Corporate Presentation

J.P. Morgan Healthcare Conference

January 2022

NASDAQ: PRDS

Pardes Biosciences™

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Chief Executive Officer & President

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Chief Scientific Officer

Brian Kearney, PharmD
Chief Development Officer

Elizabeth Lacy, JD
General Counsel

Heidi Henson
Chief Financial Officer

Sean Brusky
Chief Commercial Officer

Phil Tinmouth
Chief Business and Strategy Officer

Pardes Advisory Board Members

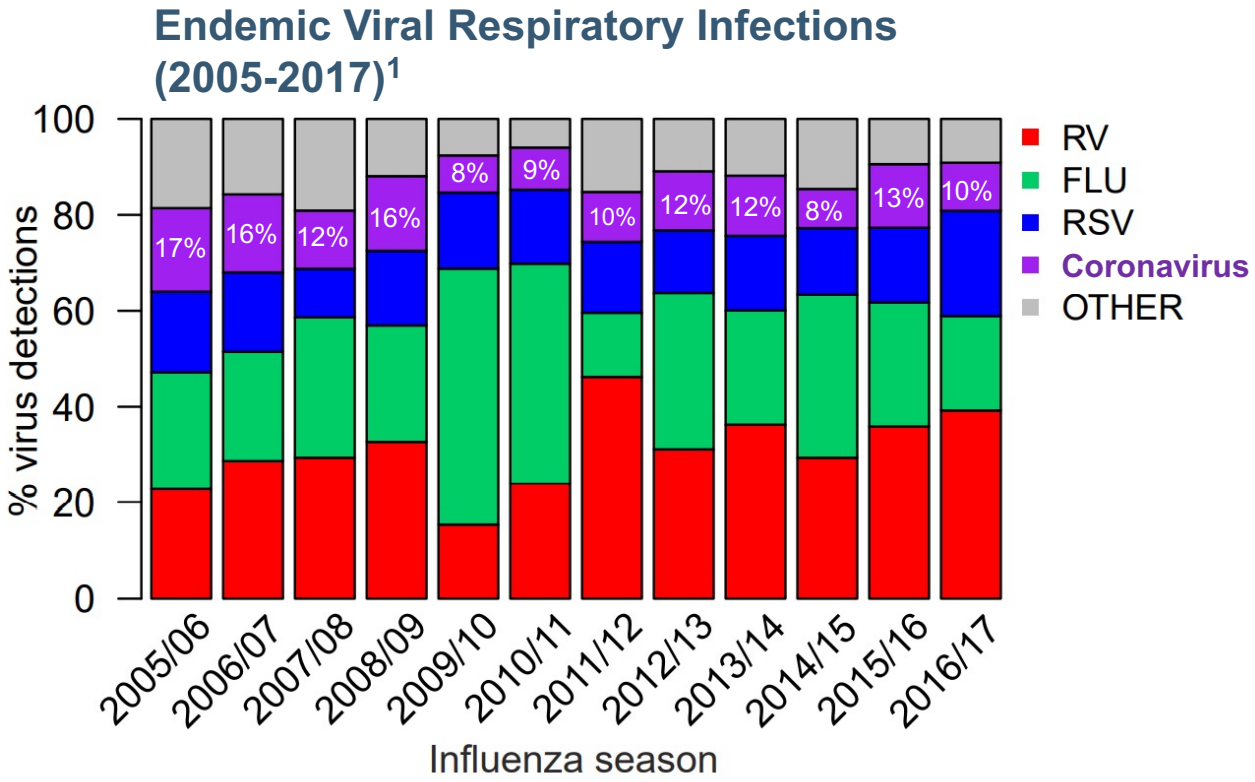
Mike Varney, PhD
Robert Zamboni, PhD
Carol Brosgart, MD
Tal Zaks, MD, PhD
Kenneth Bernard, MD
Clifford Samuel
Brad Jenkins

Executive Summary

- Founded in Feb 2020 to discover and develop oral antivirals for SARS-CoV-2
- Chemistry initiated April 2020, lead candidate (PBI-0451) nominated Dec 2020, Phase 1 initiated Aug 2021
- PBI-0451 is an oral antiviral inhibitor of the coronaviral main protease (M^{Pro})
  - Preliminary Phase 1 data shows potential for an oral PBI-0451 regimen to achieve and maintain target blood concentrations as a standalone drug
  - Initiation of a Phase 2/3 program targeted for mid 2022
  - Manufacturing activities are underway to support the Phase 2/3 trial, and potential for follow-on commercialization
- We continue to apply our reversible covalent chemistry to advance both next-generation protease inhibitor molecules as well as earlier, discovery stage programs
- On December 27, 2021, we began trading as a public company under the Pardes Biosciences name (NASDAQ: PRDS)
- ~$274M in gross proceeds from recently completed business combination

The "Old Normal": Life with Endemic Viral Respiratory Infections (VRI)

Before COVID-19, Viral Respiratory Infections already caused substantial economic impact and healthcare burden



- In 2001, symptomatic **non-influenza** VRIs **were estimated to cost ~$40B/year** (US)[2]
  - Direct medical costs ~$17B / year
  - Indirect costs ~$23B / year
    - ~20 million lost workdays
    - ~21 million lost school days

1 JID 2020:222 (1 July) • Nickbakhsh et al
2 Arch Intern Med 2003,163:487-494

The “New Normal”: Living With a Potentially Endemic SARS-CoV-2

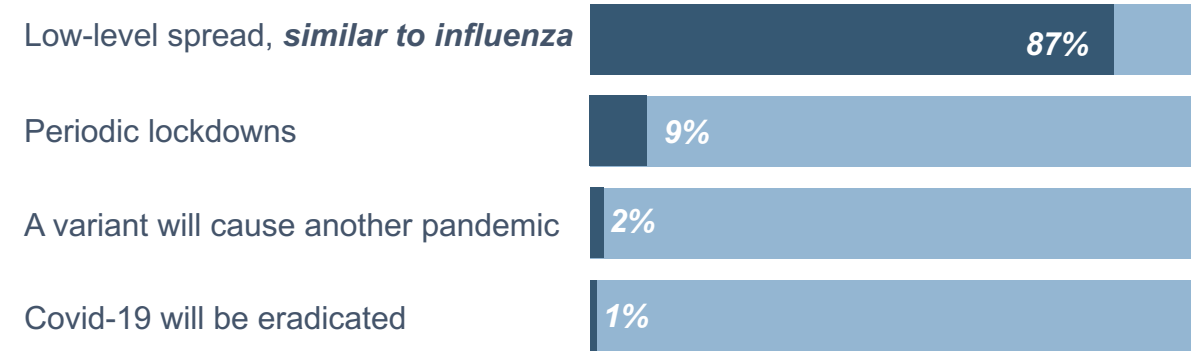
SARS-CoV-2 is likely to persist

- Persistent vaccine hesitancy
- Infections have been seen year round
- Potential for seasonal surges
- Politicized nature of interventions
- Breakthrough cases
- Immigration & global travel
- Emerging variants
- Potential for zoonotic transfer

What might COVID-19 be like in 2026?

