



**KNOW  
LABS**

# **KNOW LABS**

TRANSFORMING NON-INVASIVE  
MEDICAL DIAGNOSTICS

Q3 FY2023 Earnings Call  
NYSE American: KNW

August 14, 2023

# 2023 YTD Selected Milestones



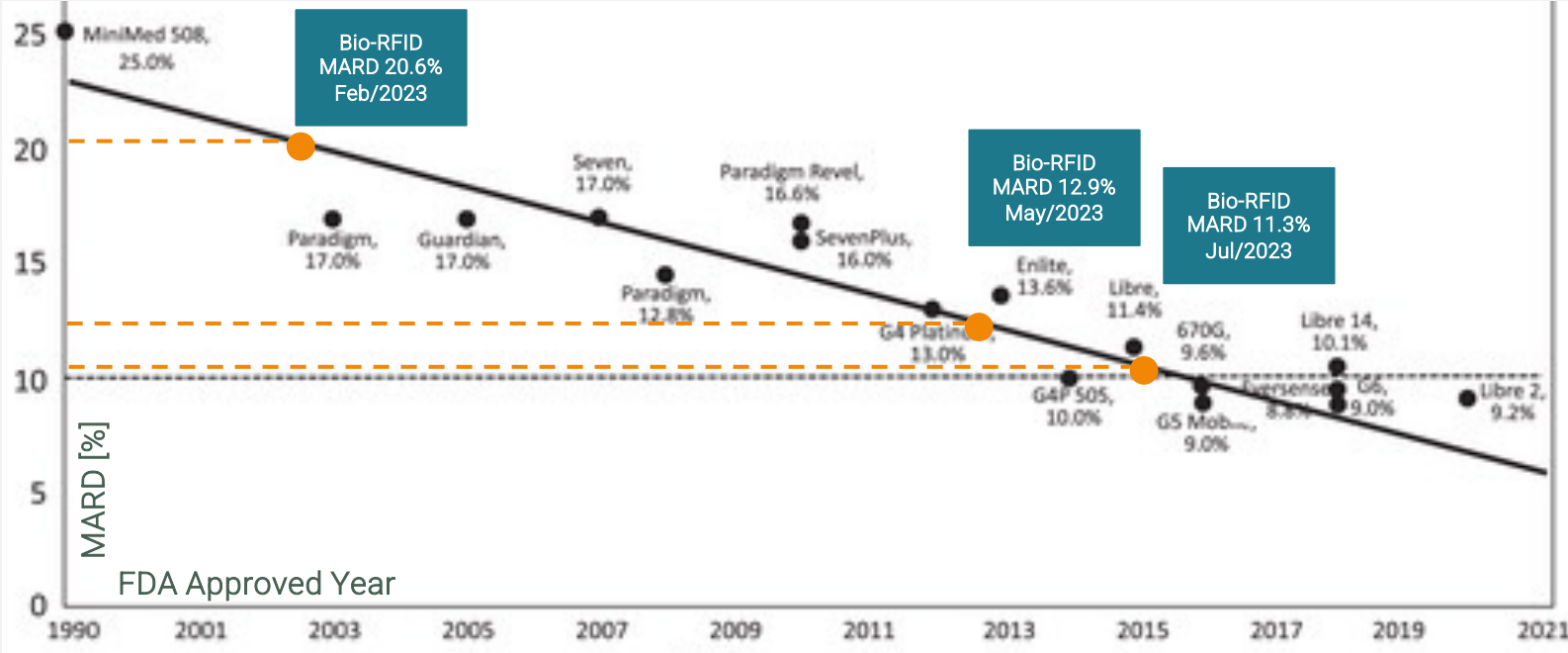
- Re-organization and re-alignment of resources to core goals
- Generation 1 device reveal
- Accelerated clinical testing
  - >1.5 billion datapoints
  - >300 3-hour datasets collected
  - Multiple protocols
- Scientific validation
  - 5 manuscripts
  - 2 posters (APS and AACE)
- MARD Improvement
  - February 2023: 19.3%
  - May 2023: 12.9%
  - July 2023: 11.3%
- 169 patents issued and pending (#1 in non-invasive blood glucose monitoring)
- Scientific and Technical Advisory Board: 10 members
- Reduced burn rate: \$1.2M/month to \$800k/month



