FIGHT AGAINST FLU RE-DEFINED - NOVEL PHYTOCHEMICAL FOR THE TREATMENT OF INFLUENZA VIRUS INFECTIONS

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HINTERGRUND

Influenza virus causes a well-known contagious respiratory infection accompanied by acute fever. The outbreaks are usually seasonal and widely spread leading, in the worst case, to death.

The infection is usually treated by the administration of the long known antiviral drugs Oseltamivir or Amantadine. Their usage has been reported to cause side effects such as gastrointestinal and neurological effects, nauseas, and headaches. In addition, resistances have been observed, so the need for alternative substances to fight the influenza virus is high.

Tiliroside represents a real alternative for the current treatment of influenza infections. It can also be combined with them, leading to a potential synergistic effect.

We present here the possibility to take profit of a market larger than $700 million in 2015, by offering an innovative prophylaxis to a world-wide problem.

LÖSUNG

Tiliroside is a secondary plant metabolite with phytochemical properties that presents, even with no modifications of the natural structure, an excellent antiviral activity. Therefore, a new class of active substances is presented.

In order to enhance the antiviral activity, a modification of the molecule might be introduced, for tiliroside becoming a stand-alone treatment.

Unlike other treatments, based on neuraminidase activity or ion channel blocking, which prevents new viral particles being released, tiliroside acts on the infection stage. This new feature could strongly benefit the properties of a combined treatment with virostatic substances having different targets.

The mechanism of activity of tiliroside is related to the attachment and
internalization of virus particles to the host cell. Our experiments have shown a clear antiviral activity of this compound against viruses resistant to Oseltamivir treatment.

Our solution allows to efficiently overcome important drawbacks of the current treatment of flu, by widening the possibilities of treatment.

Tiliroside represents an interesting new opportunity for the phytopharmaceutical and dietary supplements markets.

VORTEILE

We present here a novel active phytochemical; tiliroside, which has relevant advantages against current treatments:

- New mechanism of action – active at virus infection stage
- Helpful for fighting resistance
- New substance class – increased treatment diversity

ANWENDUNGSBEREICHE

- Therapy and active substances
- Phytopharmacological market
- Dietary supplements industry
Pharmaceutical industry
Viral infections

SERVICE

- Licensing
- R&D Cooperation
- Patent right transfer