



Innovative Therapies to Treat and Cure HDV and Other Serious Rare Diseases

**Hepatitis Delta Virus (HDV)
Virtual Key Opinion Leader Meeting**

November 15, 2021
9:00 AM -10:30 AM ET



Forward Looking Statements

This presentation contains forward-looking statements within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. These forward-looking statements include words such as “believe,” “will,” “may,” “estimate,” “continue,” “anticipate,” “contemplate,” “intend,” “target,” “project,” “should,” “plan,” “expect,” “predict,” “could,” “potentially,” other words of similar meaning and the negative of these terms. All statements other than statements of historical facts contained in this presentation, including statements regarding our future financial condition, timing for and outcomes of clinical results, prospective products, preclinical and clinical pipelines, regulatory objectives, business strategy and plans and objectives for future operations, are forward looking statements. Forward-looking statements are our current statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our anticipated significant milestones in 2021 and 2022; the timing of our ongoing and planned clinical development; the sufficiency of our cash, cash equivalents and investments to continue to fund our operations; the potential; the progression of our Phase 3 D-LIVR study in HDV and expectations regarding the timing and availability of topline data; the continued screening of patients and activation of clinical trial sites in our LIMT-2 study; our ability to maintain supply of our commercial and clinical trial materials; our plans to advance Peginterferon Lambda in HDV in the U.S. and EU; and the potential for success of any of our product candidates. Various important factors could cause actual results or events to differ materially from the forward-looking statements that Eiger makes, including additional applicable risks and uncertainties described in the "Risk Factors" sections in the Quarterly Report on Form 10-Q for the quarter ended September 30, 2021 and Eiger's subsequent filings with the SEC. The forward-looking statements contained in this press release are based on information currently available to Eiger and speak only as of the date on which they are made. Eiger does not undertake and specifically disclaims any obligation to update any forward-looking statements, whether as a result of any new information, future events, changed circumstances or otherwise. Additional information may be available in press releases or other public announcements and public filings made after the date of this presentation.

D-LIVR Phase 3 Study in HDV

LONAFARNIB: ONLY ORAL HDV TREATMENT IN DEVELOPMENT

Enrollment Complete (N = 407)

Topline Data Planned by End of 2022

Welcome Key Opinion Leaders!



Pietro Lampertico, MD, PhD

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Director of the Gastroenterology and Hepatology Division
Head of the “A. M. e A. Migliavacca” Center for Liver Disease
Fondazione IRCCS Ca’ Granda, Ospedale Maggiore Policlinico
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Assistant Professor, Faculty of Health Sciences, Ben-Gurion University of the Negev;
Director, Department of Gastroenterology and Liver Diseases
Soroka University Medical Center, Israel

Agenda

9:00 AM – 9:05 AM	Introductions	Ingrid Choong, PhD, SVP Clinical Development, Eiger
9:05 AM – 9:25 AM	HDV Disease Overview <ul style="list-style-type: none">• Severity of Disease• Liver Biopsy in HDV	Pietro Lampertico, MD, PhD
9:25 AM – 9:40 AM	HDV Epidemiology <ul style="list-style-type: none">• Diagnosis• Testing / Guidelines	Norah Terrault, MD, MPH
9:40 AM – 10:00 AM	HDV Treatments in Development <ul style="list-style-type: none">• Lonafernib• Peginterferon Lambda• Bulevirtide	Ohad Etzion, MD
10:00 AM – 10:10 AM	HDV Market Opportunity	Eldon Mayer, Chief Commercial Officer, Eiger
10:10 AM – 10:30 AM	Closing Remarks and Q&A	David Cory, President & CEO, Eiger



Hepatitis Delta Virus (HDV)

- Disease Overview
- Severity of Disease
- Liver Biopsy in HDV



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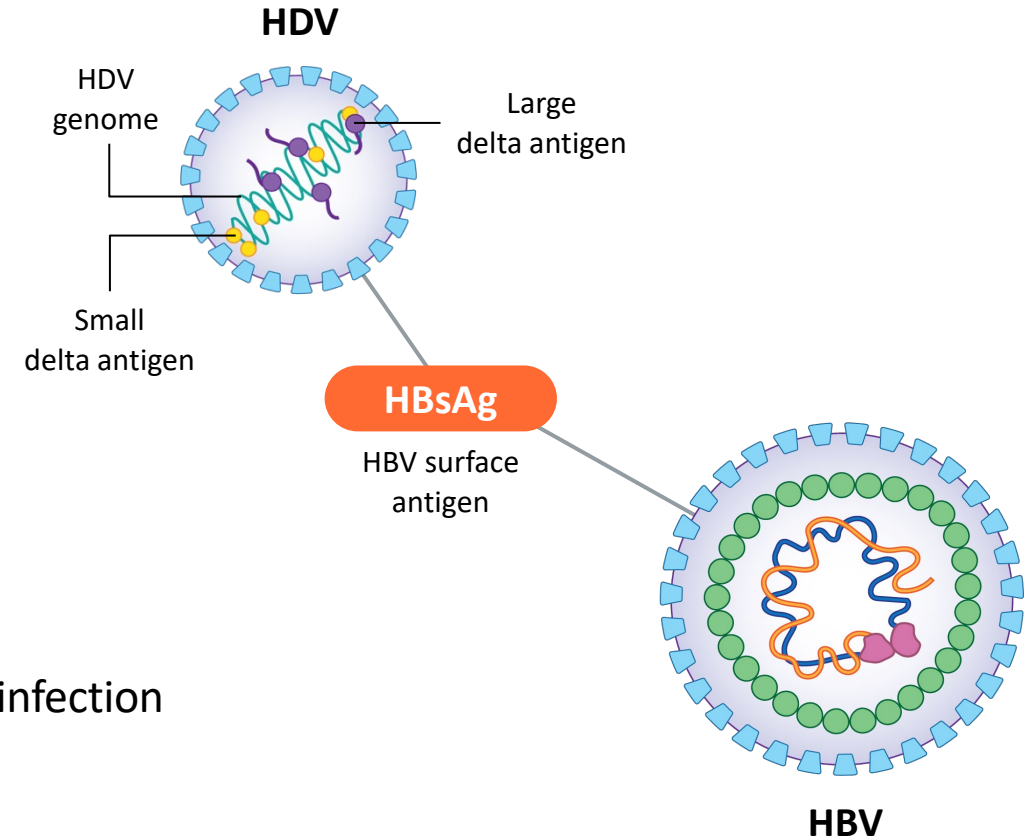
Disclosures