“723 epidemiologists on when and how the U.S. can fully return to normal”

“Thinking around five years into the future, if you had to guess, what will the state of COVID-19 be in the United States?”



NYT, May 15, 2021

Without a therapy, recurring SARS-CoV-2 “similar to Influenza” threatens to pose a significant burden

Influenza Experience Informs Potential Adoption of Oral SARS-CoV-2 Antivirals

Historical Influenza Oral Antiviral Adoption (U.S. 2014 – 2020)

Incidence ~ 24 - 41M Infections / year (U.S.)[1]

- ↓ % Getting Tested
- ↓ % Seeking Rx
- ↓ % Receiving Rx
- ↓ % Filling Rx

% of Eligible Patients Treated ~14%[2]

Key Factors Driving Rx Adoption Rate

Confirmed Diagnosis

↓

Filled Rx

Potential SARS-CoV-2 Oral Antiviral Adoption (U.S. 2024+)

Number of Annual Infections Challenging to Forecast

- % Getting Tested ↑↑↑
- % Seeking Rx ↑↑
- % Receiving Rx ↑?
- % Filling Rx ↑?

↑ % vs Flu

\+

Prophylaxis (~2-3X Infections)

\+

Potential Stockpiling

Effective antivirals for SARS-CoV-2 anticipated to have significant demand and adoption

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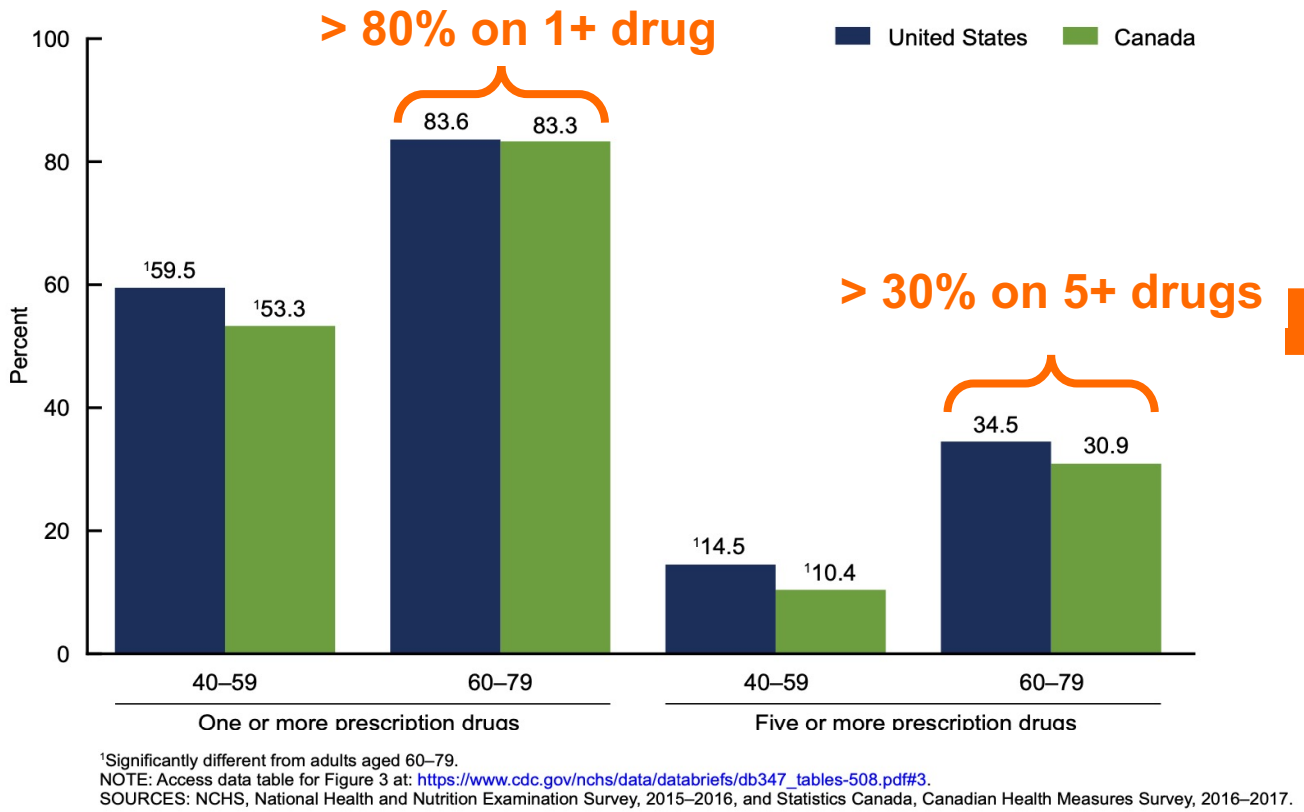
1 https://www.cdc.gov/flu/about/burden/index.html
2 Internal Pardes analysis and estimates based on Roche Annual Financial Reports (2013-2017)

Patients Will Need Antivirals With Low Risk for Drug-Drug Interactions

Use of prescription drugs in the past 30 days among adults
United States (2015–2016) and Canada (2016–2017)[i]



