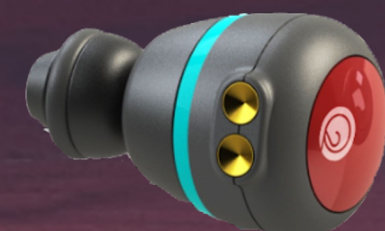


 OxiWear

OxiWear for Performance in Extreme Conditions





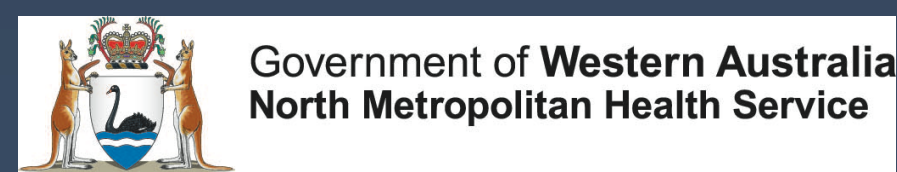
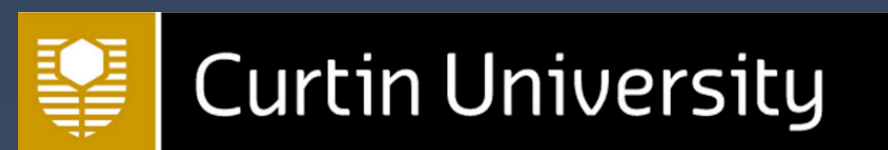
Shavini Fernando, B.Sc., M.B.A., M.A.

Founder & CEO



Jamie Wood, B.Sc., PhD

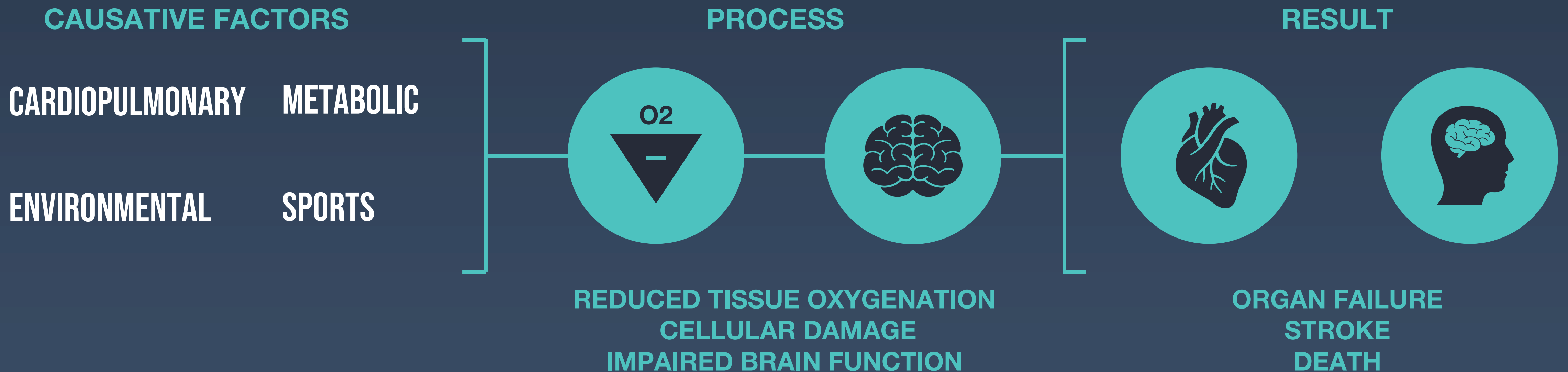
Commercialization &
Scientific Officer



Hypoxia

Hypoxia occurs when oxygen is insufficient at the tissue level to maintain adequate homeostasis, stemming from various causes.

Hypoxia leads to tissue and cell death, and is a major cause of acute injury, chronic disease, disability and mortality.



Hypoxia and healthcare

>50
million

People with a chronic disease are hospitalized more than once per year with a hypoxia-related condition.

20-30%

Mountain visitors require emergency treatment each year because of acute mountain sickness.

6-7%

Extreme-altitude hikers die every year from hypoxia-related injuries.

30+ DISEASES



50 MIL+ PATIENTS



AVG. 2 VISITS / PATIENT / Y



Each presentation of hypoxia costs the healthcare system over \$40,000, on average.

OxiWear

Sleek ear-worn continuous pulse oximetry with medical-grade accuracy



CONTINUOUS BLOOD OXYGEN
MONITORING



LOW OXYGEN LEVEL
HAPTIC ALERTS



EMERGENCY
TEXT ALERTS

Market competitors

Medical

Lifestyle

OxiWear  MASIMO  biofourmis   fitbit.

