

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION**

ALIVECOR, INC.,

Plaintiff

v.

APPLE, INC.,

Defendant

Civil Action No.: 6:20-cv-1112

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff AliveCor, Inc. (“AliveCor” or “Plaintiff”) for its Complaint for Patent infringement (“Complaint”) against Apple Inc. (“Apple” or “Defendant”), hereby alleges as follows:

THE PARTIES

1. Plaintiff AliveCor, Inc. is a Delaware corporation having its principal place of business at 444 Castro St, Suite 600, Mountain View, CA 94041.
2. AliveCor is the owner by assignment of U.S. Patent No. 10,595,731 (“the ’731 Patent”) (attached as Exhibit 1), U.S. Patent No. 10,638,941 (“the ’941 Patent”) (attached as Exhibit 2), and U.S. Patent No. 9,572,499 (“the ’499 Patent”) (attached as Exhibit 3) (collectively, the “Patents-in-Suit”).
3. Defendant Apple Inc. is a California corporation with a principal place of business at One Apple Park Way, Cupertino, California 95014. Apple can be served through its registered agent, CT Corporation System, 818 W. Seventh Street, Suite 930, Los Angeles, California, 90017.
4. Apple is registered to do business in Texas.
5. Apple has regular and established places of business in this District, including, at 3121 Palm Way, Austin, Texas, 2901 S. Capital of Texas Hwy., Austin, TX, and 12535 Riata Vista Circle, Austin, Texas, and 5501 West Parmer Lane, Austin, Texas. Apple employs thousands of

people, including hundreds of engineers, logistics managers, and other employees who work at these locations in Texas. The work done at these Apple locations in Texas includes work related to the Apple Watch.

6. The Apple Watch Planning Manager and the Americas Supply and Demand Planner work in Austin, Texas. These Apple employees likely have relevant information relating to, for example, product planning, marketing, historical sales, and forecasted sales of the infringing products.

7. Apple's Digital Strategy Program Manager is also located in Austin, Texas. According to the Digital Strategy Program Manager's LinkedIn profile, Apple created and managed the introduction of the Apple Watch ECG application, which is the accused technology in this litigation, in Austin. Apple's Digital Strategy Program Manager likely has information relevant to Apple's infringement and the amount of damages due.

8. Doctors at the Dell Medical School at the University of Texas at Austin as well as the Ascension Seton Medical Center in Austin, Texas also performed a first of its kind study of the infringing Apple products and features. These doctors performed a study to confirm the accuracy of the accused Apple products and features, and validate the use of the accused Apple watch for patients and health care providers. The results of the study were published in a paper entitled "A comparison of manual electrocardiographic interval and waveform analysis in lead 1 of 12-lead ECG and Apple Watch ECG: A validation study." (Attached as Exhibit 4). As described by the doctors who conducted the study, the Apple Watch Series 4 (AW) "contains built-in software and hardware to perform a single-lead electrocardiogram (ECG) and detect atrial fibrillation." Ex. 4 at 30. The goal of the study was to "compare the accuracy and correlation of the intervals and waveforms derived from the single-lead AW ECG with lead 1 of a standard 12-lead ECG by performing manual interval measurements and waveform analysis in a healthy adult population." *Id.* The study's participants, all of whom used the infringing devices during the investigation, were also located in and around Austin, Texas. *Id.* at 31. Finally, the doctors who performed the study—

all of whom appear to be located in Austin, Texas—have relevant, discoverable information regarding infringement, validity, and damages. *Id.* at 30.

9. Apple has hired or is hiring engineers to join Apple’s Austin-based Custom Silicon Management Group. The Austin-based Custom Silicon Management Group will likely have unique information relevant to infringement including but not limited to information regarding product design, the relevant functionality, and product performance.

10. Apple also has a physical place of business in the Western District of Texas including Apple Stores at Barton Creek Square, Austin, Texas and at Apple Domain Northside, Austin, Texas. Apple uses, offers for sale and sells series 4 and later version of Apple’s Watch with the ECG Application installed.

11. Apple has placed or contributed to placing infringing products like the Apple Watch into the stream of commerce via an established distribution channel knowing or understanding that such products would be sold and used in the United States, including in the Western District of Texas. On information and belief, Apple also has derived substantial revenues from infringing acts in the Western District of Texas, including from the sale and use of infringing products like the Apple Watch.

