Discovery of Broad Spectrum and Resistance-refractory Antivirals against Influenza Viruses

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Technology description

Use of Cyclosporine A (CsA) Analogs as Therapeutic Treatment of Influenza
Invention:The technology is a novel use of Cyclosporine A (CsA) analogs for therapeutic treatment of influenza. CsA analogs have a broad spectrum of activity against influenza strains, potent antiviral activity, and a low risk of drug resistance.
Background
Cyclosporine A analogs have developed as a means to treat viral infections, including HIV and HCV. Non-immunosuppressive derivatives of CsA were developed for anti-inflammatory and anti-viral therapies with the benefit of good body tolerance. Since CsA analogs can be created with partial-synthesis techniques (as opposed to complete synthesis), the authors of this technology look to patent the use of CsA analogs for influenza therapeutic treatment. Preliminary studies show broad-spectrum antiviral activity among influenza strains, lower risk of drug resistance, and tolerance in human subjects.

Application area

• Commercial application as an influenza therapeutic drug.
• Research application as a facet of CsA-derivative therapeutics research.

Advantages

• Lower risk of drug resistance than with current therapeutic treatments.
• Broad spectrum of antiviral activity, including activity against many influenza A and B strains; potential for a single-drug treatment.

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