CONTINUOUS 24*7



MEDICAL GRADE



ACCURACY



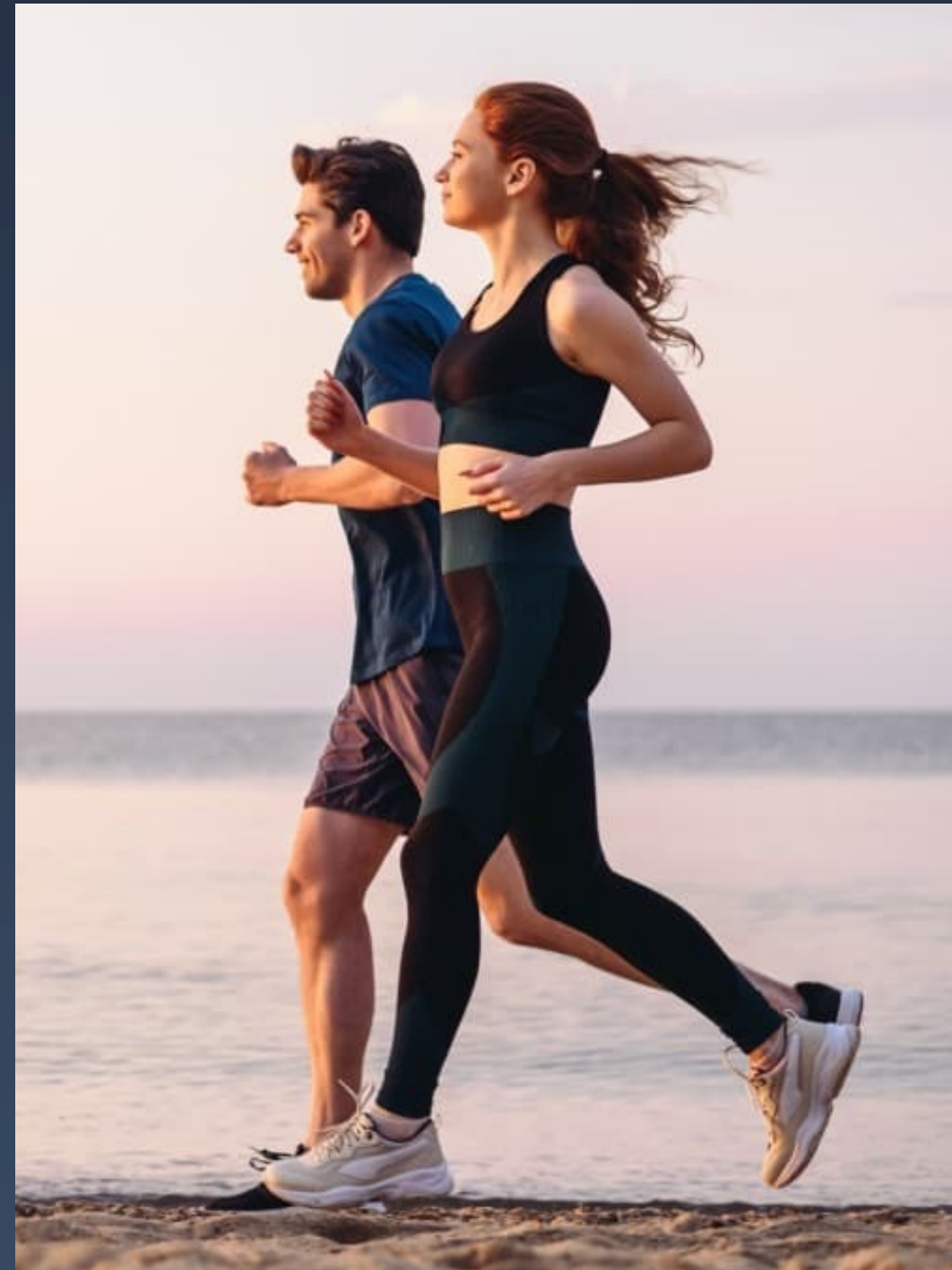
REAL-TIME ALERTS



ATHLETE COMPATIBLE



Barriers to obtaining quality oximetry



The image shows a smartphone displaying a health dashboard application. The app interface includes a 'Dashboard' header with a user profile icon, a 'Live Reading' section with a line graph for SPO2(%) and Heart Rate(bpm) over time, and a 'Live Measurements' section with various health metrics. In the foreground, a white pulse oximeter device is shown with its teal carrying case open, revealing the device and its earbuds. Below the device are several certification logos: RoHS compliant, CE, and FC.

