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

CONTACT

Victor Haroldsen
haroldsen@ucdavis.edu
tel: 530-752-7717.

INVENTORS

- Leonard, Brian
- Murphy, Christopher J.

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

RELATED CASES

2020-520-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- Novel Method for Performing Corneal Implant
- Glaucoma Blockbuster
- Microscopy System
- Device and Method to Assess Ocular Surface Health

University of California, Davis
Technology Transfer Office
1 Shields Avenue, Mrak Hall 4th Floor,
Davis,CA 95616

Tel:
530.754.8649
techtransfer@ucdavis.edu
https://research.ucdavis.edu/technology-transfer/
Fax:
530.754.7620