JURISDICTION AND VENUE

12. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

13. This Court has specific personal jurisdiction over Defendant at least in part because Defendant conducts business in this Judicial District. AliveCor’s causes of action arise, at least in part, from Defendant’s contacts with and activities in the State of Texas and this Judicial District. Upon information and belief, Defendant has committed acts of infringement within the State of Texas and this Judicial District by, *inter alia*, directly and/or indirectly using, selling, offering to sell, or importing products that infringe one or more claims of the ’731 Patent, the ’941 Patent, and/or the ’499 Patent.

14. Defendant has committed acts within this District giving rise to this action and has established sufficient minimum contacts with the State of Texas such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice.

15. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1391(b), (c), and 1400(d) because (1) Defendant has done and continues to do business in this Judicial District, (2) Defendant has a regular and established place of business in this Judicial District, and (3) Defendant has committed and continues to commit acts of patent infringement in this Judicial District by, *inter alia*, directly and/or indirectly using, selling, offering to sell, or importing products that infringe one or more claims of the '731 Patent, the '941 Patent, and/or the '499 Patent.

ASSERTED PATENTS

16. AliveCor is the owner, by assignment, of U.S. Patent No. 10,595,731, titled “Methods and systems for arrhythmia tracking and scoring.” A true and correct copy of U.S. Patent No. 10,595,731 granted by the U.S. Patent & Trademark Office is attached as Exhibit 1.

17. AliveCor is the owner, by assignment, of U.S. Patent No. 10,638,941, titled “Discordance monitoring.” A true and correct copy of U.S. Patent No. 10,638,941 granted by the U.S. Patent & Trademark Office is attached as Exhibit 2.

18. AliveCor is the owner, by assignment, of U.S. Patent No. 9,572,499, titled “Methods and systems for arrhythmia tracking and scoring.” A true and correct copy of U.S. Patent No. 9,572,499 granted by the U.S. Patent & Trademark Office is attached as Exhibit 3.

BACKGROUND

19. Cardiovascular diseases are the leading cause of death in the world. In the United States, heart disease is the leading cause of death for men, women, and people of most racial and ethnic groups. <https://www.cdc.gov/heartdisease/facts.htm>. One person dies every 36 seconds in the United States from cardiovascular disease. *Id.* About 655,00 Americans die from heart disease each year. *Id.*

20. Arrhythmia is a cardiac condition in which the electric activity of the heart is irregular or is faster (tachycardia) or slower (bradycardia) than normal. '499 Patent at 1:31-33.

Arrhythmias can cause cardiac arrest and even sudden cardiac death. *Id.* at 1:33-35. Atrial fibrillation is the most common cardiac arrhythmia. *Id.* at 1:35-36. In atrial fibrillation, electrical conduction through the ventricles of the heart is irregular and disorganized. *Id.* at 1:36-38. Atrial fibrillation symptoms include palpitations, shortness of breath, fainting, chest pain, or congestive heart failure. *Id.* at 1:38-40. Atrial fibrillation is also associated with atrial clot formation. *Id.* at 1:40-42. In some cases, after a clot forms it can migrate causing, among other things, stroke. *Id.*

21. Arrhythmias may occur continuously or may occur intermittently. '941 Patent at 1:34-35. Continuous arrhythmias are always present or almost always present. *Id.* at 1:40-43. Thus, they can be easily diagnosed with well-known diagnosis equipment and techniques. *Id.* For intermittent arrhythmias, however, the normal diagnosis equipment and techniques only work if the arrhythmia occurs during the diagnostic procedure. *Id.* at 1:43-49.

22. Unlike continuous arrhythmias, diagnosing intermittent arrhythmias is difficult, because, for example, it is not practical to be prepared to apply known diagnostic equipment and techniques at the exact time that an individual experiences an intermittent arrhythmia. *Id.* at 49-53. This particular difficulty may be compounded when an individual is not aware that they are experiencing an intermittent arrhythmia so that they would not, for example, seek out a health care provider during the intermittent arrhythmia. *Id.* at 1:53:57. The inventors of the '731, the '941, and the '499 Patents were thus presented with a technical problem: how to provide an arrhythmia diagnosis when the known diagnostic equipment and techniques were unavailable and/or unfeasible. '941 Patent at 1:26-3:26; '499 Patent at 1:20-2:4.

23. The claims of the '731, the '941, and the '499 Patents are novel, unconventional and focus on specific means and methods of using specialized sensors in a wearable device to improve upon existing cardiac monitoring technology. The Patents-in-Suit explain the state of the art in arrhythmia diagnosis, the limitations in known diagnostic techniques and diagnostic equipment, and the need for the inventors' improvement in diagnostic techniques and equipment. '941 Patent at 1:26-3:26; '499 Patent at 1:20-2:4. The claims then recite specific and novel implementations of apparatus and methods used for diagnosing intermittent arrhythmias that address the limitations in

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