UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): January 10, 2022

Atea Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**001-39661**	**46-0574869**
(State or other jurisdiction of incorporation or organization)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

125 Summer Street
Boston, MA 02110
(Address of principal executive offices) (Zip Code)

(857) 284-8891
(Registrant's telephone number, include area code)

N/A
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.001 par value per share	**AVIR**	**The Nasdaq Global Select Market**

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure

On January 10, 2022, in connection with its participation in the J.P. Morgan Healthcare Conference, Atea Pharmaceuticals, Inc. (the "Company") posted a corporate slide presentation in the "Investors" portion of its website at www.ateapharma.com. A copy of the presentation is attached to this Current Report on Form 8-K as Exhibit 99.1. The Company undertakes no obligation to update, supplement or amend the materials attached hereto as Exhibit 99.1.

The information contained in Item 7.01 of this Form 8-K (including Exhibit 99.1 attached hereto) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly provided by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Corporate Slide Presentation of Atea Pharmaceuticals, Inc. dated January 10, 2022
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ATEA PHARMACEUTICALS, INC.

Date: January 10, 2022

By: /s/ Andrea Corcoran
Andrea Corcoran
Chief Financial Officer and Executive Vice President, Legal and Secretary

ATEA Pharmaceuticals

JP Morgan Healthcare Conference

January 10, 2022

NASDAQ: AVIR

DISCLAIMERS

Forward-Looking Statements

This presentation contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, our clinical results and other future conditions. All statements other than statements of historical facts contained in this presentation are forward-looking statements, including statements by Atea Pharmaceuticals, Inc. (the "Company") regarding future results of operations and financial position, including our anticipated cash runway; business strategy; current and prospective product candidates; anticipated milestone events; potential benefits of our product candidates and market opportunity; planned clinical trials, including, without limitation, anticipated initiation, enrollment, regulatory submission and data readout timelines; preclinical activities; product approvals; manufacturing availability; degree of market acceptance of approved products; research and development costs; current and prospective collaborations; and prospects and opportunities for investors. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expects," "plans," "anticipates," "could," "intends," "targets," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions.

The information in this presentation, including without limitation the forward-looking statements contained herein, represent our views as of the date of this presentation. These statements are neither promises nor guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any anticipated results, performance or achievements expressed or implied by the forward-looking statements. Risks and uncertainties that may cause actual results to differ materially include uncertainties inherent in the drug development process and the regulatory approval process, in particular for bemnifosbuvir (AT-527), ruzasvir and AT-752, our reliance on third parties over which we may not always have full control, competition from treatments for COVID-19 and hepatitis C and vaccines for COVID-19 and dengue, risks related to the COVID-19 pandemic on our business, and other important risks and uncertainties that are described in our most recent Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission ("SEC") and our other filings with the SEC. New risk factors and uncertainties may emerge from time to time, and it is not possible to predict all risk factors and uncertainties. Accordingly, you are cautioned not to place undue reliance on these forward-looking statements.

Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. No representations or warranties (expressed or implied) are made about the accuracy of any such forward-looking statements.

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.

Proprietary Platform Generates Deep Antiviral Pipeline

ssRNA VIRUS	THERAPEUTIC INDICATION		PRECLINICAL	PHASE 1	PHASE 2	PHASE 3
Coronaviridae	COVID-19	Bemnifosbuvir (AT-527) Nucleotide*				
	COVID-19 Combination with protease inhibitors	Bemnifosbuvir Nucleotide				
Flaviviridae	Hepatitis C (HCV)	Bemnifosbuvir Nucleotide				
	Hepatitis C (HCV)	Ruzasvir** (NS5A inhibitor)				
	Dengue Virus	AT-752 Nucleotide				
Paramyxoviridae	Respiratory Syncytial Virus (RSV)	Product Candidates				

HIGHLIGHTS

- Bemnifosbuvir (AT-527): preferred backbone for first combination with protease inhibitors for COVID-19
- HCV and dengue programs advancing in several Phase 2 trials in 2022
- Multiple value-driving milestones over next 18-months across several indications
- $839.7 million in cash and cash equivalents as of 9/30/21
- Cash runway through 2025

*Bemnifosbuvir is a double prodrug nucleotide analog ** Worldwide exclusive license for all uses from Merck Bemnifosbuvir is the generic name for AT-527

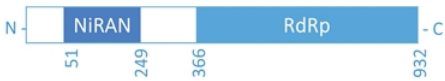

Bemnifosbuvir
Comprehensive Approach
to COVID-19

Vision for Bemnifosbuvir in COVID-19: Backbone of First Combination Therapy

Bemnifosbuvir (AT-527) Addresses Key Challenges of COVID-19

- Oral nucleotide with antiviral **activity across SARS-CoV-2 variants of concern/interest**
- Targets viral RNA polymerase, **highly conserved** enzyme critical to viral replication
- Unique mechanism with **dual targets creating** high barrier to resistance:
  - **NiRAN inhibition**
  - **Chain termination** (RdRp) w/o introducing mutations in viral genome
- **Non-mutagenic** in mammalian cells in nonclinical studies **and no effect on reproduction and non-teratogenic**
- **Rapid & sustained antiviral activity** demonstrated in Ph 2 in high-risk patients

