Second Quarter 2021 Financial Results, Clinical and Corporate Update

August 12, 2021

NASDAQ: AVIR

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Forward-Looking Statements

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Industry Information

Market data and industry information used throughout this presentation are based on management's knowledge of the industry and the good faith estimates of management. We also relied, to the extent available, upon management's review of independent industry surveys and publications and other publicly available information prepared by a number of third-party sources. All of the market data and industry information used in this presentation involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. Although we believe that these sources are reliable, we cannot guarantee the accuracy or completeness of this information, and we have not independently verified this information. While we believe the estimated market position, market opportunity and market size information included in this presentation are generally reliable, such information, which is derived in part from management's estimates and beliefs, is inherently uncertain and imprecise. No representations or warranties are made by the Company or any of its affiliates as to the accuracy of any such statements or projections. Projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described above. These and other factors could cause results to differ materially from those expressed in our estimates and beliefs and in the estimates prepared by independent parties.

COVID-19

Emerging Variants and New Waves of Infection Require Multipronged Approach

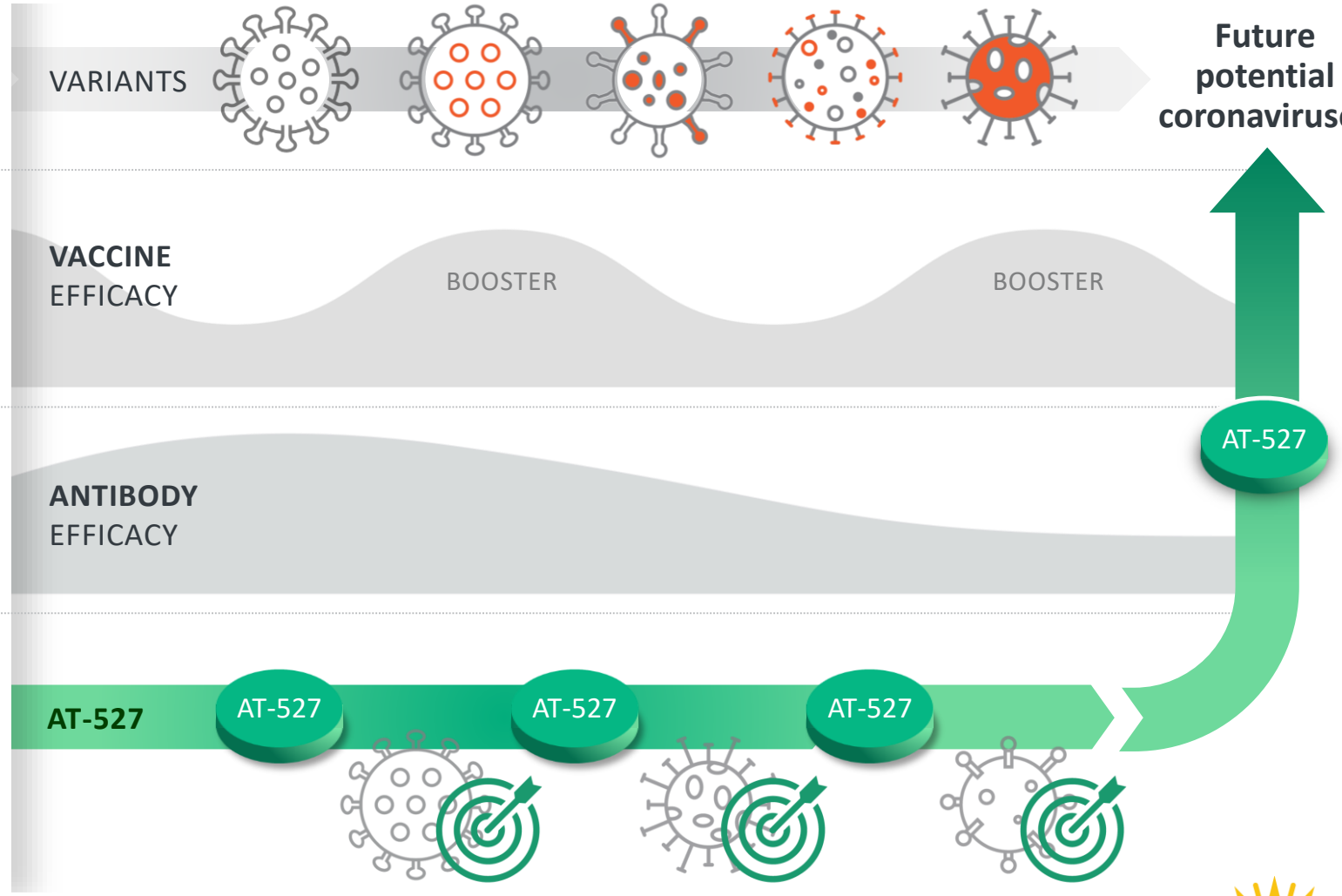
AT-527 Being Evaluated for COVID-19

Variants have and will continue to emerge; significantly increased transmission with Delta variant

Vaccine Vaccines have variable uptake globally, susceptible to variant (Delta) breakthroughs, data collection ongoing around need for boosters

Antibody Antibodies can be invasive, administered in clinical setting, variable efficacy with emerging variants

AT-527 targets SARS-CoV-2 RNA polymerase (nsp12), a highly conserved gene, thus potentially limiting impact of naturally-evolving variants



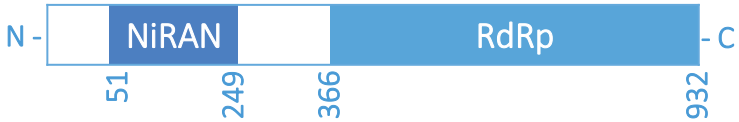
AT-527

AT-527 Addresses Key Challenges of COVID-19:

Oral Pill with MOA Designed to Inhibit Viral Replication

- Oral, target specific, direct-acting antiviral (DAA)
- Targets viral RNA polymerase, highly conserved enzyme critical to viral replication
- Unique dual mechanism: Inhibits both NiRAN and RdRp, potentially creating a high barrier to resistance and providing broad antiviral coverage to coronaviruses and different variants of SARS-CoV-2
- Rapid reduction in viral load leading to viral clearance demonstrated in Phase 2 study in hospitalized patients
- Generally safe and well tolerated (no drug related SAEs or discontinuations)
- Targeting outpatient settings for treatment & prophylaxis and hospitalized use
- Global collaboration with Roche with multiple clinical trials advancing in parallel, including global Phase 3 MORNINGSKY trial

Nsp12 Functional Domains
SARS-Cov-2



RdRp = RNA-dependent RNA polymerase
NiRAN = Nidovirus RdRp-Associated Nucleotidyltransferase

