

Technology Offer

Anthrotainin as an antibiotic to combat multiresistant bacteria

Anthrotainin | Antibiotics | Resistance | Tetracycline

Antibiotic resistance is one of the biggest threats to global health, food security, and development today, which can affect anyone, of any age, in any country. A growing number of infections are becoming harder to treat as the antibiotics used to treat them become less effective. The world urgently needs new antibiotics, which are able to combat the threat of antimicrobial resistance.

Background

Bacteria are exceptionally adaptable organisms and have repeatedly proven their ability to resist antibiotic agents.

As an example, the use of tetracyclines for the treatment of animal and human infections has been increasing in recent years. However, this has led to the emergence of tetracycline-resistant bacteria limiting the use of tetracycline-antibiotics. With the increasingly rapid appearance and global spread of antibiotic-resistant bacteria, prevention of infections with appropriately targeted drug assumes greater urgency and importance. The provision of novel compounds with anti-prokaryotic activity is therefore one of the most acute issues of modern chemical biology, biotechnology, and medicine.

Technology

Anthrotainin is a new antibiotic agent for targeting antibiotic resistant prokaryotes, (archaea and gram-positive or gram-negative bacteria).

Anthrotainin has antibacterial activity against the most important resistances, including tetracycline-resistant prokaryotes.

Anthrotainin had been successfully isolated from filamentous fungus, *Metapochonia lutea* (Ascomycota, Hypocreales, Clavicipitaceae). The invention refers to a pharmaceutical preparation or feed supplement comprising anthrotainin, specifically from *Metapochonia lutea*, and the use of anthrotainin in the treatment of a disease condition in a subject

which suffers from or is going to suffer from an infection caused by prokaryotes.

Advantages

- able to combat antibiotic resistant isolates from a number of different bacteria
- isolated from filamentous fungus
- can be produced in large quantity
- low cytotoxicity



Isolation plate from a Danube river sample, Arrow indicates *Metapochonia lutea*.

State of development

Proof of Concept

IPR

EP prio

Contact details

Mag. Christine Ruckenbauer,

E: christine.ruckenbauer@vetmeduni.ac.at; P: +43 1 25077 1047

Technology Transfer

University of Veterinary Medicine Vienna



Technology Offer

Options

R&D cooperation
License agreement
Sale

Inventors

Joseph STRAUSS
Martin WAGNER
Roman LABUDA
Markus BACHER
Christoph SCHÜLLER
Thomas ROSENAU
Kathrin KOBER-RYCHLI
Maria DOPPLER
Hannes GRATZL
Rainer SCHUMACHER
Christian PUHR

Reference

EM132 and EM202201

Contact details

Mag. Christine Ruckenbauer,
E: christine.ruckenbauer@vetmeduni.ac.at; P: +43 1 25077 1047
Technology Transfer
University of Veterinary Medicine Vienna