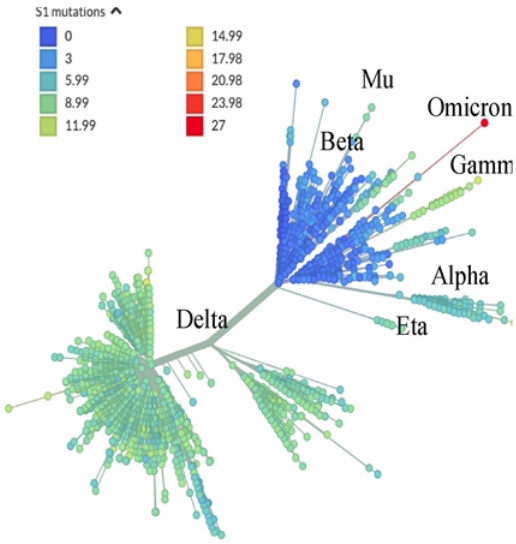
Nsp12 Functional Domains SARS-Cov-2



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

Nucleos(t)ide class: Established therapeutics as the backbone of oral combination treatments for many RNA viral diseases

COVID-19 Persistent Viral Disease - Transitioning to Endemic with Pandemic Surges



Lupala et al 2022 BBRC 590:34-41

- Over 6,000 variants sequenced
- New variants associated with increased transmissibility, neutralization resistance and disease severity
- Omicron variant
  - **> 30 mutations** to viral spike protein
  - **Extremely contagious** and spreading faster than previously detected strains
- 5th worldwide wave
- As with previous RNA viruses, there will be an ongoing need for combinations of new oral therapies targeting different MOAs
  - **Monotherapies, including protease inhibitors, have limitations against** RNA viruses due to emergence of drug resistance

AT-511 (free base of bemnifosbuvir) Active *In Vitro* Against all SARS-CoV-2 Variants

AT-511 EC_{90} = 0.64 ± 0.36 µM (n=14) (0.15-1.55 µM) against USA-WA-1 in Viral Yield Assay in primary HAE cells

Variant	Lineage	Strain	Relative Potency* AT-511 EC_{90} [Variants/USA-WA-1]
Original	A	USA-WA1/2020	1
Alpha	B.1.1.7	England/ 204820464/2020	2.8 (n=3)
Gamma	P.1	Japan/TY7-503/2021	3.2 (n=3)
Epsilon	B.1.427	USA/CA/ VRLC009/2021	1.0 (n=2)
Delta	B.1.617.2	USA/PHC658/2021	1.2 (n=3)
Omicron	B.1.1.529	USA/MD-HP20874/2021**	In process

**Determined side-by-side in the same assay*
EC_{90} differences between variants were within in vitro assay variations
***No new mutation in RNA polymerase of Omicron as compared with other variants*

Bemnifosbuvir – Nucleos(t)ide Polymerase of Choice for Potential Combination Therapy with Protease Inhibitor for COVID-19

	Bemnifosbuvir	Molnupiravir	Remdesivir
Route of administration	**Oral**	Oral	IV
Mutagenic potential	**No**	Yes	No
Variant coverage	**Yes**	Yes	Yes
Resistance barrier	**High**	Risk to enhance viral evolution	High
Viral load reduction in high-risk patients	**Yes (0.5-0.7 $\log_{10}$)**	Yes (0.2-0.5 $\log_{10}$)	No Effect Reported

In vitro combination studies with protease inhibitors are being initiated to explore antiviral synergy and address potential emergence of resistance


Bemnifosbuvir
Clinical Development
Update and Plan

Bemnifosbuvir Safety and Antiviral Activity Summary

Clinical Development Highlights Accomplished To-Date

- ✓ Phase 1 studies demonstrated trough levels **exceeding EC_{90} in >75% of patients**
- ✓ Bronchoalveolar lavage study confirmed drug levels approximating plasma levels **achieved in airways**
- ✓ **Rapid and sustained antiviral activity** demonstrated in two Phase 2 studies in high-risk patients
- ✓ **No dose adjustment necessary** for co-administration with drugs that are CYP3A substrates
- ✓ Generally **safe and well tolerated**

2022: Continue to enrich Phase 2 data set to support combination studies

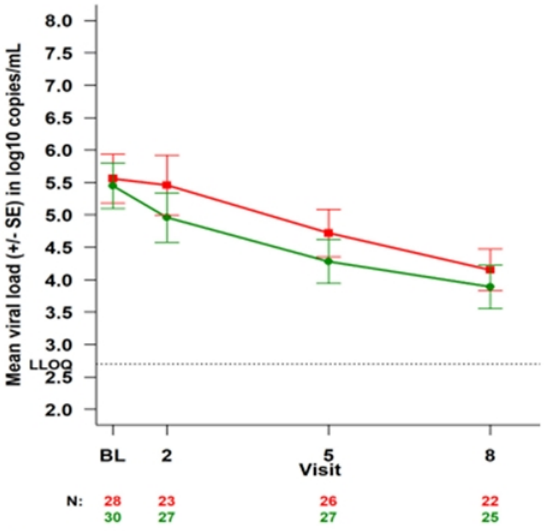
Bemnifosbuvir Clinical Development Program for COVID-19

