



TECHNOLOGY

Microcin H47 Plasmid Selection System

OVERVIEW

The inventors engineered a novel stabilized plasmid selection system incorporating the gene mchI, conferring immunity against a natural antimicrobial peptide called microcin H47, which can be incorporated into the bacterial growth medium. There are no known clinical uses for microcin H47, so this approach is expected to meet vaccine regulatory requirements.

APPLICATIONS

-Vaccine development as alternate system for plasmid selection in bacterial live vectors that will improve regulatory acceptability of vaccine. -Research tool for plasmid selection.

ADVANTAGES

Microcin-based selection system does not require engineering of the bacterial strain and does not rely on antibiotic resistance markers.

STAGE OF DEVELOPMENT

This approach was successfully tested in two clinically proven vaccine strains.

R&D REQUIRED

Implementation as research tool or in vaccine development.

LICENSING POTENTIAL

UMB seeks commercialization partners.

CONTACT INFO

Office of Technology Transfer
620 W Lexington St., 4th Floor
Baltimore, MD 21201
Email: ott@umaryland.edu
Phone: (410) 706-2380

Additional Information

INSTITUTION

University of Maryland, Baltimore

PATENT STATUS

U.S. Patent 8,841,422, issued May 20, 2014



CATEGORIES

- Therapeutics
- Vaccines

INVESTIGATOR(S)

James Galen
Chee-Mun Fang

ATTACHMENTS

-  [Download document\(42\).pdf](#)
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EXTERNAL RESOURCES

- [Salmonella enterica serovar Typhi live vector vaccines finally come of age.](#)
- [Use of mchI encoding immunity to the antimicrobial peptide microcin H47 as a plasmid selection marker ...](#)

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