

### **Corporate Presentation**

13<sup>th</sup> September 2022

Nasdaq: NMRD



# Forward-Looking Statements

This presentation includes forward-looking statements that are subject to many risks and uncertainties. These forward-looking statements, such as statements about Nemaura's short-term and long-term growth strategies, can sometimes be identified by use of terms such as "intend," "expect," "plan," "estimate," "future," "strive," and similar words. These statements involve many risks and uncertainties that may cause actual results to differ from what may be expressed or implied in these statements.

These risks are discussed in Nemaura's filings with the Securities and Exchange Commission (the "Commission"), including the risks identified under the section captioned "Risk Factors" in Nemaura's Annual Report on Form 10-K filed with the Commission on June 29, 2021 as the same may be updated from time to time.

Nemaura disclaims any obligation to update information contained in these forward-looking statements whether as a result of new information, future events, or otherwise.

## Clinical Need...

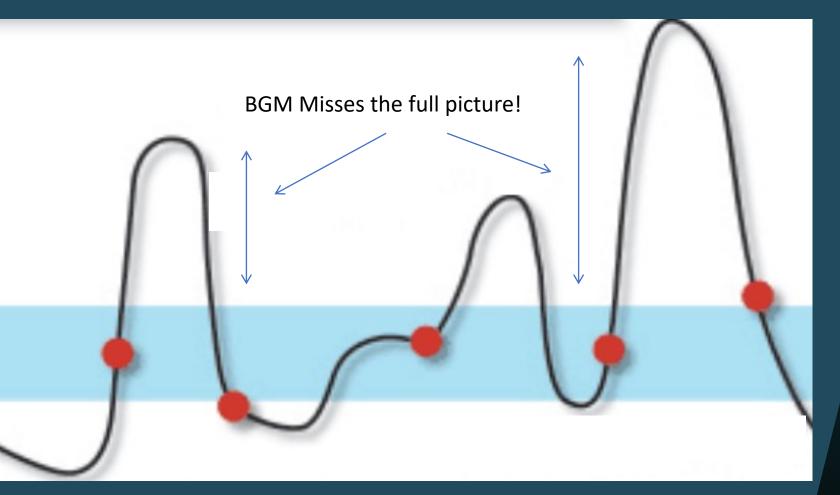
Obesity and Diabetes are two of the major drivers of the chronic disease epidemic.

There are over 463 million people living with diabetes worldwide, and over \$760 Billion was spent in the U.S. alone in 2019 for diabetes related healthcare expenditure<sup>1</sup>.

The total addressable market exceeds \$150 Billion<sup>2,3,4</sup>.



# Why CGM?









#### **Nemaura's Vision**

Lead in the Prevention,
Management, & Reversal of
Type 2 Diabetes
using a low-cost, flexible,
user-friendly device and

digital ecosystem.

TYPE 2
DIABETES



**SugarBEAT** 





# Our Approach

- Skin mounted (disposable) sensor & (non-disposable) transmitter.
   Glucose extracted to the surface of the skin
- Sensors use well established glucose Oxidase enzyme to convert glucose to an electric current signal
- Low energy Bluetooth sends this to the phone app every 5
  minutes where it's converted to a glucose value and viewed by the
  user.

The information is used in various forms to educate and empower the user to improve health outcomes, (and not to make the user become 'dependent' on the technology).

sugarBEAT® CGM sales through Licensee(s) – no further marketing spend required on Nemaura's part thus minimizing cost of sales.

Transmitter devices are sold at cost to the licensee (razorblade model) and the sensors at an agreed price of 12.50 Euros per box of 5 sensors in Europe and UK (falling to 10 Euros after first 12 months of market launch) and \$20 per box of 5 sensors in the USA, for sale as part of a DuoPack with diabetes medications. The implications are that the sensors will be free of charge to the end user and cost covered by the reimbursement of the drug, thus potentially allowing for rapid market penetration.

Anticipated cost of sensors is less than \$1 each, on reaching larger scale manufacture.