Dashboard

Live Reading

SPO2(%) — Heart Rate(bpm)

Heart Rate / %

8:00 8:15 8:30 8:45 9:00

* Current alert threshold (SPO2): 95%

Live Measurements

| | |
|----------------------|-------------------|
| Oxygen | Heart Rate |
| 196 SPO ₂ | 95 bpm |
| Altitude | Air Quality Index |
| 280 feet | 67 moderate |
| Barometric Pressure | |
| 30.1 in. HG | |

Report Journal Settings

RoHS compliant

CE FC



OxiWear device specifications

Current features

- Continuous, real-time SpO2
- Pulse rate
- Location-based environmental data
 - Altitude
 - Humidity
 - Air quality
 - Barometric index
- Haptic alerts
 - User-defined SpO2 levels
- Emergency Text Alerts/911
- Web-based physician dashboard
- Second by second data export
- Sweat-proof
- Water-resistant
- Easy to disinfect/clean



OxiWear device specifications

Features to be deployed soon/in development

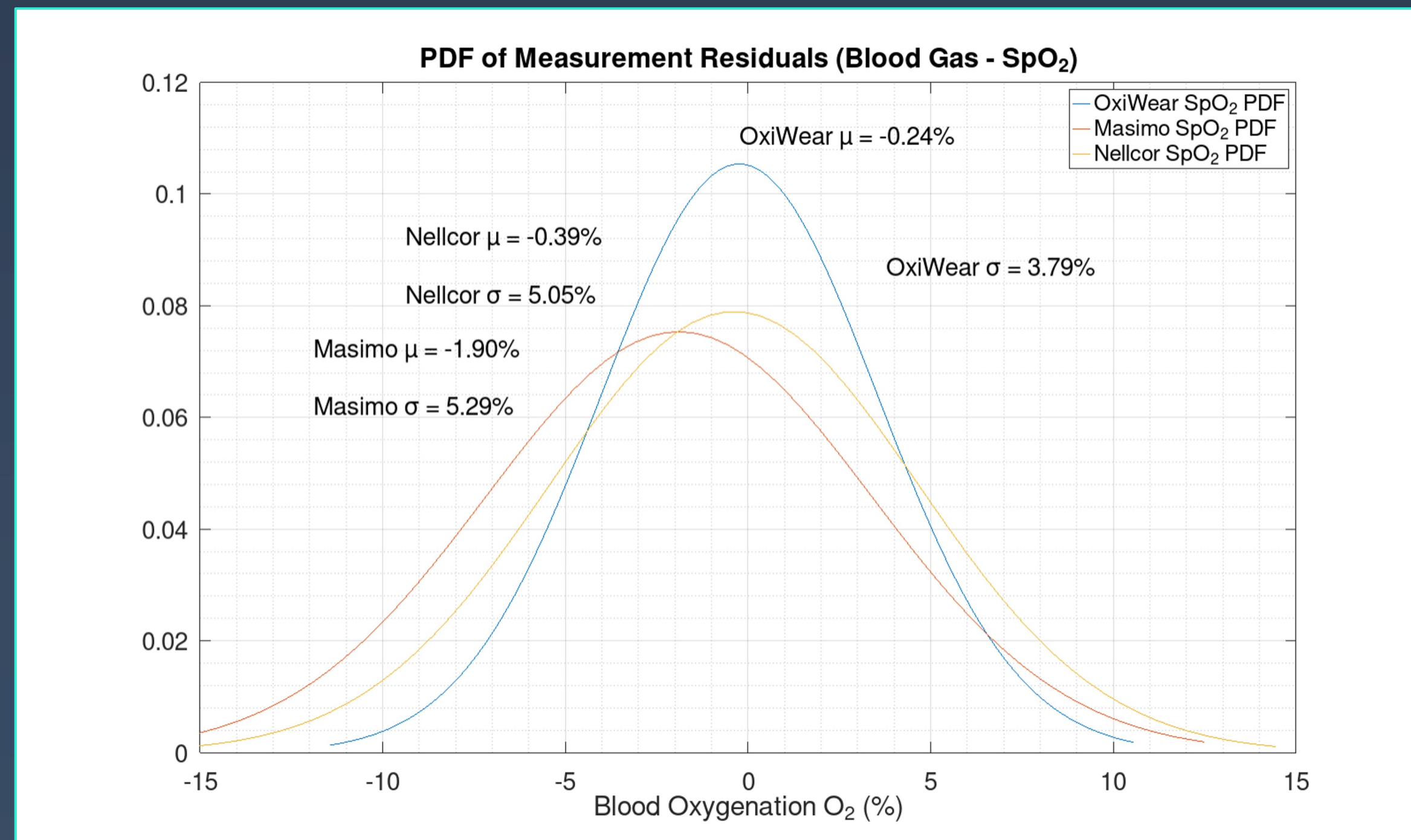
- Heart rate variability
- Heart rate recovery
- Atrial fibrillation detection
- SpO2 entropy/variability
- Respiratory rate
- Perfusion index
- Blood pressure
- VO2/oxygen uptake
- Caloric expenditure
- Body position detection
- Sleep



Testing and accuracy

Accuracy vs blood gas analysis completed at the Hypoxia Lab, University of California San Francisco, by Dr. Philip Bickler, MD PhD, and Dr. John Feiner, MD.

Additional motion testing completed at the Abilities Research Center, Icahn School of Medicine at Mount Sinai.



Successful validation of the accuracy of OxiWear to measure blood oxygen levels in healthy participants, providing the evidence needed to submit OxiWear's application for approval as a medical device by the Food and Drug Administration.



