



DIAGNOSTICS

Kit for Detecting and Classifying Sexually Transmitted Infections based on the Genitourinary Microbiome

Brief Description of Technology

A test for detecting novel bacterial biomarkers for sexually transmitted infections [STIs].

BUSINESS OPPORTUNITY

Exclusive license
Non-exclusive license
Sponsored research

TECHNOLOGY TYPE

Diagnostic
Research tool

STAGE OF DEVELOPMENT

Preclinical *in vivo*

PATENT INFORMATION

Patent pending

INVESTIGATOR

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Technology Overview

A growing need exists to increase the detection and surveillance of STIs, especially among adolescents and adults of reproductive age. STIs can cause genital neoplasia (HPV), infertility (Chlamydia) and fetal and neonatal damage (Chlamydia, Neisseria gonorrhoeae syphilis). With the availability of reliable tests, asymptomatic infections can be detected early, and effective and appropriate treatment can be initiated to stop the spread of STIs. Drs. Srinivasan and Fredricks have developed kits and methods for detecting novel bacterial biomarkers associated with non-gonococcal urethritis (NGU) in men, and for detecting vaginal bacteria and the risk of human immunodeficiency virus (HIV) acquisition in women based on a patient's genitourinary microbiome (bacteria in the genital tract). Some agents of male urethritis can also cause pelvic inflammatory disease in women, leading to infertility in some.

Applications

- NGU targets that can be added to existing panels to create higher probability of identifying potential causes for NGU
- Identifies women with vaginal bacteria that are high-risk for HIV acquisition

Advantages

- Informs dosing and administration of therapeutic agents to prevent or treat infections
- Determines sample pathogen concentration without microscopic examination for NGU infections
- Identifies pathogens not detectable by current nucleic acid amplification test (NAAT) and culture techniques routinely employed for STI diagnostics

Market Overview

The Global Urethritis Market is expected to reach USD 18.0 billion by 2023 at a CAGR of approximately 8.0 % during the forecast period 2017-2023. STIs represent critical health challenges in the US with a total of 2,457,118 cases in 2018. Early detection continues to play a key role in prevention of these diseases.