TRIAL	DESCRIPTION	STATUS
Phase 1 Healthy Volunteers	PK, tolerability with optimized formulation at doses up to 1100 mg BID	Ongoing
Phase 2 Monotherapy - Hospitalized High Risk Patients with Moderate COVID-19	Safety, tolerability, and virology	Proof of Concept in high-risk Closing out
Phase 2 Monotherapy - Outpatient (MOONSONG) Low and High-Risk Patients with Mild/Moderate COVID-19	Antiviral activity of AT-527 compared with placebo in outpatients Safety, PK, PK/PD	Proof of Concept in high-risk Closed out
Phase 2 Monotherapy - Outpatient High Risk Patients with COVID-19	Safety, tolerability and virology	Initiate 2022 Data expected late 2022
Combination Trial - Outpatient	Bemnifosbuvir in combination with protease inhibitor	Initiate late 2022

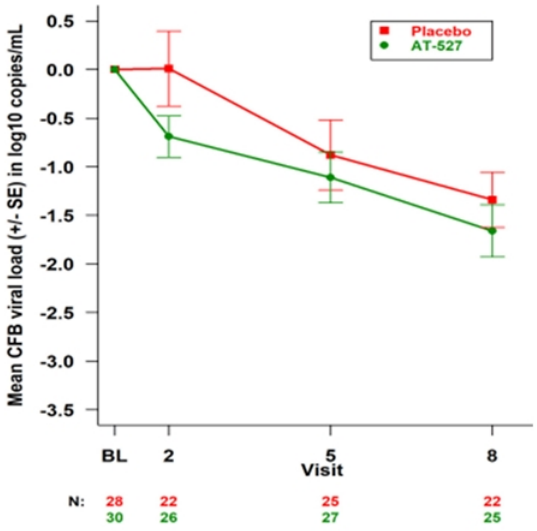
Bemnifosbuvir Global Phase 2 Hospitalized Study Interim Results for COVID-19:

Rapid and Sustained Decrease in Viral Load in All Evaluable Patients (High Risk, Unvaccinated)

Viral Load



Decrease from Baseline



Bemnifosbuvir
Placebo

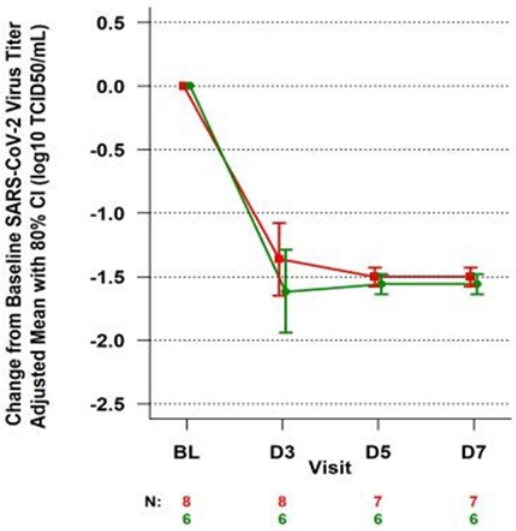
Bemnifosbuvir 500 mg BID

Day 2
-0.7 log_{10} reduction vs. placebo

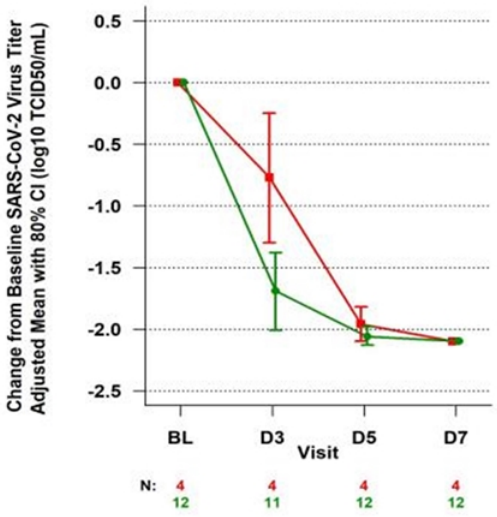
Bemnifosbuvir Phase 2 MOONSONG Exploratory Analyses Infectious Virus: High-Risk Patients

*Potent and Rapid Antiviral Activity **Suggesting Dose Response** between Cohort A and B*

Infectious Virus Titer Change from Baseline* Cohort A (550 mg BID) High Risk Subgroup**



Infectious Virus Titer Change from Baseline* Cohort B (1,100 mg BID) High Risk Subgroup**