The names of the drugs have not been disclosed (the first of which will come off patent in Europe in Q4 2022, and in 2023 in the USA); the licensee has indicated that in three key EU territories plus the UK there are over 2.1 million prescriptions written for this category of drugs each month.

Press release on DuoPack License:

https://nemauramedical.com/nemaura-medical-announces-commercial-agreement-with-uk-licensee/

sugarBEAT® CGM sales through Licensee(s)

Type 2 Diabetes has been managed effectively with 2-3 day 7-point finger prick measurements each month.

#### Some of the Evidence pointing to the Clinical Efficacy of intermittent monitoring:

- 1. 6-point glucose profiles two days per week. Counselling provided on diet and exercise (8). Outcome: Significantly greater reduction in HbA1c. Marked improvement of general well-being, with significant improvements in the sub-items Depression and lack of well-being.
- 2. 4-point glucose profiles every 2 weeks. All patients instructed on lifestyle interventions (9). Outcome: Significantly higher rates of regression and remission in experimental subjects. Significantly greater reductions in median HbA1c and BMI. Significantly improved lifestyle score. Treatment changes occurred earlier and more frequently.
- 3. 7-point glucose profiles every 4 weeks. Patients received guidance for diet and exercise adjustments based on SMBG (10).

Outcome: Significant reductions in HbA1c, weight, BMI, systolic BP, diastolic BP, and LDL Cholesterol

#### Some of the Evidence pointing to the Clinical Efficacy of intermittent monitoring:

4. 7-point glucose profiles over 3 consecutive days per month. Education on device use and data collection using a paper tool. Basic education on use of SMBG to alter diet and physical activity (11).

Outcome: Significant reductions in HbA1c and mean, fasting, and postprandial glucose.

5. 7-point glucose profiles over 3 consecutive days per month. Treatment adjustments made by clinicians based on SMBG (12).

Outcome: Significant reductions in HbA1c.

6. 7-point glucose profiles over 3 consecutive days, every 3 months (13).

Outcome: Significantly improved HbA1c. Treatment changes occurred earlier and more frequently.

The above independent study outcomes provide compelling evidence for the use of CGM on non-consecutive days or a few consecutive days per month, to provide clinically significant outcomes in the management and/or reversal of Type 2 diabetes.

sugarBEAT® is ideally positioned to cater for this market over and above the incumbent invasive CGMs which have wear periods of up to 14 consecutive days with associated costs.

Consequently it may be possible to provide CGM to the majority of persons with Type 2 diabetes at an affordable cost point.

This has the potential to change the paradigm for the management of Type 2 diabetes on a global scale.

# Product Positioning – Consumer

Miboko Consumer Metabolic Health Program – Direct to Employers and Insurers & Direct to consumer. What purpose does it serve? It builds on the rapidly growing self-care and preventative digital medicine category that both employers and insurers are more commonly embracing.

What sets Nemaura apart?

We have a unique sensor that allows an insight into one of the most fundamental functions of the human body: the ability to regulate blood glucose levels. Clinical evidence demonstrates that poor control over sugar levels is one of the causes of Dementia, Diabetes, Cardiovascular Complications as well as obesity.

The Miboko has been designed to provide long term sustainable behavioral change through unique programs and the sensor technology at its core with a view to sustained long term better health.

# **Product Positioning - Competition**

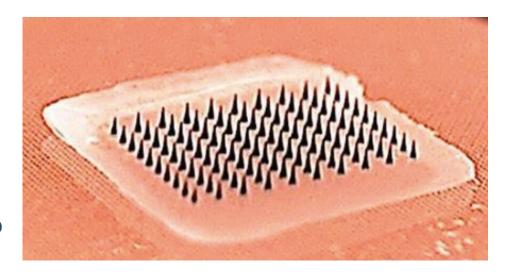
What about the sensors that are currently being developed by competitors such as BioLinq, PK Vitality, Sano (acquired by One drop) etc., all of whom are using Microneedles coated with enzymes and polymers?