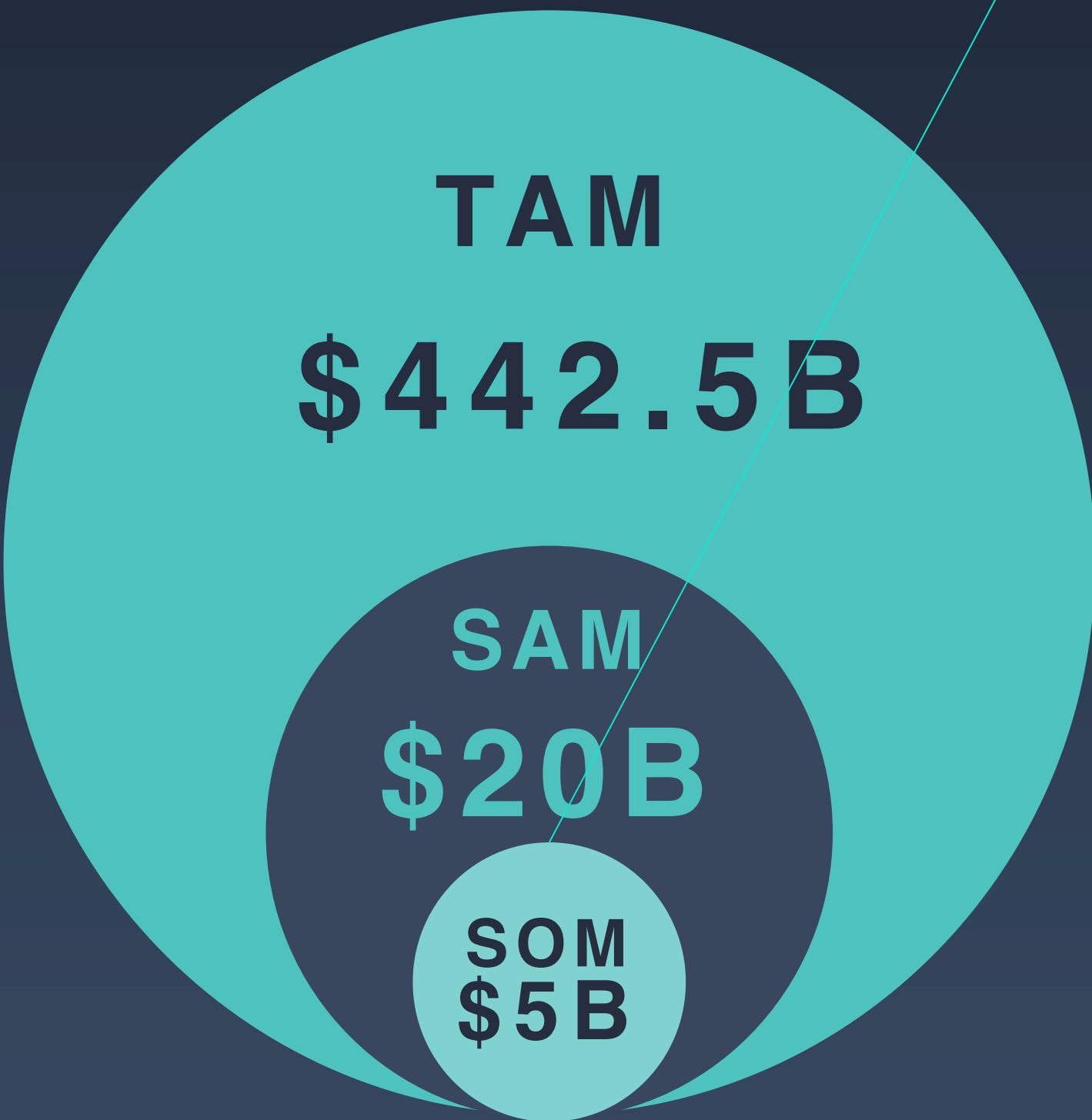
Testing and accuracy

Demonstrated accuracy with no motion, during motion, and at low perfusion, in people of all ages, sexes and all skin tones

| Performance Parameter | Condition | Arms |
|-----------------------|----------------------------|-----------|
| Spo2 Accuracy | No Motion (70%-100%) | ±3.4% |
| | Low Perfusion (70%-100%) | ±2.43% |
| | Motion | ±1.74% |
| Pulse Rate Accuracy | No Motion (25-250 BPM) | ±1.14 BPM |
| | Low Perfusion (25-250 BPM) | ±1.24 BPM |
| | Motion | ±3.62 BPM |
| Display Parameter | Range | |
| Spo2 | 0% - 100% | |
| Pulse Rate | 25 - 240 BPM | |



