# Second Quarter 2022
# Financial Results and Business Update

August 8, 2022

NASDAQ: AVIR

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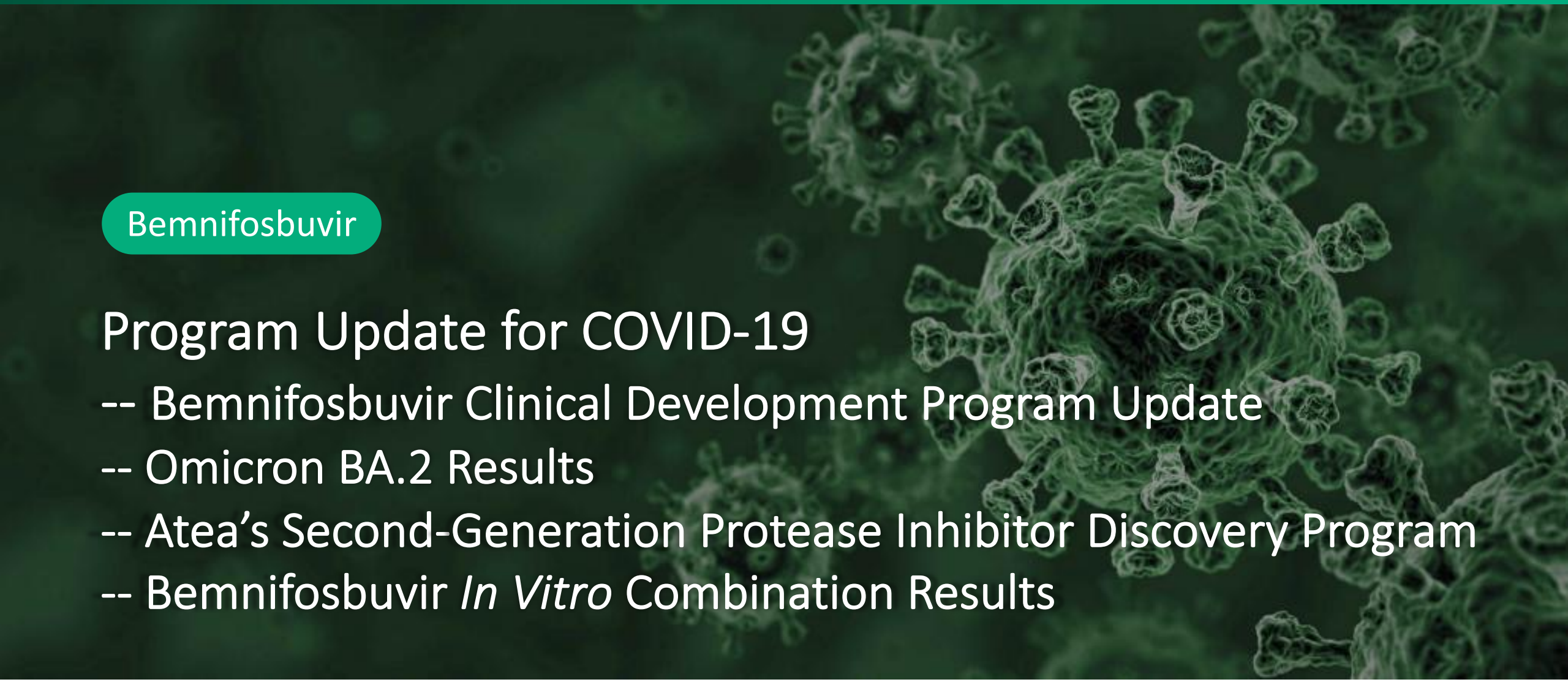

Bemnifosbuvir

# Program Update for COVID-19

-- Bemnifosbuvir Clinical Development Program Update

-- Omicron BA.2 Results

-- Atea's Second-Generation Protease Inhibitor Discovery Program

-- Bemnifosbuvir *In Vitro* Combination Results

# COVID-19: Ongoing Pandemic with Continued Unmet Medical Needs

- ***New oral antivirals needed with improved profiles due to current treatment limitations***
  - Drug-drug interactions, relapse and resistance concerns
  - Bemnifosbuvir, as a cornerstone therapeutic, has the potential to address these limitations
- Shorter time intervals between emergence of variants - subvariants
- Rate of re-infection is increasing
- Moving target: failure of antibodies, decreased vaccine-induced immunity and need for frequent boosters for emerging variants
- New variants fuel surges, may be life threatening to those at high risk with comorbidities and have caused increased hospitalizations and death in 65+
- BA.5 is vast majority of infections and new variants are expected to fuel a surge this fall

