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### Atea’s Oral Drug Discovery Platform has Potential to Transform Treatment of Severe Viral Diseases

| A platform of proprietary purine nucleos(t)ide prodrugs designed specifically to target viral RNA polymerase | Small molecule drugs are well suited for monotherapy and combination regimens | Treatment of many RNA viral diseases require combination regimens to prevent drug resistance |

- **Coronaviridae**
  - SARS-CoV-2 and Future Coronaviruses

- **Flaviviridae**
  - HCV, Dengue

- **Paramyxoviridae**
  - RSV, hMPV
**Atea’s Goal: Discover Breakthrough Drugs Against Severe RNA Viruses**

**Proprietary Platform Generates Deep Antiviral Pipeline**

<table>
<thead>
<tr>
<th>ssRNA VIRUS</th>
<th>THERAPEUTIC INDICATION</th>
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<th>PHASE 1</th>
<th>PHASE 2</th>
<th>PHASE 3</th>
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**2022 EXPECTED MILESTONES**

- **COVID-19**
  - Advance bemnifosbuvir clinical program in 2022
- **HCV**
  - Initiate bemnifosbuvir + Ruzasvir Phase 2 combo trial: **late 2022**
- **Dengue**
  - Phase 2 proof-of-concept program: **initial data late 2022**

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* 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. *In 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.
Program Update for COVID-19
-- MORNINGSKY Clinical Results
-- Final Analysis from Phase 2 Hospitalized Study
-- Omicron Variant Results
COVID-19: Continued Emergence and Evolution of Variants

• **New oral antivirals needed with improved profiles due to current treatment limitations**
  • Relapse, drug-drug interactions, potential safety, efficacy and resistance concerns

• New variants fuel surges and are life threatening to those at high risk and have caused severe illness and mortality to 65+

• BA.4 and BA.5 expected to fuel surges in US during the fall / winter 2022-2023

Inclusion Criteria: Patients eligible for management in an outpatient setting, ≤ 5 days of symptoms. N=~1400 planned.

Objectives:
- Primary
  - Time to alleviation or improvement of COVID-19 symptoms
- Secondary
- Hospitalization
- Death
- Virological endpoints

Status:
- Study enrolled 216 patients and closed out early with 207 efficacy evaluable patients.
MORNINGSKY Topline Clinical Efficacy Results (n=207 Efficacy Evaluable)

• Global and broad patient population studied
  • Approximately 50% high risk / 50% standard risk
  • 28% vaccinated
  • 56% seropositive at baseline

• Primary endpoint of time to alleviation / improvement of symptoms not achieved

• 71% reduction of hospitalization bemnifosbuvir vs placebo (secondary endpoint) and no deaths
  • Hospitalization and death have been the highly favored endpoints by regulatory agencies, including FDA

• Bemnifosbuvir was generally safe and well tolerated at 550 mg BID
  • No drug related SAEs
  • AEs leading to treatment discontinuation were 3% for bemnifosbuvir vs. 7% for placebo
  • No GI-related events leading to treatment discontinuation
MORNINGSKY Results: 71% Reduction in Hospitalization for Bemnifosbuvir vs. Placebo (Secondary Endpoint; All Efficacy Evaluable)

- 71% Reduction in Hospitalization
  - P=0.047 (unadjusted, exploratory)

- 82% reduction in hospitalization in subgroup analyses in patients >40 yrs old for bemnifosbuvir vs. placebo

- No deaths were observed in study

*Included patients who were randomized, received study drug and tested positive for SARS-CoV-2
Bemnifosbuvir Global Phase 2 Trial:
Hospitalized Patients with Risk Factors and Moderate COVID-19

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

**Countries:** Global Study

**Objectives:**

**Primary:**
- Reduction in progressive respiratory insufficiency

**Secondary:**
- Mortality
- Virological endpoints
- Safety and tolerability

**Randomization**

<table>
<thead>
<tr>
<th>1:1</th>
<th>Bemnifosbuvir Treatment</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Placebo</td>
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</tbody>
</table>

**Double-blind oral administration: 5 days**

**Status:**

- **Study closed out early due to evolving management of COVID-19 of patients**
- **Final analysis on 83 patients**
  - **Part A:** 41 patients in 550 mg BID arm; 40 patients in placebo arm
  - **Part B:** 0 patients in 1100 mg BID arm; 2 patients in placebo arm
Final Analysis from Phase 2 Hospitalized Study in High-Risk Patients

Potential Clinical Benefits with Bemnifosbuvir Treatment (550 mg BID)

- Low rates of progression to respiratory insufficiency (primary endpoint)
  - 7.3% with bemnifosbuvir treatment vs. 10% on placebo
    - Respiratory events associated with progression were less severe in the bemnifosbuvir treated patients as compared to those receiving placebo

