



**THE UNIVERSITY of TEXAS**

**HEALTH SCIENCE CENTER AT HOUSTON**

Office of Technology Management

## **COLLAGEN-BINDING PROTEINS FROM ENTEROCOCCAL BACTERIA**

Market: Information collected by the Centers for Disease Control and Prevention during 2006 and 2007 showed that enterococci caused about 1 of every 8 infections in hospitals. The United States health care system's treatment of these infections results in an annual cost of approximately US \$1 billion. Resistant strains of enterococcus are clinically challenging and at times untreatable with existing antibiotic therapy.

Competitors and Current Problems: Enterococci have been associated with many clinical infections, and during recent years have acquired resistances to almost every commercially available antibiotic. There is a distinct need in the field to develop strategies and methods to address the serious problems presented by enterococcal infections. MSCRAMMs (microbial surface components recognizing adhesive matrix molecules) have been found to inhibit adhesion of *Staphylococcus Aureus* bacteria. However, MSCRAMMs that have the ability to adhere to the ECM proteins in enterococcal bacteria have only recently been identified.

The Technology: Researchers at the University of Texas Health Science Center at Houston (UTHSC-H) and Texas A&M University have developed a ubiquitous/wide-spread collagen-binding MSCRAMM which can be used to inhibit adhesion of enterococci to extracellular matrix proteins. In addition, antibodies raised against this MSCRAMM exhibit the ability to effectively inhibit adhesion of enterococcal cells to a collagen substrate. As a result, this molecule may have utility for treatment or prevention of infections and diseases caused by enterococci.

### **NON-CONFIDENTIAL TECHNOLOGY DESCRIPTION**

The preceding is intended to be a non-confidential summary of a novel technology created at the University of Texas Health Science center at Houston (UTHSCH), for which the University has obtained patent protection.

**UTHSC-H Ref. No.:** 2000-0006

**Inventors:** Murray, et al.

**Patent Status:** United States Patent No. 6,908,994

**License Available:** world-wide; exclusive or non-exclusive

To obtain further information about this technology, please contact:  
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