Jefferies London Healthcare Conference

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NASDAQ: AVIR

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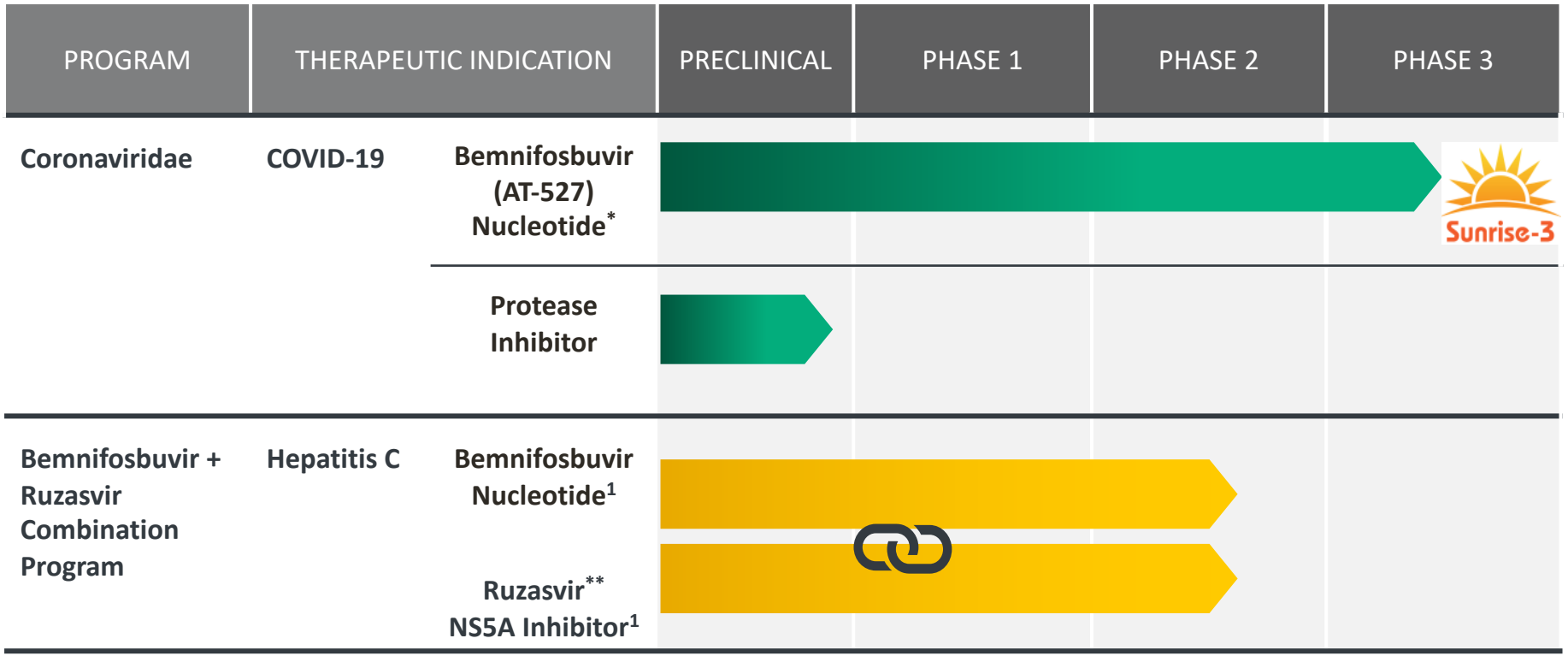
Industry Information

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.

Focused Antiviral Pipeline, Fully Funded Through Key Inflection Points

✓ Advancing innovative oral therapeutics that address the unmet medical needs of patients with serious viral diseases



- **SUNRISE-3:** 1st interim analysis expected Q1'24
- Topline results mid-2024
- NDA submission target YE'24
- **Protease inhibitor:** program update Q1'24
- **Ph 2 HCV trial:** lead-in cohort SVR4 data expected Q1'24
- Ph 3 initiation target Q4'24
- Cash, cash equivalents & marketable securities: **$595.1M** Cash runway well into 2026

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

1. Bemnifosbuvir and ruzasvir have each separately generated clinical results and are being developed as a combination for HCV.

