



Nini Fan

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EXECUTIVE SUMMARY

Industry: Biotech & Digital Health

Product: Maternal Health Microbiome Management Platform

- Testing kits
- Nutritional Therapy
- Wellness Program
- MaMome's App

Intellectual Property:

Patent pending on systems and methods of promoting eubiosis of treating dysbiosis (PCT filed).

Management Team:

- Nini Fan, MS, MBA
Founder & CEO
- Jeanmaire Molina, Ph.D
Scientific Officer, Professor of Biology at Long Island University
- Stephanie McClellan M.D.
Medical Chief Officer, OB/GYN
- Taiwo Togun, Ph.D
Technical ML Officer; Visiting Scientist at Brown University
- Joseph Morin, Ph.D
Director of R&D, Chairman of Biology at Long Island University
- Ahmed Ramadan MBBS, M.S.
Project Manager
- Sheri Wallace, Marketing
Director, Maternal Health Marketing Expert
- Emily Sylvester, MS, RD
Clinical Trial Dietitian
- Daria Crane RN, Clinical Trial Manager
- Xuebin Yin, MD, Clinical Investigator, OBGYN with New York Presbyterian Hospital

Advisors:

- Karen Woodward Ph.D. VP of Marketing at Shoreline Biome
- Jed Friedman Ph.D. Director, OU Health Harold Hamm Diabetes Center
- Craig Kenesky, Ph.D.
Patent Attorney, WSGR LLP
- Bahram Marami, Ph.D. AI expert, Data Scientist, Mount Sinai Medical Center
- Richard Tharin, MS, RAC. Global Regulatory Affairs

Financing to Date

\$100,000 Funded

Funding Sought:

- \$1.5M seed round
- R&D • Salaries • Regulatory
- Digital Marketing • IP
- Partnership with CLIA Lab

MaMome is an emerging biotech company on a mission to become the leading AI-based testing platform for microbiome-based maternal health management and pregnancy complication prevention.

MaMome is the pioneer brand in monitoring and improving fetal-maternal and infant health based on early identification of high risk pregnancies based on the bacterial composition of the maternal microbiome. Using proprietary next-generation genomic sequencing and machine learning, MaMome will enable earlier clinical interventions, change the standard of care for at-risk patients, and increase the potential of healthcare equity.

Market Opportunity / Unmet Need:

- Maternal mortality is a global crisis.
- The US has the highest maternal mortality rate in developed countries and racial disparities cause at least 3x pregnancy related deaths compared to white women.
- 6-9% of pregnancies are affected by gestational diabetes at a cost of more than \$5,800 per pregnancy
- 8% of pregnant women experience preeclampsia, which causes 3 of every 20 premature births
- Chronic and high-risk conditions have incremental healthcare costs of \$2,400- \$46,000 per year¹
- The increased health implications for newborns can be staggering.
- The current diagnosis for gestational diabetes and preeclampsia only targets developed complications and diagnosis occurs mid-pregnancy or later
- Yet, at least 2/3 of pregnancy complications are preventable.

MaMome's microbiome testing aims to predict and reverse conditions such as gestational diabetes and preeclampsia - before diagnosis would occur using today's technology and testing methods. MaMome's inexpensive and non-invasive testing allows clinicians to identify potential high-risk patients leading to earlier testing and diagnosis of pregnancy complications. Monitoring the maternal microbiome with MaMome's technology allows for a new standard of care based on a food-as-medicine approach that can be accessible to any family when combined with other existing benefits, such as WIC.

Products/Services – Launched & Pipeline:

• MaMome's Gestational Diabetes Screening Test

Using genomic technologies to characterize the maternal gut microbial composition and proprietary AI algorithms to compare the microbiome data with trends of disease development, MaMome's genomic testing kits identify and quantify microbiome species from at-home, non-invasive samples. Abnormalities of the microbiome, which point to potential high-risk patients, can be identified as early as pregnancy confirmation. Pilot clinical trial has identified GDM-related bacterial species as proxies of typical development of the gut microbiome by maternal age.

• Maternal Microbiome Management Platform

- Based on MaMome's ML platform to analyze test results on kit data, clinicians are provided with detailed results allowing for clinical, early intervention. Subsequent, regular testing can assess progress of therapies prescribed and patients can receive timely assistance with disease management.
- Future clinical studies will allow for Class II registration of personalized diet recommendations combined with real-time wellness and nutrition counseling for complete microbiome management.
- Data collected will build the first-in-market maternal microbiome profile for both healthy microbiome identification and disease condition biomarkers that can be used for future research and product development.

Commercial / Technical Milestones:

- Milestone I** –Concluding pilot trial that provides clinical evidence to screening test
 - Obtain clinical data from trial's subjects regarding nutrition and GDM during pregnancy
 - Publish results and findings to the scientific and healthcare provider communities
- Milestone II** - Maternal Microbiome Screening Kit (Beta Launching)
 - Develop more regions based on the existing international patent applications (PCT)
 - Launch at multiple clinics in the tri-state area. Conduct user testing and collect clinical outcomes
- Milestone III** - Product Launch
 - Register testing kit as Class I device with the FDA
 - File 510(k) Class II for AI-based algorithm and first stage digital therapeutic

Financial Projections (Unaudited):

Gross margin is 66% with the initial OB/GYN channel and assumption of capture of 5% of the U.S. market. We are currently validating the assumption with market research.

	2022	2023	2024	2025
Total product revenue	\$.26M	\$.93 M	\$2.65M	\$11.70M
Gross Profit	\$.26M	\$.48 M	\$1.40M	\$11.25M
Gross margin	60.00%	60.00%	53.33%	60.00%

¹American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine. Kilpatrick SK <https://www.ncbi.nlm.nih.gov/pubmed/27560600>