Roche

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Clinical Development Update

Additional Phase 2 Interim Results and New Phase 1 and Nonclinical Data

AT-527

COVID-19: Multiple Clinical Trials Active & Reporting Results in 2021 & 2022

TRIAL	DESCRIPTION	TIMING
Phase 1 Healthy Volunteers	PK safety study, clinical pharmacology, standard drug-drug interaction trials and dosing up to 1100 mg BID	Positive results announced with first cohort; Ongoing studies
Phase 2 Hospitalized Patients with Moderate COVID-19	Safety, tolerability, and virology	Ongoing 2Q 2021 Reported Positive Interim Virology Results
Phase 2 MOONSONG Outpatient Trial Mild to Moderate Patients +/- Risk Factors	Antiviral activity of AT-527 compared with placebo in outpatients Safety, PK, PK/PD	Ongoing 2H 2021 Interim Virology Data Anticipated
Phase 3 MORNINGSKY Outpatient Global Trial*	Time to alleviation of symptoms/medically attended visits, mortality and virological endpoints	Ongoing 2H 2021 Results Anticipated
Phase 3 Follow-on MEADOWSPRING Long-Term Follow-on Study	Evaluate AT-527 impact on long-term sequelae of COVID-19 patients previously enrolled in MORNINGSKY	Ongoing 2Q 2021 Initiated
Supplemental Phase 3 MARJORAM Prophylaxis Study*	Evaluate efficacy of AT-527 preventing infection in SARS-CoV-2 contacts of patients	2H 2021 Anticipated Initiation

*Country-by-country specific details to be finalized following consultation with applicable regulatory authorities.

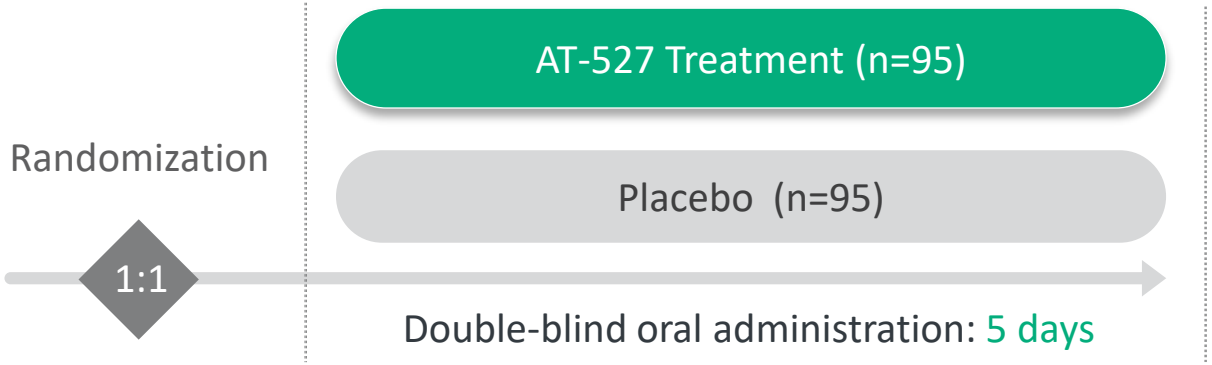
AT-527

Global Phase 2 Trial COVID-19:

Hospitalized Setting in Moderate Patients

Inclusion Criteria: adult patients (≥ 18 years old) with risk factors (obesity, diabetes, hypertension), symptoms for ≤ 5 days

Countries: Global Study



Primary and Key Secondary Objectives:

- Safety and tolerability
- Virology endpoint
- Reduction in progressive respiratory insufficiency
- Improvement vs. worsening in the NIAID ordinal scale of overall clinical status
- Time to clinical recovery
- Duration of hospitalization
- Time to non-detectable SARS-CoV-2
- PK/PD substudy

Next Steps:

- Part A – 550 mg BID completed; results announced
- Based on evolving COVID-19 environment (limited progression respiratory insufficiency) and study design, amending protocol to virology as the primary endpoint
- Part B – second cohort up to 110 patients; exploring alternative doses

AT-527

Key Baseline Characteristics of Global Phase 2 Study in Hospitalized Patients:

Evaluation of AT-527 in Diverse Global Population and Virus Variants

- Diverse Global Population:
  - Broad virus lineage, with > 20 variants including variants of concern, Alpha and Beta
  - Global footprint in 7 countries in North America, Europe, African, and South America, representing a wide geographic distribution

- To date, the only predominant mutation that has emerged in the RNA polymerase is the P323L mutation. At baseline, 98% of patients sequenced had that specific mutation and responded to AT-527 treatment

- 46% of patients were SARS-CoV-2 seropositive (IgM) at baseline and were equally distributed across treatment arms. As expected, seropositive patients had lower baseline viral load