Atea's Compelling Value Proposition

Advancing Oral Antiviral Therapies with Multibillion Dollar Market Opportunities

- **COVID-19: Market expected to remain multibillion dollar market opportunity**
  - ✓ Continued need for new oral treatments to address key limitations of current therapies
  - ✓ Expected ~10B+ market opportunity
- **HCV: Large and growing population suffering from chronic HCV with 2022 global market opportunity of ~ $3.5 billion in net sales**
  - ✓ 1.5 million new infections occurring globally per year
  - ✓ ~75% of diagnosed patients in the US are untreated

Innovative Therapies to Address Unmet Medical Needs

- **Global Phase 3 SUNRISE-3 trial evaluating bemnifosbuvir for treatment of COVID-19 in high-risk patients**
  - ✓ Fast Track designation granted for bemnifosbuvir for COVID-19
  - ✓ Secured regulatory approvals for SUNRISE-3 in majority of targeted countries to-date
  - ✓ Q1'24: SUNRISE-3 interim analysis expected
- **Phase 2 combination trial for bemnifosbuvir + ruzasvir in HCV patients**
  - ✓ Q1'24: Initial results expected from lead-in cohort of 60-patients

Well-Capitalized with Strong Balance Sheet

- **$595.1 million in cash, cash equivalents and marketable securities as of 9/30/23**
- **Fully funded through key inflection points with cash runway well into 2026**
- **Focused financial discipline to invest in clinical programs and execute on near and long-term opportunities**

Advancing a Focused Pipeline of Innovative Oral Antiviral Therapeutics Targeting Multibillion Dollar Markets to Deliver Significant Shareholder Value

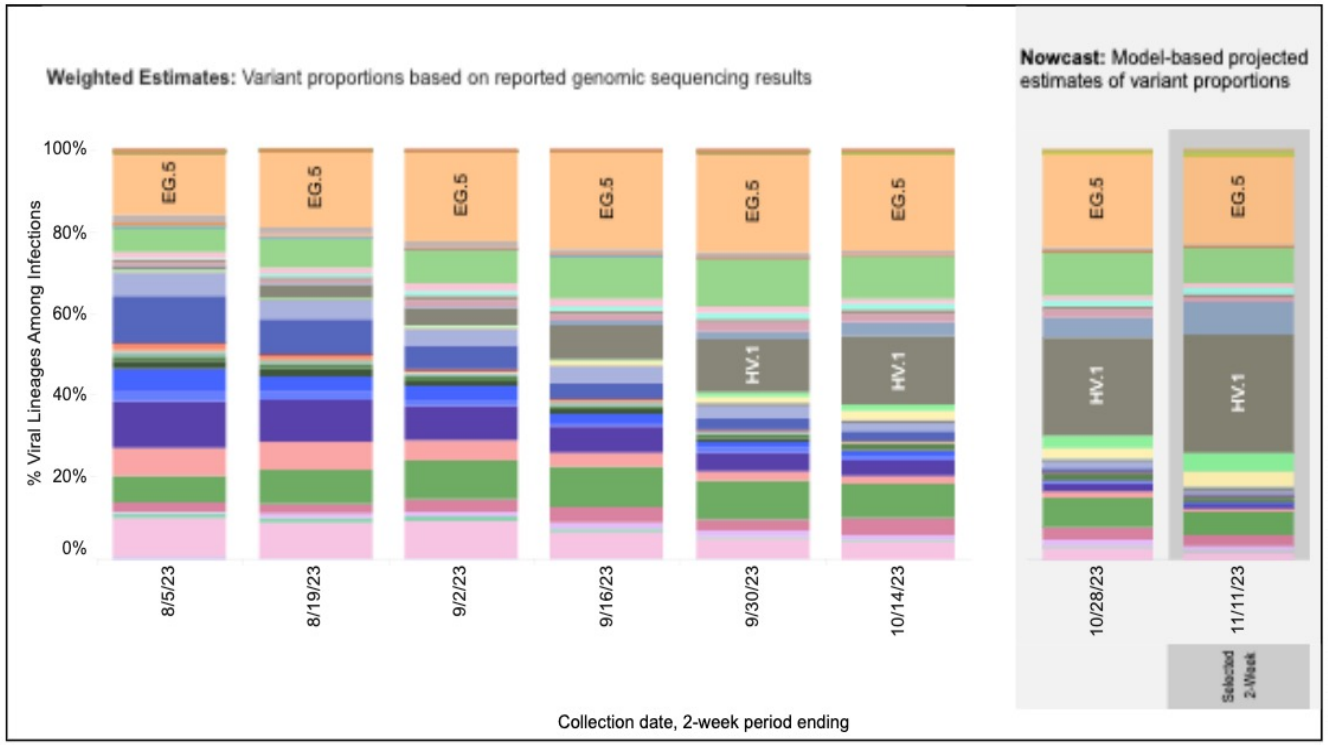
COVID-19

Bemnifosbuvir Phase 3 Program

- COVID-19 Unmet Medical Need
- Global SUNRISE-3 Phase 3 Trial

COVID-19 Variants Continue to Rapidly Emerge Creating Waves of Infection

Weighted and Nowcast Estimates in United States for 2-Week Periods in 7/23/2023 – 11/11/2023