# Bemnifosbuvir Advancing to Late-Stage Development for COVID-19

- End-of-Phase 2 meeting held with FDA and met with European Medicines Agency Emergency Task Force
  - Reviewed comprehensive bemnifosbuvir data package, including MORNINGSKY results
  - Discussed design of global late-stage clinical trial for the treatment of mild-to-moderate COVID-19
- Finalization of global late-stage clinical trial design expected near-term
  - Trial to focus on high-risk patients, including immunocompromised, regardless of vaccination status
  - Primary endpoint of hospitalization and death
  - Bemnifosbuvir 550 mg BID dose for five days to be evaluated
- Operational planning currently underway for global late-stage trial with goal of initiation in Q4 2022

# AT-511 (free base of bemnifosbuvir) Remains Fully Active Against All Variants of Concern Evaluated, Including Emerging Variants

| SARS-CoV-2 variant | | | AT-511 $EC_{90}$, µM (n) | | Fold change (variant/USA-WA-1) |
|---|---|---|---|---|---|
| Variant | Lineage | Strain | Mean | SD | |
| - | A | USA-WA1/2020 | 0.75 (n=2) | 0.21 | - |
| Alpha | B.1.1.7 | England/204820464/2020 | 2.15 (n=3) | 0.22 | 2.9 |
| Gamma | P.1 | Japan/TY7-503/2021 | 2.50 (n=3) | 0.50 | 3.3 |
| Epsilon | B.1.427 | USA/CA/VRLC009/2021 | 0.76 (n=2) | 0.48 | 1.0 |
| - | A | USA-WA1/2020 | 0.43 (n=2) | 0.12 | |
| Beta | B.1.351 | USA/MD-HP01542/2021 | 0.80 (n=2) | 0.23 | 1.9 |
| - | A | USA-WA1/2020 | 1.20 (n=3) | 0.37 | - |
| Delta | B.1.617.2 | USA/PHC658/2021 | 1.36 (n=3) | 0.34 | 1.1 |
| - | A | USA-WA1/2020 | 0.58 (n=5) | 0.26 | - |
| Omicron (BA.1) | B.1.1.529 | USA/MDHP20874/2021 | 0.50 (n=3) | 0.27 | 0.86 |
| - | A | USA-WA1/2020 | 0.59 (n=2) | 0.18 | - |
| Omicron (BA.2) | B.1.1.529 | USA/CO-CDPHE-2102544747/2021 | 0.54 (n=2) | 0.08 | 0.92 |

Readout: VYR (virus yield assay); Cells: Normal human-derived tracheal/bronchial epithelial cells



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# Advancing Multipronged Approach for COVID-19 Future Preparedness

*Atea is at the Forefront of Developing a Combination Regimen for COVID-19*

- **Bemnifosbuvir - cornerstone therapeutic for both mono- and combination therapy**
- **First-generation protease inhibitor and unmet medical needs in COVID-19**
  - Drug-drug interactions
  - Relapse
  - Potential for emergence of resistance with broad use or prolonged treatment and retreatment
- **Bemnifosbuvir (nucleoside) + protease inhibitor rationale: combining different mechanisms as with other viral RNA diseases should provide solutions for specific patient populations**
  - Development of second-generation protease inhibitor with improved profile
  - Additive benefits in combination regimen for emerging / future variants addressing unmet medical needs

# Atea COVID-19 Program for Second Generation Protease Inhibitor (PI)

*Promising Highly Potent and Metabolically Stable Compounds*

- Advancing discovery efforts (synthesis of ~200 compounds to-date, leveraging CADD and docking models)
- Compounds have achieved **nanomolar / sub-nanomolar** potency
- In parallel, opportunistically evaluating external PI licensing opportunities

**Evaluation of Internal PIs (Nirmatrelvir as Control)**

| Property | Nirmatrelvir | Compound A | Compound B | Compound C |
|---|---|---|---|---|
| Mpro Biochemical $IC_{50}$ (nM) | **8.9** | 24 | 53 | 12 |
| Vero-E6 $EC_{50}$ (+Pgp inh.) (nM) | **20** | **0.80** | 22 | **17** |
| $CC_{50}$ (µM) | **>100** | >100 | >100 | >100 |
| $T_{1/2}$ (min) in human liver microsomes (metabolism) | **11** | 2.5 | 4.4 | **153** |

