



DIAGNOSTIC BIOMARKER PLATFORM

Metabolite Biomarkers For Bacterial Vaginosis

Brief Description of Technology

Biomarker panel for the diagnosis and treatment of bacterial vaginosis.

BUSINESS OPPORTUNITY

Exclusive license
Sponsored research

TECHNOLOGY TYPE

Diagnostic
Metabolomics

STAGE OF DEVELOPMENT

Completed biomarker validation

PATENT INFORMATION

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Technology Overview

Bacterial vaginosis [BV] is the most common vaginal infection and is characterized by a disruption in the normal bacterial composition present in the vagina. The condition is poorly understood, but is associated with preterm birth, pelvic inflammatory disease, HIV acquisition, and other STDs. Current methods for diagnosis of BV involve microscopy, requiring extensive clinician training, or PCR, which is expensive. Dr. Fredrick's lab has identified 55 bacterial metabolites that are each either significantly increased or decreased in vaginal fluids during BV. This biomarker panel has been confirmed in two studies, using patient samples in mass spectrometry bacterial metabolite screens. Specific metabolite profiles indicate the presence of particular BV-associated bacteria. Therefore, in addition to diagnosis, the metabolite panel can also aid in determining individualized treatment plans.

Applications

- Diagnostic biomarker panel for BV
- Development of point-of-care diagnostic

Advantages

- Biomarker panel diagnostic tool that replaces microscopy
- Aids in development of individualized treatment plans

Market Overview

BV is the most common cause for vaginal discharge for women ages 14 to 49 accounting for almost 50% of cases. Worldwide the estimated prevalence is 29% for the general public but can be as high as 50-60% in high-risk populations. In the US, more than 20 million women are affected each year by BV.

Investigator Overview

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