- Advisory Board / Speaker Bureau for:
 - BMS
 - Roche
 - Gilead
 - GSK
 - Abbvie
 - MSF
 - Arrowhead
 - Alnylam
 - Janssen
 - Spring Bank
 - Myr
 - Eiger

Hepatitis Delta Virus (HDV)

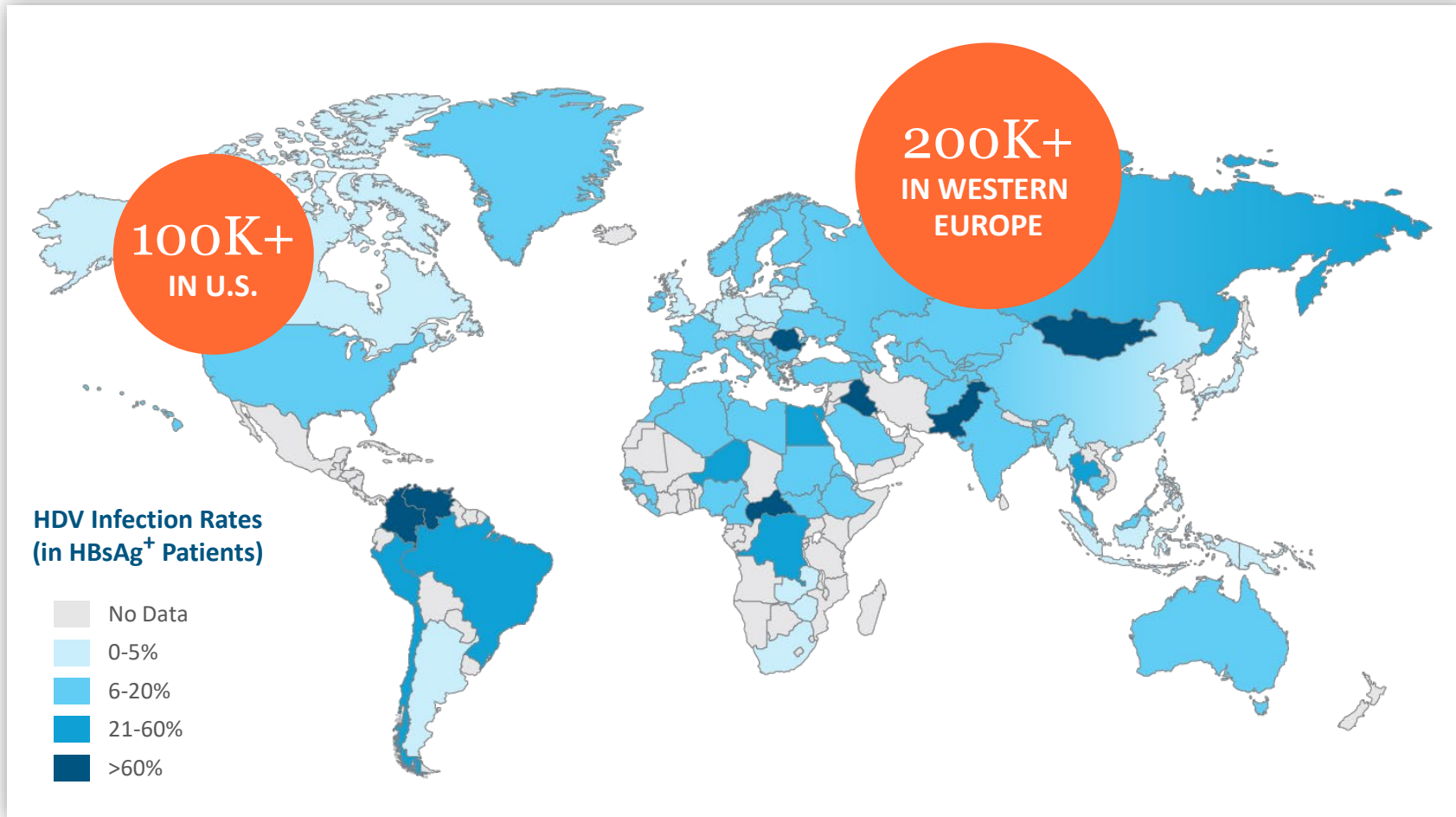
MOST SEVERE FORM OF VIRAL HEPATITIS

- HDV is always a co-infection with HBV
 - HDV requires HBsAg to complete virion assembly
 - HBsAg acquired through protein prenylation
- 4-6% of HBV infected patients co-infected with HDV
- 15-20 M HDV infected patients worldwide
 - ~100K patients in US; ~ 200K patients in EU
- HDV causes more rapid disease progression vs to HBV mono-infection
- No FDA-approved treatment



