United States District Court
Northern District of California

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

ALIVECOR, INC.,

Plaintiff,

v.

APPLE INC.,

Defendant.

Case No. 21-cv-03958-JSW

ORDER GRANTING, IN PART, AND DENYING, IN PART, MOTION TO DISMISS

Re: Dkt. No. 21

Now before the Court for consideration is the motion to dismiss filed by Defendant Apple Inc., ("Apple"). The Court has considered the parties' papers, relevant legal authority, and the record in the case, and it finds this matter suitable for disposition without oral argument.[1] *See* N.D. Civ. L.R. 7-1(b). For the following reasons, the Court GRANTS, IN PART, AND DENIES, IN PART, Apple's motion.

BACKGROUND

Plaintiff AliveCor, Inc. ("AliveCor") filed a complaint against Apple, alleging that Apple unlawfully monopolized the U.S. market for watchOS heart rate analysis apps. AliveCor alleges that it is an innovator in the smartwatch industry that helped change the perception of the Apple Watch from an accessory to a personal health monitoring tool. (Compl. ¶¶ 2, 17-18.) AliveCor's products include: (1) the KardiaBand, a wristband for the Apple Watch, capable of recording an electrocardiogram ("ECG"); (2) the Kardia app, which analyzes readings from the KardiaBand on the Apple Watch; and (2) SmartRhythm, a heart rate analysis app with the ability to monitor a user's heart rate and alert the user of an irregularity suggesting they should record an ECG. (*Id.* ¶

[1] The Court has also received and considered the subsequent authorities submitted by the parties.

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2.) SmartRhythm used data from the Apple Watch's heart rate algorithm to detect the irregularities. (*Id.* ¶ 20.) AliveCor alleges that SmartRhythm is the true focus of the lawsuit.

AliveCor alleges that Apple was aware of and supportive of AliveCor's innovations to the Apple Watch. (*Id.* ¶¶ 20-23.) But as the Apple Watch grew in popularity and shortly after the KardiaBand gained FDA approval, AliveCor alleges that Apple announced its own heart initiative for the Apple Watch, which AliveCor viewed as an attempt to undercut the KardiaBand. (*Id.* ¶ 24.) From this point on, AliveCor alleges that Apple viewed AliveCor as a competitor and took steps to undercut AliveCor including introducing an updated Apple Watch and watch operating system ("watchOS"), with the ability to record an ECG and Apple's own heart rate analysis app. (*Id.* ¶ 25, 27.)

A. Product Market Allegations.

AliveCor focuses its allegations on Apple's purported exclusionary conduct regarding heart rate analysis apps. (*Id.* ¶ 28.) However, AliveCor alleges that Apple abused monopoly power in multiple markets, including the U.S. market for watchOS heart rate analysis apps (*e.g.* AliveCor's SmartRhythm and Apple's version of that app) and ECG-capable smartwatches. (*Id.*)

1. ECG-capable smartwatches.

According to AliveCor, a smartwatch is a mobile computing device with a touchscreen display that is typically worn on the wrist. (*Id.* ¶ 30.) A smartwatch acts as a digital watch but provides additional functionality that makes it an extension of and complement to a user's smartphone. (*Id.*) AliveCor alleges that it is the broad functionality and touchscreen capabilities of smartwatch that drive demand for smartwatches because the features provide users with smartphone-like capabilities in a wearable device. (*Id.*) AliveCor alleges that traditional wristwatches and fitness trackers are not reasonably interchangeable with smartwatches because wristwatches do not provide any "smart" characteristics and fitness trackers do not offer the array of functions a smartwatch provides beyond health monitoring. (*Id.* ¶ 31.)

AliveCor alleges that within the broader smartwatch market there is a submarket for

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smartwatches capable of taking ECGs ("ECG-capable smartwatches").[2] (*Id.* ¶ 29, 33.) The ability to record an ECG on a smartwatch adds a layer of heart health-related functionality that, "when combined with a smartwatch's other functionality, provides a unique combination of uses not available on any other type of wearable or mobile computing device." (*Id.* ¶ 34.)

2. Heart rate analysis apps.

AliveCor also alleges that the market or aftermarket of "watchOS heart rate analysis apps" constitutes the relevant product market.[3] (*Id.* ¶ 45, 48.) AliveCor alleges that a heart rate analysis app "analyzes the user's heart rate in real time, typically using a PPG sensor in close proximity to the user's wrist" and determines whether the user's heart rate is normal or irregular. (*Id.* ¶ 40.) The app runs constantly while the device is worn and alerts a user when a situation arises requiring an ECG recording and medical analysis. (*Id.*) This distinguishes a heart rate analysis app from an ECG app, which records and interprets an ECG using specialized hardware, and a heart rate tracking app, which tracks certain aspects of a user's heart rate to assess general fitness but does not provide medical analysis or diagnostics. (*Id.* ¶¶ 40-41.) For Apple Watch users, the only heart rate analysis apps are those written for watchOS, so the only reasonably interchangeable heart rate analysis app alternatives an Apple Watch user can select are watchOS apps. (*Id.* ¶ 39, 45.)

