## **MamaliBra Breast Pump**



# **EXECUTIVE SUMMARY**

#### **TEAM**

Andrea Joyner, MD, IBCLC
Principal Investigator
Dina Ufberg
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Wearable Development
Synectic

Pump System Development
Rook Quality Systems
Quality and Regulatory
Strategy
Exponent Collaborative
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Marketing

#### **FUNDING**

\$228K Biolocity Grant \$132K GRA Grant

### INTELLECTUAL PROPERTY

Patent pending

#### **STATUS**

Prototype Development

#### **TECHNOLOGY**

Despite a multitude of commercially available options, most current breast pumps are not built for discretion and movement independence. The MamaliBra breast pump is a covert, long-wear breast milk expression solution that is integrated into a bra. The discreet design allows users to routinely express milk as needed, with a lightweight solution worn on the body. Additionally, the novel pump technology makes our pump quieter than existing pumps on the market. Equipped with Bluetooth capabilities, the pump can be controlled with simple commands on a smart phone or electronic device. Milk is collected using a proprietary system worn on the body then detached, sealed, and stored whenever it is convenient for the nursing mother. This novel product design approach better integrates with the demands of an active working lifestyle.

#### MARKET NEED

In the U.S., 83% of new moms breastfed their babies, by 6 months the number drops to 24%. As evidenced by the high initiation rate, mothers want to provide their babies the benefit of breastmilk: improved immunity and health status, higher IQ and a reduction in mortality. The CDC attributes the stark decline to a lack of support from healthcare providers, family members, and employers.

When looking at working mothers by the age of their youngest child, 58.5% (2.9M) of working mothers had a child under 1 year in 2017. These mothers would need to breast-pump at the frequency their infant would normally eat if they wished to continually feed their child breastmilk. However, logistical difficulties in the workplace make breast-pumping challenging. Uncomfortable machinery, the need for privacy in order to disrobe, and the need for an electric source are among the many logistical obstacles mothers face when pumping in the workplace. A key hurdle is coordinating time to privately pump around a demanding work schedule. Currently only 49% of employers provide dedicated space for breast pumping.

The MamaliBra breast pump team has validated the hypothesis that a quiet, covert pump is a want and need for working mothers through over 2000 individual surveys and a focus group. This technology stands out from the market competition because of the fact that the user no longer needs to assemble and disassemble her pump with each use. The bra can continue to be worn comfortably and milk removed separately for storage when it is convenient for the user.

### **STATUS**

MamaliBra is based out of Emory University and is in the prototyping phase of development. To date, the system has a fully-functional pump and mobile app. Additionally, the wearable bra has been designed and focus is now on its integration with the collection system components resulting in a wearable "works like, looks like" system.