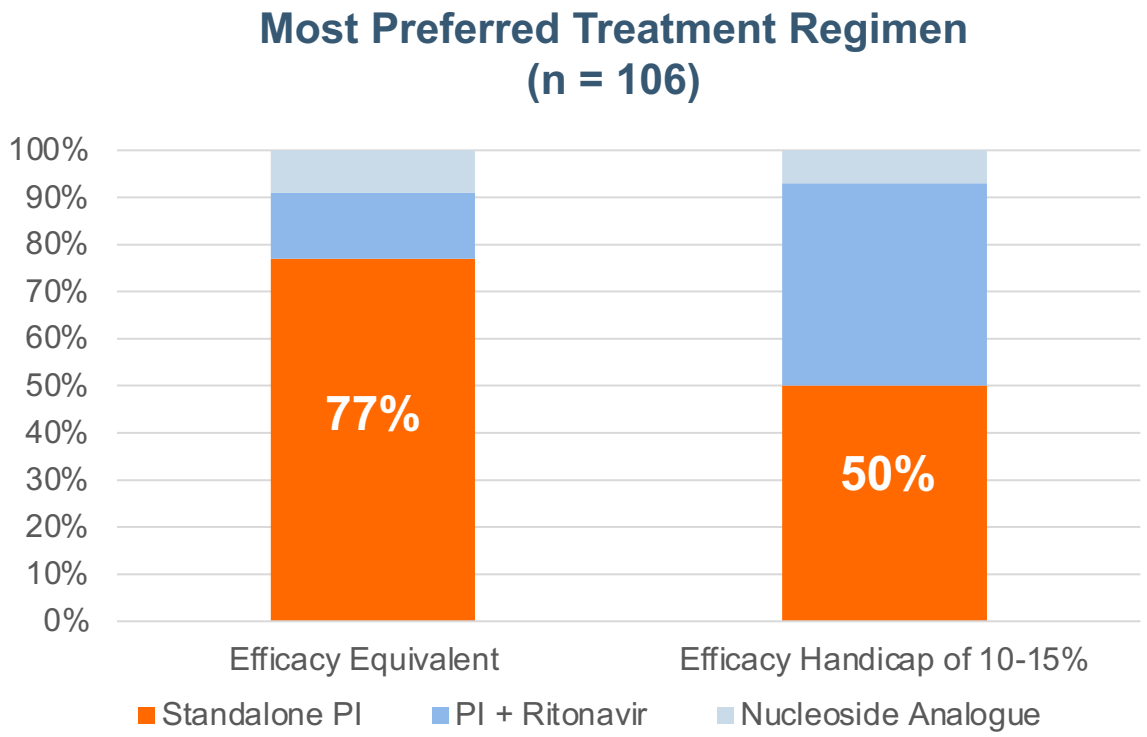
[1]Significantly different from adults aged 60–79.
NOTE: Access data table for Figure 3 at: https://www.cdc.gov/nchs/data/databriefs/db347_tables-508.pdf#3.
SOURCES: NCHS, National Health and Nutrition Examination Survey, 2015–2016, and Statistics Canada, Canadian Health Measures Survey, 2016–2017.

22% of US Population is > 60yo[ii]

- **Over 80% taking one or more prescription drugs[i]**
- **Over 30% taking five or more prescription drugs[i]**
- **Many of these are common medications which can be hard to pause – such as blood thinners, antipsychotics, antidepressants and anti-arrythmia medications [iii-v]**

i https://www.cdc.gov/nchs/data/databriefs/db347-h.pdf
ii livingfacts.org; Source: Pew Research center
iii https://www.med.umich.edu/asp/pdf/outpatient_guidelines/COVID-19-amb-treatment.pdf
iv https://www.covid19treatmentguidelines.nih.gov/therapies/statement-on-paxlovid-drug-drug-interactions/
v https://www.fda.gov/media/155050/download

Efficacy + Drug-Drug Interactions = Key Drivers of Physician Prescribing



"All else being equal, **I'd strongly prefer a regimen that did not require ritonavir boosting**. In addition to the safety and liability considerations that come with potential drug-drug interactions, **it would be harder to start a patient on therapy quickly until their other meds are stopped or adjusted.** Time to initiation of treatment is critical with oral antivirals."

– Physician, Large group practice, Midwest

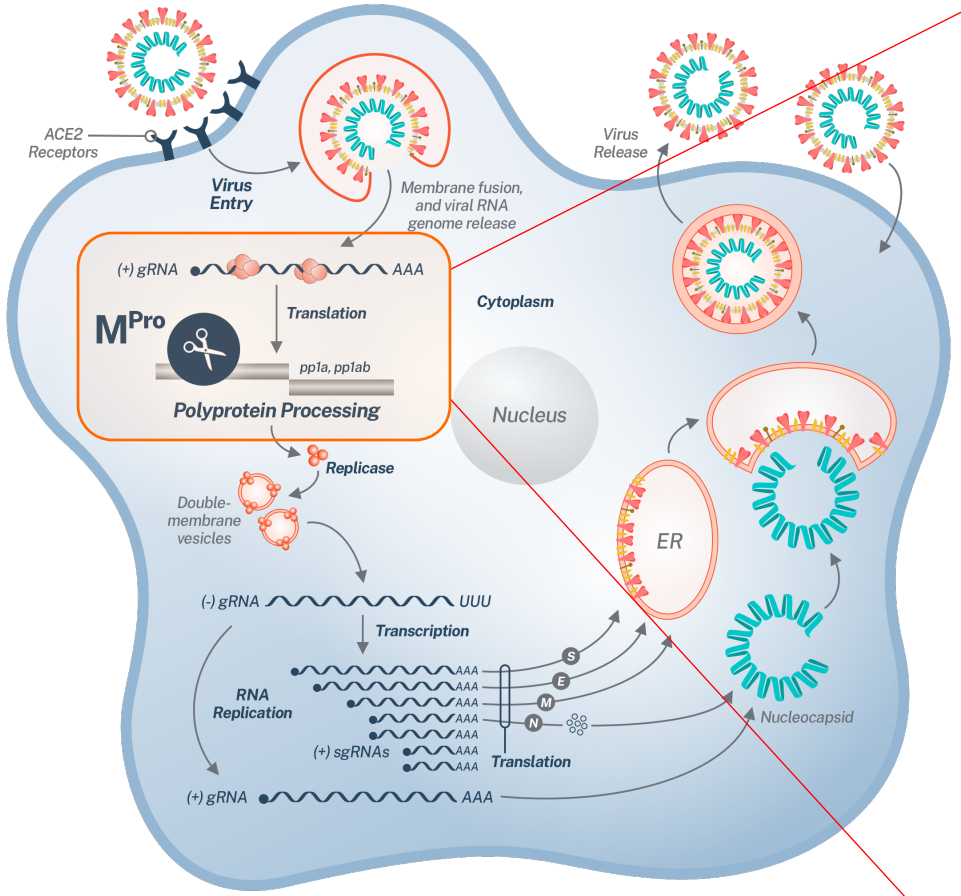
Source: Pardes blinded primary market research conducted with ZoomRx December 2021 (n = 106 MDs)