Bemnifosbuvir

Placebo

Potent viral load reduction in high-risk patients <u>at Day 3</u>

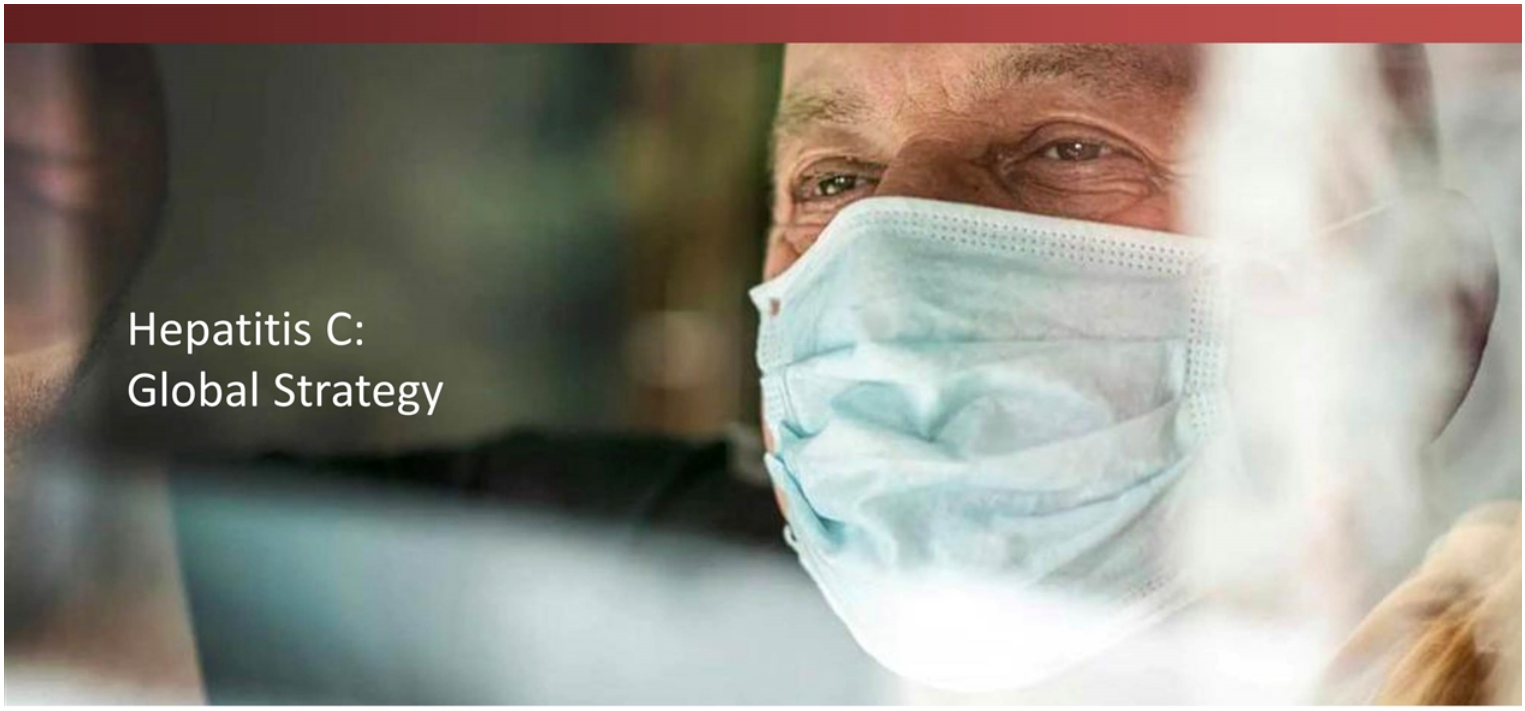
Bemnifosbuvir Cohort A (550 mg BID): **-0.3 log_{10}** vs. placebo

Bemnifosbuvir Cohort B (1,100 mg BID): **-0.9 log_{10}** vs. placebo

*Baseline adjusted (ANCOVA) considering differences in baseline virus titer between active/placebo. **Exploratory subgroup analysis.

Vision for Bemnifosbuvir in COVID-19: Nucleotide of Choice First Combination Therapy

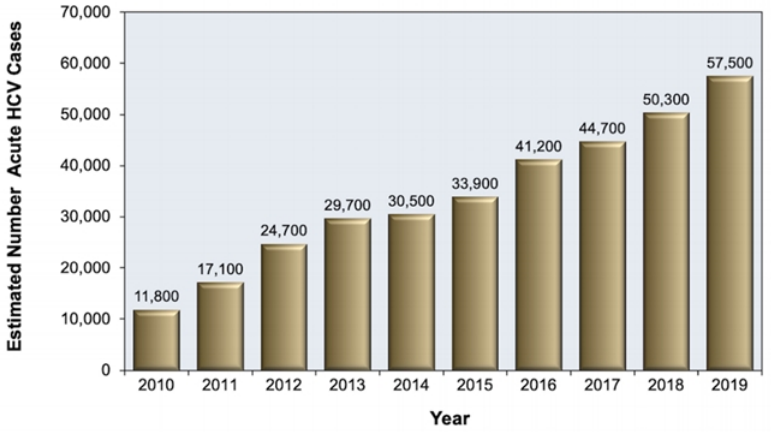
- Planned Phase 2 outpatient trial builds upon positive findings in high-risk patients in previous Phase 2 trials
  - Up to 200 high-risk outpatients with mild-moderate COVID-19
  - Utilizing a formulation with rapid dissolution and absorption
  - Enriching data set for high-risk outpatients and in parallel preparing for initiation of a combination trial
  - Data expected late 2022
- Combination trials may consist of two investigational agents with demonstrated safety and antiviral activity or a combination of an investigational agent with an approved drug