B. Market Share Allegations.

AliveCor alleges that Apple possesses monopoly in the U.S. market for ECG-capable smartwatches and watchOS heart rate analysis apps. (*Id.* ¶ 48.) AliveCor alleges, on information and belief, that Apple commands over sixty-eight percent of the U.S. smartwatch market. (*Id.* ¶ 49.) According to AliveCor, Apple's share of the narrower ECG-capable smartwatch market is even greater—over seventy percent—because Apple's competitors only offer ECG functionality on a subset of their smartwatches. (*Id.* ¶ 50.)

AliveCor alleges that Apple has a nearly one hundred percent market share of watchOS heart rate analysis apps given its complete control over watchOS and distribution for watchOS

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[2] AliveCor adopts in the alternative broader definitions of the relevant ECG-capable smartwatch market that it defines as "all smartwatches" or "all ECG-capable wearable devices." (*Id.* ¶ 35.)
[3] In the alternative, AliveCor alleges that the relevant market can be more broadly defined as "all

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apps. (*Id.*) AliveCor further alleges that competition in the smartwatch market does not constrain Apple's power in the watchOS heart rate analysis app market because of high switching costs and consumer lock-in. (*Id.* ¶ 55.) AliveCor also alleges that Apple has monopoly power over locked-in Apple Watch users. (*Id.* ¶¶ 57-69.)

C. Allegations of Anticompetitive Conduct.

AliveCor alleges that Apple harmed competition by excluding competitors for watchOS heart rate analysis app in several ways including by pre-announcing Apple's own heart initiative (*id.* ¶ 72), informing AliveCor that SmartRhythm violated App Store guidelines (*id.* ¶¶ 73-75), and making changes to watchOS that created technical problems for SmartRhythm. (*Id.* ¶ 76.) AliveCor alleges that Apple's changes to the heart rate algorithm prevented third-party developers from being able to detect heart rate fluctuations and irregularities. (*Id.* ¶¶ 77-84.) As a result of these changes, SmartRhythm could not provide accurate heart rate analysis, and AliveCor removed it from the market. (*Id.* ¶ 85.) AliveCor alleges that Apple made these changes to exclude competition not to provide benefits to users. (*Id.* ¶ 86.)

The complaint alleges claims monopolization and attempted monopolization in violation of Section 2 of the Sherman Act, 15 U.S.C. section 2 and violations of California's Unfair Competition Law ("UCL"), California Business and Professions Code section 17200 *et seq*.

ANALYSIS

A. Requests for Judicial Notice.

Generally, when evaluating a motion to dismiss, district courts may not consider material outside the pleadings. *Lee v. City of Los Angeles*, 250 F.3d 668, 688 (9th Cir. 2001). There are two exceptions to this rule: the doctrine of incorporation by reference and judicial notice under Federal Rule of Evidence 201. Each mechanism permits district courts to consider materials outside a complaint, but each does so for different reasons. *Khoja v. Orezigen Therapeutics, Inc.*, 899 F.3d 988, 1002-03 (9th Cir. 2018).

Under Rule 201, a court may take judicial notice of an adjudicative fact if it is "not subject to reasonable dispute." Fed. R. Evid. 201(b). A fact is "not subject to reasonable dispute" if it is "generally known," or "can be accurately and readily determined from sources whose accuracy

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cannot reasonably be questioned." *Id.* Though a court may take judicial notice of matters of public record and properly consider those matters when evaluating a motion to dismiss, a court may not take judicial notice of disputed facts contained in such public records. *Lee*, 250 F. 3d at 689 (quotations and citations omitted).

Incorporation by reference, on the other hand, is a judicially-created doctrine that treats certain documents as though they are part of the complaint itself. *Khoja*, 899 F.3d at 1002. This doctrine is a tool to prevent plaintiffs from highlighting only the portions of certain documents that support their claims, while omitting portions of those documents that weaken their claims. *Id.* (citations omitted). A court may incorporate a document by reference if the complaint refers extensively to the document or the document forms the basis for the plaintiff's claim. *Id.* (citations omitted). For a reference to be sufficiently "extensive," a document should be referred to "more than once." *Id*. at 1003. But "a single reference" could, in theory, satisfy the standard if the reference is "relatively lengthy." *Id.* If a document "merely creates a defense" to the complaint's allegations, the document does not necessarily "form the basis of" the complaint. *Id.* at 1002-03 ("Although the incorporation-by-reference doctrine is designed to prevent artful pleading by plaintiffs, the doctrine is not a tool for defendants to short-circuit the resolution of a well-pleaded claim."). When a court incorporates a document by reference, it may assume all contents of the document are true for the purposes of a motion to dismiss under 12(b)(6). *Id.* at 1003 (citing *Marder v. Lopez*, 450 F.3d 445, 448 (9th Cir. 2006) (quotations omitted)). Thus, courts must be cautious when drawing inferences from incorporated documents. *Id.*

Apple requests judicial notice of twelve exhibits in connection with its motion to dismiss. Apple argues that the Court may consider these documents under the doctrine of incorporation by reference because they are documents that the complaint "necessarily relies" upon. Exhibits A through L are articles cited by AliveCor in the complaint. Exhibits A, D, and E are each referred to twice in the complaint, and Exhibits B, C, and F through L are referred to once. Accordingly, the complaint does not refer to any of the exhibits "extensively enough to warrant incorporation on that ground alone." *Khoja*, 899 F.3d at 1006. However, an exhibit may nevertheless be incorporated by reference if AliveCor used the exhibit to form the basis of its claims. *Id.*

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