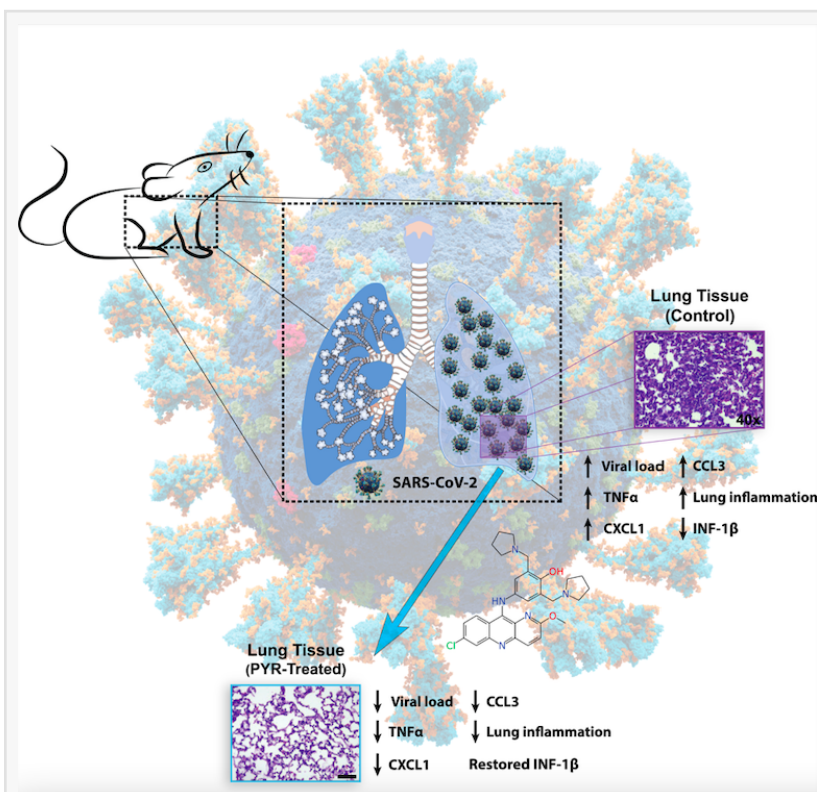


# Global Collaboration Demonstrates Pyronaridine is Active Against COVID-19 in an Animal Model

*Collaborations Pharmaceuticals, Inc. and international collaborators publish paper on pyronaridine and its protection against infection with SARS-CoV-2*

RALEIGH, NORTH CAROLINA, USA, May 25, 2022 /EINPresswire.com/ -- A team of scientists from [Collaborations Pharmaceuticals, Inc.](#) (CPI), [University of Sao Paulo](#) in Brazil and Research Center of Biotechnology (RAS) in Russia worked closely together to demonstrate the in vivo efficacy of pyronaridine in a mouse model of COVID-19 said Dr. Ana Puhl, Senior Scientist, CPI.

There are currently relatively few small-molecule antiviral drugs that are either approved or emergency approved for use against SARS-CoV-2. We had previously identified using machine learning models for Ebola virus, that pyronaridine had utility as an antiviral. During the COVID outbreak in 2020 we tested this molecule in vitro and demonstrated that it possessed antiviral activity similar to the approved drug remdesivir. We then reached out to a team of experienced COVID researchers at the University of Sao Paulo and embarked on testing pyronaridine in a transgenic mouse model. We showed that not only did pyronaridine decrease the viral load in mice, it also reduced cytokines including TNF- $\alpha$ , CXCL1 and CCL3 and restored levels of IFN- $\beta$ , ultimately demonstrating a protective effect against lung damage by infection. These findings that were recently published in [ACS Infectious Diseases](#)\* suggested that it may have a role in fighting the cytokine storm. We further identified potential antiviral targets for pyronaridine including PLpro. Our collaboration with RAS developed new analogs of pyronaridine, some with similar activity against PLpro. We now propose that pyronaridine could be used alone as a



Effects of pyronaridine treatment in mice infected with SARS-CoV-2

potential therapeutic candidate for COVID-19.

This represents a wonderful example of how global collaborations between public and private organizations during the COVID outbreak have coordinated research efforts, in order to prioritize clinical stage molecules for further evaluation. While there are currently clinical trials for a combination drug containing pyronaridine there had been no documented examples demonstrating that this drug alone could demonstrate antiviral activity against COVID until now. We are eager to pursue clinical trials for pyronaridine in the USA and elsewhere and are open to partnerships with companies or clinical researchers around the world said Dr. Puhl.



**\* Pyronaridine Protects against SARS-CoV-2 Infection in Mouse**



COVID-19 continues to have a devastating global effect and what is needed are antivirals that are readily accessible. Pyronaridine addresses antiviral targets and the cytokine storm."

*Dr. Sean Ekins, CEO, CPI*

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