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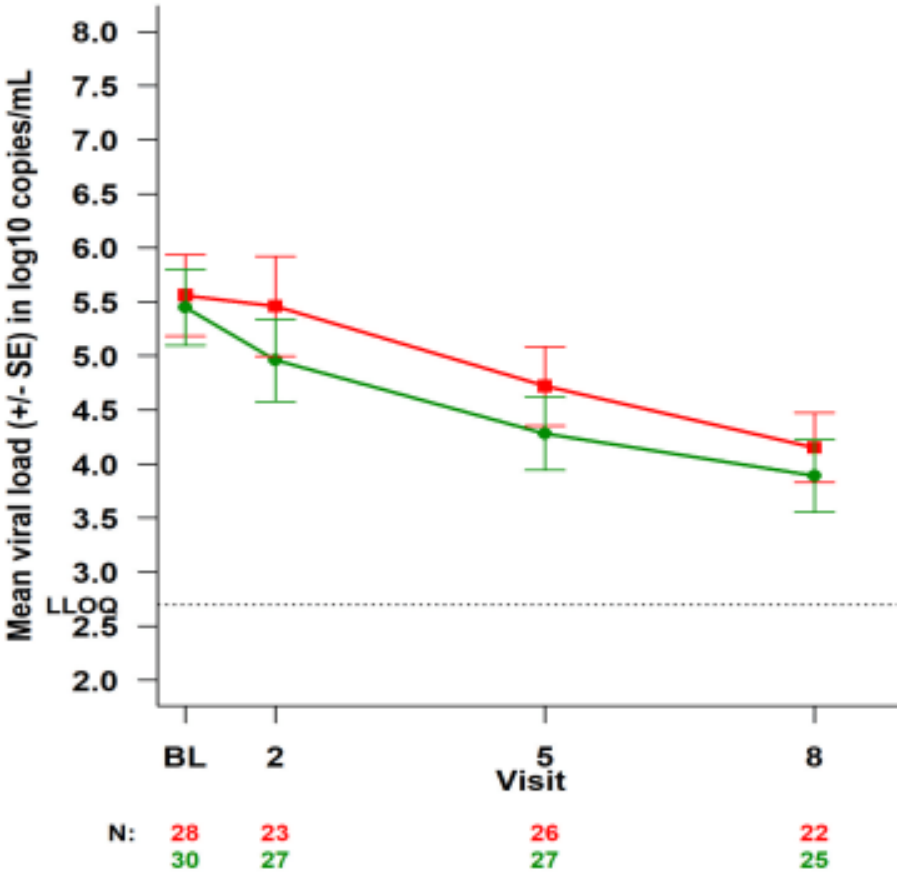
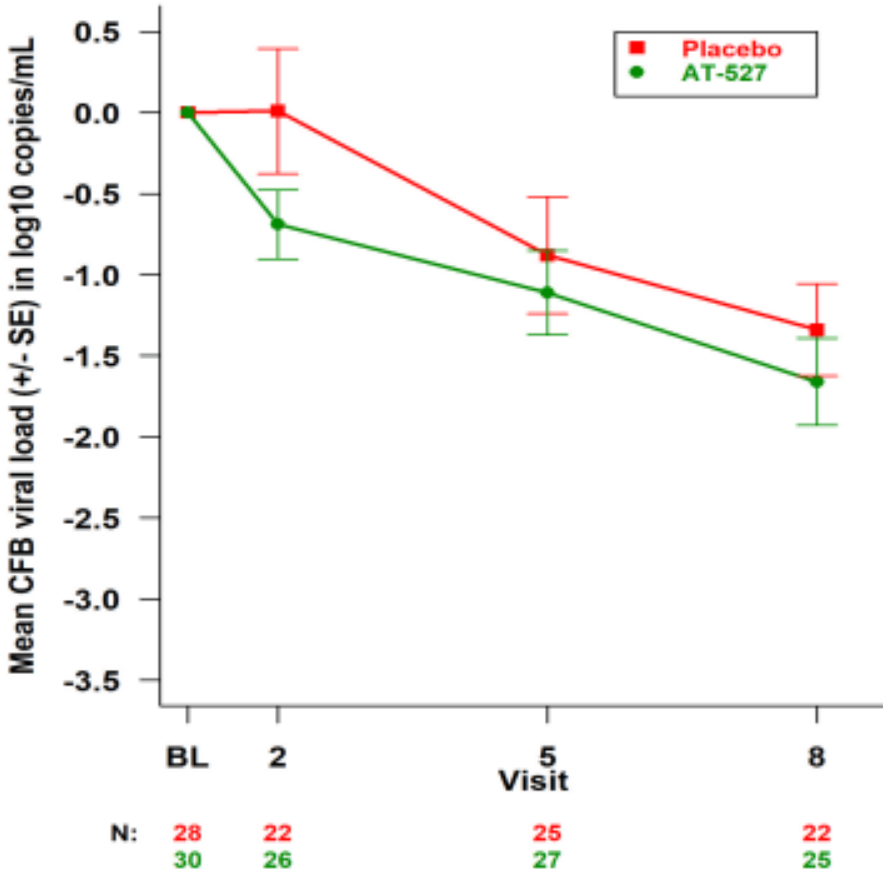
Global Phase 2 Hospitalized Study Interim Results for COVID-19:

Rapid and Sustained Decrease in Viral Load in All Evaluable Patients

Viral Load



Decrease from Baseline Effect at Day 2: -0.7 log



Viral load decline is consistent with decreasing SARS-CoV-2 viral replication

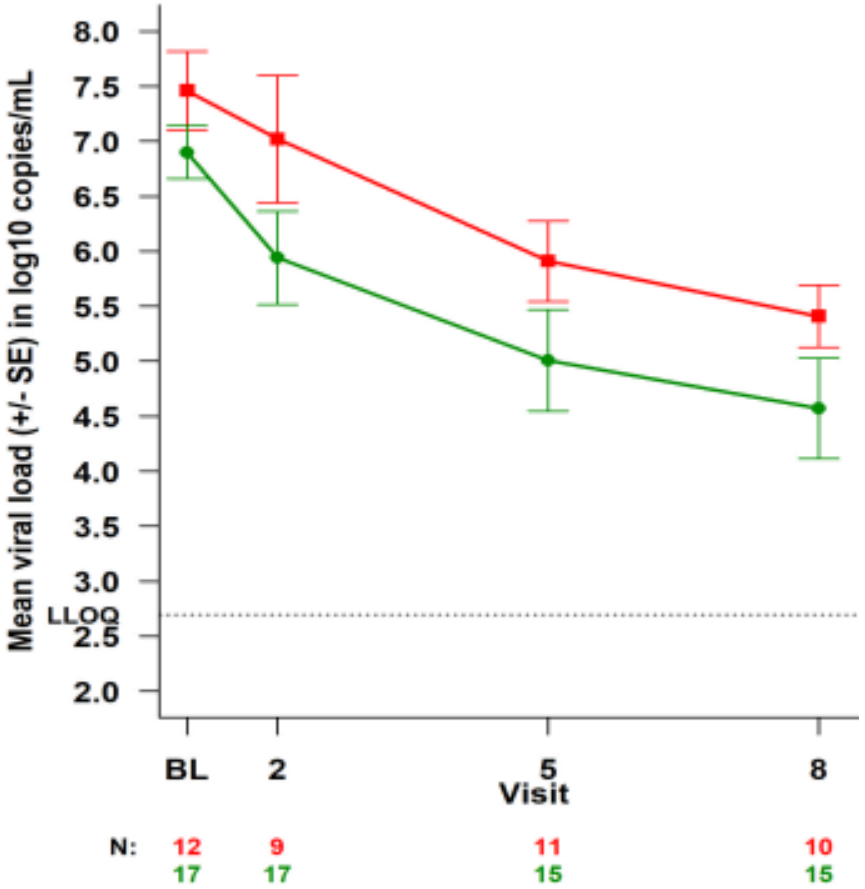
Earlier PCR negativity may lead to faster recovery time while minimizing transmission of infection