# Sensor Accuracy Progress



Continuous Glucose Monitoring Accuracy Over Time



Know Labs  
Bio-RFID Goal  
<10%

# 2023 Lesson Learned



Additional  
research needed  
before launching a  
medical device  
and presenting our  
technology and  
devices to the FDA

- **Data accuracy across all glycemic ranges**
  - >80% of the current data is still in the normal glucose range, 80 to 150 mg/dL
  - Include participants with T1D, T2D, pre-diabetes, and other sub-segments
- **Patient physiological characteristics**
  - Diversify participants' base: skin pigmentations, skin thickness, etc.
  - Test against the presence of other elements and substances that could cause interference: hair, sweat, intense movement, medication, vitamins, etc.
- **Environment and human factors**
  - Controlled lab environment to real-world application
  - Environment: air pressure, temperature, and humidity
  - Human control of the technology

# Workstreams Implications



- **Data collection:** more participants with diverse backgrounds, including people with Type 1 Diabetes, Type 2 Diabetes, and pre-diabetes (intended device population).
- **Data science and algorithm refinement:** more data equals better accuracy.
- **Sensor characterization:** from a controlled environment to real-world applications (outside of the lab).
- **Scientific validation:** external research institutes to further validate technology and support FDA application.



Increase the  
generalizability of  
the Bio-RFID  
technology  
platform and  
algorithm

# Mission

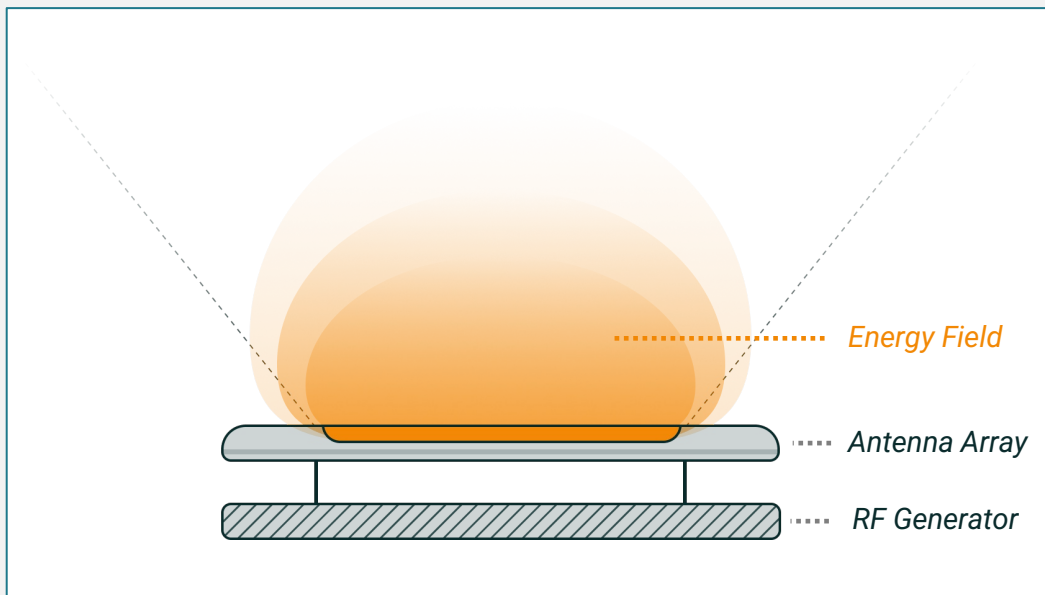


**Know Labs** is committed to making a difference in the lives of millions of people around the world by developing **convenient, accessible and affordable non-invasive medical diagnostics solutions**, starting with blood glucose monitoring.