Hepatitis C:
Global Strategy

Fueled by the Opioid Crisis, US Hepatitis C Infections Continue to Increase

2020 Global HCV Market $4.1 Billion; US ~50% of Global DAA Sales in 2020*

- HCV-related mortality incidence has increased even with effective DAA combinations
- Approx. 70% of long-term IV drug users have HCV in US
- Convenient 8 weeks or shorter treatments are needed for new wave of early/acute HCV infection
- Best-in-class combination has potential for > $1B



Source: Centers for Disease Control and Prevention (CDC). 2019 Viral Hepatitis Surveillance Report—Hepatitis C. Published May 2021.

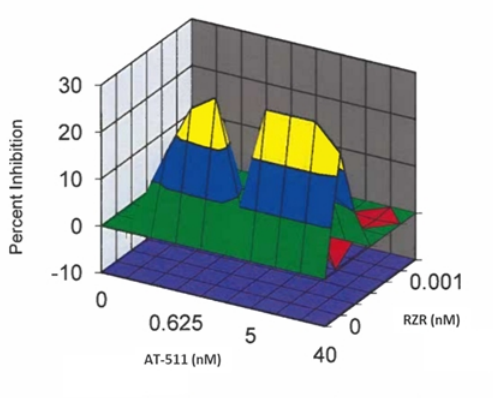
*Source: Gilead 2020 Investor Report, AbbVie 2020 Investor Report, Merck 2020 Investor Report

RUZASVIR (RZR) – Oral, Highly Potent Pan-genotypic NS5A Inhibitor for HCV Patients

Favorable Safety and Drug-Drug Interaction Profile, Ideal for Combination with Bemnifosbuvir

- Exclusive worldwide license from Merck
  - License includes all human indications
- Next generation pan-genotypic potent antiviral activity in picomolar range in *in vitro* studies confirmed with > 3 $\log_{10}$ viral load decline in HCV-infected patients as monotherapy
- **Demonstrated substantial synergy with bemnifosbuvir *in vitro***
- >**1,250** HCV-infected patients administered Ruzasvir in combination at daily doses up to 180 mg for up to 24 wks
  - RZR demonstrated favorable safety profile
- Low potential for drug-drug interactions
- PK profile supports once-daily dosing

***In vitro* Synergy: Assay performed in HCV GT1b replicon (Huh-luc/neo-ET)**

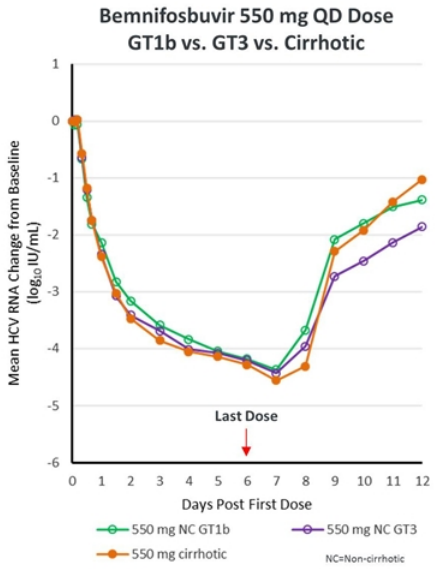


Analyzed in MacSynergy *(ImQuest)*

AT-511 is the free base of bemnifosbuvir

Bemnifosbuvir as Monotherapy Demonstrated Unprecedented Antiviral Activity with Favorable Safety Profile in Phase 1 and Phase 2 Clinical Trials

- Bemnifosbuvir ~10-fold more active than sofosbuvir (SOF) *in vitro* vs panel of laboratory strains and clinical isolates of HCV genotypes 1–5
- Remained fully active against SOF resistance-associated strains (S282T)
- Favorable *in vivo* preclinical safety profile
- PK profile allows once-daily dosing
- >480 subjects (including healthy volunteers & HCV or COVID-19 patients) administered bemnifosbuvir in 10 clinical trials with favorable safety and tolerability
  - HCV patients exposed to 550 mg dose of bemnifosbuvir for durations of 8-12 weeks with no-drug related SAEs



4.5 $\log_{10}$ ± 0.3 IU/ml in GT3-infected patients

4.6 $\log_{10}$ ± 0.5 IU/ml in patients with compensated cirrhosis (GT1,2,3)

