Novel inhibitors of coronavirus main protease (Mpro)

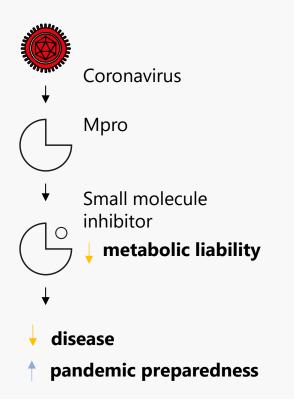


The Problem

- Three zoonotic coronavirus outbreaks since 2002
- COVID-19 persistence and likelihood of future coronaviruses with pandemic potential
- Known issues with 1st-generation antivirals prevent widespread adoption in the most vulnerable populations

The Solution

- Mpro is essential for viral replication and a validated antiviral target
- Potential for a <u>best-in-class</u> oral inhibitor of Mpro with no CYP inhibition, facilitating patient uptake by reducing drug-drug interactions
- Could be used as monotherapy or in combination to improve efficacy and reduce viral replication



Our Program

Progress:

- Patented, non-peptidomimetic, non-covalent inhibitors with single digit nM activity in in vitro infection models
- In vivo efficacy demonstrated in a mouse model of acute SARS-CoV-2 infection

Next steps:

Broad-spectrum testing against other diverse CoVs is under way
Seeking industry partnership to accelerate project to the clinic

Our Team

- Led by a multi-disciplinary team of drug discovery veterans with industry collaboration experience
- Victoria Jameson, PhD, Business Development jameson.v@wehi.edu.au