UNITED STATES INTERNATIONAL TRADE COMMISSION Washington, D.C.

Before the Honorable Cameron R. Elliot Administrative Law Judge

In the Matter of

CERTAIN WEARABLE ELECTRONIC DEVICES WITH ECG FUNCTIONALITY AND COMPONENTS THEREOF

Inv. No. 337-TA-1266

EXPERT REPORT OF COLLIN STULTZ, M.D., PH.D. REGARDING INVALIDITY OF U.S. PATENT NOS. 9,572,499, 10,595,731, AND 10,638,941



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		3.	Claim 3: The smart watch of claim 2, wherein to detect the presence of arrhythmia, the processing device is configured to input the PPG data is a machine learning algorithm trained to detect arrhythmias	nto
		4.	Claim 4: The smart watch of claim 2, wherein to detect the presence of arrhythmia, the processing device is configured to: determine heartrate variability ("HRV") data from the PPG data; and detect, based on the	
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5.	Claim 5: The smart watch of claim 4, wherein to detect the presence of the arrhythmia, the processing device is configured to input the HRV data into a machine learning algorithm trained to detect arrhythmias
6.	Claim 7: The smart watch of claim 1, wherein the processing device is further configured to: extract one or more features from the PPG data; and detect, based on the one or more features, the presence of the arrhythmia.
7.	Claim 8: The smart watch of claim 7, wherein the one or more features correspond to an HRV signal analyzed in a time domain
8.	Claim 9: The smart watch of claim 7, wherein the one or more features comprise a nonlinear transform of R-R ratio or R-R ratio statistics with an adaptive weighting factor
9.	Claim 10: The smart watch of claim 7, wherein the one or more features are features of an HRV signal analyzed geometrically
10.	Claim 12: The smart watch of claim 1, wherein the processing device is further configured to generate a notification of the detected arrhythmia.
11.	Claim 15: The smart watch of claim 1, the processing device further configured to display an ECG rhythm strip from the ECG data
12.	Claim 16: The smart watch of claim 1, the processing device further to receive the ECG data from the ECG sensor in response to receiving an indication of a user action.
13.	Claim 17
14.	Claim 18: The method of claim 17, wherein detecting the presence of the arrhythmia comprises: receiving motion sensor data from a motion sensor of the smartwatch; and determine, from motion sensor data, that the user is at rest.
15.	Claim 19: The method of claim 18, wherein detecting the presence of the arrhythmia comprises inputting the PPG data into a machine learning algorithm trained to detect arrhythmias
16.	Claim 20: The method of claim 18, wherein detecting the presence of the arrhythmia comprises: determining heartrate variability ("HRV") data from the PPG data; and detecting, based on the HRV data, the presence of the arrhythmia.
17.	Claim 21: The method of claim 20, wherein detecting the presence of the arrhythmia comprises inputting the HRV data into a machine learning algorithm trained to detect arrhythmias
18.	Claim 23: The method of claim 17, further comprising generating a



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