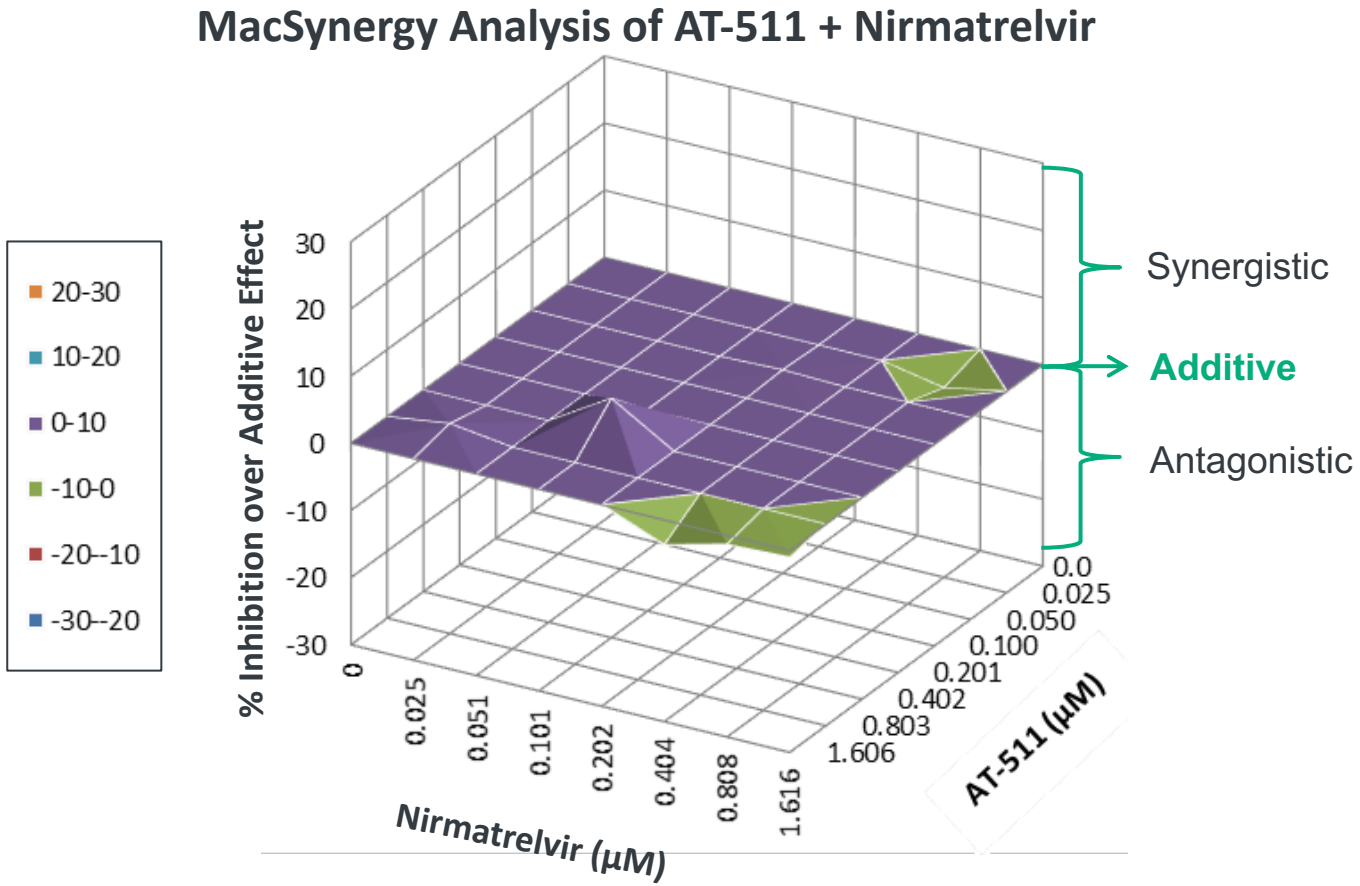
**Compound A has superior potency**
**Compound C has good potency and metabolic stability**

Target Profile:
- ✓ Superior potency
- ✓ Improve metabolic stability to eliminate need for booster (e.g., ritonavir)
- ✓ Limited drug-drug interactions
- ✓ Good safety profile

**Goal – Selection of clinical PI candidate by end of 2022**

# Additive Effect in *In Vitro* Combination Studies of AT-511 (free base of bemnifosbuvir) with Protease Inhibitor

*Findings Generalizable to Various other Nuc / PI Combinations*




- *In vitro* combination studies in HCoV-229E surrogate model indicate that bemnifosbuvir and nirmatrelvir have additive antiviral effects
- These data support the potential benefit of a combination of bemnifosbuvir + protease inhibitor for the treatment of SARS-CoV-2 infection