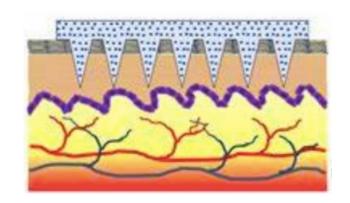
Whilst academic papers and pilot humans studies have shown promising results there are some potentially insurmountable issues with Microneedles that are inserted in the skin and remain there for the duration of a sensing period (which may range from a day up to 5 days (as reported recently for BioLinq)).

# **Product Positioning - Competition**

#### **Challenges:**

- Keeping one needle in the skin is challenging, but when you have dozens of needles the challenge is multiplied.
- Needles have to stay in the skin to a given depth for the duration of sensing from 1 to 5 days. Generally keeping microneedles in the skin for more than a few hours is challenging unless the needles are >1mm in length, closer to 2mm. These are no longer micro and painful on insertion.
- Trauma and bruising have been reported as well as collagen induction leading to localized change in the skin surface.
- Poses an infection risk which is a greater risk in those with diabetes.





# **Product Positioning - Competition**

#### What about light based sensors being developed for various wrist worn devices?

- Light/optical based technologies have been in development for around 30 years without much success due to the lack of specificity and signal to noise issues as well as prohibitive device costs.
- To add to this there is another fundamental issue that could significantly limit their users, if successfully developed, in that in those people with darker skin tone and fatty skin i.e., obese people, the sensors would lose significant efficacy or accuracy. See links below for more.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8713672/

https://www.theverge.com/2022/1/21/22893133/apple-fitbit-heart-rate-sensor-skin-tone-obesity

# **SugarBEAT® Regulatory Status**

- CE Approved Class 2b Medical Device in Europe
- FDA PMA submitted and in review
- FDA Bio-monitoring Division (BIMO) Audit conducted in December 2021 at Nemaura's UK facility. A single 483 observation was issued. Company submitted a full and complete response to FDA in January 2022.
- FDA Pre-market inspection covering FDA's Quality System/Current Good Manufacturing Practice regulations for Medical Devices (21 CFR Part 820) completed in Q2 2022. Full response sent and company continues dialogue in relation to the application. Further updates to be provided in due course.

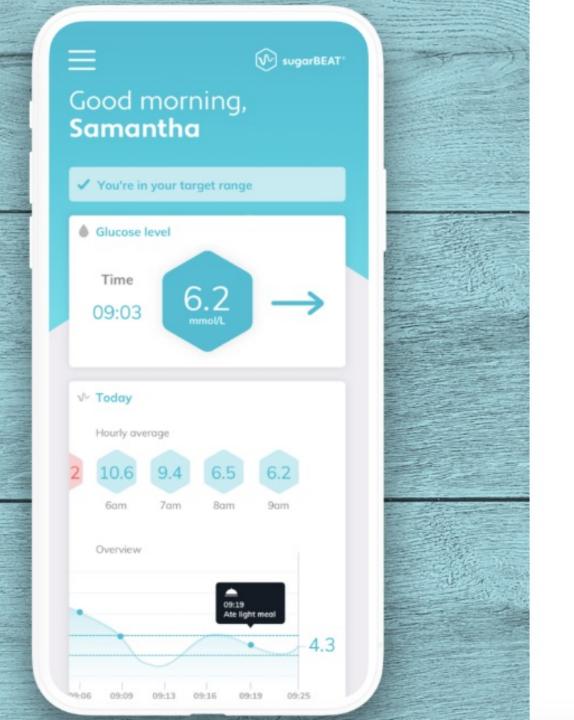
# **SugarBEAT**<sup>®</sup> **Sales status UK**

- UK: 200,000 Sensors ordered by licensee following soft launch success
- Delivered first batch of Transmitter devices in December 2021, with rolling biweekly/monthly delivery planned.
- Purchase order forecast for (approximately) a further 100,000 per month for the next 2 years, totaling over 2 million sensors.
- Licensee providing sensors as part of a diabetes management subscriptionbased service.