Standalone Protease Inhibitors Have Potential For a Substantial Market

	2022	2023	2024+
Possible unmet market need	Insufficient supply of oral COVID-19 antivirals to meet projected global demand	Additional options needed for elderly, at risk populations on multiple other medicines	Multiple oral antiviral options with different mechanisms of action and resistance profiles
Diagnostics and Telemedicine Availability		• Telemedicine • Point-of-care and at-home testing	
Potential anti-coronaviral market evolution*	• **PI + Ritonavir** • **Monoclonal antibodies** • **Nucleoside analogue**	• **Standalone PI(s)**[1] • **PI + Ritonavir** • **Monoclonal antibodies**[2] • **Nucleoside analogue / Polymerase inhibitors**	

1. Pending successful completion of trials and global regulatory reviews, authorizations and approvals
2. To date, decreasing efficacy seen for several antibody therapies over time

Viral Main Protease (M^{pro}): A Promising Pan-Coronavirus Target[1-3]

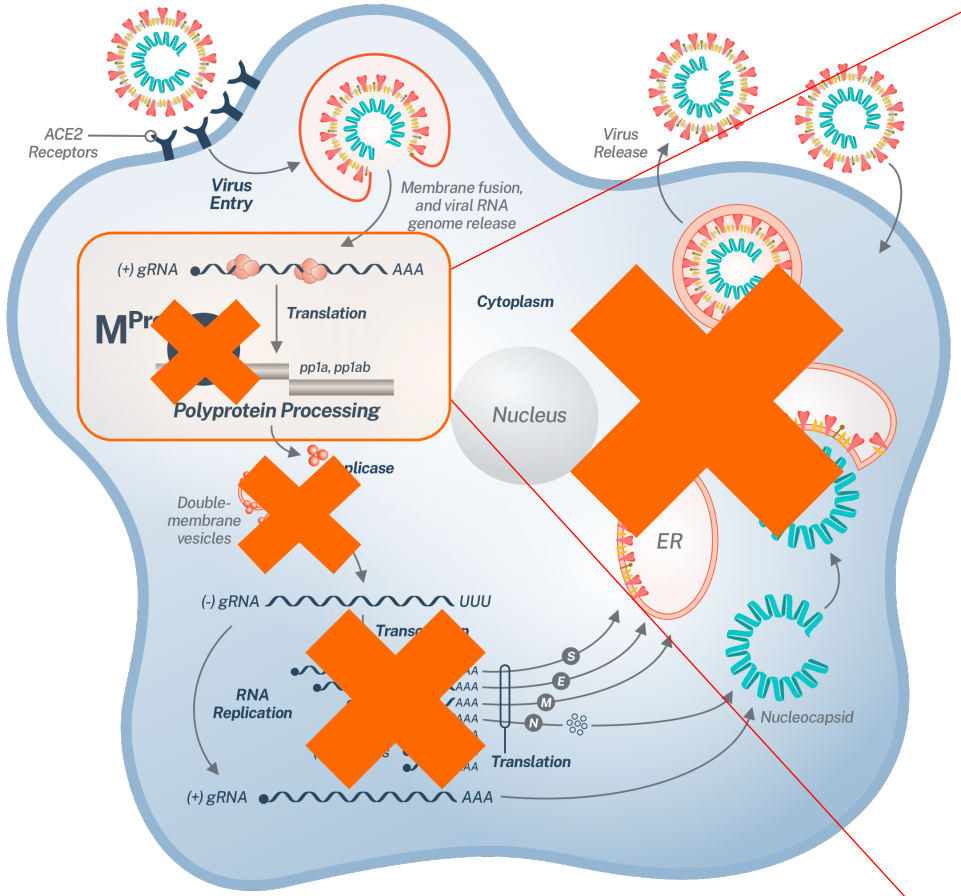


Rationale for Targeting Main Protease (M^{pro})

- **An essential early** step
- **Critical** for virus replication
- **Viral protein** with no human analog
- M^{pro} function **dependent** on reactive cysteine nucleophile
- **Appropriate target** for Pardes' reversible covalent chemistry

1. Bioorg Med Chem Lett. 2020 Sep 1; 30(17): 127377.
2. *Science Translational Medicine* 19 Aug 2020:Vol557.
3. biorxiv.org/content/10.1101/2020.09.12.293498v2.full.pdf.