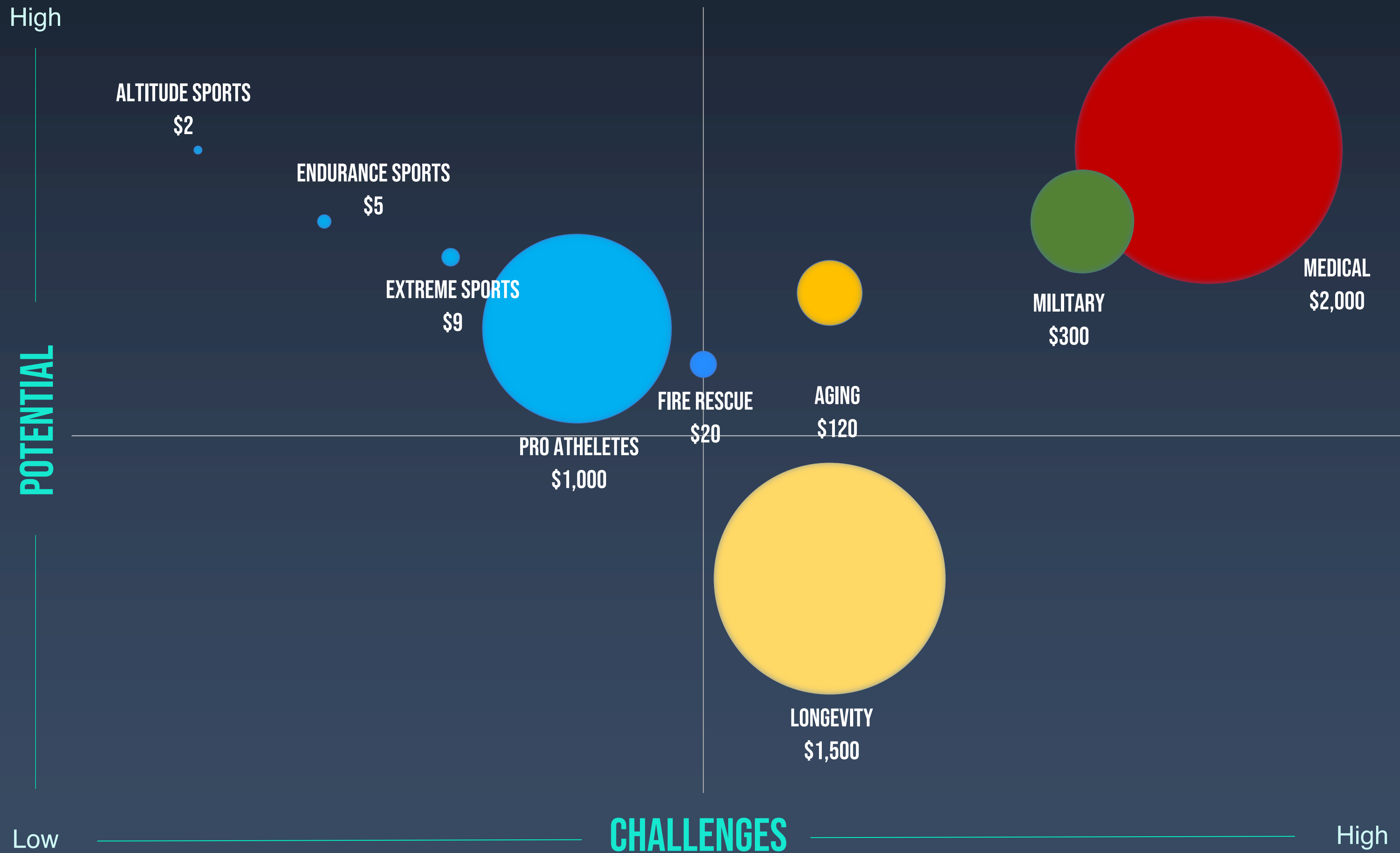
Market



Focused Customer Groups

- 1 – Pro-Consumer
- 2 - Medical
- 3 - Military
- 4 – Longevity & Aging

MARKET SIZE IN \$ MIL



Altitude

Did you know that U-2 decompression sickness cases increased after the end of the Cold War? Here's why the iconic U-2 is the world's hardest plane to fly

AIR & SPACE MAGAZINE

Killer at 70,000 Feet

The occupational hazards of flying the U-2

[Military News](#)

5 Troops Suffer 'Decompression Sickness' After C-130J Loses Pressure

[Military News](#)

'Up-and-Comer' in Missile Defense Agency Died Following Air Force C-17 Testing Mishap

“Pilots are flying more missions in a given timeframe compared to the Cold War. The missions are longer. Finally, it was found the simple actions (like pressing a pedal, flipping a switch) increase the chance of DCS developing.”

“Over the next five hours, [he] developed an intense headache, nausea, and extreme fatigue. The pain got worse... He hallucinated the airplane had rolled 30° to the left”.

“The incident occurred around 11:20 a.m. Tuesday while the aircraft was flying at an altitude of 21,000 feet during a regular exercise... Four Marines and a sailor ‘displayed symptoms of DCS.’”