# sugarBEAT® Outside-UK

Planning direct to consumer launch of sugarBEAT outside of UK where CE approval is accepted, such as Europe and Middle East.

Further update to be provided in due course.



#### sugarBEAT<sup>®</sup>

### How it works

# See changes as they happen

Helps you understand your unique glucose trend line and lifestyle choices taken.

# ₩ sugarBEAT Good morning, Samantha ✓ You're in your target range Time 09:03 √ Today Hourly average Overview 4.3

sugarBEAT<sup>®</sup>

### How it works

Nemaura's technology does not use Reverse iontophoresis. It is based on causing the skin to temporarily enhance its permeation using a microsystems based fabricated disposable patch, such that glucose diffuses through the skin at a constant rate during sensor use. The glucose is collected in a hydrogel on the sensor and it then reacts with the same type of enzyme based technology that Dexcom and Abbot (Libre) use. In other words it is a direct measurement of glucose from the interstitial fluid the difference being that Abbot and Dexcom Measure this glucose in the interstitial fluid inside the skin tissue in the upper arm, whereas Nemaura cause the glucose to come to the surface of the skin in the upper arm so it can be harvested and measured.

# sugarBEAT® Testimonials

My Sugar Watch offered me a needle-free blood glucose monitoring solution that's non-invasive and easy to use. I didn't even realize I had the My Sugar watch device on my arm as it is so lightweight. It gives me the assurance that my blood sugar reading is accurate, and I have access to my levels on my phone at all times.

I was diagnosed with gestational diabetes, and I was informed by my healthcare professional that this may lead to a diagnosis of Type 2 diabetes in the future. Unfortunately, I was diagnosed with Type 2 diabetes after this and I have to manage this diagnosis all by myself and learn to control my blood glucose levels. Using My Sugar Watch has alerted me to changes in my blood glucose levels and helped me understand how these changes make an impact on my body and how I am feeling. To have this information at my fingertips gives me so much control to manage my diabetes.

I have been a Type 2 diabetic for 10 years. I sporadically manage my blood sugar with a blood glucose monitoring device. I know that if not controlled or managed effectively I can have real highs and lows and not know when this will happen. I was wearing the My Sugar Watch device and it alerted me to the fact I was about to have a hypo before it happened. This alert enabled me to quickly balance my medication.

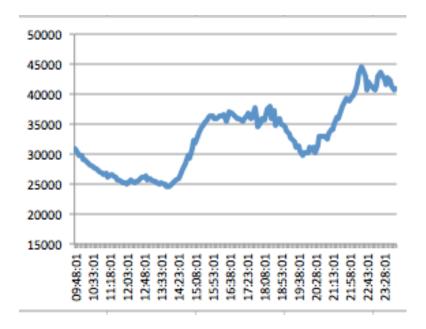
# sugarBEAT® Testimonials

#### **Example of Volunteer data compared with BGM and Invasive CGM**



Blue: Finger Prick BGM (Blood glucose meter)

**Red: Invasive CGM** 



sugarBEAT®

Raw data presented (prior to algorithmic conversion, demonstrating tight correlation)

# **sugarBEAT**®

**Example of Volunteer data** 





# Miboko

#### MIND BODY KONNECT

A metabolic health program comprising an app and integrated glucose sensor



In essence: We have a unique sensor that allows an insight into one of the most fundamental functions of the human body: the ability to regulate blood glucose levels & thus the level of Insulin sensitivity or resistance. Clinical evidence demonstrates that poor control over sugar levels can be a cause of Dementia, Diabetes, Cardiovascular Complications as well as obesity.

