TECHNOLOGY

A Probiotic Strain For Nutritional and Therapeutic Use

OVERVIEW

Background
Probiotics- single or mixed cultures of live microorganisms with the ability to confer health benefits to host upon dietary consumption- emerged as functional foods with enormous market potential (>$4-5 billion). Several products with such live cultures are currently available in the marketplace. However, susceptibility to viral infections (bacteriophage) and competition from pathogenic bacteria might drive a wedge between the intended and derived benefits to the end consumer. Development of fortified microorganisms capable of resisting bacteriophage infections and clear pathogenic bacteria in a mixed culture environment will prove useful in fully exploiting the probiotic market.

Innovative Technology
Researchers at the University of Maryland have developed a new strain of probiotic bacteria that can not only resist bacteriophage infection but also inhibit the growth of pathogenic microorganisms along with increased adhesion to epithelial tissue. These properties should aid in closing the gap between the intended and derived benefit from probiotic products delivering consumer value.

Advantages
- Increased adhesion to epithelial tissue for maximal benefit after dietary consumption
- Resistance to bacteriophage that endows longer life to the probiotic bacteria
- Enhanced defense against pathogenic bacteria
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Applications
- Probiotic additive in functional foods for human as well as veterinary use
- Research tool to study bacterial growth behaviors in mixed culture/co-culture environments

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Additional Information

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EXTERNAL RESOURCES

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