>12M HDV Patients Worldwide

~4-6% OF HBV-INFECTED POPULATION

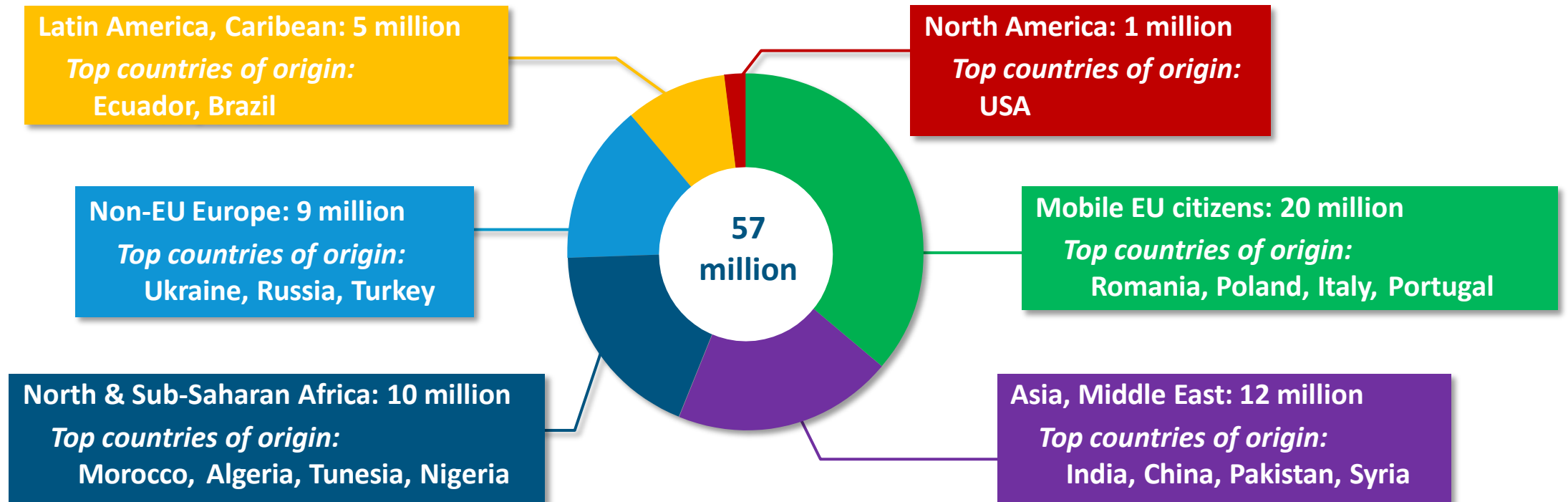


Migration
Contributing to
Globalization
of Disease

HDV Infection is a Growing Problem in the EU

~200,000 PEOPLE CHRONICALLY INFECTED

- Increased migration from countries where HDV is endemic
 - > 30 million immigrants to the EU from countries endemic for HDV
 - Will continue to elevate prevalence of HDV in EU in the coming decade



Diagnosis of HDV

- HDV Markers
 - Anti-HDV (pos/neg) and IgM anti-HDV (pos/neg)
 - HDV-RNA levels (quantitative test)
- HBV Markers
 - HBsAg, HBeAg/anti-HBe, HBV DNA...

