of Florida Research Foundation, Inc.:

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