AT-527

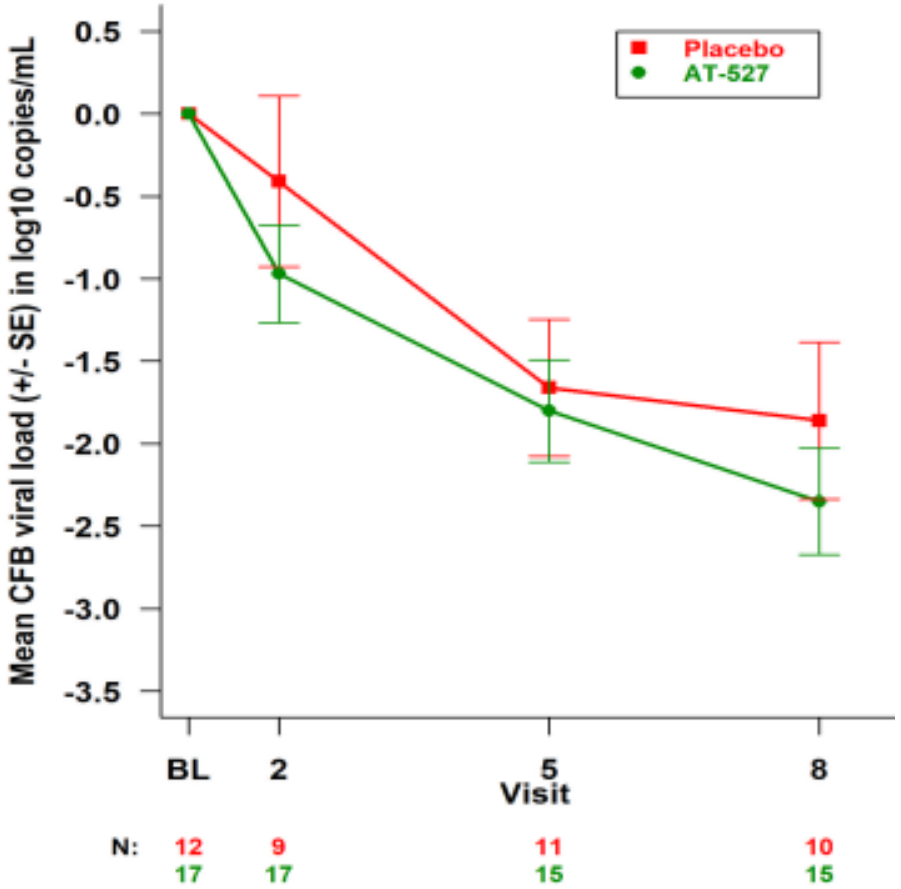
Global Phase 2 Hospitalized Study Interim Results for COVID-19:

Rapid and Sustained Viral Load Decrease in Patients with Baseline Viral Load Greater than Median of 5.26 Log_{10} (Median Value)

Viral Load



Decrease from Baseline



Viral load decline is consistent with decreasing SARS-CoV-2 viral replication

Earlier PCR negativity may lead to faster recovery time while minimizing transmission of infection

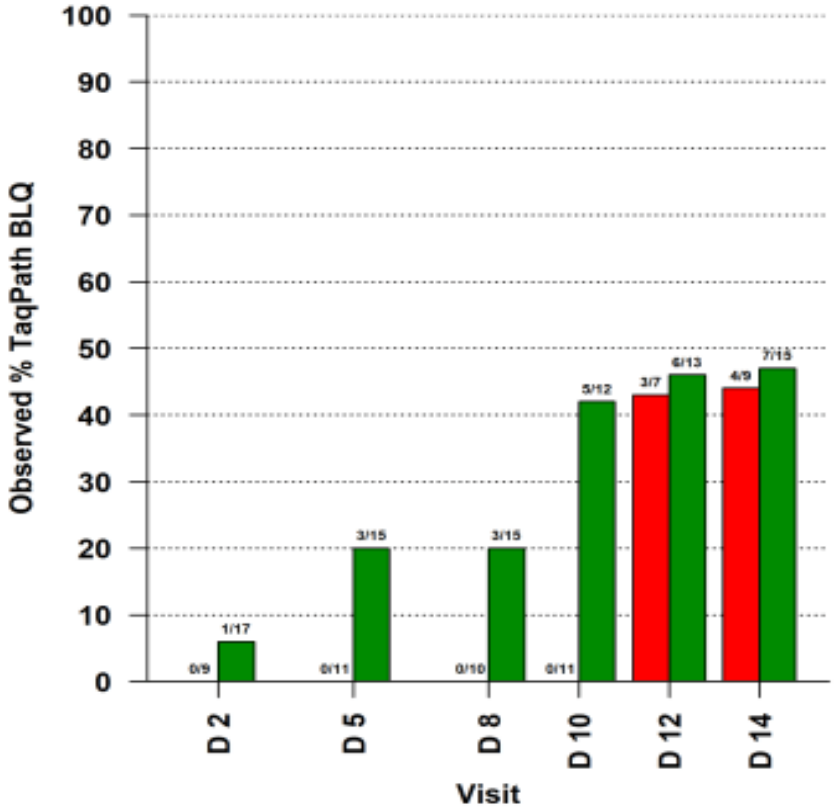
AT-527

New Data: BLQ

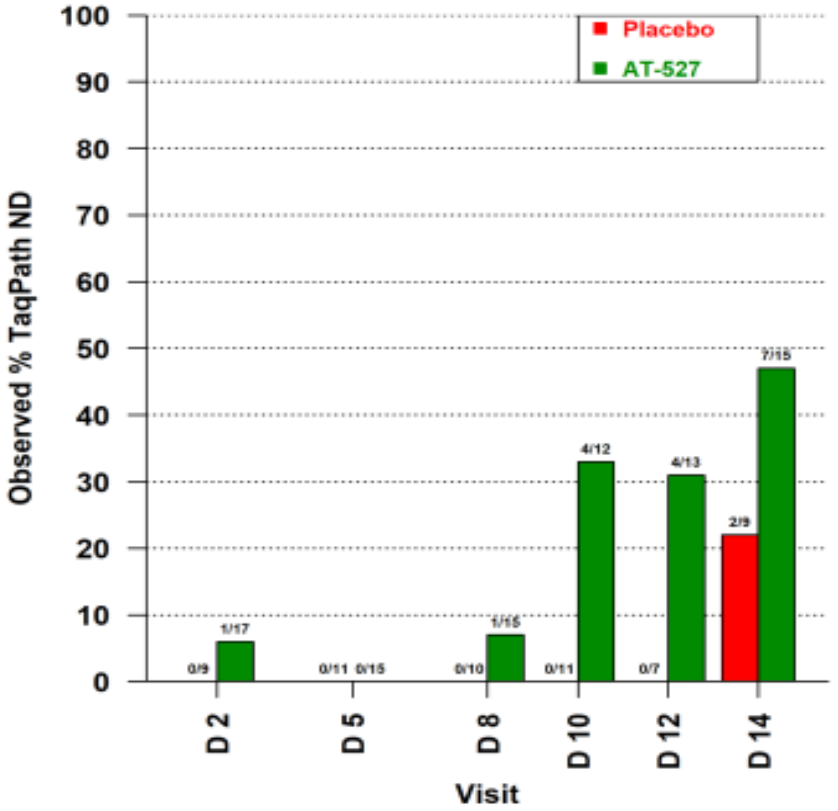
Global Phase 2 Hospitalized Study Interim Results for COVID-19:

Viral Clearance of SARS-CoV-2 RNA in Patients with Higher Baseline Viral Load (≥ Median) is Faster in Patients Treated with AT-527 vs Placebo

Below Limit of Quantification (BLQ)



Target Non-Detectable (TND)



Earlier PCR negativity may lead to faster recovery time while minimizing transmission of infection

BLQ = Below limit of quantification (TaqPath LOQ ≤ 500 copies/mL [2.7 $\log_{10}$])

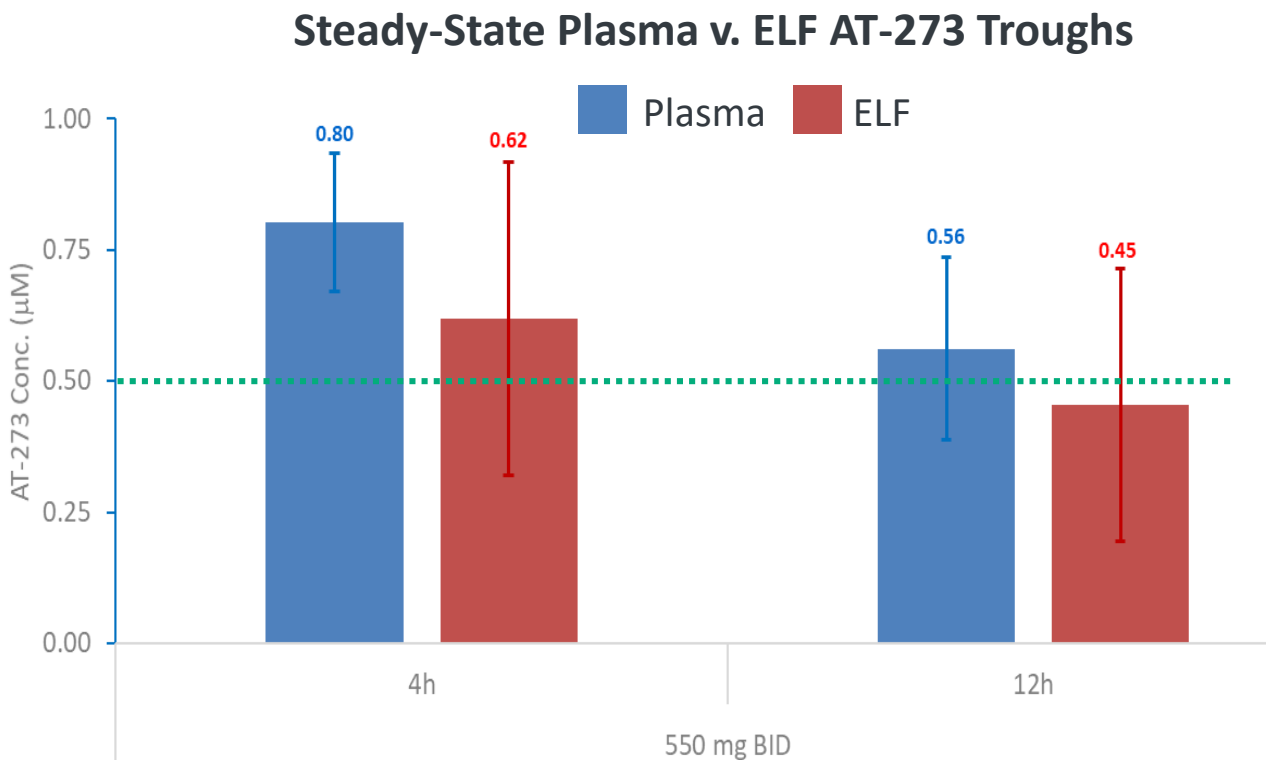
TND = Target Non-Detectable being BLQ and no SARS-COV-2 RNA detected

AT-527

New Data

Evaluation of Drug Levels in Lung Lining Fluid (BAL* Study) in Healthy Volunteers:

Target Drug Level Achieved in Lungs; Key Site for Infection & SARS-Cov-2 Replication



Antiviral levels in the lungs where SARS-CoV-2 replicates is critical for any treatment or prophylaxis for COVID-19

Active triphosphate of AT-527 formed in the lungs at concentrations that inhibits SARS-Cov-2 replication

AT-527 550 mg BID regimen led to plasma and intrapulmonary (epithelial lining fluid, ELF) levels of AT-273 (surrogate of the active triphosphate (TP) metabolite) exceeding the target concentration of 0.5 µM or 150 ng/mL (corresponding to *in vitro* EC_{90} of the drug for inhibition of viral replication) at 4 hrs.

*BAL = Bronchoalveolar Lavage

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AT-527

New Data

New Preclinical and Clinical Results:

Expanding AT-527's Profile

- Analysis of SARS-CoV-2 infected cells treated with AT-511 (the free base of AT-527) by next generation sequencing (NGS) confirmed that AT-527 is not a mutagen and ***does not introduce mutations in the viral genome***.
- A new drug-drug interaction study in healthy volunteers indicates that ***no dose adjustment should be necessary*** for co-administration of drugs that are CYP3A substrates as AT-527 is a weak inhibitor of CYP3A.

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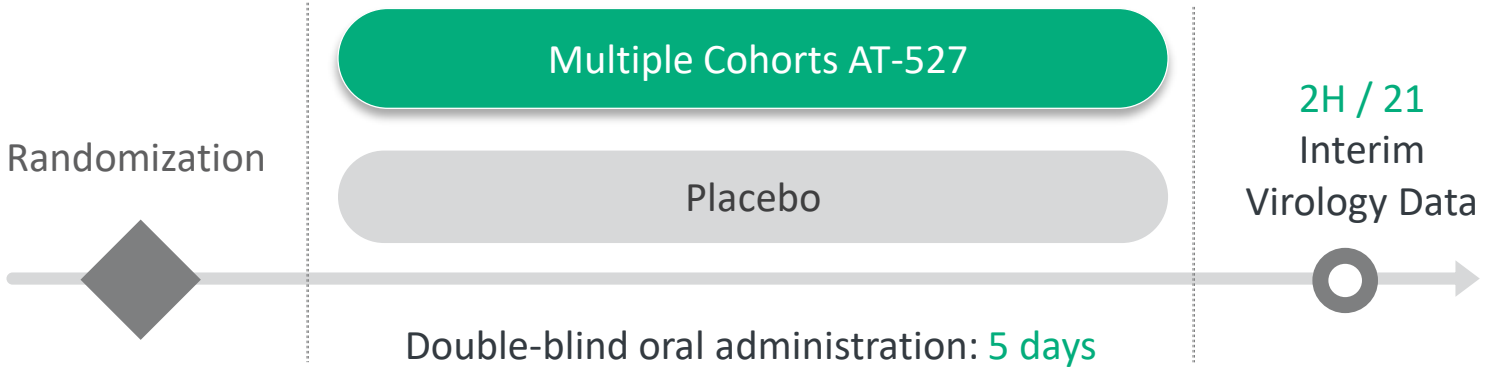
AT-527