Nowcast Estimates in United States for 10/29/2023 – 11/11/2023

USA

WHO label	Lineage #	US Class	%Total	95%PI
Omicron	HV.1	29.0%	26.0-32.1%	
	EG.5	21.7%	19.3-24.2%	
	FL.1.5.1	9.3%	8.0-10.8%	
	HK.3	7.8%	6.2-9.9%	
	XBB.1.16.6	5.6%	4.7-6.6%	
	JD.1.1	4.6%	3.4-6.1%	
	JF.1	3.5%	2.7-4.5%	
	XBB.1.16.11	2.5%	2.0-3.2%	
	XBB.2.3	1.9%	1.5-2.3%	
	GK.1.1	1.6%	1.2-2.3%	
	HF.1	1.4%	0.9-2.1%	
	XBB.1.16.15	1.4%	1.0-1.9%	
	XBB.1.16	1.2%	0.9-1.6%	
	XBB.1.5.70	1.2%	0.6-2.2%	
	BA.2	1.0%	0.5-2.1%	
	GE.1	0.9%	0.6-1.3%	
	XBB.1.16.1	0.8%	0.6-1.1%	
	XBB	0.8%	0.6-1.0%	
	GK.2	0.6%	0.5-0.9%	
	EG.6.1	0.5%	0.3-0.7%	
	XBB.1.5	0.3%	0.2-0.4%	
	XBB.1.9.1	0.3%	0.2-0.4%	
	XBB.1.42.2	0.2%	0.1-0.3%	
	XBB.1.5.68	0.2%	0.1-0.3%	
	XBB.1.9.2	0.2%	0.1-0.2%	
	XBB.1.5.72	0.2%	0.1-0.2%	
	CH.1.1	0.2%	0.1-0.3%	
	XBB.2.3.8	0.1%	0.0-0.2%	
	XBB.1.5.10	0.1%	0.0-0.1%	
	XBB.1.5.59	0.0%	0.0-0.1%	
	FD.1.1	0.0%	0.0-0.0%	
	XBB.1.5.1	0.0%	0.0-0.0%	
	FE.1.1	0.0%	0.0-0.0%	
	EU.1.1	0.0%	0.0-0.0%	
Other	Other*	1.1%	0.6-2.0%	

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one 2-week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all 2-week periods displayed.
# BA.1, BA.3 and their sublineages (except BA.1.1 and its sublineages) are aggregated with B.1.1.529. Except BA.2.12.1, BA.2.75, XBB and their sublineages, BA.2 sublineages are aggregated with BA.2. Except BA.2.75.2, CH.1.1 and BN.1, BA.2.75 sublineages are aggregated with BA.2.75. Except BA.4.6, sublineages of BA.4 ar
aggregated to BA.4. Except BF.7, BF.11, BA.5.2.6, BQ.1 and BQ.1.1, sublineages of BA.5 are aggregated to BA.5. Except the lineages shown and their sublineages, sublineages of XBB are aggregated to XBB. Except XBB.1.5.1,XBB.1.5.10,FD.2,EU.1.1,XBB.1.5.68 and XBB.1.5.70 sublineages of XBB.1.5 are aggregated to XBB.1.5
Except FL.1.5.1, sublineages of XBB.1.9.1 are aggregated to XBB.1.9.1. Except XBB.1.16.1,XBB.1.16.11,XBB.1.16.15 sublineages of XBB.1.16 are aggregated to XBB.1.16, sublineages of XBB.1.42.2 are aggregated to XBB. Except FE.1.1, sublineages of XBB.1.18.1 are aggregated to XBB. For all the other lineages listed, the
sublineages are aggregated to the listed parental lineages respectively. Previously, FL.1.5.1, GE.1, EG.6.1 and HV.1, FD.1.1, XBB.2.3.8, HF.1, GK.2, GK.1.1, HK.3, JD.1.1, JF.1 was aggregated to XBB.1.9.1, XBB.2.3.10, XBB.1.9.2, XBB.1.5.15, XBB.2.3, XBB.1.16.13, XBB.1.5.70, XBB.1.9.2.5.1.1, XBB.1.5.102 and XBB.1.16.6
respectively. Lineages BA.2.75.2, XBB, XBB.1.5 , XBB.1.5.1, XBB.1.5.10, FD.2, XBB.1.9.1, XBB.1.9.2, XBB.1.16, XBB.1.16.1, XBB.2.3, BN.1, BA.4.6, BF.7, BF.11, BA.5.2.6 ,BQ.1.1, EU.1.1, XBB.1.5.68, FE.1.1, EG.5, XBB.1.5.72 , FL.1.5.1, GE.1, EG.6.1,XBB.1.16.11, FD.1.1, XBB.1.5.70, XBB.2.3.8, HV.1, XBB.1.42.2, GK.2, HF.1
XBB.1.16.15, GK.1.1, HK.3, JF.1 contain the spike substitution R346T.