Liver Biopsy is Gold Standard for Detection of Cirrhosis in HDV

NON-INVASIVE TESTS CORRECTLY CLASSIFY CIRRHOTICS VS NON-CIRRHOTICS IN < 75% OF CASES

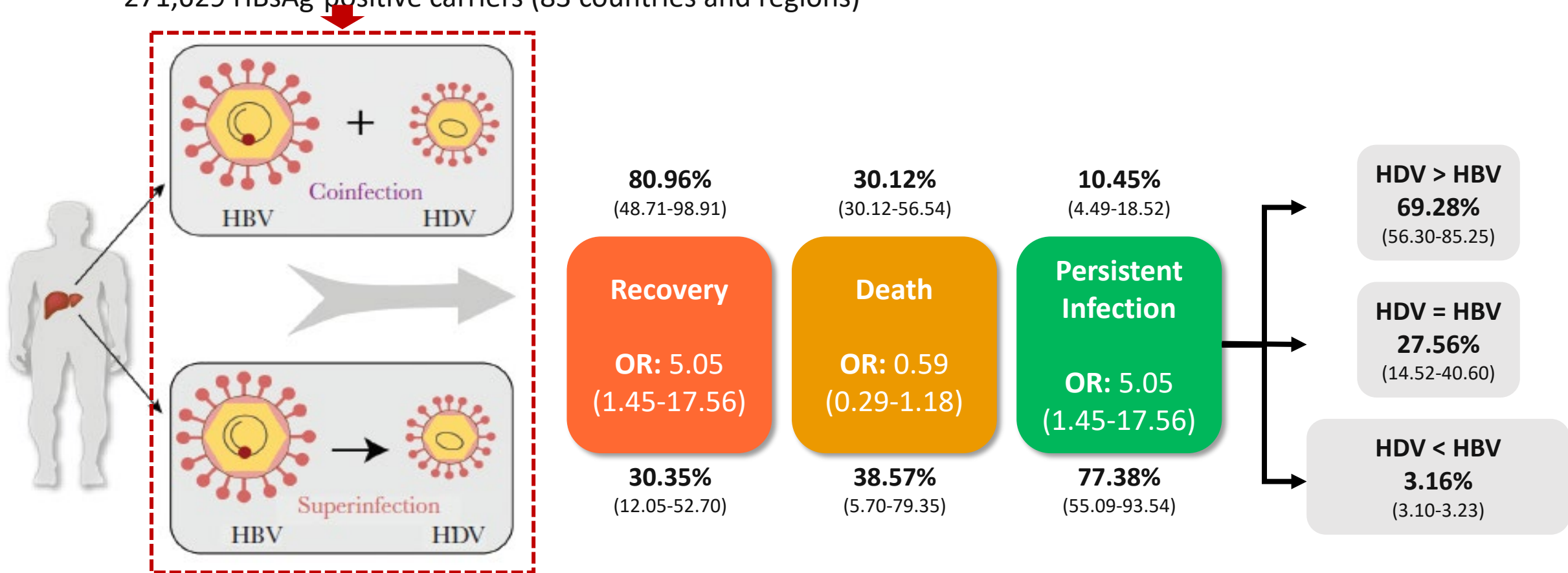
Study design

- Prospective evaluation
- 330 patients enrolled in Phase 3 *D-LIVR* study
- Compare performance of NITs vs liver biopsies
- Five different non-invasive tests included:
 - Fibrotest
 - Fibroscan
 - APRI (AST to platelet ratio index)
 - FIB-4 (Fibrosis-4 index)
 - AAR (AST to ALT ratio)

Diagnostic Accuracy of Non-Invasive Tests for Prediction of Cirrhosis								
Non-Invasive Test	Cutoff for Cirrhosis	# w/ Cirrhosis n (%)	# w/o Cirrhosis n (%)	Sensitivity % (95% CI)	Specificity % (95% CI)	PPV % (95% CI)	NPV % (95% CI)	Correctly Classified n (%)
Fibrotest	> 0.74	27 / 88 (30.7)	19 / 220 (8.6)	30.7 (21.3, 41.4)	91.4 (86.8, 94.7)	58.70 (42.23, 73.00)	76.72 (71.12, 81.70)	228 / 308 (74.0)
	≤ 0.74	61 / 88 (69.3)	201 / 220 (91.4)					
Fibroscan	> 13 kPa	36 / 77 (46.8)	34 / 171 (19.9)	46.8 (35.3, 58.5)	80.1 (73.3, 85.8)	51.43 (39.17, 63.56)	76.97 (70.08, 82.93)	173 / 248 (69.8)
	≤ 13 kPa	41 / 77 (53.2)	1370 / 171 (80.1)					
APRI ¹	> 2	25 / 92 (27.2)	22 / 237 (9.3)	27.2 (18.4, 37.4)	90.7 (86.3, 94.1)	53.19 (38.08, 67.89)	76.24 (70.83, 81.09)	240 / 329 (72.9)
	≤ 2	67 / 92 (72.8)	215 / 237 (90.7)					
FIB-4	> 3.25	27 / 92 (29.3)	18 / 237 (7.6)	29.3 (20.3, 39.8)	92.4 (88.3, 95.4)	60.00 (44.33, 74.30)	77.11 (71.78, 81.87)	246 / 329 (74.8)
	≤ 3.25	65 / 92 (70.7)	219 / 237 (92.4)					
AAR ²	> 1	12 / 93 (12.9)	22 / 237 (9.3)	12.9 (6.8, 21.5)	90.7 (86.3, 94.1)	35.29 (19.75, 53.51)	72.64 (67.18, 77.63)	227 / 330 (68.8)
	≤ 1	81 / 93 (87.1)	215 / 237 (90.7)					