Global Phase 2 MOONSONG Study for COVID-19:

Outpatient Setting in Mild to Moderate Patients +/- Risk Factors

Inclusion Criteria: > 18 yrs old, SARS-CoV-2 positive 72 hrs prior to randomization, mild-to-moderate COVID-19 patients in outpatient setting

Countries: Global Study



Primary and Secondary Objective:

- To evaluate antiviral activity of AT-527 compared with placebo
- Up to 220 patients
- Safety, PK, PK/PD

Next Steps:

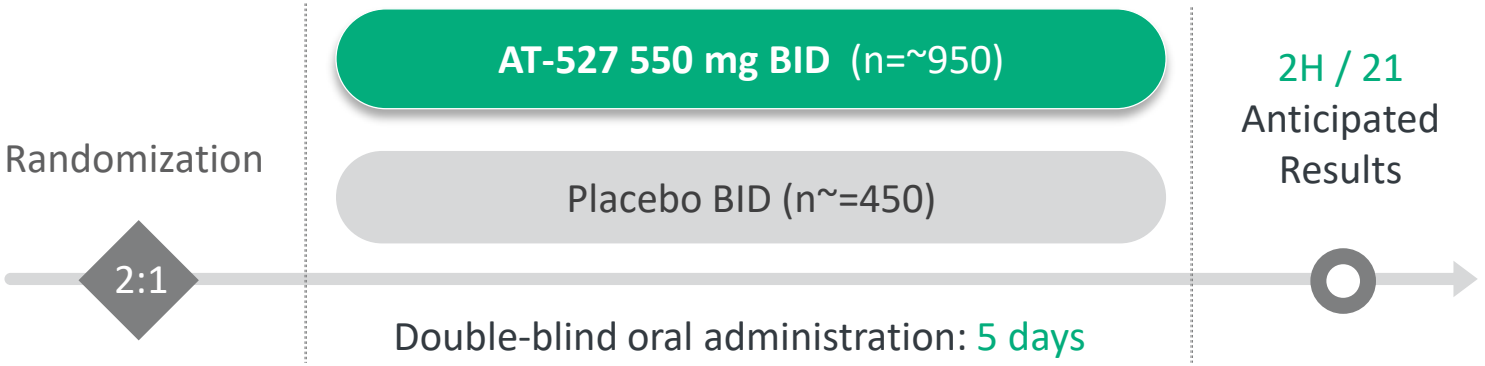
- Interim virology analysis on multiple ongoing cohorts with varying doses

AT-527

Global Phase 3 MORNINGSKY Trial for COVID-19:

Outpatient Setting in Mild to Moderate Patients +/- Risk Factors

Inclusion Criteria: Patients eligible for management in an outpatient setting



Objectives:

- Time to alleviation or improvement of COVID-19 symptoms
- Medically attended visits (including hospitalization)
- Mortality
- Virological endpoints

Status:

- Patients actively enrolling globally
  - Additional CTAs pending
- Patients have option to roll over to Phase 3 MEADOWSPRING follow-on study to evaluate AT-527 impact on long-COVID

AT-527

AT-527 COVID-19 Broad Commercial Opportunities

AT-527

AT-527 US Commercial Opportunity for COVID-19:

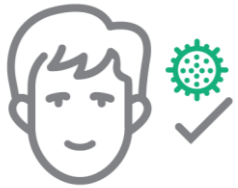
Multiple Revenue Opportunities

Treatment of Symptomatic Disease

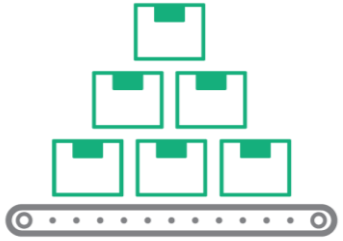
Symptomatic patients with active disease

Treatment of Asymptomatic Disease

Asymptomatic COVID patients identified through consumer, employer and institutional proactive testing