https://covid.cdc.gov/covid-data-tracker/#variant-summary

COVID-19: Unmet Medical Need Remains in High-Risk Population

New, Safe and Well-Tolerated Oral Therapies Needed

- Majority of patients globally enrolled in SUNRISE-3 are in monotherapy arm despite currently available oral antiviral therapies
- Approximately 50% of patients are coming from US sites
- Clear ongoing unmet medical need due to safety concerns, tolerability and drug-drug interactions associated with current options
  - CDC predicts high hospitalization rates for respiratory season in winter 2023/2024[1]
  - COVID-19 predicted to account for half of those hospitalizations, with flu and RSV combined accounting for the other half
  - Low COVID-19 booster uptake currently at ~7% of US adults, leaving many susceptible to COVID-19 infections
  - Unmet medical need particularly important in most vulnerable patient populations including the elderly, immunocompromised and those with underlying risk factors

1. https://www.cdc.gov/forecast-outbreakanalytics/about/season-outlook.html#october-update

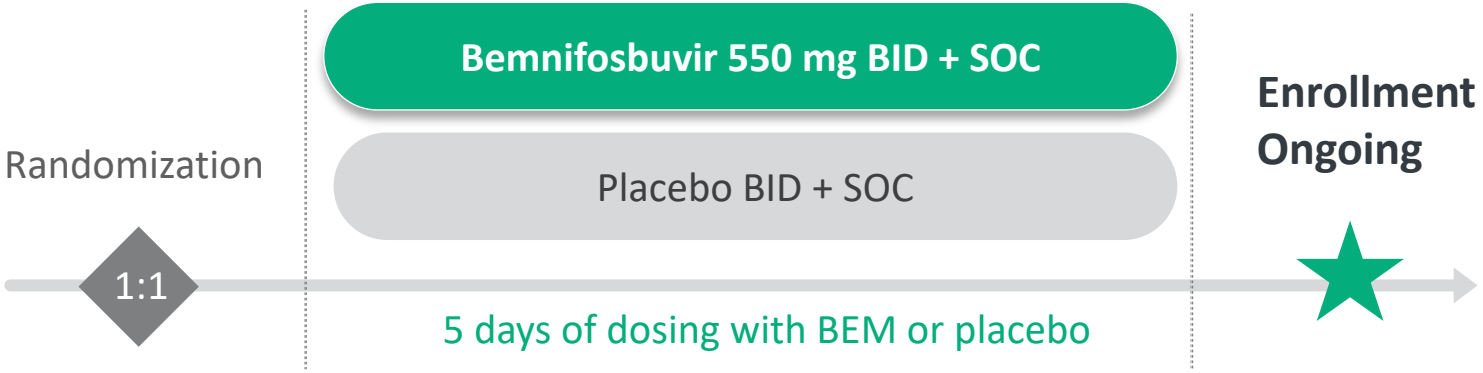
ATEA Pharmaceuticals

SUNRISE-3: Global Phase 3 Trial in High-Risk COVID-19 Outpatients

Bemnifosbuvir – U.S. Fast Track Designation for COVID-19

Inclusion Criteria: High-risk outpatients with mild or moderate COVID-19, regardless of vaccination status; symptom onset ≤5 days before randomization

Geography: US, Europe, Japan and ROW



Phase 3 Study Design:

- Randomized, double-blind, placebo-controlled
- Study drug (bemnifosbuvir or placebo) to be initiated at the same time as locally available standard of care (SOC)
- Two study populations derived from the type of SOC received:
  - "Supportive care population" – *monotherapy* (primary analysis)
  - "Combination antiviral population" – *combination therapy* (secondary analysis, local SOC includes treatment with other compatible antiviral drugs against COVID-19)
- Two interim analyses for DSMB review to be conducted (safety, futility)

High-risk outpatients: ≥70, ≥55 with one or more risk factors, ≥50 with two or more risk factors, ≥18 with immunocompromised conditions

Primary Endpoint:

All-cause hospitalization or death through Day 29 in supportive care population (n=~2,200 patients)

Secondary Endpoints (assessed in each population):