Viral Main Protease (M^{pro}): A Clinically Validated Target



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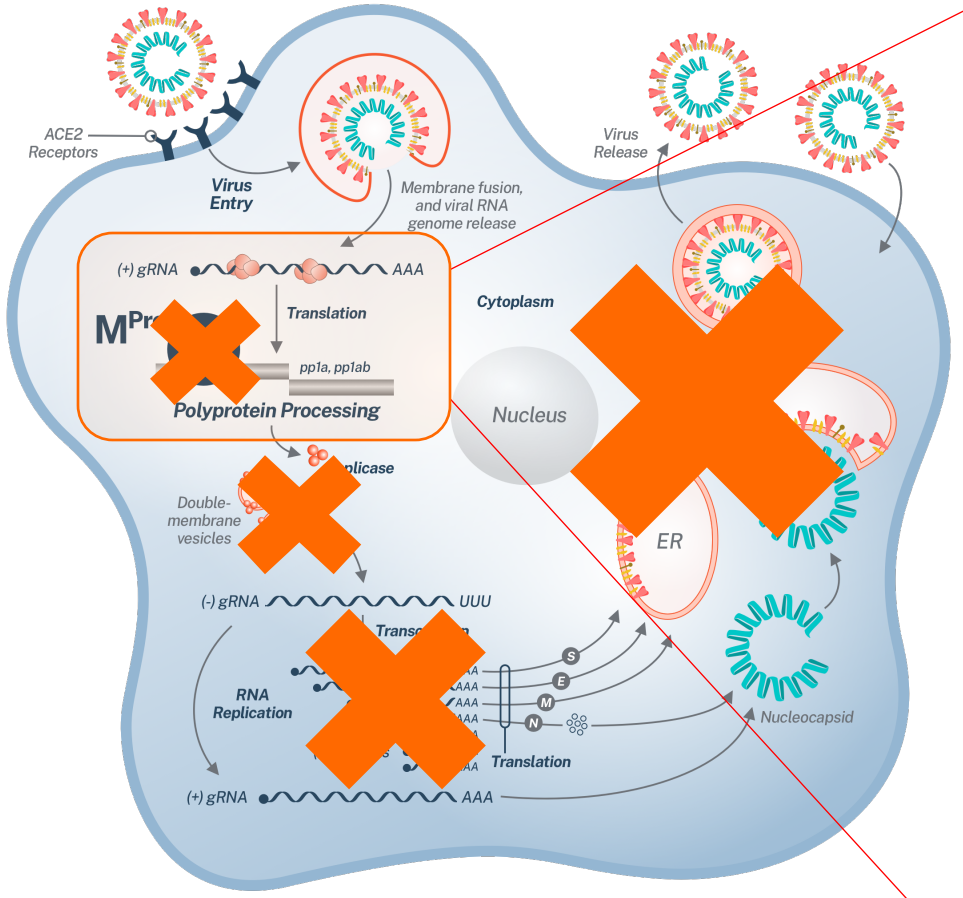
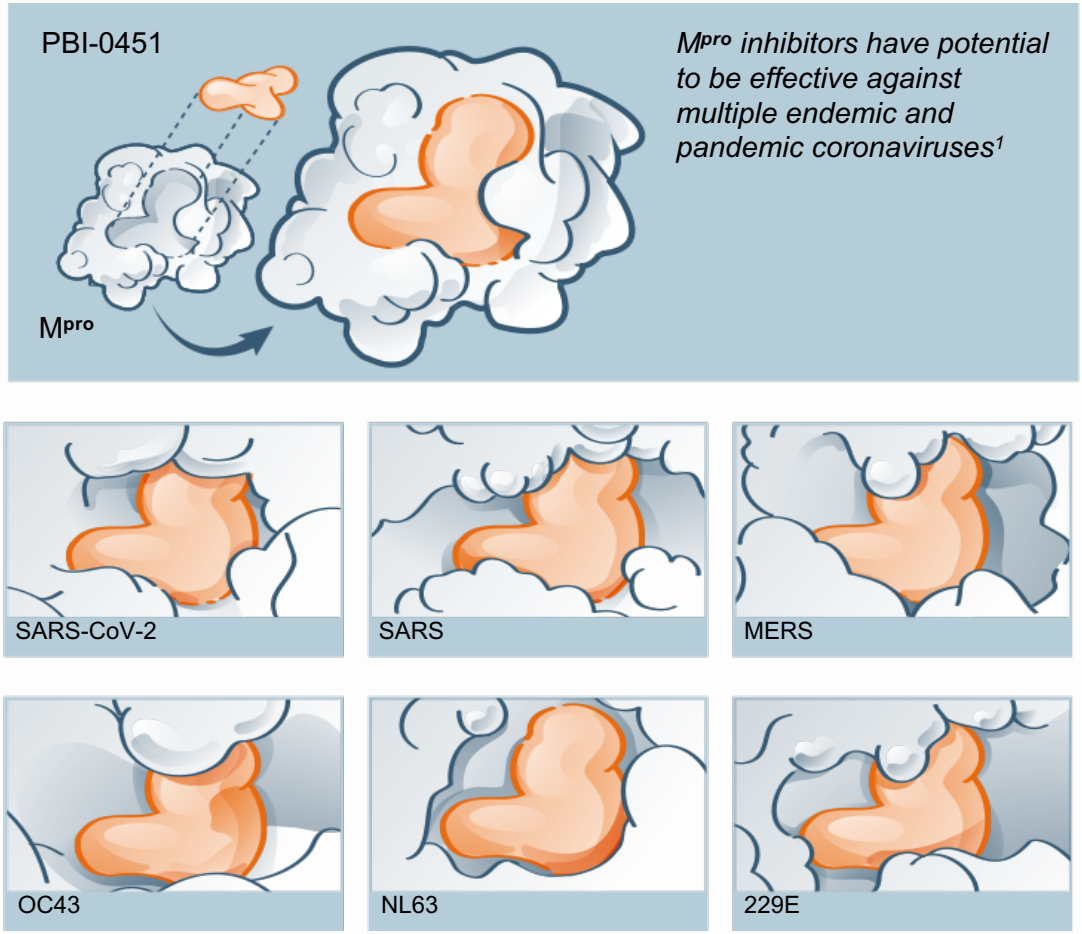
The Main Protease Active Site is Similar Across Coronaviruses