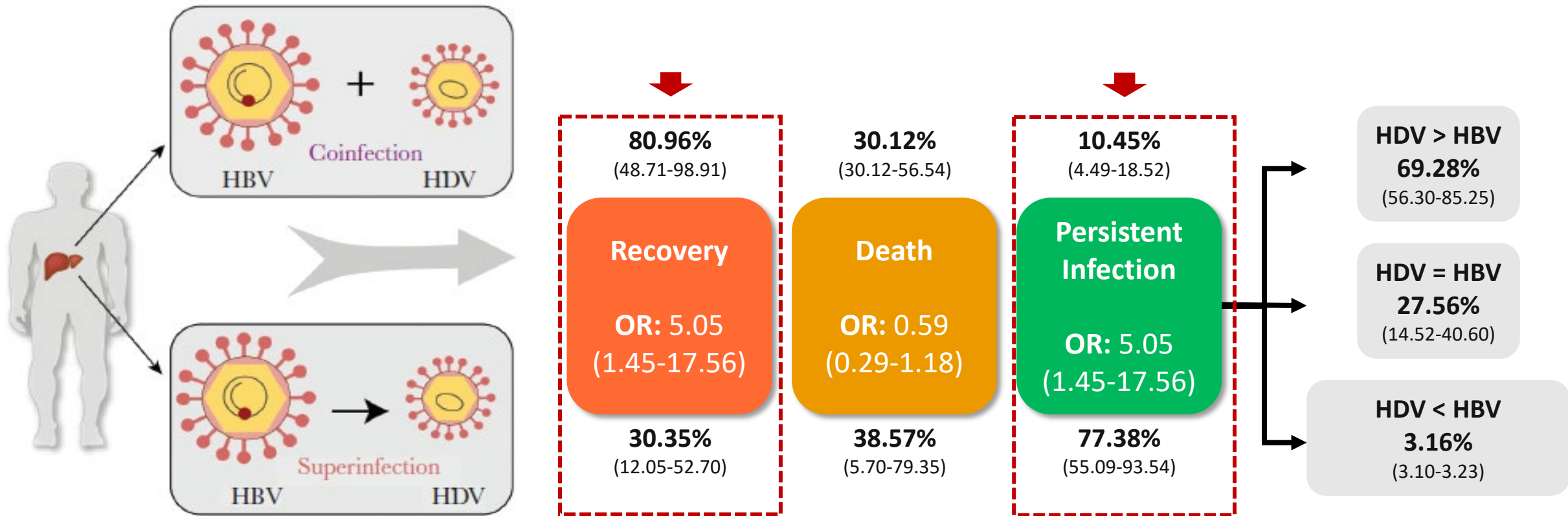
HDV Infection Patterns

- Systematic review and meta-analysis of 634 records
 - 322,155 people from the general population (48 countries and regions)
 - 271,629 HBsAg-positive carriers (83 countries and regions)



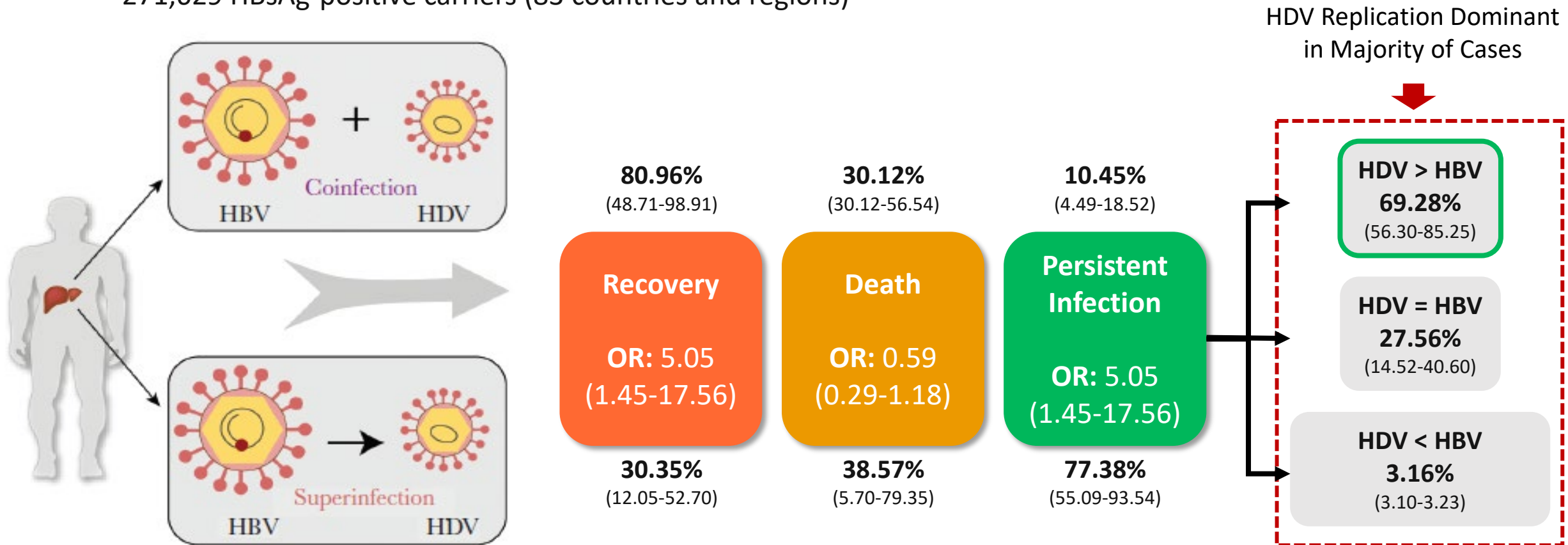
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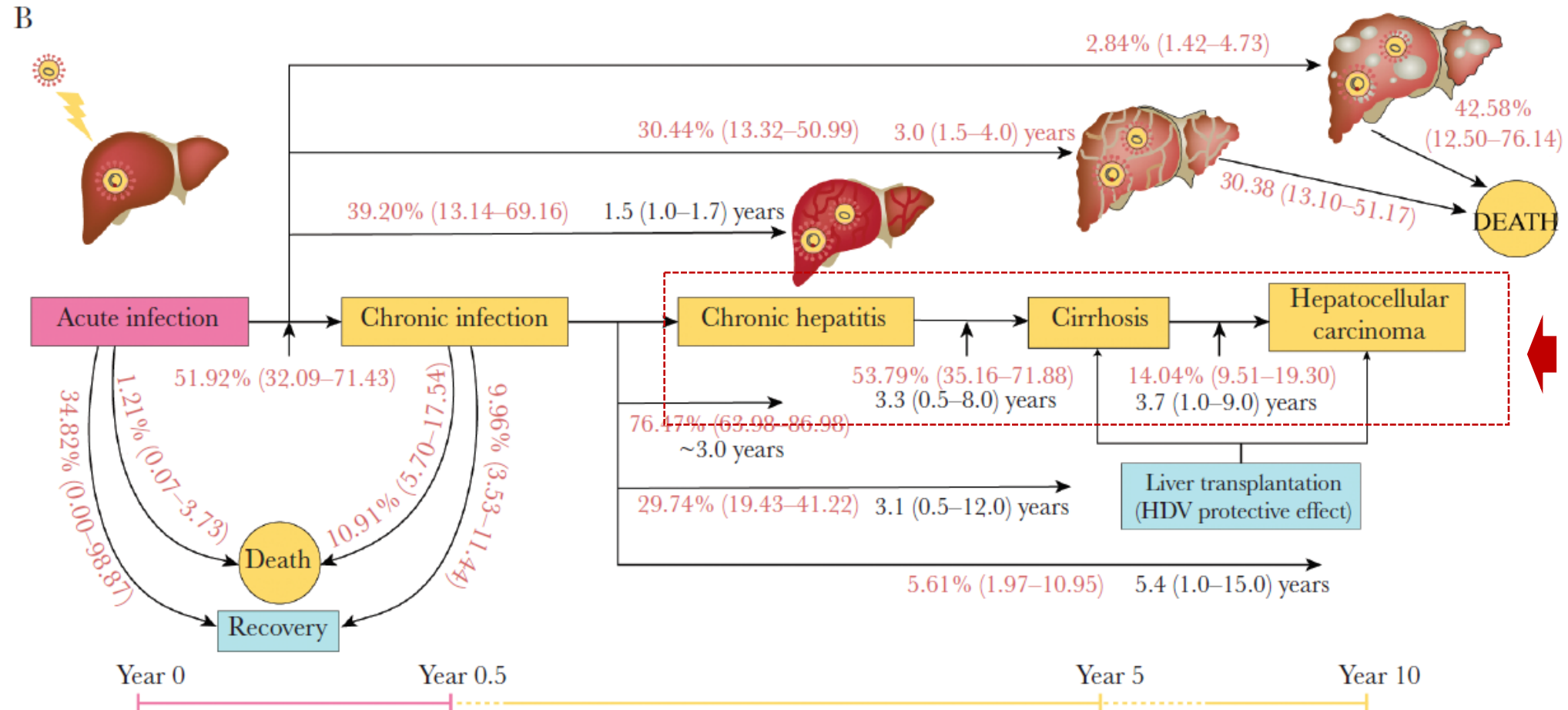
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Natural History of Chronic HDV Infection