“An MDA employee died after experiencing decompression sickness aboard an Air Force C-17 during a missile testing flight. The individual went into cardiac arrest and died.”



Altitude

Helicopter Evacuation Launched for 11 Green Berets on Colorado Peak

Two soldiers were suffering from altitude sickness, military officials said.

By ABC News
June 3, 2016, 6:50 PM



NAVY

Navy officer attributes fatal car crash to altitude sickness after trip to Mount Fuji

By ALEX WILSON AND HANA KUSUMOTO
STARS AND STRIPES • August 24, 2021

 U.S. ARMY

The invisible enemy of the Afghanistan mountains

By Bob Reinert, USAG-Natick Public Affairs February 26, 2013

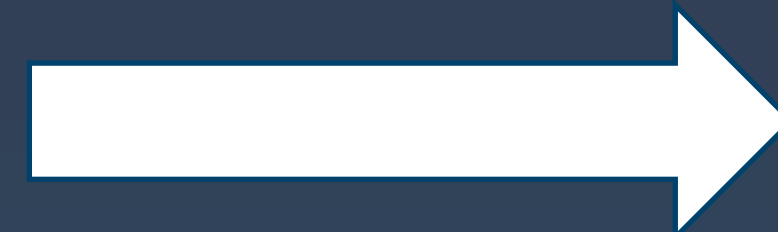
Acute mountain sickness (AMS) occurs frequently at altitude, leading to severe symptoms that can evolve into high altitude pulmonary edema (HAPE) and high altitude cerebral edema (HACE) which are life threatening.

Decompression sickness (DCS) can lead to serious neurological or respiratory symptoms which can ultimately lead to circulatory collapse and death.



OxiWear as a solution

Current monitoring solutions are unable to be worn or are ineffective in training or performance at altitude



Small, lightweight and ear-worn to keep hands free

Provides accurate real-time data during motion

Haptic alerts for low oxygen levels

12-hour battery life, charging in under 20 mins

Research and development



OxiWear aims to:

