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Anti-microbial, Immune-modulating, Naturally-derived Adjunctive Therapies

Tech ID: 32198 / UC Case 2020-520-0

ABSTRACT

Researchers at the University of California, Davis have developed adjunctive therapies applicable to multiple types of infectious conditions. These therapies – derived from compounds found in natural herbs - also have potential prophylactic efficacy.

FULL DESCRIPTION

Increased human and veterinary antibiotic resistance has become a major global health concern. Researchers know that many species – including mammals – have genes that encode small peptides that possess broad-spectrum, anti-microbial properties effective against multiple types of pathogens.

Researchers at the University of California Davis have developed a strategy that applies compounds derived from natural herbs to upregulate the endogenous expression of antimicrobial peptides. These peptides then prove effective against bacterial, fungal and viral infections. This anti-microbial approach can be used as a topical medication, can be impregnated into contact lenses, deployed as a nebulizer for respiratory infections and offers new treatment options for chronic wounds caused by conditions such as diabetes and chronic venous ulcers.

APPLICATIONS

- ▶ Broad range anti-microbial activity
- ▶ Treatment of respiratory infections
- ▶ Diabetic and ulcerated wounds
- ▶ Potential use in septicemia

FEATURES/BENEFITS

- ▶ Endogenous expression of innate antimicrobial peptides using natural molecules
- ▶ Modulates both innate and adaptive immunity
- ▶ Therapeutically efficacious in antibiotic-resistant individuals
- ▶ Potentially effective both as a prophylactic and therapy against multiple, microbial-based conditions - including bacterial, viral and fungal diseases

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20230069586	03/02/2023	2020-520

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INVENTORS

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OTHER INFORMATION

KEYWORDS

Anti-microbial Resistance,
 Adjunctive Therapy,
 Natural Compounds,
 Immunity, Therapeutic

CATEGORIZED AS

- ▶ **Biotechnology**
 - ▶ Health
- ▶ **Medical**
 - ▶ Disease: Infectious Diseases
 - ▶ Disease: Ophthalmology and Optometry
 - ▶ Disease: Respiratory and Pulmonary System
 - ▶ Therapeutics
- ▶ **Veterinary**
 - ▶ Companion Animal
 - ▶ Large Animal
 - ▶ Therapeutics

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