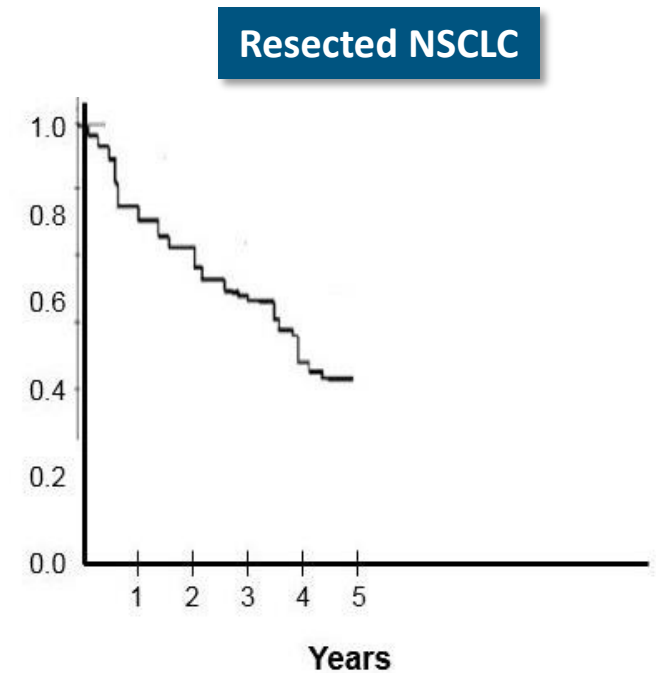
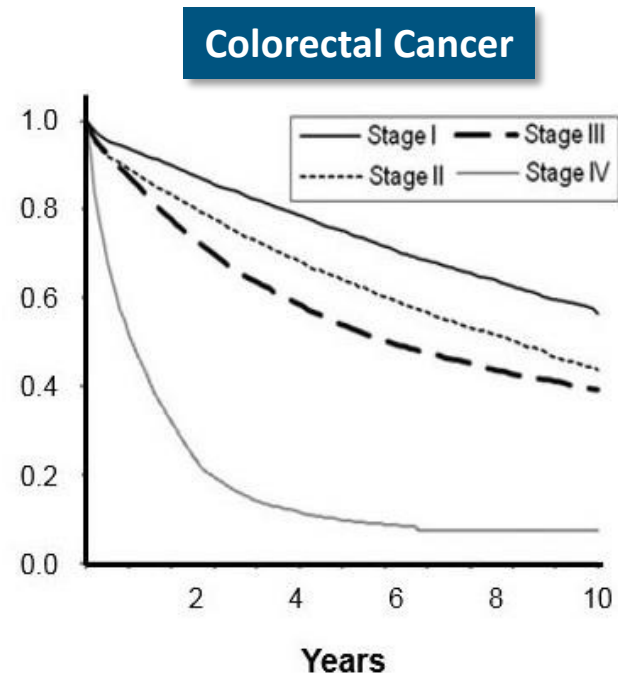
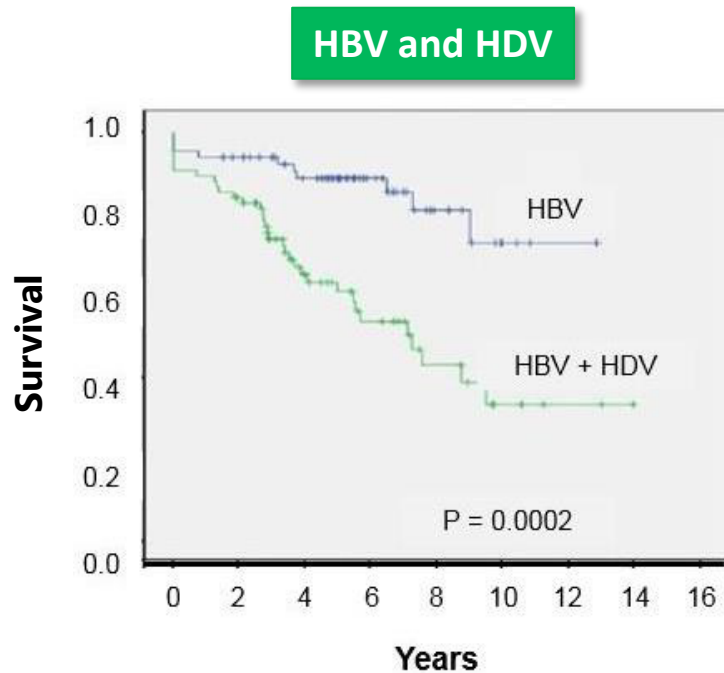
A META-ANALYSIS WITH A RANDOM-EFFECTS MODEL AND PERFORMED DATA SYNTHESIS