Virus: HCoV-229E
Cell: Huh7.5
Read-out: viral RNA by RT-qPCR

AT-752

# Program Update: Phase 2 Clinical Development for Dengue

# Dengue Fever: Significant Disease Burden and High Unmet Medical Need

*Most Prevalent Mosquito-Borne Viral Disease*

## Significant Disease Burden

**>100** Countries where dengue is endemic

**~4B** People live in high-risk areas*

**~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)

**$8-9B** Global economic burden, annually[1]

## AT-752: Promising Oral Product Profile

- Purine nucleotide prodrug with potent *in vitro* activity ($EC_{90}$~ 0.6 µM) against all serotypes tested
- MOA: inhibition of dengue viral polymerase
- Potent *in vivo* activity in a dengue animal model and no toxicity
- Successful development and FDA approval of AT-752 may result in US priority review voucher

**No Antiviral Treatments Available**

*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

[1]The global economic burden of dengue: a systematic analysis: *Donald S Shepard, Eduardo A Undurraga, Yara A Halasa, Jeffrey D Stanaway: Lancet Infect Dis* 2016; 16: 935–41 2. Takeda earnings presentation April 2021.

# AT-752 Two Ongoing Trials for the Treatment of Dengue

*Initial Results Expected Late 2022*

## DEFEND-2 - Global Phase 2 Proof-of-Concept Treatment for Dengue Study

- Enrolling adult patients with dengue fever (N=up to 60)
- Randomized, double-blind, placebo-controlled trial being conducted in dengue endemic countries
- Oral administration of AT-752 for 5 days
- **Objectives:** antiviral activity, safety, and PK
  - Primary endpoint: Change in dengue virus viral load from baseline
  - Exploratory: viremia, NS1 levels, fever

## Human Challenge Infection Model

- Enrolling healthy subjects between 18-55 years old
- Being conducted exclusively in the United States
- The study is designed to evaluate the effect of AT-752 in healthy volunteers who are challenged with an attenuated DENV-1 virus strain after receiving AT-752 or placebo
- 12 subjects will be randomized 2:1, treatment vs placebo



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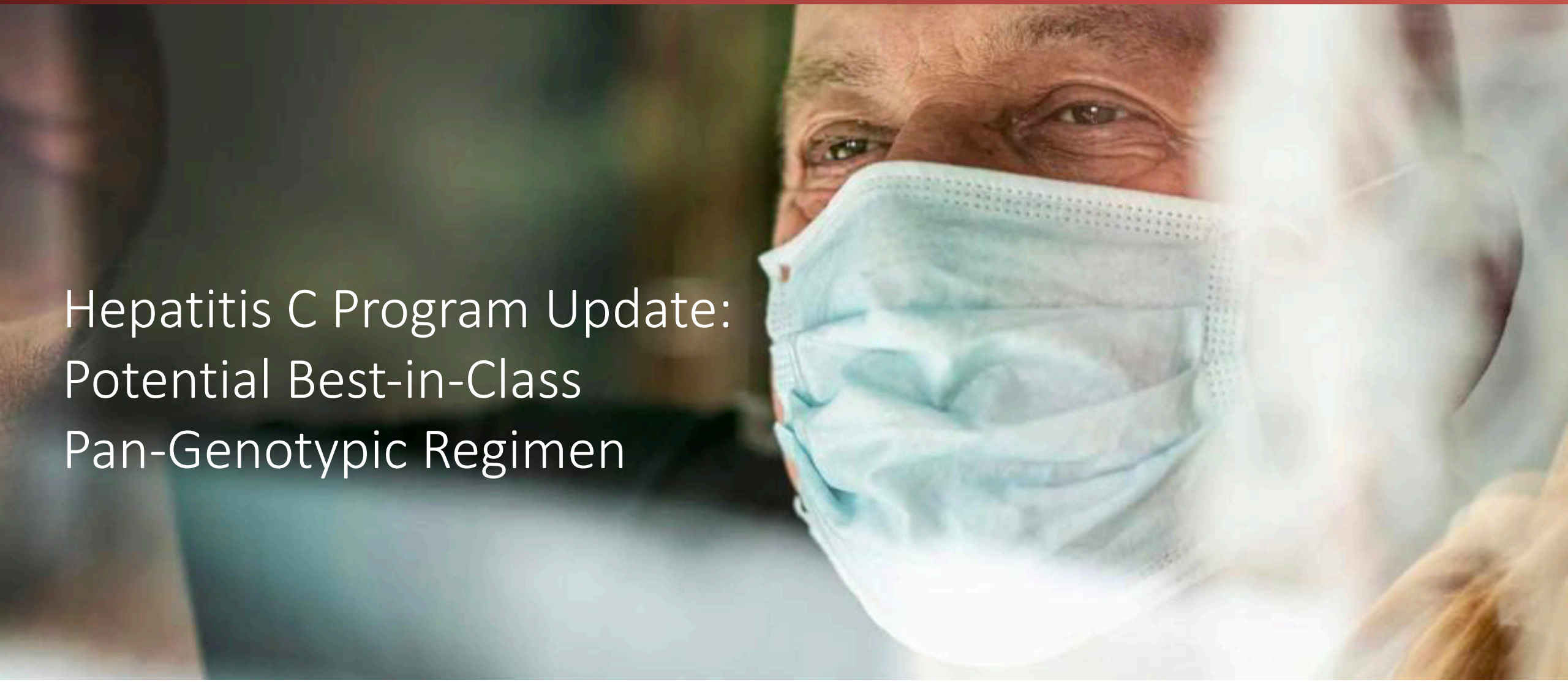