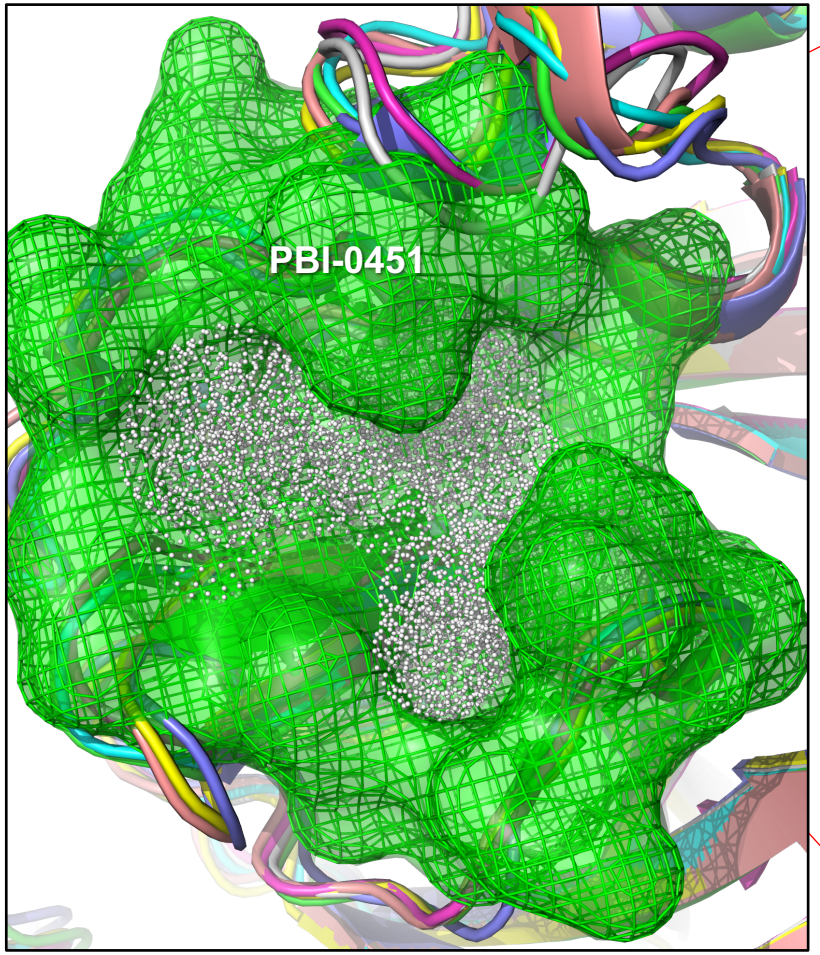


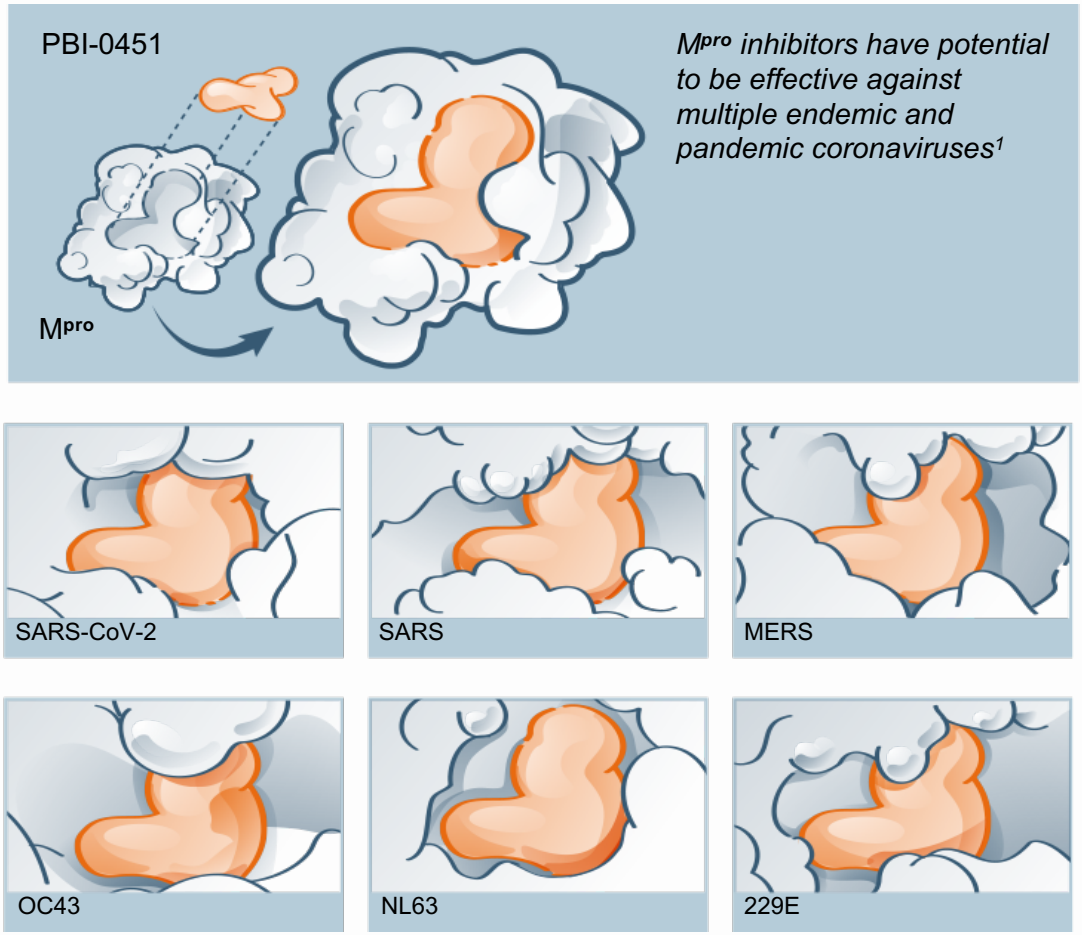


1. Including variants of concern (including Delta, Lambda, Mu etc)

1. Bioorg Med Chem Lett. 2020 Sep 1; 30(17): 127377.
2. *Science Translational Medicine* 19 Aug 2020:Vol557.
3. biorxiv.org/content/10.1101/2020.09.12.293498v2.full.pdf.

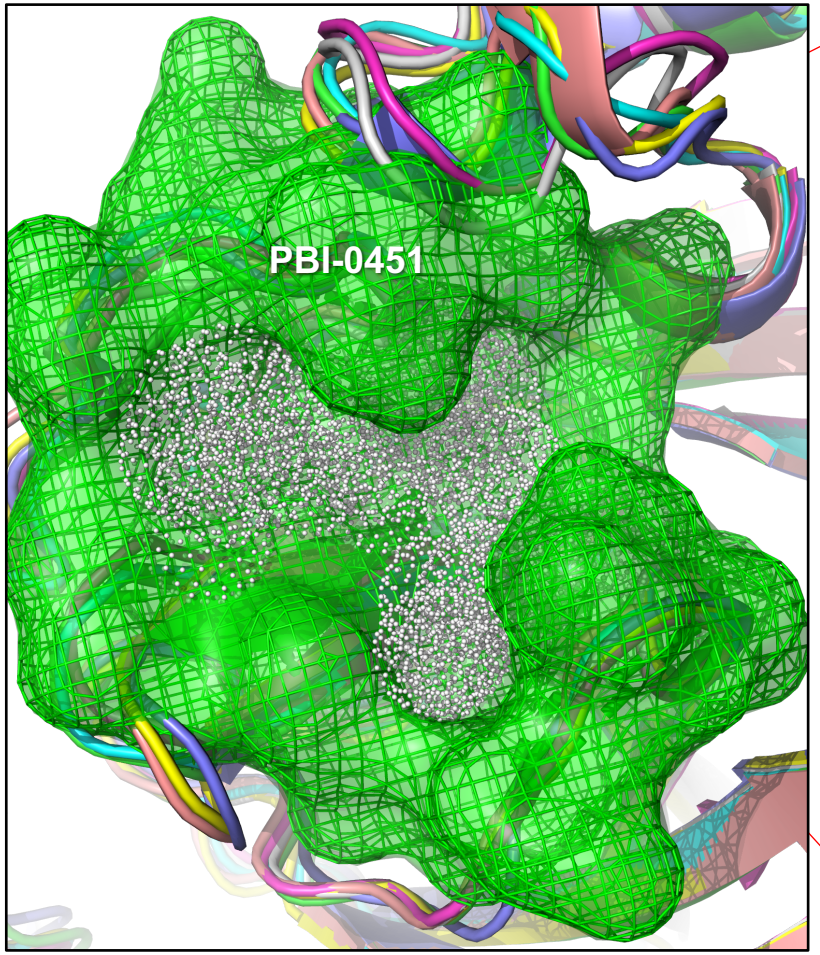
Similarity of the Main Protease Active Site Across Coronaviruses