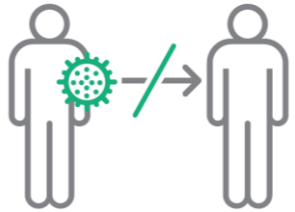
AT-527 Commercial Opportunities



Government Purchase

Supply contract

Stockpile contract post NDA



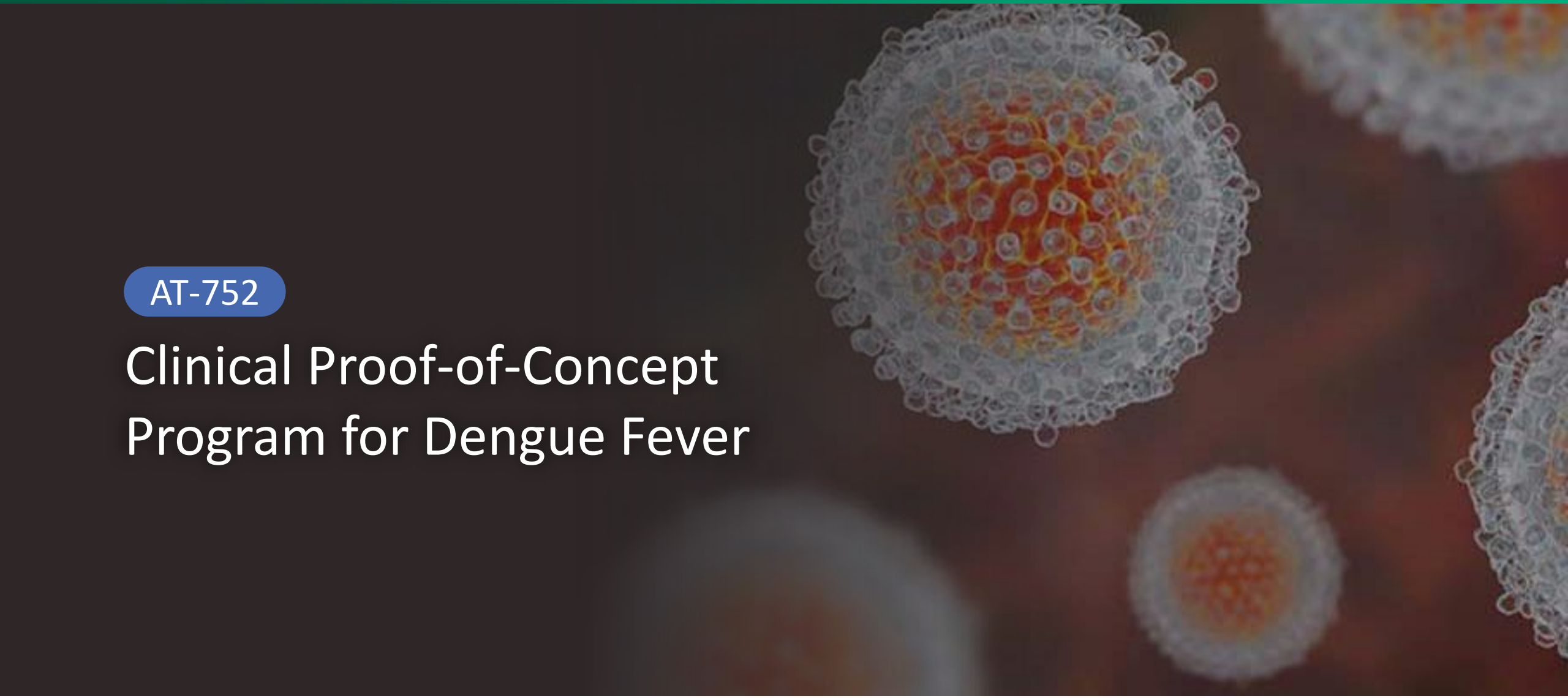
Prophylaxis

Pre-exposure opportunities during an outbreak or travel to endemic areas

Post-exposure prevention in family or business setting

AT-752

Clinical Proof-of-Concept Program for Dengue Fever



AT-752

Phase 1a and Phase 1b Clinical Studies* for the Treatment of Dengue Fever:

New Info

Phase 1a SAD Completed; MAD Initiated

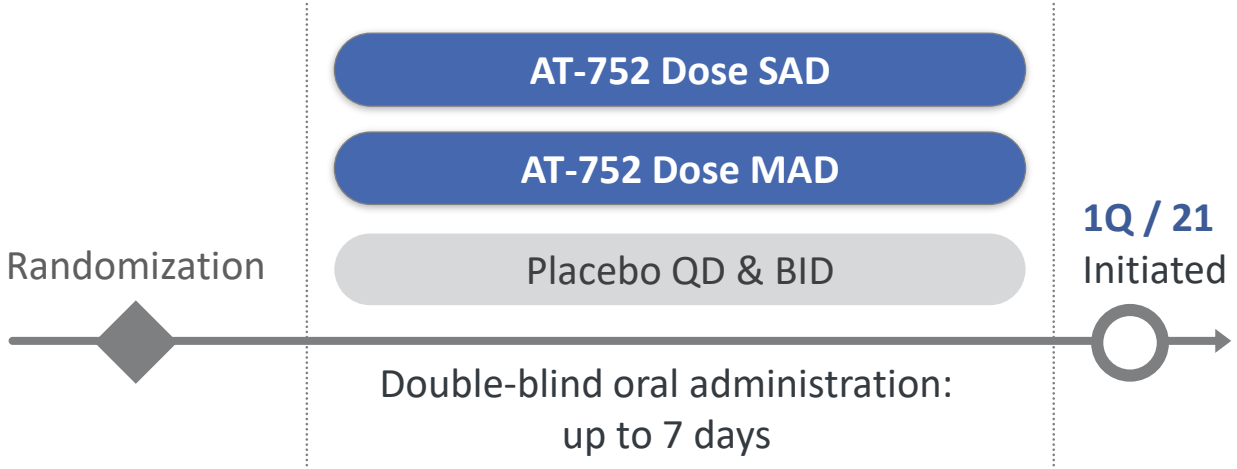
Phase 1a

Inclusion Criteria: healthy volunteers, sequential dose-escalation

Country: Australia

Objectives: Safety and PK (with embedded food effect)

- Phase 1a study initiated March 2021
- Part I: Single ascending dose cohort completed
- Part 2: Multiple dose QD and BID for 7 days initiated

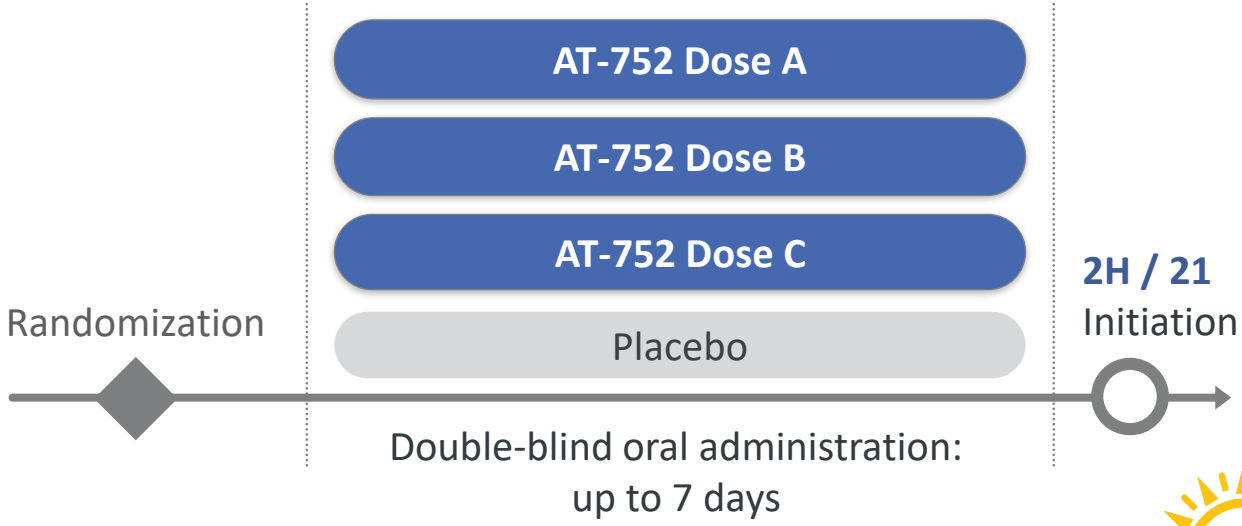


Phase 1b

Inclusion Criteria: adults with dengue infection

Location: dengue endemic regions/research institutions

Objectives:
Antiviral activity, viral kinetics, safety and PK



*Details to be finalized following consultation with regulatory authorities.