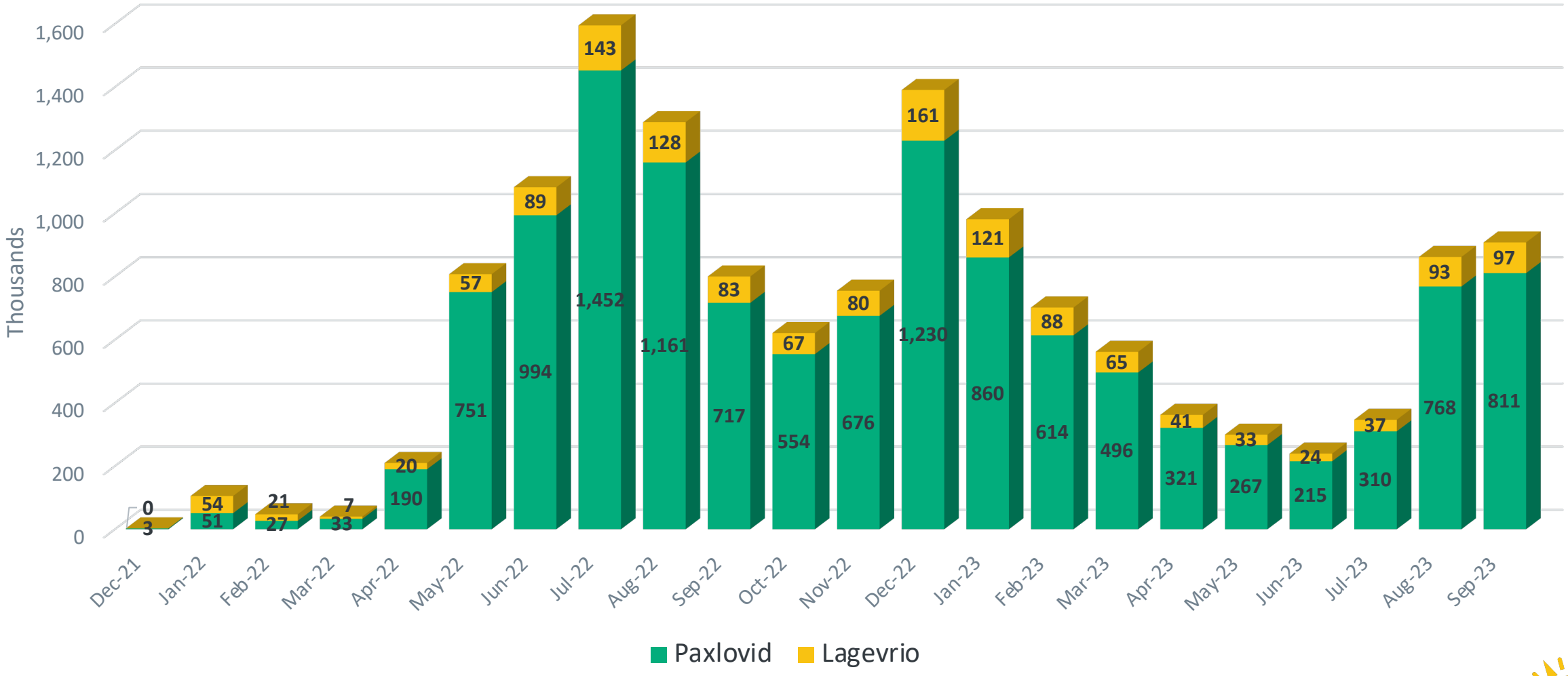
- COVID-19 related hospitalizations and deaths
- Medically attended visits
- Symptom rebound / relapse
- Viral load rebound

COVID-19

- US Oral Antiviral Landscape and Market Opportunity for COVID-19

US TRx Demand for COVID-19 Oral Antivirals Correlates with Infections

US Demand: Monthly COVID-19 Oral Antiviral Prescriptions Dispensed *(thousands)*



Source: IQVIA NPA Sep 2023

US Market Expected to Remain a Long-Term Multi-Billion Dollar Opportunity

Projected Annual US COVID-19 Oral Antiviral (OAV) Retail Demand[1]

~7M+
Annual US Retail Rxs
Annualized COVID-19 OAV Rxs[1]

Cost of Treatment[2]
($1,390)

~$10B

Expanded Market Opportunities

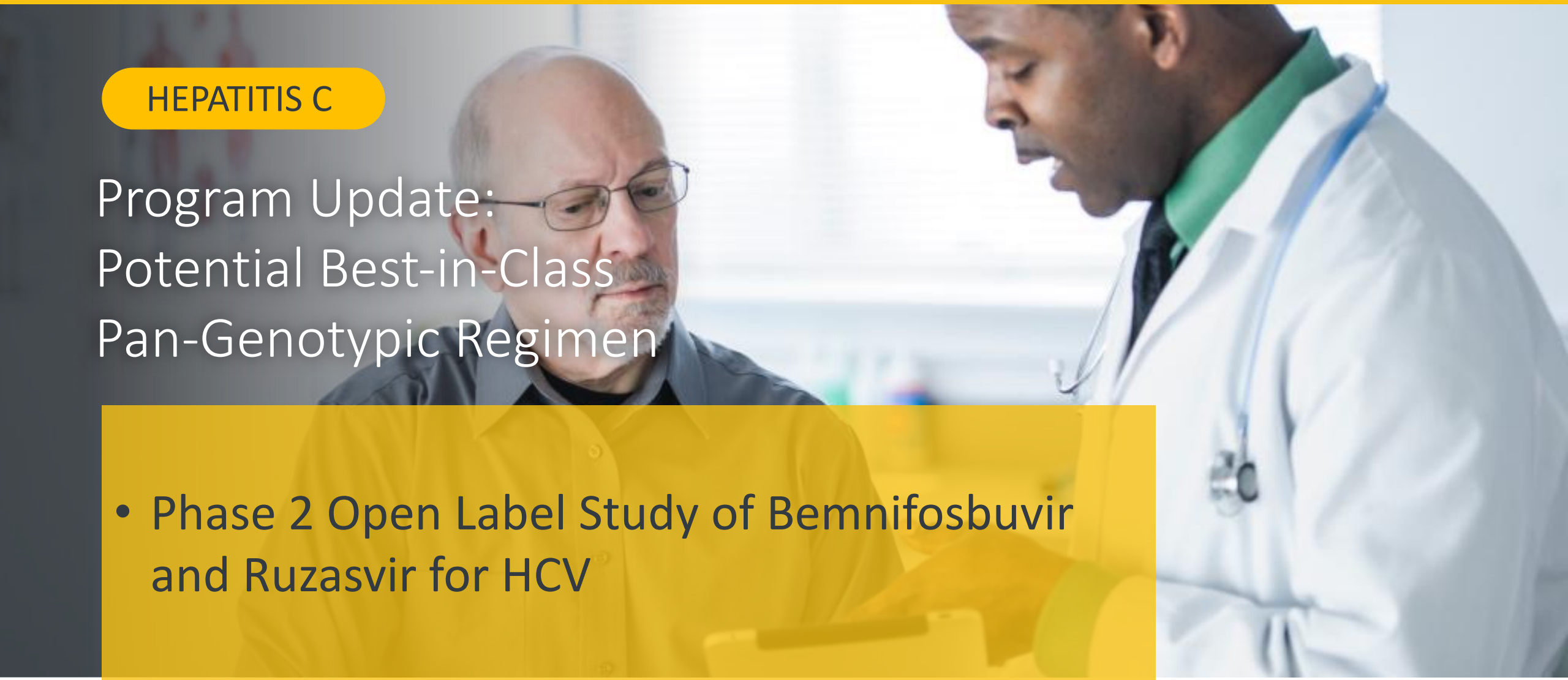
Paxlovid™ Drug-Drug Interactions are a Concern

