"NOVEL BIOMARKER AND DIAGNOSTIC INDICATOR FOR INFECTION IN CIRRHOTIC PATIENTS" VCU #12-47

Applications

- Prognostic and diagnostic marker for cirrhosis
- Infections in cirrhotic patients

Advantages

- More precise diagnosis
- Earlier diagnosis, allowing for more aggressive treatment
- Risk of mortality assessment tool

Inventors

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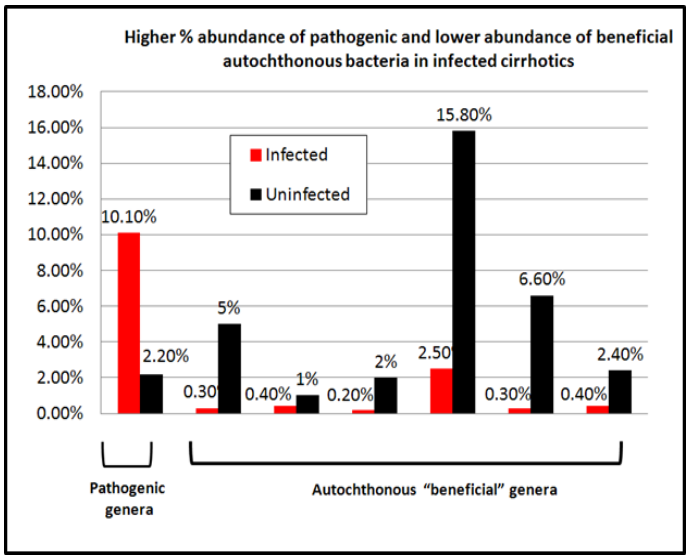
Market Need

Bacterial infections are well-described severe complications of cirrhosis. Mortality of cirrhotic patients with infection is approximately 15-20%, which is almost twice of that patient without infection. Some patients have common symptoms of the infection including high fever, abdominal pain and altered gastrointestinal motility, but in many cases there are no infection symptoms, making it difficult to diagnose. Current diagnosis includes mostly culture-based technology and clinical indicators, both taking long time and not being very sensitive.

Technology Summary

Researchers at VCU have found certain groups of bacteria in the cirrhotic patients' stool microbiota that can help diagnose patients who do not have common symptoms of infection. Using the bacterial DNA analysis (versus culture-based analysis) allows for faster and more precise diagnosis and evaluation of patient conditions within 48 hours from submission. This technology presents a novel prognostic marker that will help physicians not only to diagnose the infection in its early stage, but also to predict the outcomes of the infection, allowing for more aggressive treatment in those patients, and increasing their chances for recovery and survival.



Technology Status

Patent pending: U.S. and foreign rights are available.

This technology is available for licensing to industry for further development and commercialization.