

Discovery of Potent Protease Inhibitors for Covid-19 Treatment

Track Code: 2020-GHOS-69088

Categories:

- Chemistry and Chemical Analysis
- Pharmaceuticals

Keywords:

- COVID-19
- Inhibitors
- Pharmaceuticals
- SARS-CoV-2

Researchers at Purdue University have developed potent inhibitors for the SARS-CoV-2 protease enzyme 3CLpro. Covid-19, an infection caused by the SARS-CoV-2 virus, has led to an ongoing global pandemic. Currently, no effective drug treatment is available for Covid-19. To find a potential therapeutic for Covid-19, Purdue researchers discovered a series of novel noncovalent functionalized bis-amide derivatives that were previously reported to inhibit a SARS-CoV-2 enzyme, 3CLpro. These are modified versions of previous compounds to improve drug-like characteristics and antiviral properties against SARS-CoV-2. The inhibitors have been evaluated in immunocytochemical and cellular assays against Covid-19 infections. These compounds show promise to be an effective treatment for Covid-19 upon further evaluation on in vivo systems.

Advantages:

- Potent Covid-19 Antiviral Properties
- Improved Drug-Like Features

Potential Applications:

- Covid-19 Treatment
- Pandemic Control
- Pharmaceutical Research and Development

Technology Validation: The bis-amide compounds potently inhibited SARS-CoV-2 in in vitro studies and immunocytochemistry assays.

People:

- Ghosh, Arun K (Project leader)
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Intellectual Property:

Application Date: March 15, 2021

Type: PCT-Gov. Funding

Country of Filing: WO

Patent Number: (None)

Issue Date: (None)

Application Date: December 1, 2020

Type: Provisional-Gov. Funding

Country of Filing: United States

Patent Number: (None)

Issue Date: (None)

Application Date: May 15, 2020

Type: Provisional-Gov. Funding

Country of Filing: United States

Patent Number: (None)

Issue Date: (None)

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