HCV Development Plan for Bemnifosbuvir + Ruzasvir

Potential Best-in-Class Pan-genotypic Regimen

- **Bemnifosbuvir + Ruzasvir:** Phase 2 combination-ready assets
- **Phase 2 combination program expected to initiate 2H 2022 to evaluate:**
  - Convenient and short 8-week duration (potentially shorter for early/acute infections)
  - Acute and chronic HCV infection
  - Patients with compensated and decompensated liver disease

Bemnifosbuvir + Ruzasvir Competitive Profile

Convenient and Short duration

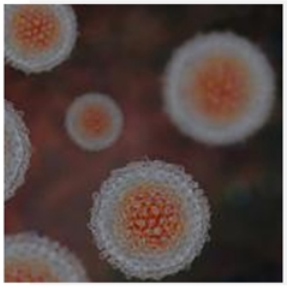
Potential for first RBV-free therapy for decompensated disease

- ✓ Bemnifosbuvir is the most potent nucleotide inhibitor to-date being developed for HCV
- ✓ Ruzasvir is a highly potent Phase 2-ready drug candidate
- ✓ Potential for best-in-class pan-genotypic fixed-dose combination

AT-752

Clinical Proof-of-Concept Program for Dengue Fever

Dengue Fever: High Mortality and High Unmet Medical Need



Painful, debilitating mosquito-born disease

- Caused by 4 serotypes
- Symptoms 3-14 days post-infection with high fever 2-7 days

No antiviral treatments available

- Only supportive care (analgesics, judicious fluid therapy)
- Dengvaxia® (for prevention) was approved in 2017
- June 2021 ACIP Dengvaxia® vaccine recommendation for persons 9-16 years with previous infection living in endemic areas, including Puerto Rico

~4B	People live in high-risk areas* strong efficacy in an dengue range currently expanding
~400M	Estimated infected annually
12-44%	Severe dengue mortality rate if left untreated
500,000	Cases develop into dengue hemorrhagic fever annually, requiring hospitalization (approx. 2.5% mortality rate)

AT-752: Promising product profile

- Purine nucleotide prodrug with potent *in vitro* activity against all serotypes tested
- MOA: inhibition of dengue viral polymerase
- Potent *in vivo* antiviral activity in a dengue virus animal model
- Successful development and FDA approval of AT-752 may result in US priority review voucher

*More than 100 countries in Southeast Asia, Western Pacific, Eastern Mediterranean, Latin America and Puerto Rico; 2.3M in the Americas alone, causing ≥ 1, 200 deaths

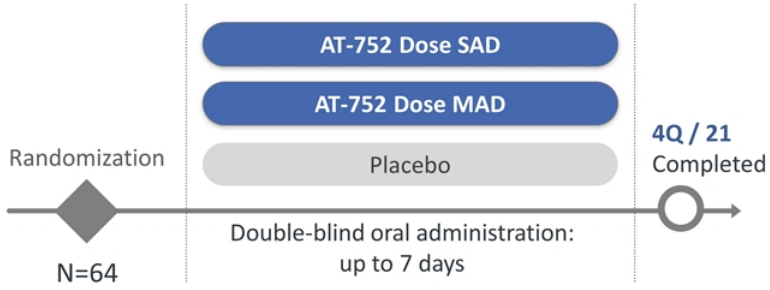
Successful Completion of AT-752 Phase 1 Study

1 SAD and 3 MAD Cohorts

Inclusion Criteria:
healthy volunteers, sequential dose-escalation
Country: Australia

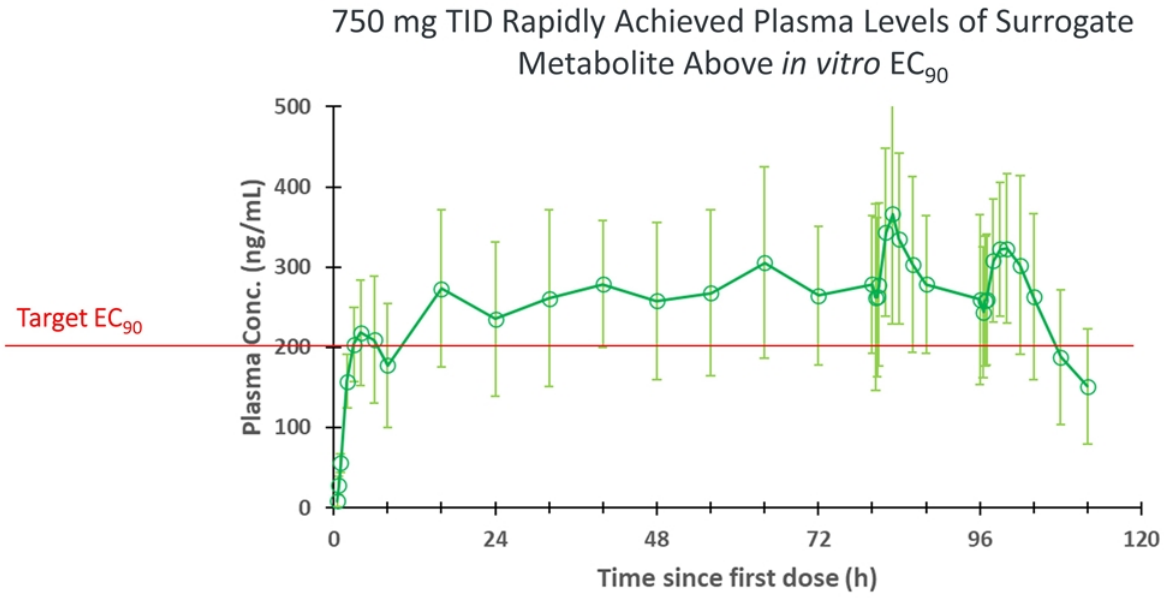
Objectives: Safety and PK (with embedded food effect)