HDV is the Most Severe for of Viral Hepatitis

MORBIDITY AND MORTALITY OF CHRONIC HDV RIVALS CANCER

- HDV is disproportionately represented in liver transplantation
- Benefit/risk of treatment should be assessed in a comparable context to that of an oncology program



HDV Treatments Are Needed

HBV THERAPIES IN DEVELOPMENT DO NOT ERADICATE HDV

- HDV requires only small amounts of HBsAg to complete viral packaging
- Approved NUCs for HBV only suppress HBV DNA, do not affect HBsAg, and have no impact on HDV
- Theoretically, sterilizing HBV cure is the only way to obviate a need for an HDV cure
- **Sterilizing HBV cure**: Nowhere in sight
- **Functional HBV cure**: Not yet; will combinations be identified, developed in our lifetime?

Guideline Recommended Treatment for HDV

EASL 2017 ^a	AASLD 2018 ^b
<ul style="list-style-type: none">• pegIFNα for at least 48 weeks is the current treatment of choice in <u>HDV-HBV co-infected patients with compensated liver disease</u>• HDV-HBV co-infected patients with ongoing <u>HBV-DNA replication</u>, NUC therapy should be considered• pegIFNα treatment can be continued until week 48 irrespective of on-treatment response pattern if well tolerated	<ul style="list-style-type: none">• pegIFNα for 12 months is the recommended therapy for <u>those with elevated HDV-RNA levels and ALT elevation</u>• If <u>HBV-DNA levels are elevated</u>, concurrent therapy with NUC using preferred drugs (entecavir, TDF, or TAF) is indicated• Refer patients to specialized centers that offer access to experimental therapies for HDV

Interferon Alfa and the Need for Novel HDV Therapies

- EASL HBV Management Guidelines ^a
 - On-treatment virologic response rates between 17% and 47%
 - Approximately 25% HDV RNA negativity rate 24 weeks after treatment cessation
 - But late relapse occurs in up to 50% of responders
 - Overall, less than 20% sustained virological response
- Benefits
 - Suppression of viral (20%) and liver disease activity in some patients ^{b,c}
 - Only drug with survival advantage ^b
- Limitations
 - Not curative ^b
 - Suppression not sustained in most ^b
 - Poor side-effect profile ^c
 - Contraindicated, e.g. liver disease ^c
 - Potential for over estimation of response in earlier studies ^d

Summary

- HDV is always a co-infection with HBV
- HDV is the most severe form of viral hepatitis
- HDV causes more rapid disease progression vs to HBV mono-infection
- 60% of HDV-infected patients die within 10 years after infection
- NUC therapy for HBV is not effective against HDV
- PEG IFN-alfa has challenging tolerability and is not widely used to treat HDV
- HBV therapies in development do not eradicate HDV
- New treatment options are needed to treat HDV

Hepatitis D: Epidemiology and Clinical Features

- Epidemiology
- Diagnosis
- Testing & Guidelines



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Disclosures

- Institutional grant support:
 - Gilead
 - GSK
 - Helio Health
 - Durect Corp
 - Roche-Genentech
- Advisory to:
 - Moderna
 - Exigo
 - Saol Therapeutics

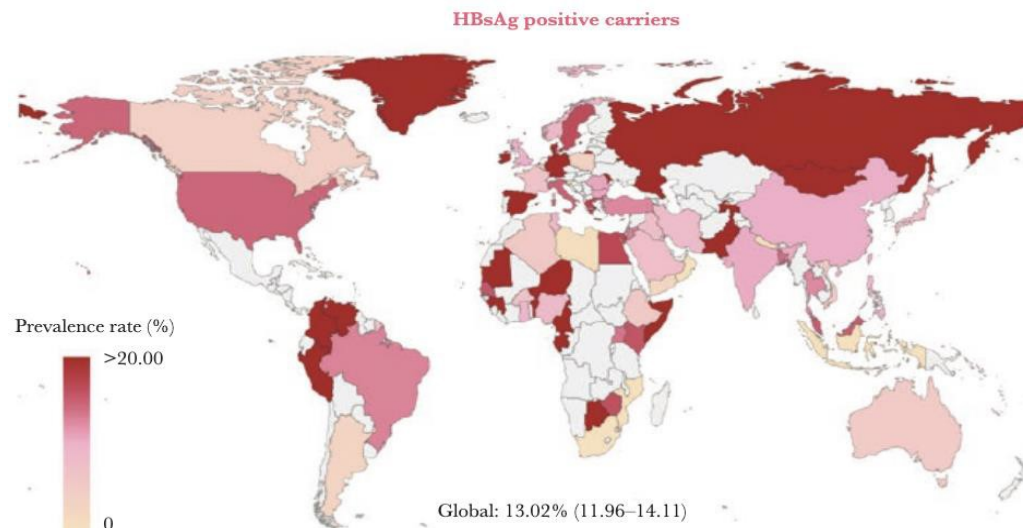
Estimates of Global HDV Infection: ~5% of HBsAg⁺ Individuals

