

Docket #: S21-454

Cell-permeant inhibitors of viral cysteine proteases

The coronavirus main protease (Mpro), which is a trypsin-like protease with a catalytic cysteine residue, processes viral proteins in an early step of the coronavirus life cycle, and its activity is required for viral replication. Mpro represents a promising drug target for treatment of coronavirus diseases.

Stanford researchers have designed and developed a set of small-molecule protease inhibitors that inhibit the SARSCoV2 main protease with improved cell permeation or potency.

Stage of Development

In vivo: Mouse Studies

Applications

- Therapeutic for SARSCoV2 infections

Advantages

- Administration via oral, subcutaneous, intramuscular, or IV routes
- Increased stability compared to Pfizer small-molecule coronavirus protease inhibitor, PF-07321332

Patents

- Published Application: [WO2023114516](#)
- Published Application: [20250074938](#)

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