# The Bio-RFID Sensor



**Patented high resolution Bio-RFID sensor can measure anything.**



- IP-protected Antenna Array that emits and captures radio wave signals, the “Energy Field”
- IP-protected RF Generator that enables frequency sweeps in the microwave spectrum, from 1,500 MHz to 4,000 MHz, at 0.1 intervals
- ~1.5M data points collected per hour
- Currently focused on blood glucose, but potential to expand into other biomarkers, such as oxygen, ketones, lactate, alcohol, and metabolized drugs

# The Bio-RFID Platform



## Know Labs' patented non-invasive technology platform.

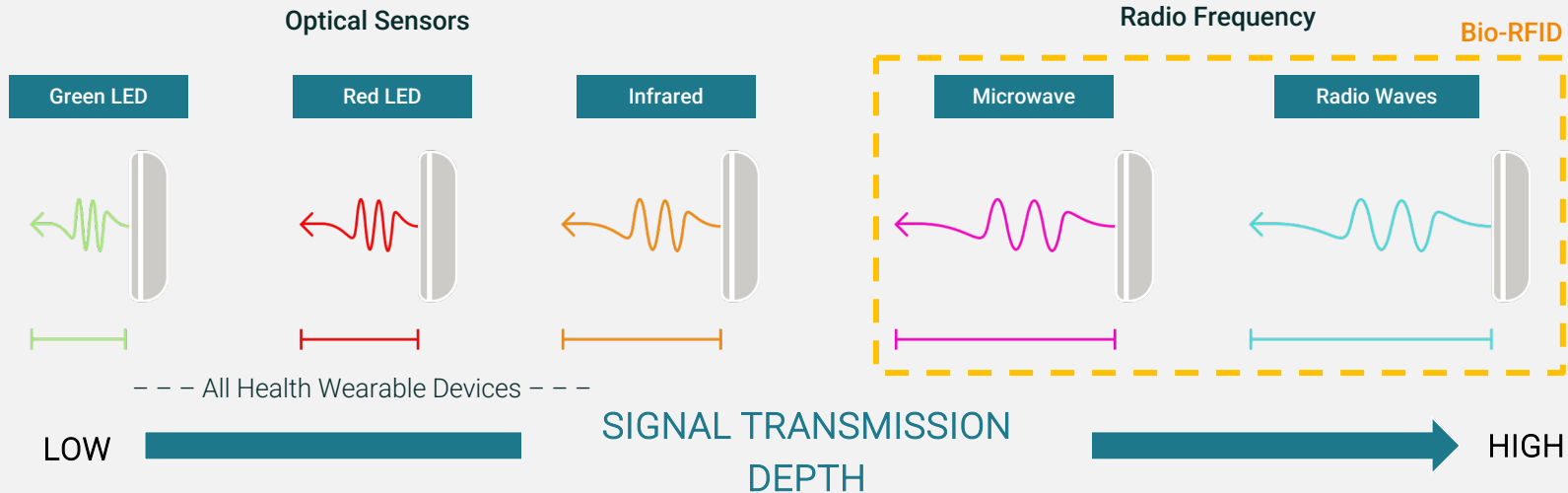
RF Spectroscopy	Uses electromagnetic energy to accurately identify and measure a wide range of organic and inorganic materials, molecules, and compositions of matter
Form Factor Agnostic	Integrated into a variety of wearable, mobile or bench-top form factors
Pain-free	No needles nor invasive transmitters poking the skin
No Consumables	Low bill of materials translates into high potential to be 3x-5x less expensive than current FDA-cleared options
ML/AI-Powered Algorithms	Cutting-edge ML/AI powering accurate real-time measurements with high correlation to gold standard
Predictive Health	100+ potential applications beyond blood glucose monitoring, multiple concurrent biomarkers to enable predictive health & monitoring of metabolism



# Overcoming the Limitations of Physics



**Bio-RFID safely collects data from the full cellular stack, enabling a comprehensive picture of glucose and other analytes optical sensors are unable to achieve.**



# Know Labs Product Portfolio



## Efficient, Affordable and Completely Non-Invasive Medical Solutions

Intended Addressable Market: people with diabetes and pre-diabetes, and people with no diabetes interested in monitoring glucose levels