# Hepatitis C Program Update: Potential Best-in-Class Pan-Genotypic Regimen

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# HCV Development for Bemnifosbuvir + Ruzasvir Update

*Potential Best-in-Class Pan-genotypic Regimen*

- **Completed required combination preclinical toxicology study**
- **Completing manufacturing of ruzasvir clinical trial supplies**
- **Finalizing clinical trial design for the Phase 2 combination trial, which is expected to be initiated late 2022**
- **Phase 2 combination program expected to evaluate convenient and short treatment duration in non-cirrhotic and compensated cirrhosis patients**

## 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

Good SS et al (2020) Preclinical evaluation of AT-527, a novel guanosine nucleotide prodrug with potent, pan-genotypic activity against hepatitis C virus. PLoS ONE 15(1): e0227104. https://doi.org/10.1371/journal.pone.0227104



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# Financial Summary

# Financial Update Second Quarter 2022

**Condensed Consolidated Statement of Operations and Comprehensive Income (Loss)**
(in thousands, except share and per share amounts)
(unaudited)

| | Three Months Ended June 30, | | Six Months Ended June 30, | |
|---|---|---|---|---|
| | 2022 | 2021 | 2022 | 2021 |
| Collaboration revenue | $ — | $ 60,391 | $ — | $ 126,376 |
| Operating expenses | | | | |
| Research and development | 19,858 | 39,803 | 49,491 | 66,375 |
| General and administrative | 12,437 | 11,901 | 24,979 | 20,658 |
| Total operating expenses | 32,295 | 51,704 | 74,470 | 87,033 |
| Income (loss) from operations | (32,295) | 8,687 | (74,470) | 39,343 |
| Interest income and other, net | 1,080 | 52 | 1,178 | 109 |
| Income (loss) before income taxes | (31,215) | 8,739 | (73,292) | 39,452 |
| Income tax expense | (120) | (7,200) | (120) | (7,200) |
| Net income (loss) and comprehensive income (loss) | $ (31,335) | $ 1,539 | $ (73,412) | $ 32,252 |
| Net income (loss) per share attributable to common stockholders | | | | |
| Basic | $(0.38) | $0.02 | $(0.88) | $0.39 |
| Diluted | $(0.38) | $0.02 | $(0.88) | $0.36 |
| Weighted-average common shares outstanding | | | | |
| Basic | 83,257,591 | 82,743,530 | 83,217,223 | 82,662,019 |
| Diluted | 83,257,591 | 88,091,384 | 83,217,223 | 88,683,767 |

# Financial Update Second Quarter 2022

**Selected Condensed Consolidated Balance Sheet Data**
(in thousands)
(unaudited)

| | June 30, 2022 | December 31, 2021 |
|---|---|---|
| Cash and cash equivalents | $ 684,480 | $ 764,375 |
| Working capital(1) | 664,344 | 715,520 |
| Total assets | 694,338 | 772,892 |
| Total liabilities | 33,881 | 62,815 |
| Total stockholders' equity | 660,457 | 710,077 |

(1) The Company defines working capital as current assets less current liabilities. See the Company's condensed consolidated financial statements in its Quarterly Report on Form 10-Q for the three months ended June 30, 2022 for further detail regarding its current assets and liabilities.