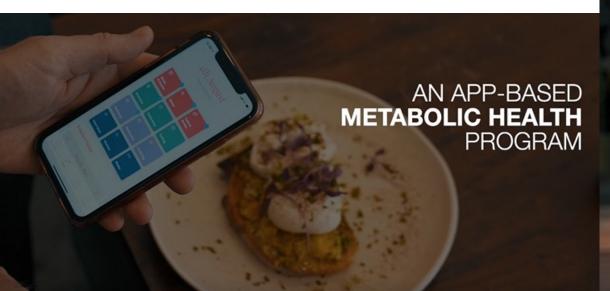
#### Miboko: A Mass-Market Consumer Product

**Download the app and On-board** 

Sensor measures metabolic health score

Receive report and weekly targets

Applicable to over 80 million people in the U.S. with prediabetes as well as general health-conscious individuals, and obesity market.





## Miboko: Launch Update

Marketing activities thus far: restricted mainly to low-key organic social media campaign.

Over 5000 registrations during the first few weeks of BETA launch, with more than 60% conversion for on-boarding

Further updates on commercialization to be provided in due course

## Miboko: Key Competition

**Noom:** Over 50 million Subscribers, >\$400m Revenues in 2020<sup>5</sup>

Miboko USP: A holistic Metabolic health approach to weight loss and better health supported using our proprietary wearable sensor that gives an insight in to what's really happening inside the body

## Miboko: Key Competition

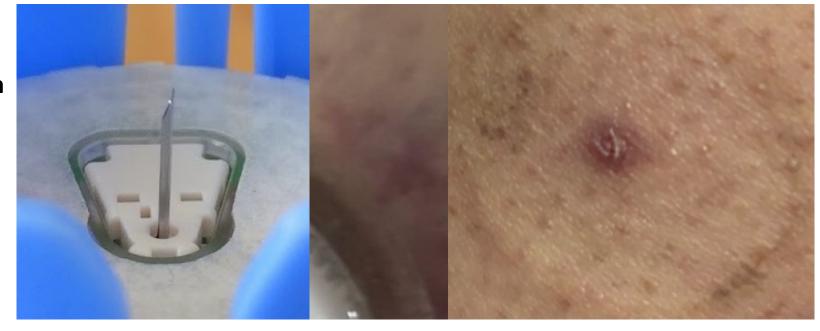
What about other competition with programs using Invasive

10-14 day CGM?

Invasive CGM's require a prescription in the U.S.

Skin trauma from Needle and/or adhesive

Reports of pain when pulling sensor filament out of arm



Needle for inserting sensor

These factors make invasive sensors challenging for a consumer market

## Miboko: Key Competition

#### Bruising on Skin will make consumer uptake challenging:



Example of bruising on skin from application of 6 invasive sensors over a 3-4 month period

Whilst this is acceptable in the medical space, it poses significant challenges in the consumer space.

# **Future Product Opportunities**

#### Leveraging the BEAT® Technology

A rich portfolio of additional products to complement existing offering and contribute to increased revenues





01

Assists in threshold maximization in performance athletes

Early identification of tissue hypoperfusion or shock for aggressive early resuscitation of critically ill patients to improve the their chances of survival



#### **BODY TEMPERATURE MONITORING**

Gives a more accurate and large data set. For monitoring viral infections and lower limb blood circulation tracking the effectiveness of drugs

Wearable temperature sensors market is expected to register a CAGR of 8.3% during the forecast period 2021-2026<sup>6</sup>

## **Future Product Opportunities**

### **Leveraging the BEAT® Technology**



3

**ALCOHOL MONITORING** 

Support personal health goals and provide warnings prior to driving.

Provide physicians with individual's drinking habits.

Prevention of progression-to-alcohol-related disease





Monitoring the impact of drugs and personalized treatment plan for patients.

Global therapeutic drug monitoring device market to reach \$3.37B by 2024<sup>7</sup>

# **Intellectual Property**

- IP consists of several Filed Patents and substantial knowhow
- Some sensor-related patents are not yet published, relating to novel device and composition

# Summary

- Started generating revenues for sensor sales; focusing on expanding sensor sales in UK and other territories.
- FDA PMA review BIMO and GMP audit conducted and updates to be provided in due course
- First mover advantage with the non-invasive sensor platform
- Simple Revenue generation models: Direct to consumer subscription services, direct sales to Corporates and Insurers.
- Highly Scalable business model with potential for rapid growth and new product introductions
- Cash balance approx. \$14.8m (as of 30th June 2022); last quarterly cash burn rate approx.
   \$1.6m/qtr (plus debt repayment).