Annual US retail prescriptions (2022)[3] for commonly used drug classes where Paxlovid DDI is a concern

Cancer Therapies	Immunosuppressants & Immunomodulators	Oral Corticosteroids	HIV Antivirals	Anti Coagulants	Anti Arrhythmics	Calcium Blockers	Seizure Medications	Anti Psychotics
11M	13M	123M	10M	74M	10M	113M	166M	71M

- **Better safety and tolerability profile could lead to broader use**
- **Increased promotion & awareness**
- **No testing needed for prescription**

(1) IQVIA TRxs for Paxlovid and Lagevrio from Jan'23–Sep'23 annualized for full year
(2) Cost of Treatment per Rx for both Paxlovid and Lagevrio assumed at the Pfizer announced price of $1,390
(3) IQVIA TRxs for 2022



HEPATITIS C

Program Update: Potential Best-in-Class Pan-Genotypic Regimen

- Phase 2 Open Label Study of Bemnifosbuvir and Ruzasvir for HCV

ATEA Pharmaceuticals

Phase 2 Open Label Clinical Trial Update

Bemnifosbuvir + Ruzasvir: Potential Best-in-Class Pan-genotypic Regimen

- **Update:** Completed enrollment for 60-patient lead-in cohort; results expected Q1 2024
- ~50 clinical sites in ~15 countries planned for completion of Phase 2 study
- Laying groundwork for Phase 3 study, initiation anticipated Q4 2024

Bemnifosbuvir + Ruzasvir Compelling Profile

Convenient and potential short duration protease inhibitor-free treatment

Potential for first RBV-free therapy for decompensated disease

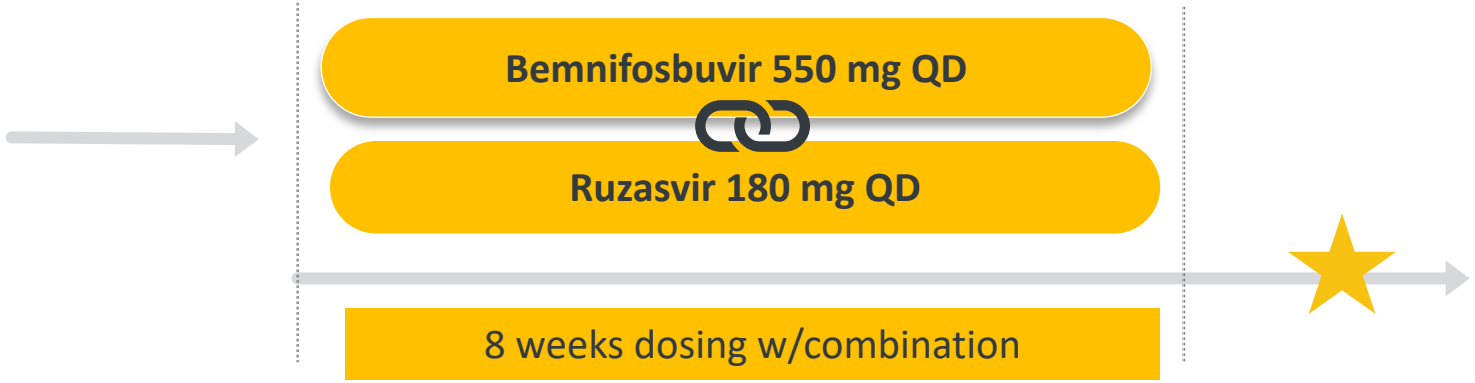
✓ Bemnifosbuvir is being developed as the most potent nucleotide inhibitor for HCV[1]
✓ Ruzasvir, an NS5A inhibitor, is a highly potent drug candidate[2]