Continue refining algorithms to improve early detection of AMS and DCS

Investigate the ability to detect nitrogen levels in the bloodstream

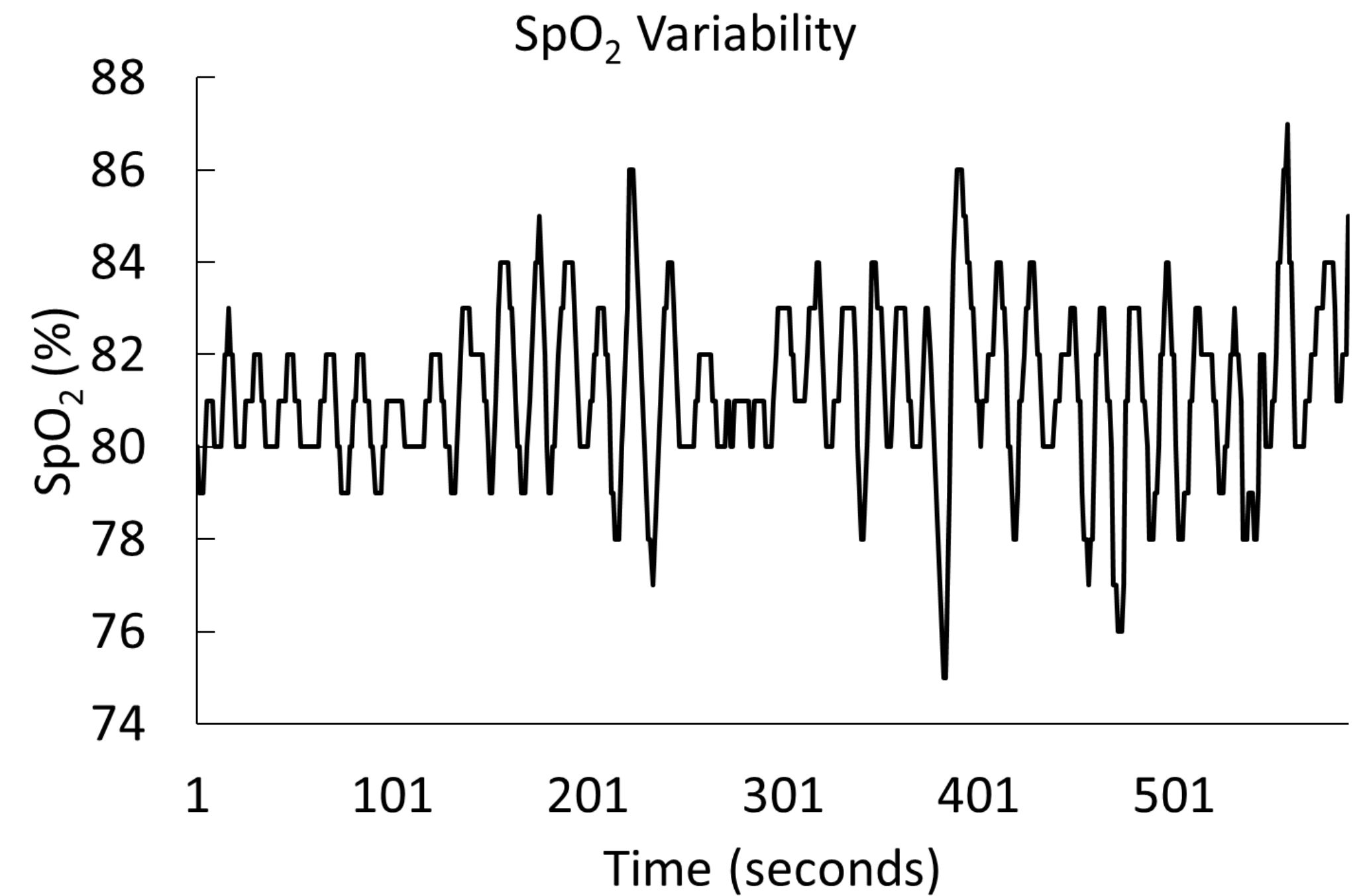
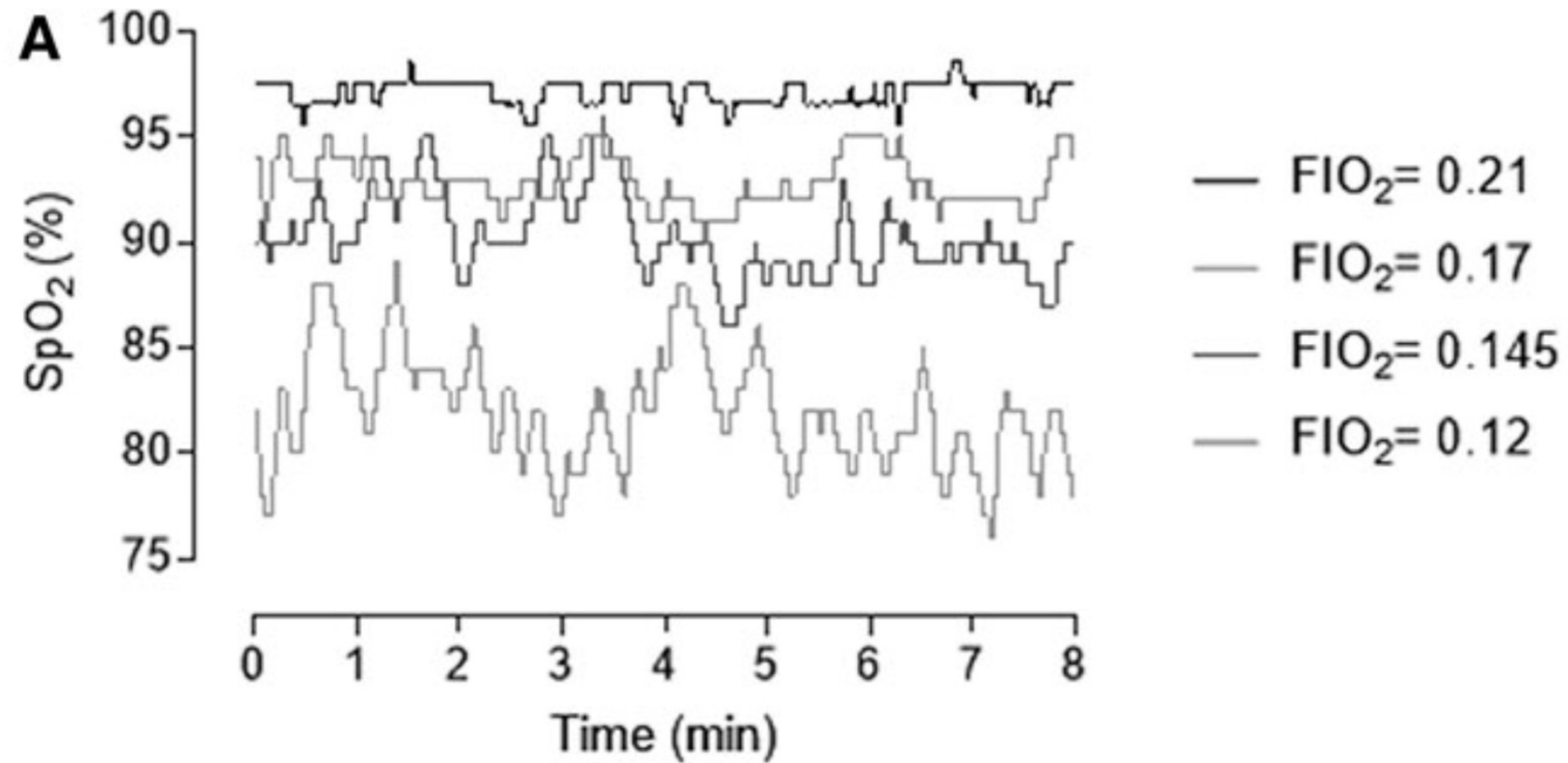
Connect with oxygen equipment and pressurized suits to trigger a protective change based on the physiological response to altitude