- Part 1: Single ascending dose cohort
- Part 2: Multiple dose QD/BID/TID



- AT-752 was well tolerated after either single or multiple doses in healthy subjects
- Favorable safety profile with no changes in relevant laboratory parameters
  - No premature discontinuations due to adverse events or serious adverse events
  - Most adverse events mild

AT-752 Phase 1 Pharmacokinetic Results Demonstrate Effective Drug Exposure for Inhibiting Dengue Virus Replication



AT-752 Human Challenge Infection Model

Population:
Healthy subjects, 18-55 years

Location: US

Design:

- Day 1: 12 subjects randomized 3:1 administered oral AT-752 or matching placebo
- Day 2: Challenged with 0.5 mL DENV-1-LVHC (6.5×10^3 PFU/mL)

Endpoints:

- Mean quantitative viral load (peak, duration and AUC) by qRT-PCR until 28 days post virus inoculation
- Time to positive viral load by qRT-PCR

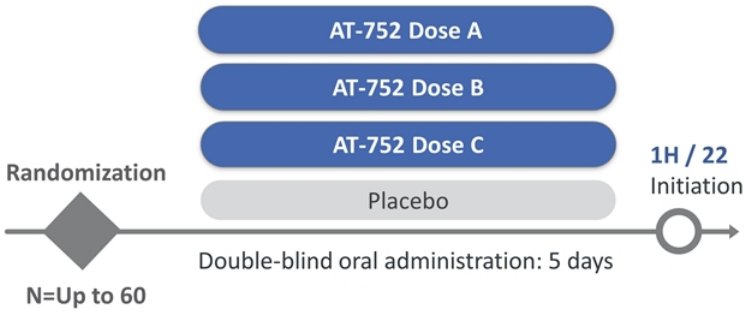
- Initiation 1H 2022
- Results expected 2H 2022

AT-752 Phase 2 Global Proof-of-Concept Treatment Study Design

Inclusion Criteria: adults with fever (≥38°C) within 48 hour of probable dengue infection and positive result on NS1 antigen test or RT-PCR assay
Location: Asia, South America

Objectives: Antiviral activity, safety, PK

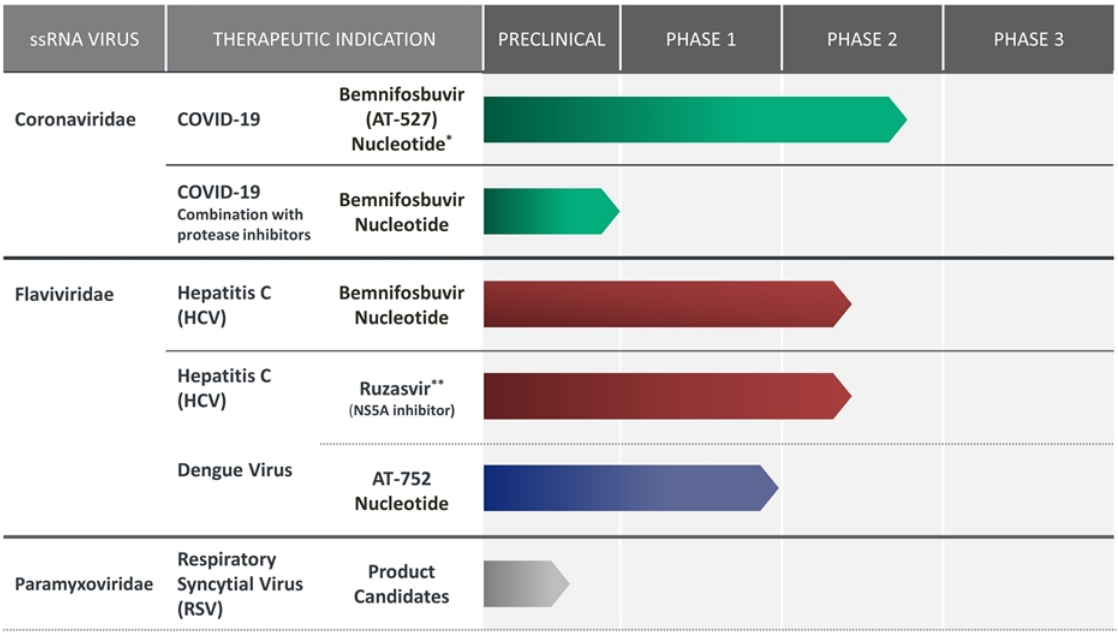
Primary endpoint: Change in dengue virus viral load from baseline