1. Including variants of concern (including Delta, Lambda, Mu etc)

PBI-0451: Broad Activity Against Diverse Coronaviral Protease *in-vitro*



Coronavirus M^{pro}	PBI-0451 Activity vs Protease* IC_{50} (μM; Min,Max)
SARS-CoV-2	**0.02 - 0.03**
SARS-CoV	0.05 - 0.08
MERS-CoV	0.41 - 0.62
CoV-229E	0.12 - 0.17
CoV-OC43	0.15 – 0.20
CoV-HKU1	0.07 - 0.13
CoV-NL63	0.24 - 0.38

* IC50 = 50% inhibitory concentration in In vitro activity; lower numbers = greater potency

PBI-0451: Consistent Potent Activity in Cell-Based SARS-CoV-2 Assays (Including Delta Variant)

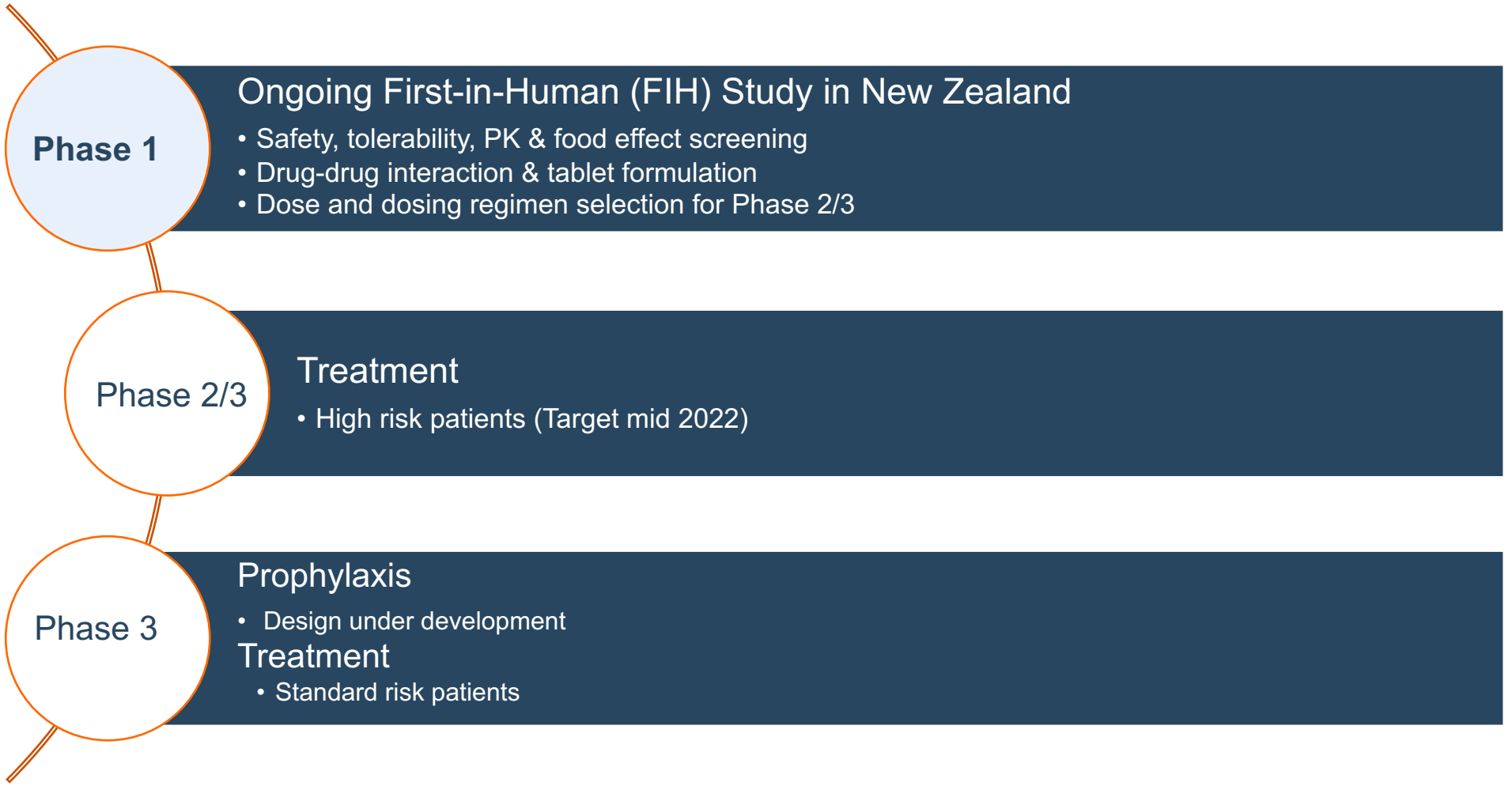
Cell line	Virus	Antiviral assay	EC_{90} (nM, Avg±SD)	CC_{50} (nM)
Induced Alveolar Type 2 Cells[1]	SARS-CoV-2 WA1 (MOI[3] 0.004)	SARS-CoV2 (PFU/ml)	106 (±90) N=4	>2,000
Induced Alveolar Type 2 Cells[1]	SARS-CoV-2 WA1 (MOI 0.004)	SARS-CoV2 (RNA copy/ml)	67 (±35) N=4	>2,000
A549-ACE2 cell line[1]	SARS-CoV-2_Nluc (MOI 0.025)	SARS CoV-2 (Nanoluciferase)	114 (±85)* N=6	>10,000
Vero E6 cell line (+efflux inhibitor)[2]	SARS-CoV2 (Delta, MOI 0.002)	Cytoprotective Effect	78 N=1	37,000
Vero E6 cell line (+efflux inhibitor)[2]	SARS-CoV2 (Delta, MOI 0.002)	Viral Yield Reduction	<32 N=1	37,000