. 1. PLoS ONE 15(1):e0227104 https://doi.org/10.1371/journal.pone.0227104 2..Journal of Viral Hepatitis, 2019, September:26 (9); 1127-1138.

Phase 2 Open Label Study of Bemnifosbuvir + Ruzasvir in HCV Patients

Study Design: Open label combination

N=280: including a lead-in cohort of n=~60



Patient Population:

- HCV-infected patients, including compensated cirrhosis
- Direct-acting antiviral naïve
- All genotypes

60-patient Lead-in Cohort:

- Safety and tolerability
- Sustained virologic response (SVR) at Week 4 post-treatment (SVR4)

Primary Endpoints:

- Sustained virologic response (SVR) at Week 12 post-treatment (SVR12)
- Safety

Other Endpoints:

- Virologic failure
- SVR24
- Resistance

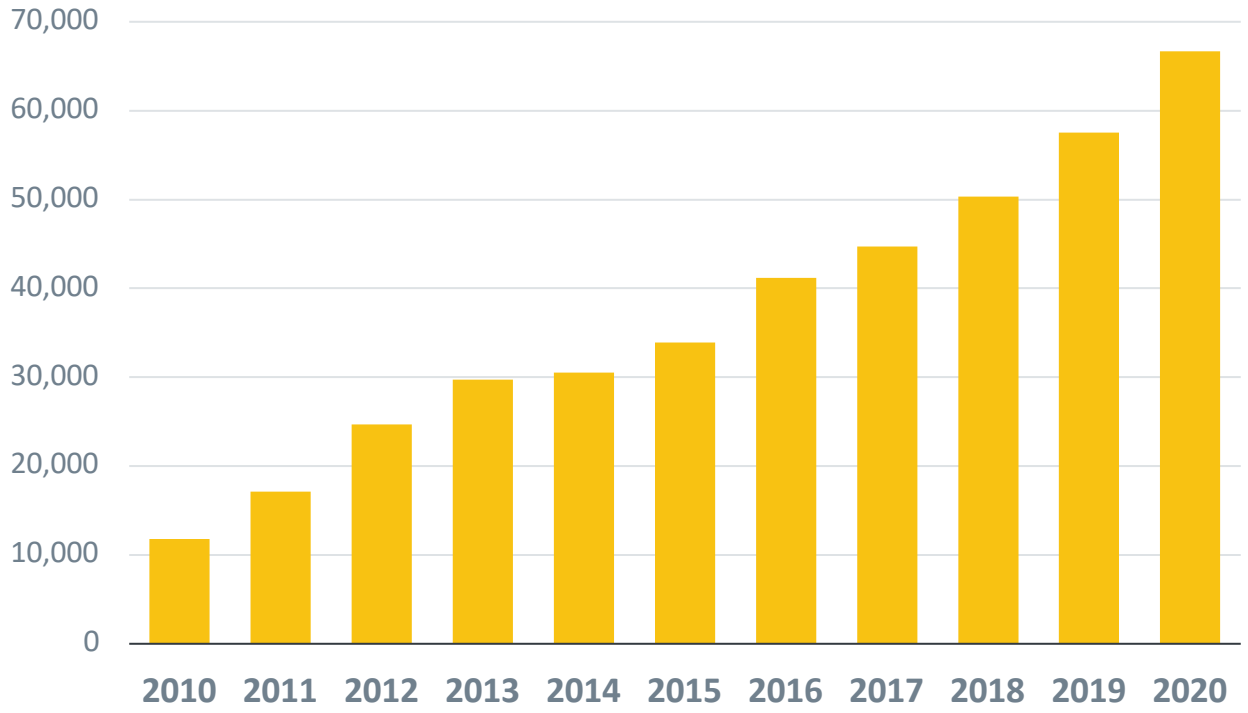
HEPATITIS C

- HCV Market Opportunity

Addressing Resurgence of HCV Infections

Newly Diagnosed HCV cases in the US increased 400% between 2010-2020

Estimated Cases of Newly Diagnosed Hepatitis C Infections in US



- Proposed US government program seeks to eliminate HCV
  - Recognizes resurgence
  - Expected to spur growth in DAA uptake and revenues
- According to the WHO, 58M people globally have chronic HCV infection, about 1.5M new infections occur per year and nearly 300K people die every year from HCV-related liver diseases

Source: CDC, National Notifiable Diseases Surveillance System.
Reference: Klevens RM, Liu, S, Roberts H, et al. Estimating acute viral hepatitis infections from nationally reported cases. Am J Public Health 2014; 104:482. PMC3953761.
Centers for Disease Control and Prevention. Viral Hepatitis Surveillance Report – United States, 2020. https://www.cdc.gov/hepatitis/statistics/2020surveillance/index.htm. Published September 2022.