- 0 deaths with bemnifosbuvir treatment vs 3 on placebo (secondary endpoint)

- Final virology results remained consistent with previously reported interim virology data (secondary endpoint)

- Bemnifosbuvir was generally safe and well tolerated with no drug related serious adverse events and no adverse events leading to treatment discontinuation
AT-511 (free base of Bemnifosbuvir) Potent Against All SARS-CoV-2 Variants Tested In Vitro

Bemnifosbuvir’s Unique Mechanism Provides Activity Across All Variants of Concern

<table>
<thead>
<tr>
<th>Variant</th>
<th>Lineage</th>
<th>Strain</th>
<th>AT-511 EC&lt;sub&gt;90&lt;/sub&gt; Ratio Variants/Original</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original</td>
<td>A</td>
<td>hCoV-19/USA-WA1/2020</td>
<td>1</td>
</tr>
<tr>
<td>Alpha</td>
<td>B.1.1.7</td>
<td>hCoV-19/England/204820464/2020</td>
<td>2.9 (n=3)</td>
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<tr>
<td>Gamma</td>
<td>P.1</td>
<td>hCoV-19/Japan/TY7-503/2021</td>
<td>3.3 (n=3)</td>
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<tr>
<td>Epsilon</td>
<td>B.1.427</td>
<td>hCoV-19/USA/CA/VRLC009/2021</td>
<td>1.0 (n=2)</td>
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<tr>
<td>Delta</td>
<td>B.1.617.2</td>
<td>hCoV-19/USA/PHC658/2021</td>
<td>1.1 (n=3)</td>
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<tr>
<td>Omicron</td>
<td>B.1.1.529</td>
<td>USA/MDHP20874/2021</td>
<td>1.1 (n=3)</td>
</tr>
</tbody>
</table>

For USA-WA-1, AT-511 EC<sub>90</sub> = 0.53 ± 0.23 µM

Activities against different variants are within normal in vitro assay variations (~3-fold)
Next Steps for Bemnifosbuvir COVID-19 Clinical Development Program

Phase 3 MORNINGSKY Results Expected to Accelerate COVID-19 Program

• 207 efficacy evaluable patients from MORNINGSKY is in the range of a Phase 2 study
  • Additional Phase 2 monotherapy outpatient study is no longer planned

• Final analysis of Phase 2 hospitalized study in high-risk patients suggest potential clinical benefits and are consistent with results in MORNINGSKY trial
  • 0 deaths with bemnifosbuvir treatment vs. 3 deaths on placebo (secondary endpoint)

• Bemnifosbuvir 550 mg BID is efficacious, generally safe and well-tolerated with a favorable GI tolerability profile

• Pursuing regulatory interactions to review data package and next steps in clinical development program
Program Update: Phase 2 Clinical Development for Dengue
Dengue Fever: Significant Disease Burden and High Unmet Medical Need

High Prevalence Mosquito-Borne Viral Disease

Significant Disease Burden

<table>
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<tr>
<th>Description</th>
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<td>&gt;100 Countries endemic</td>
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<tr>
<td>~4B People live in high-risk areas*</td>
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<tr>
<td>~400M Estimated infected annually</td>
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<tr>
<td>12-44% Severe dengue mortality</td>
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<tr>
<td>500,000 Cases develop hemorrhagic fever annually</td>
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<td>$8-9B Global economic burden</td>
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</table>

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

Initiated: AT-752 Phase 2 Global Proof-of-Concept Treatment for Dengue Study

Initial Results Expected Late 2022

**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:** Endemic Countries

**Objectives:** Antiviral activity, safety, pharmacokinetics (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
Initiated: AT-752 Human Challenge Infection Model

Results Expected Q4 2022

Population:
Healthy subjects, 18-55 years old

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 x 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
Hepatitis C Program Update: Potential Best-in-Class Pan-Genotypic Regimen
Fueled by the Opioid Crisis, US Hepatitis C Infections Continue to Increase

2021 Global HCV Market Approached $4 Billion*; US ~50% of Global DAA Sales in 2021

- 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
- US HCV market is concentrated with ~25% of roughly 16,000 prescribers accounting for 70% of TRxs

HCV Development for Bemnifosbuvir + Ruzasvir Update

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

- Currently manufacturing ruzasvir clinical trial supplies for Phase 2
- Evaluating clinical trial designs 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

✅ 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

*Bemnifosbuvir + Ruzasvir Competitive Profile*

- Convenient and Short duration
- Potential for first RBV-free therapy for decompensated disease

Closing Remarks
Fully Funded, Multiple Upcoming Value-Driving Milestones

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$705.5 million in cash and cash equivalents as of 3/31/22

Cash runway through 2025

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