

IPR2021-00971
U.S. Patent No. 10,595,731
PATENT OWNER'S SUR-REPLY

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.,
Petitioner,

v.

ALIVECOR, INC.,
Patent Owner

IPR2021-00971
U.S. Patent No. 10,595,731

PATENT OWNER'S SUR-REPLY

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. THE BOARD SHOULD REJECT APPLE'S NEW EVIDENCE AND ANY ARGUMENTS BASED ON THAT EVIDENCE.....	2
III. THE PRIOR ART RENDERS ARRHYTHMIA DETECTION OBVIOUS.....	5
A. AliveCor's Expert Did Not Agree That The Prior Art Teaches Or Suggests Arrhythmia Detection	6
B. Dr. Chaitman's Shmueli Admissions Were Not Limited To Embodiments.....	7
C. Apple Mischaracterizes AliveCor's Arguments And Shmueli's Disclosures	8
D. Furthermore, Apple's Positions Are Driven By Hindsight.....	9
E. Shmueli's Disclosures Teach A POSITA That Its System Is Directed To Heart Attacks, Not Arrhythmias	10
1. There Is No Record Evidence To Contradict Dr. Efimov That "Irregular Heart Condition" Refers To Heart Attacks.....	11
2. Apple Mischaracterizes AliveCor's SpO ₂ Detection Arguments And Argues Against Yet Another Strawman	12
3. Shmueli's CO ₂ Detection Disclosures Plainly Indicate To A POSITA That It Is Directed To Heart Attacks	13
F. Osorio Is Directed To Neurological Conditions, Not Arrhythmia	14
IV. A POSITA WOULD NOT HAVE BEEN MOTIVATED TO COMBINE SHMUELI AND OSORIO	16
V. SHMUELI DOES NOT RENDER OBVIOUS "CONFIRMATION"	17
VI. NONE OF THE CITED ART RENDERS OBVIOUS MACHINE LEARNING ALONE OR IN COMBINATION.....	19

1.	Li 2012 Does Not Teach Using Machine Learning To Detect The Presence Of An Arrhythmia.....	21
2.	A POSITA Would Not Have Combined Li 2012 With Shmueli/Osorio	22
3.	Shmueli's "Detection Parameters" Is Not Machine Learning	24
VII.	ALIVECOR'S POSITA DEFINITION IS SUPPORTED BY THE RECORD EVIDENCE AND SHOULD BE ADOPTED	24
VIII.	CONCLUSION.....	26

I. INTRODUCTION

Apple's Reply asks this Board for second bite at its Petition, abandoning its Petition positions by recasting its arguments and improperly submitting new evidence. This new evidence includes both hearsay testimony from Dr. Stultz (its *ITC expert*), as well as unauthenticated prior art references and other testimony cited for the first time. Importantly, Dr. Stultz did *not* submit a declaration in this IPR. Yet, Apple nevertheless heavily cites to Dr. Shultz's out-of-court testimony in an apparent attempt to rehabilitate its IPR expert (Dr. Chaitman), who is barely cited at all in its Reply. Apple's use of Dr. Stultz's testimony is not only an improper attempt to submit new evidence, it is impermissible hearsay, and AliveCore was not given an opportunity to cross-examine him in this forum. His testimony, and any argument based on that testimony, should be struck on that basis alone. So too should the other additional new evidence submitted in Reply, which includes almost *two dozen newly added* prior art references, expert reports from other proceedings, and testimony transcripts, none of which was cited in the Petition. Just like Apple's new expert testimony, this new evidence was all improperly submitted for the first time on Reply, and the record is devoid of any argument or evidence that any of it is authentic or that they were in fact printed publications. It should all be struck, as should any arguments based on that evidence.

Even if that evidence is not struck, it fails to establish unpatentability. Tellingly, in many instances Apple does not address AliveCor's arguments head on, instead reading in teachings from the prior art's general disclosures. Apple would have this Board find that Shmueli's teaching of the broad genus of irregular heart conditions and Osorio's teaching of the broad genus of pathological conditions are both necessarily teachings of the species of arrhythmia. Yet Apple concludes so without applying the proper legal framework that the prior art disclosures must be viewed in context to ascertain what they teach to a POSITA. And as AliveCor established in its Response, when the references are reviewed by the skilled artisan in their entirety, it is clear that Shmueli is directed to techniques for detecting and preventing heart attacks, while Osorio is directed to neurological conditions such as seizures. The references' disclosures are all in service of these broader contextual purposes. Indeed, perhaps recognizing that the primary prior art references are directed at non-analogous technical fields, Apple recasts its obviousness argument to rely on Amano, a reference that is not part of the grounds.

II. THE BOARD SHOULD REJECT APPLE'S NEW EVIDENCE

Apple submits almost *two dozen new* prior-art exhibits in its Reply, including testimony from its *ITC* expert (Dr. Stultz) and multiple unauthenticated printed publications. Both categories of new evidence should be rejected. With respect to

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.