- Randomized, double-blind, placebo-controlled trial in adult patients with dengue fever
- **Objectives:** antiviral activity, safety, and PK
  - Primary endpoint: Change in dengue virus viral load from baseline
  - Exploratory: viremia, NS1 levels, fever
- **Population:** adults with fever (≥38°C) within 48 h with probable dengue infection and positive result on NS1 antigen test or RT-PCR assay
- Initiation 1H 22 with initial results expected 2H 2022

Closing Remarks

Multiple Upcoming Value-Driving Milestones



2022 EXPECTED MILESTONES

COVID-19

- Phase 2 data: late 2022
- Initiate Phase 2/3 combo trial + protease inhibitor: late 2022

Hepatitis C

- Initiate bemnifosbuvir + Ruzasvi Phase 2 combo trial: late 2022

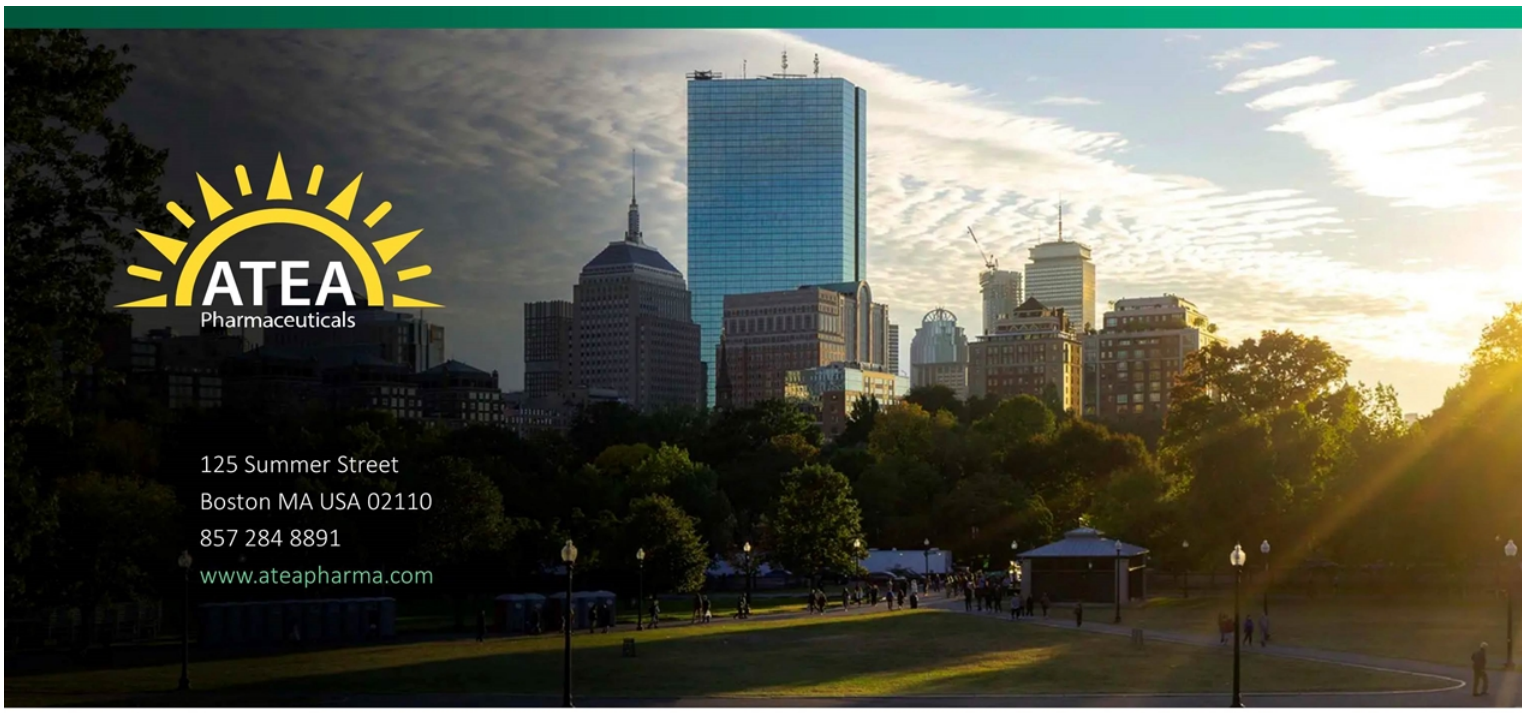
Dengue

- Initiate proof-of-concept program: initial data late 2022

- Cash runway through 2025

*Bemnifosbuvir is a double prodrug nucleotide analog ** Worldwide exclusive license for all uses from Merck

Bemnifosbuvir is the generic name for AT-527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