1 Vanderbilt University Medical Center
2 Utah State University
3 MOI = Multiplicity of infection

EC_{90} = 90% maximal effective concentration in cell-based assays; lower numbers = greater potency
CC_{50} = Concentration to reduce cell viability by 50% in cell-based assays; Higher numbers = less cellular toxicity

Used for plasma protein binding-adjusted EC_{90} determinations (comparative equilibrium dialysis; method per Mo H. et al. J. Viral Hepat. 2011)

Clinical Program Overview



Phase 1 First-in-Human Study of PBI-0451: Design and Objectives

PBI-0451 FIH tolerability, safety and pharmacokinetics (PK) study of PBI-0451

- **Objectives**: Inform on dose and dosing regimen, as well as effect of food and select drug-drug interactions
- **Design**: Dose escalating tolerability, safety and PK in healthy subjects
  - **Single and multiple (10 days) dose escalation**: Ongoing*
  - **Food effect screening** (representative FDA low-fat meal)**:** Complete
  - **Drug-drug interaction assessment**: Partially complete
  - **Formulation:** Powder-in-bottle suspension → tablet transition

**Study initiated in New Zealand in Aug 2021 coincident with delta variant outbreak that slowed initial study conduct due to quarantine. Currently anticipated to complete dosing in 1Q2022 assuming minimal delays attributable to factors such as COVID-19 outbreaks.*

Phase 1: Preliminary Interim Data

- **Clinical safety observations (as of Jan 2, 2022)**
  - Generally well-tolerated
  - No study drug interruptions or discontinuations
  - All adverse events reported by the Investigator as “mild”, most considered unrelated or possibly related
  - No reported clinically significant abnormal laboratory or other safety data
- **Single dose PK profile**
  - Good oral bioavailability
  - Rapidly exceeds target plasma protein binding adjusted EC_{90} value* (374ng/mL)
  - Dose-proportional increase in concentrations over 10-fold dose range
- **Preliminary single dose data support potential for a standalone oral regimen to achieve and maintain concentrations above target plasma protein binding-adjusted EC_{90} value**
  - Multiple dose PK profile with tablet formulation to inform on Phase 2/3 dose and dosing regimen selection

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**Plasma protein binding-adjusted EC_{90} = 374 ng/ml by comparative equilibrium dialysis; (method per Mo H. et al. J. Viral Hepat. 2011)*

Phase 1 Program: Next Steps

- **Complete FIH study**
  - Multiple ascending doses (ongoing)†
  - Drug-drug interaction (partially complete)†
- **Additional anticipated Phase 1 studies**
  - **US IND submitted December 2021 (currently under FDA review)**
    - Definitive food effect (with tablets, in line with regulatory guidance for labelling)†
    - Drug-drug interactions (key/common concomitant medications, e.g., hormonal (oral) contraceptives, inducers of metabolism, CYP450 substrates)†
    - Mass Balance/ADME
    - Special Population PK: renal impairment or hepatic impairment

† High-risk Phase 2/3 study–enabling

Phase 2/3 Program: Anticipated Study Timing, Designs and Objectives

- **Geographically diverse Phase 2/3 initiation targeted for mid 2022, pending dose selection & regulatory interactions**
- **Studies anticipated to be in outpatients with mild-to-moderate COVID-19**
  - Initial Phase 2/3 **Treatment** study in subjects with **high-risk:** COVID-related Hospitalizations/Death anticipated as primary endpoint[1]
  - Phase 3 **Prophylaxis** study linked to treatment study: Reduced transmission anticipated as primary endpoint[1]
  - Additional **Treatment** studies under consideration include[1]:
    - Evaluation in subjects with standard-risk
    - Evaluation(s) in key subpopulations
      - Immunocompromised
      - Study in individuals for whom ritonavir is contraindicated (comorbidities requiring concomitant medications)

1 Study designs, endpoints and timing subject to, and informed by, Phase 1 results and subject to discussion with, and approval by, regulatory agencies

Intellectual Property and Manufacturing Overview

- Pardes has multiple issued U.S. patents, including composition of matter for PBI-0451
  - Continuations of our patents have been filed with U.S. PTO
  - We continue to file IP on PBI-0451 polymorphs, process chemistry, formulations as well as compounds and technology related to our research programs and platform
- We have adequate capacity and capital to produce clinical trial material for our current clinical program projected needs
  - Initial Phase 2/3 supply has been manufactured with completion of the supply anticipated in 2Q 2022
- Current manufacturing process has potential for commercial scale
  - CDMO relationship established for potential commercial scale manufacture

Pardes Biosciences Pipeline

INDICATION	PROGRAM	DISCOVERY	OPTIMIZATION	IND ENABLING	PHASE 1	PHASE 2/3	Next Milestone Anticipated*
INFECTIOUS DISEASE	**PBI-0451** Coronavirus Protease Inhibitor					**MID 2022***	FIH Data 1Q 2022
	Coronavirus Gen 2			**2H 2022***			IND Enabling Studies 2H 2022
	Virology (non-coronavirus)						Target Nomination 2022
INFLAMMATION/ ONCOLOGY	Undisclosed						Target Nomination 2022

**Estimated initiation dates*

All programs internally developed and wholly owned

Key Objectives and Anticipated Progress through 2022

2021

- ✓ Nominate development candidate and complete IND enabling studies
- ✓ Initiate Phase 1 study – PBI-0451
- ✓ Initiated scale up of drug product for Ph 2/3
- ✓ Initiated 2nd Gen Program

2022

- ❑ SARS-CoV-2 Oral Antivirals
  - ❑ Completion of PBI-0451 Phase 1
  - ❑ Initiate Phase 2/3 for PBI-0451
  - ❑ Initiate 2nd Gen IND enabling studies
- ❑ Advance Non-coronaviral Programs
- ❑ Corporate build out

~$274M in gross proceeds from recently completed business combination

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Thank you

Pardes Biosciences™