#### References



- 1. <a href="https://www.idf.org/aboutdiabetes/what-is-diabetes/facts-figures.html">https://www.idf.org/aboutdiabetes/what-is-diabetes/facts-figures.html</a>
- 2. <a href="https://drug-dev.com/global-type-2-diabetes-market-set-to-almost-double-to-58-7-billion/">https://drug-dev.com/global-type-2-diabetes-market-set-to-almost-double-to-58-7-billion/</a>
- 3. <a href="https://www.prnewswire.com/news-releases/global-digital-diabetes-market-outlook-to-2026-a-16-billion-industry-opportunity-300980794.html">https://www.prnewswire.com/news-releases/global-digital-diabetes-market-outlook-to-2026-a-16-billion-industry-opportunity-300980794.html</a>
- 4. <a href="https://www.absolutemarketsinsights.com/reports/global-Noninsulin-Therapies-for-Diabetes-Market-2019-2027-259">https://www.absolutemarketsinsights.com/reports/global-Noninsulin-Therapies-for-Diabetes-Market-2019-2027-259</a>
- 5. <a href="https://www.bloomberg.com/news/articles/2021-05-25/weight-loss-app-noom-gets-540-million-in-silver-lake-led-round">https://www.bloomberg.com/news/articles/2021-05-25/weight-loss-app-noom-gets-540-million-in-silver-lake-led-round</a>
- 6. <a href="https://www.mordorintelligence.com/industry-reports/global-wearable-temperature-sensors-market-industry">https://www.mordorintelligence.com/industry-reports/global-wearable-temperature-sensors-market-industry</a>
- 7. <a href="https://www.grandviewresearch.com/press-release/global-therapeutic-drug-monitoring-market">https://www.grandviewresearch.com/press-release/global-therapeutic-drug-monitoring-market</a>

#### References cont'd



- 8. Durán A, Martín P, Runkle I, Pérez N, Abad R, Fernández M, Del Valle L, Sanz MF, Calle-Pascual AL: Benefits of self-monitoring blood glucose in the management of new-onset type 2 diabetes mellitus: the St Carlos Study, a prospective randomized clinic-based interventional study with parallel groups. J Diabetes 2010;2:203–211
- 9. Kempf K, Kruse J, Martin S: ROSSO-in-praxi: a self-monitoring of blood glucose-structured 12-week lifestyle intervention significantly improves glucometabolic control of patients with type 2 diabetes mellitus. Diabetes Technol Ther 2010;12:547–553
- 10. Khamseh ME, Ansari M, Malek M, Shafiee G, Baradaran H: Effects of a structured self-monitoring of blood glucose method on patient self-management behavior and metabolic outcomes in type 2 diabetes mellitus. J Diabetes Sci Technol 2011;5:388–393
- 11. Kato NK, Kato M: Use of structured SMBG helps reduce A1c levels in insulin-treated diabetic patients [abstract]. Diabetes 2011;60(Suppl 1):A239
- 12. Polonsky WH, Fisher L, Schikman CH, Hinnen DA, Parkin CG, Jelsovsky Z, Axel-Schweitzer M, Petersen B, Wagner RS: A structured self-monitoring of blood glucose approach in type 2 diabetes encourages more frequent, intensive, and effective physician interventions: results from the STeP study. Diabetes Technol Ther 2011;13:797–802
- 13. Polonsky WH, Fisher L, Schikman CH, Hinnen DA, Parkin CG, Jelsovsky Z, Axel-Schweitzer M, Petersen B, Wagner RS: A structured self-monitoring of blood glucose approach in type 2 diabetes encourages more frequent, intensive, and effective physician interventions: results from the STeP study. Diabetes Technol Ther 2011;13:797–802