# Closing Remarks

# Fully Funded, Multiple Upcoming Value-Driving Milestones

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

## 2022 EXPECTED MILESTONES

**COVID-19**

- Initiate bemnifosbuvir late-stage trial **in Q4 2022**

**HCV**

- Initiate bemnifosbuvir + ruzasvir Ph 2 combo trial: **late Q4 2022**

**Dengue**

- Ph 2 proof-of-concept program: **initial data late 2022**

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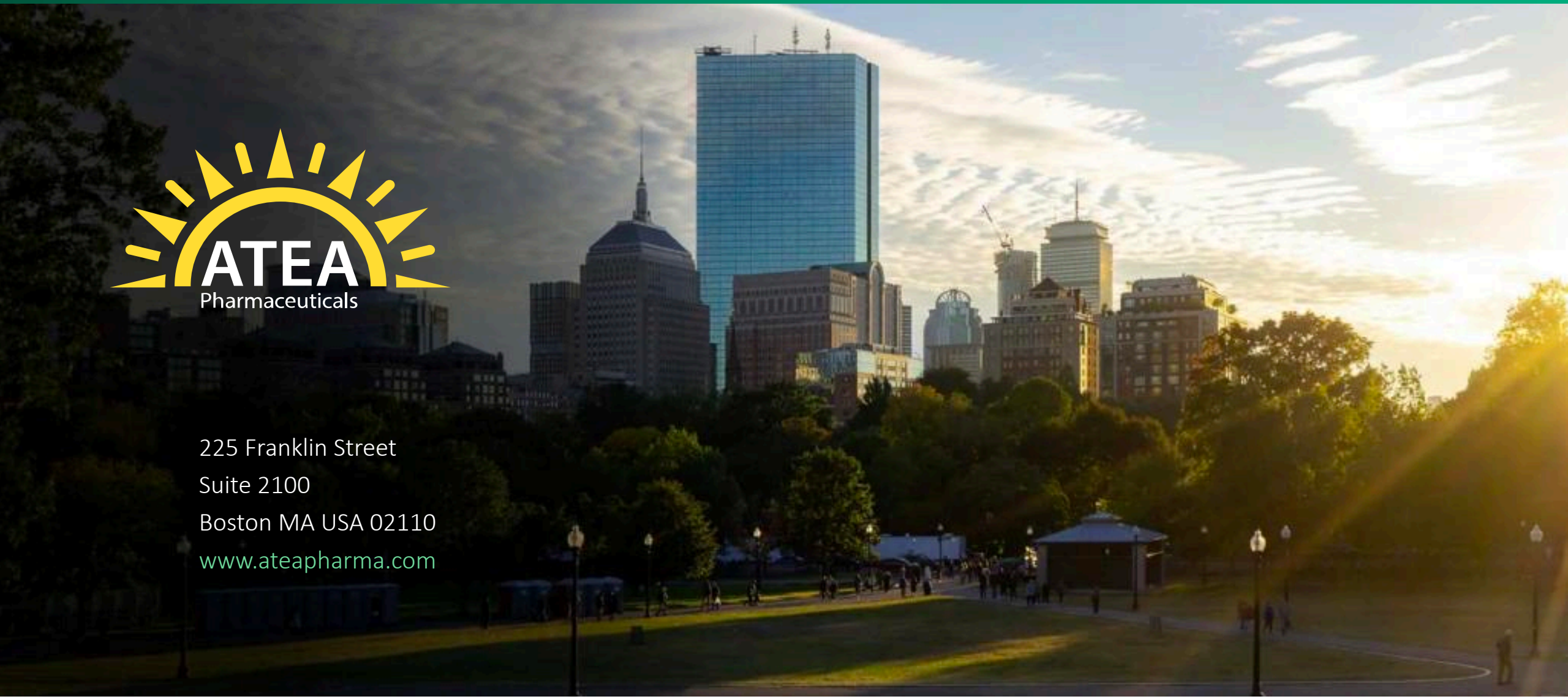
**$684.5 million in cash and cash equivalents as of 6/30/22**

**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.

1. Bemnifosbuvir as monotherapy has generated Phase 2 results. I*n vitro* combination studies are being conducted to generate data in support of clinical combination studies for COVID-19. 2. Bemnifosbuvir and Ruzasvir have generated Phase 2 results and are anticipated to be developed as a combination for HCV.

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