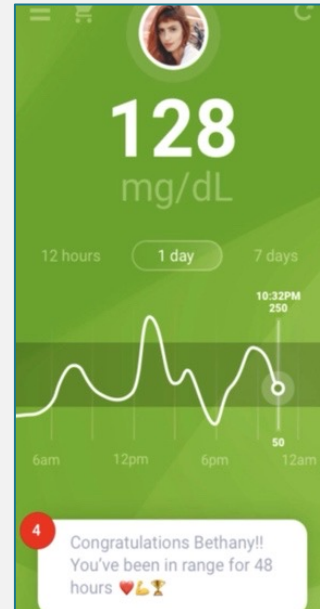
### KnowU

- On-demand and On-the-Go
- Spot glucose monitoring
- Place your palm over the sensor for a reading of glucose concentration in mg/dL



### UBand

- Continuous
- Wearable
- Ease of use
- Check glucose levels in real-time through the Know Labs app



Know Labs Devices will connect to its smartphone App via Bluetooth and will be available on both the App Store and Google Play

# Data Science Overview



## Executed

## Planned

**N = 1**

Sessions = 11  
Datasets = 22  
KL Data Points ~ 183 mill  
Reference Data Points 383  
Time for data collection ~ 33 hr  
Population: Healthy no Diabetes

**N = 5**

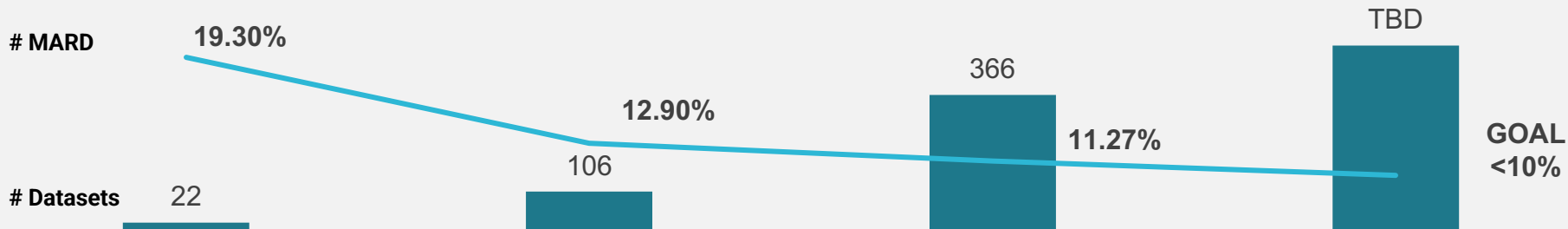
Sessions = 53  
Datasets = 106  
KL Data **Points ~ 502 mill**  
Reference Data Points 1,664  
Time for data collection ~ 150 hr  
Population: Healthy no Diabetes

**N = 13**

Sessions = 183  
Datasets = 366  
KL Data **Points ~ 1.7 bil**  
Reference Data Points 5,425  
Time for data collection ~ 550 hr  
Population: Healthy no Diabetes

**N = 30**

Sessions = 90  
Datasets = 180  
KL Data Points TBD  
Reference Data Points TBD  
Time for data collection TBD  
Population: Healthy, Pre, T2D





# FY2023 Goals

- Further accelerate data collection
- Continue data science and algorithm refinement
- Finalize Generation 2 design
- Refine regulatory strategy
- Socialize technology with the FDA
- Maintain IP leadership in non-invasive blood glucose monitoring
- Continue growing the organization
- Support business needs with additional capital raise



# Closing Remarks

Focus on our four core workstreams:

- Data collection
- Data science and algorithm refinement
- Sensor and hardware characterization
- Scientific validation

Reveal Generation 2 device.

Continue strategic development of our intellectual property portfolio.

Increase market activity, with more manuscripts being published.

# THANK YOU

[www.knowlabs.co](http://www.knowlabs.co)

[ask@knowlabs.co](mailto:ask@knowlabs.co)

**Know Labs, Inc.**  
**NYSE American: KNW**