UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., Petitioner,

v.

OMNI MEDSCI, INC.,
Patent Owner.

Patent No. 10,517,484 IPR2021-00453

DECLARATION OF BRIAN ANTHONY, PH. D. REGARDING U.S. PATENT NO. 10,517,484



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4.		Lisogurski and Carlson Describe the Elements of Independent Claims 1, 7, and 15 of the '484 Patent41			
	a)	Preamble43			
	b)	"a wearable device adapted to be placed on a wrist or an ear of a user"			
	c)	"including a light source comprising a plurality of semiconductor sources that are light emitting diodes, each of the light emitting diodes configured to generate an output optical light having one or more optical wavelengths"46			
	d)	"the wearable device comprising one or more lenses configured to receive a portion of at least one of the output optical lights and to direct a lens output light to tissue"48			
	e)	"the wearable device further comprising a detection system configured to receive at least a portion of the lens output light reflected from the tissue and to generate an output signal having a signal-to-noise ratio"			
	f)	"wherein the detection system is configured to be synchronized to the light source"			
	g)	"wherein the detection system comprises a plurality of spatially separated detectors, and wherein at least one analog to digital converter is coupled to at least one of the spatially separated detectors"			
	h)	"wherein a detector output from the at least one of the plurality of spatially separated detectors is coupled to an amplifier having a gain configured to improve detection sensitivity"			
	i)	"a smart phone or tablet comprising a wireless receiver, a wireless transmitter, a display, a microphone, a speaker, one or more buttons or knobs, a microprocessor and a touch screen, the personal device configured to receive and process at least a portion of the output signal"			
	j)	"a cloud configured to receive over the wireless transmission link an output status comprising the at least a portion of the processed output signal, to process the received output status to generate processed data and to store the processed data"66			



	of at 1	olog east	"wherein the output signal is indicative of one or more of the ical parameters, and the cloud is configured to store a history a portion of the one or more physiological parameters over a period of time"	y a
	Бресп		"the wearable device configured to increase the signal-to- noise ratio"	
	of] se	(i) mico	"by increasing light intensity of at least one of the [plurality onductor sources from an initial light intensity"	
	semic		"by increasing a pulse rate of at least one of the plurality of uctor sources from an initial pulse rate"	
		1)	"the detection system further configured to generate a first signal responsive to light received while the light emitting diodes [or semiconductor sources] are off"	90
		m)	"[the detection system configured] to generate a second sig responsive to light received while at least one of the light emitting diodes [or semiconductor sources] is on"	
		n)	"[the detection system configured to] increase the signal-to noise ratio by differencing the first signal and the second signal"	
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