Financial Summary and Closing Remarks

Financial Update

Condensed Consolidated Statement of Operations and Comprehensive Income
(in thousands, except share and per share data)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Collaboration revenue	$ 60,391	$ ---	$ 126,376	$ —
Operating expenses				
Research and development	39,803	7,755	66,375	10,576
General and administrative	11,901	2,248	20,658	3,472
Total operating expenses	51,704	10,003	87,033	14,048
Income (loss) from operations	8,687	(10,003)	39,343	(14,048)
Interest income and other, net	52	10	109	67
Income (loss) before income taxes	8,739	$ (9,993)	$ 39,452	$ (13,981)
Income tax expense	(7,200)	---	(7,200)	---
Net Income (loss) and comprehensive income (loss)	$ 1,539	$ (9,993)	$ 32,252	$ (13,981)
Net income (loss) per share attributable to common stockholders				
Basic	$ 0.02	$ (0.99)	$ 0.39	$ (1.39)
Diluted	$ 0.02	$ (0.99)	$ 0.36	$ (1.39)
Weighted-average shares outstanding				
Basic	82,743,530	10,096,307	82,662,019	10,093,689
Diluted	88,091,384	10,096,307	88,683,767	10,093,689

Financial Update

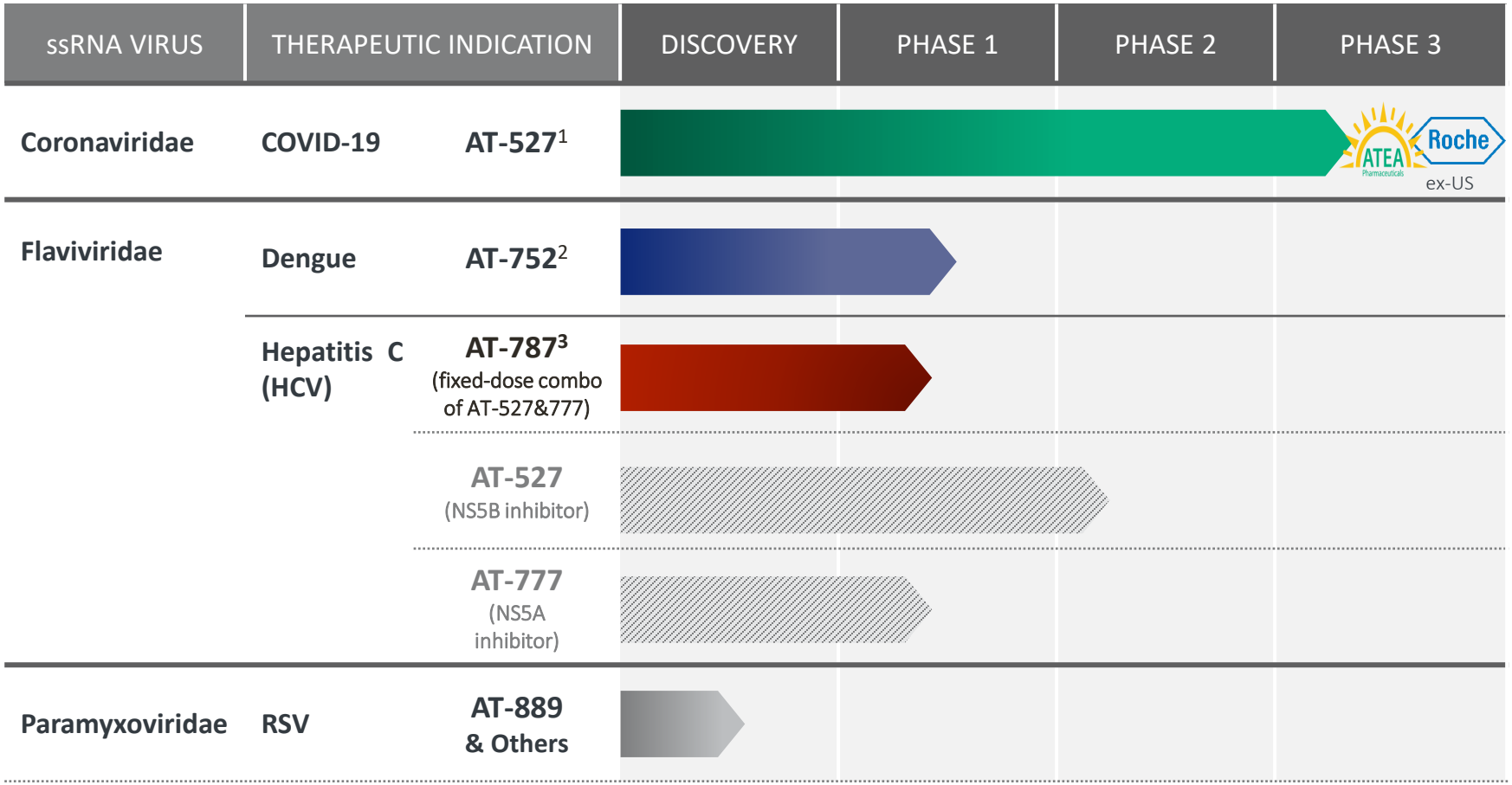
Selected Condensed Consolidated Balance Sheets
(in thousands, except share and per share amounts)
(Unaudited)

	June 30, 2021	December 31, 2020
Cash and cash equivalents*	$ 816,460	$ 850,117
Accounts receivable	50,000	---
Total assets	871,543	863,632
Total liabilities	273,682	315,831
Total stockholders' equity	597,861	547,801

*The cash balance at June 30, 2021 does not include the $50 million milestone payment realized under the license agreement Atea entered into with F. Hoffmann-La Roche Ltd. and Genentech, Inc. in October 2020 ("Roche License Agreement"), which was received in July 2021.

Proprietary Platform Generates Deep Antiviral Pipeline

Multiple Programs for Life-Threatening Viral Diseases Advancing in Parallel



HIGHLIGHTS

- AT-527 efficacy results 2021-2022
- Projected near-term launch of AT-527, an oral DAA for COVID-19
- Multiple value-driving milestones over the next 18-months in several therapeutic indications
- $816.5 million in cash & cash equivalents as of 6/30/21 (does not include the $50M milestone payment realized under Roche License Agreement, which was received in July 2021.)
- Cash runway through 2023

[1] Ex-US development and commercialization rights (other than for certain hepatitis C virus uses) licensed to Roche.
[2] Rights to develop and manufacture globally and to commercialize in the US for Dengue, among other viruses, retained. Ex-US commercialization subject to agreement with Roche.
[3] AT-787 is our selected product candidate for the treatment of HCV.

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Q & A Session

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