2022 Hepatitis C Global Market ~$3.5B in Net Sales

US Accounted for ~53% of Global DAA Net Sales

With a best-in-class profile, bemnifosbuvir + ruzasvir has potential to command significant market share

Large Number of Patients

- In the US, ~ 2M patients undiagnosed
- ~75% of diagnosed patients in US are untreated
- Incidence of HCV is rising in US, with new infections exceeding cures achieved with antivirals

Market Opportunity

- Mavyret® NRx share ~43%
  Epclusa® NRx share ~53%
- Differentiated product profile relating to food effect, duration of therapy and tablet burden / packaging may affect prescribing behavior

Net Pricing Remains High

- Net therapy costs range between $11K-$17K in US
- Net pricing has stabilized following introduction of authorized copies

Concentrated US Prescriber Base

- ~6K prescribers write ~80% of DAA prescriptions
- Top 10 prescribers account for 5% of total prescription market

Sources: IQVIA Analytics Link, Gilead 2022 Investor Report, AbbVie 2022 Investor Report, Atea Custom Research August 2022, IQVIA Exponent

Closing Remarks

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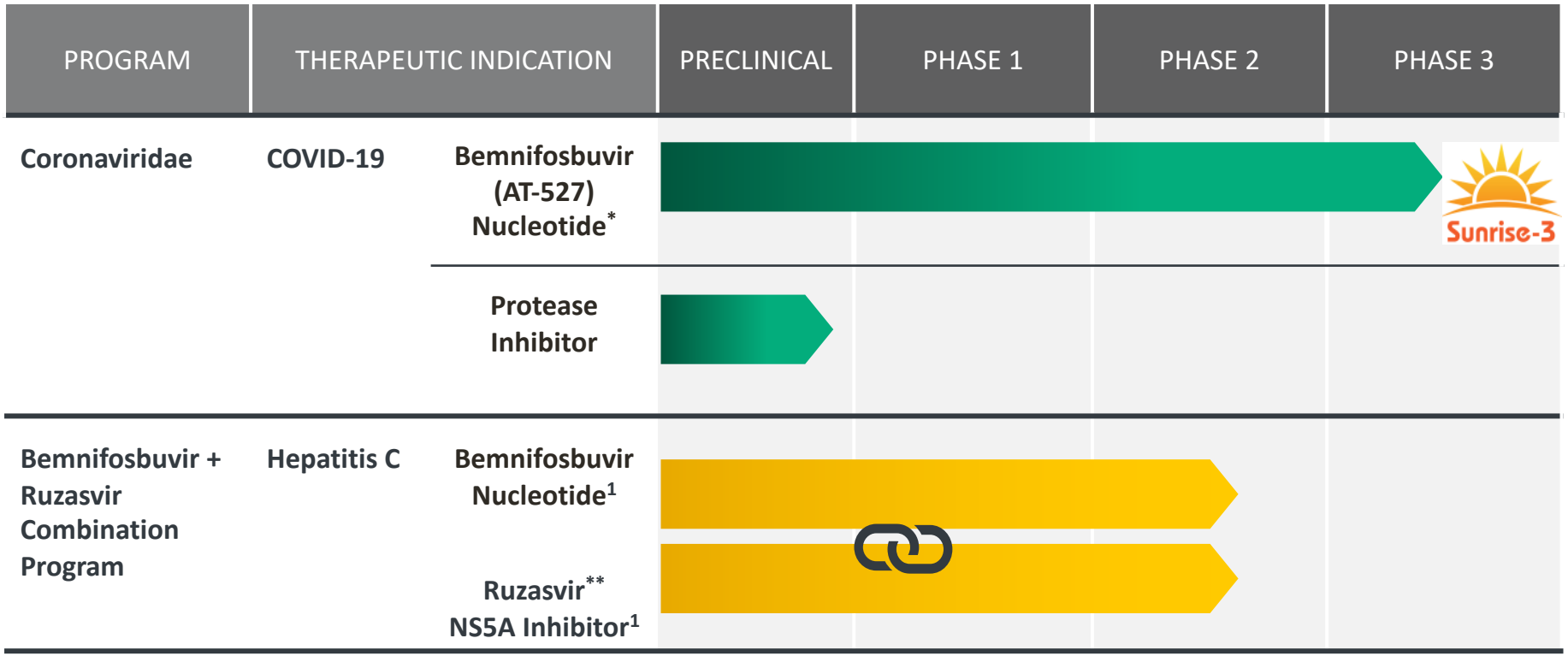

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