#### Mission Biomedical Scientific Inc.

93 Shennecossett Road Groton, CT 06340 Frank Swenson T (860) 941-8896 http://www.mbs-sensors.com/ MBSsensors@gmail.com



# **Industry:** Consumer and Medical Management:

- Frank J. Swenson Ph.D., CEO
- VP Finance-Sep 2018
- VP Engineering- Sep 2018
- VP Manufacturing- Sep 2018
- Sophie Chapelle: VP Business Development and Marketing-Sep 2018

#### Board

In progress

### **Scientific Advisory Board**

- 1. R.J. Fraatz Ph.D., Physical Chemist
- 2. Tracy Wolfdorf Ph.D.- Technology and Product Engineering.
- 3. David Klotzin Ph.D. Associate Professor, Electronic and Computer Engineering. Binghamton University, SUNY

#### Number of Employees:

1- Andrew Lightner, Financial Analyst

#### Finance:

Pre-seed \$70k (Founder)

# **Amount of Financing Sought**

Seed- \$475K (by 8/1/2018) Series A-\$3.3M (by 8/1/2019)

## Legal:

Corporate C Corporation, Delaware.

# Intellectual Property:

US Patent US Patent 9,724,0232B issued; Other patent applications to be filed; Proprietary manufacturing procedures.

### Competition:

Wearable fitness producers (FitBit, Apple, Garmin, Xiaomi, Breezing mask device)

MBS Projections	Year 1	Year 2	Year 3	Year 4	Year 5
Net Income (000.s)	(\$472)	\$12,000	\$20,000	\$60,000	\$113,000

#### Executive Summary:

Mission Biomedical Scientific (MBS) is developing a revolutionary means to easily and accurately measure total metabolism with an all-day wearable.

The MBS disposable patch offers the accuracy of indirect calorimetry –measures both resting and active metabolism- with the convenience of a wrist wearable fitness monitor. This breakthrough is valuable to

- 1. Individuals who seek accurate measurement of calories burned as part of their fitness and health regime.
- 2. Individuals dieting and monitoring their weight.
- 3. Healthcare providers and patients at high risk of developing metabolic diseases.

In 2017 consumers spent \$18B on wearable fitness devices to measure metabolism by movement. After a few months, 30% of purchasers stop using them because they didn't find them useful. A big part of the problem is the devices are inaccurately reporting the number of calories burned (caloric expenditure). (Stanford 2017). Current wearable fitness devices only track caloric burn due to activity, which is 10-30% of the total caloric expenditure. Most caloric expenditure in humans is due to basal metabolism. An accurate measure of total metabolism, indirect calorimetry, is used in clinical sites and by specialty athletic training facilities. However, laboratory grade instruments are expensive and cumbersome requiring users to wear a facemask to measure metabolism.

# **Company History:**

- Provisional patent submitted in 2014
- C-Corporation formed. Patent application submitted 2015.
- Patent issued August 2017.
- Research and sensor development for skin CO2 detection from 2015 until present.
- Lab and office November 2017 at Cure Commons Innovation Groton CT.
- Experiments to refine and optimize the sensor are almost complete.

# Market Opportunity / Unmet Need:

The global wearable fitness market is expected to reach \$25B in 2019. MBS will focus on providing an unmet need in today's fitness monitors (total metabolism value). The target markets are-

- 1. Consistent users of wearable fitness monitors who want total metabolic data and
- 2. Fitness and health trainers who would use MBS device with clients.
- 3. Consumers who are in weight management programs
- 4.Patients under management by HCP for weight loss treatment.

# Products/Services – Launched & Pipeline:

- 1. Disposable patch to launch 1<sup>st</sup> Qtr 2020
- 2. Watch/band reader to launch 3<sup>rd</sup> Qtr 2021
- 3. Medical device versions to launch 3<sup>rd</sup> Qtr 2022

# **Commercial / Technical Milestones:**

- Finalize sensor design & formulation-Qtr 3 2018
- Key Hires (4) Qtr 3 2018
- In House testing Early P-type patch-Qtr3 2018
- Preliminary App development- Qtr 4 2018
- Manufacturing specifications Qtr 4 2018
- Test prototype production run- Qtr 4 2019
- Calibrate & Test healthy volunteers-Qtr 3 2019
- Develop Final Apps- Qtr 3 2019
- First Production Run- Qtr 3 2019
  - Beta Testing -Qtr 4 2019 Launch- Qtr 1 2020