Antibiotic to Fight Gram Negative and Resistant Bacteria

Tech ID: 32422 / UC Case 2014-148-0

ABSTRACT

Researchers at the University of California, Davis have developed a gyramide antibiotic which is effective against Gram-negative and fluoroquinolones (FQs) resistant bacteria.

FULL DESCRIPTION

Bacterial resistance to antibiotics is a serious public health problem facing the world right now. Many antibiotics are losing their effectiveness and development of new antibiotics has been slow. Additionally, many antibiotics are not effective against Gram-negative bacteria, or bacteria that cannot be stained by the Gram method. One such bacteria is E. coli, which is known to cause many infections. Compounds have been developed that are effective against mutant E. coli, but have no efficacy against wild-type E. coli.

Researchers at the University of California, Davis have developed a gyramide antibiotic which is effective against Gram-negative and FQ resistant bacteria. Gyramides prevent bacterial growth by inhibiting DNA gyrase, which is essential for survival. They are effective against pathogens that are Gram-negative and FQ resistant, so they can fight diseases that other antibiotics cannot. This specific DNA gyrase inhibitor has shown to not only fight mutant E coli, but also wild type E. coli.

APPLICATIONS

- Inhibitor of Bacterial DNA Gyrase

FEATURES/BENEFITS

- Effective against Gram-negative and FQ resistant bacteria Successful in halting growth of mutant and wild type E. coli

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	10,253,039	04/09/2019	2014-148

Additional Patent Pending 2014-148-0

CONTACT

Raj Gururajan
rgururajan@ucdavis.edu
tel: 530-754-7637.



INVENTORS

- Fensterwald, Molly
- Moore, Jared
- Shaw, Jared T.

OTHER INFORMATION

KEYWORDS

Antibiotic, E. Coli, Bacterial resistance, Gram negative, Fluoroquinolones

CATEGORIZED AS

- **Medical**
  - Disease: Infectious Diseases
  - Other

RELATED CASES

2014-148-0

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

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