Expand emergency alert systems to integrate into current communication systems

Further minimize the size of the device, allow for wired connectivity if required



SpO₂ entropy



High altitude athletes



OxiWear is providing Apex with devices for continuous, hands-free measurement of SpO₂, allowing athletes to track performance, stay within performance zones, and ensure blood oxidation does not hit critical levels at altitude

OCR Mount Everest required competitors to Climb to 29,032 feet as fast as possible, which requires continuous, reliable oxygen monitoring to avoid life threatening conditions such as HAPE and HACE. OxiWear was the only SpO₂ monitoring device that worked all the way to the summit.



PTSD, Fire and EMS

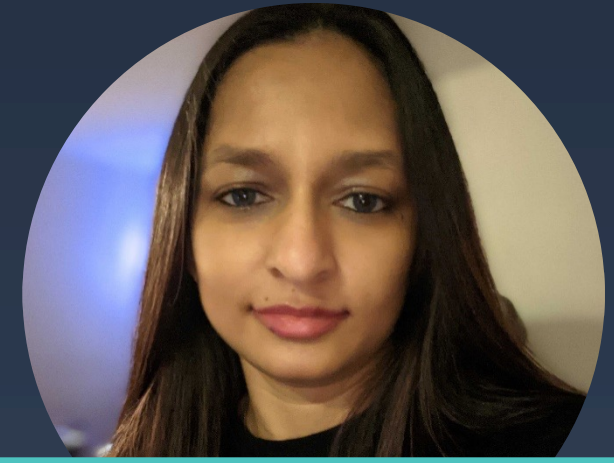
Inspired Performance Institute, Florida, has partnered with OxiWear for the continuous monitoring of oxygen and use of proactive alerts, to reduce the impact of traumatic PTSD episodes that lead to extreme panic.



Working with Arlington VA Fire and Emergency Medical Service to conduct pilot studies using OxiWear as a tool for assessment of preparedness, training and recovery

Team

SHAVINI FERNANDO 



Founder, CEO

BSc Comp UOP, MSc Comp UNSW, MBA ECU, MA ComTech GU



MICHAEL BONCALDO 



Lead Software Engineer

BS in Mechanical Engineering



TODD KOLB, MD 

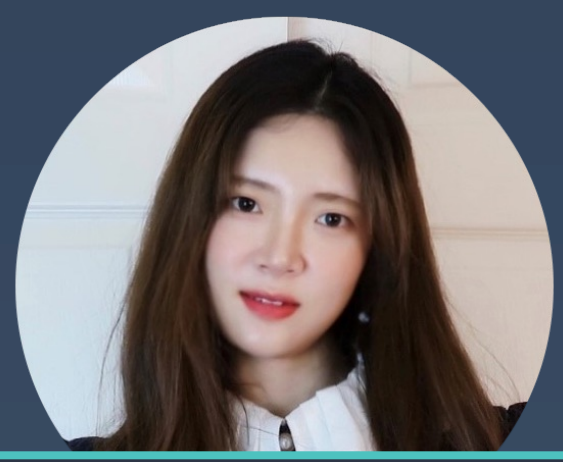


CMO

Pulmonary & Critical Care, M.D. Ph.D.



YA ZHANG 



Lead UX Designer

BSc (ComSci), MSc (ComSci), MA (CCT)



JAMIE WOOD 



Commercialization & Scientific Officer

BSc. (Physiotherapy), PhD

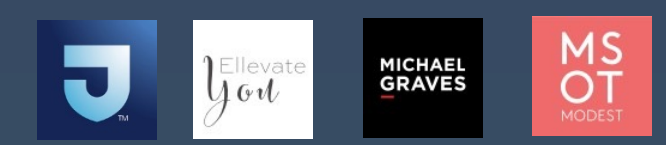


BEN SALTHOUSE 



Lead Product Designer

BS in Industrial Design



KEE WILCOX 



Senior Mech. Engineer

BS in Mechani Engineering



Team

Board of Directors



ROSE CARTER



HEMANT KANAKIA



Board of Advisors



TED LEONSIS



GREG ERMAN



YOLANDRA HANCOCK,



ASA TAPLEY



MICHAEL LEDECKY



ANDREW WILLIS



TRISHUL PATEL



Partnerships



JOHNS HOPKINS MEDICINE

Clinical Advisory



UCSF HYPOXIA LAB

IRB and Clinical Testing Partner



METHOD SENSE

FDA Filing Partner



PH ASSOCIATION

PH Community Partner



COOLEY, LLP

Corporate Legal Partner



86 patents issued

23 Pending

\$200,000+

Revenue Since Jan 2023

\$6m Seed

Funds raised

OxiWear is looking to collaborate