~ 20 million (95% CI: 9-19) anti-HDV positive individuals: N = 282 studies

Anti-HDV among HBsAg ⁺	Global	AMER	EUR	EMR	AFR	SEAR	WPR
%	4.5	5.9	3.0	3.5	6.0	3.2	4.1
#, thousands	11,992	416	445	836	3,835	1,267	4,935

Stockdale A, J Hepatol 2020

~ 48 million (95% CI:44–52) anti-HDV positive individuals: N = 634 studies



- Includes studies from more countries.
- Hot spots: Taiwan, Pakistan, Mongolia, Italy, Turkey, Amazon basin, and Central Africa

HDV in the U.S.

HDV PREVALENCE IN LOW-RISK POPULATIONS

Population	HBsAg ⁺	Year of Study	Assay	Prevalence
National Health & Nutritional Examination Survey (NHANES)	--	1999-2012	International Immunodiagnostics HDV Ab assay	0.02% (n=10)
Veterans	25,603 (n=2175 tested for HDV)	1999-2013	Not stated	3.5%
Mid-Western healthcare system	1007 (n=217 tested for HDV)	2012-2016	Not stated	3.3%
HBV Research Network (HBRN)	1507 (adults) 181 (peds)	2016	DiaSorin	3.2% 1.1%
Baltimore IDU (Injection Drug Use)	86	2005-2006	Diagnostic Bioprobes Srl	11%
CA Hepatology	499	2008	Quest Diagnostics	8.4%
NHANES	113	2011-2016	DiaSorin	42%

HDV in the U.S.

HIGHER HDV PREVALENCE IN HIGH-RISK POPULATIONS

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HDV in the U.S.

MANY CHALLENGES TO DETERMINING TRUE U.S. HDV PREVALENCE

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Challenges in Estimating HDV Burden

- Lack of studies in “general population” of chronic HBV patients
 - Most come from special groups with higher risk for HDV
 - Hepatology clinics, patients who inject drugs (PWID), men seeking men (MSM)
 - Variability in performance characteristics of anti-HDV Ab tests
 - Risk of both over- and under-estimating
- Most studies focus on anti-HDV antibody detection
 - Limited data on % with HDV RNA
(to elucidate resolved vs persistent HDV infection)

Transmission of HDV



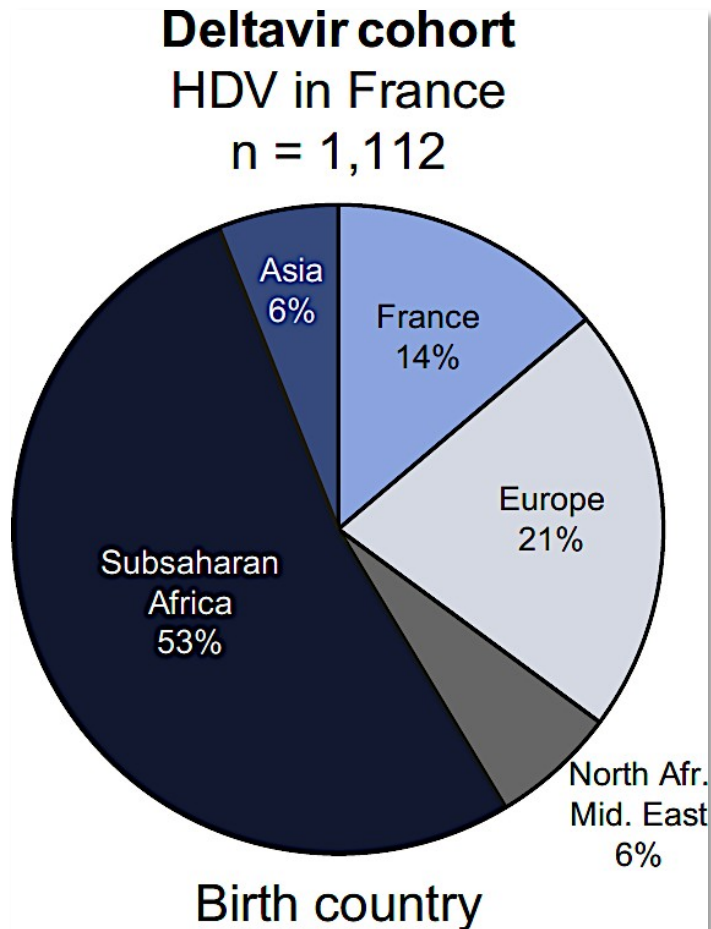
- Perinatal: possible but rare

- Children: Intrafamilial (especially in endemic areas)

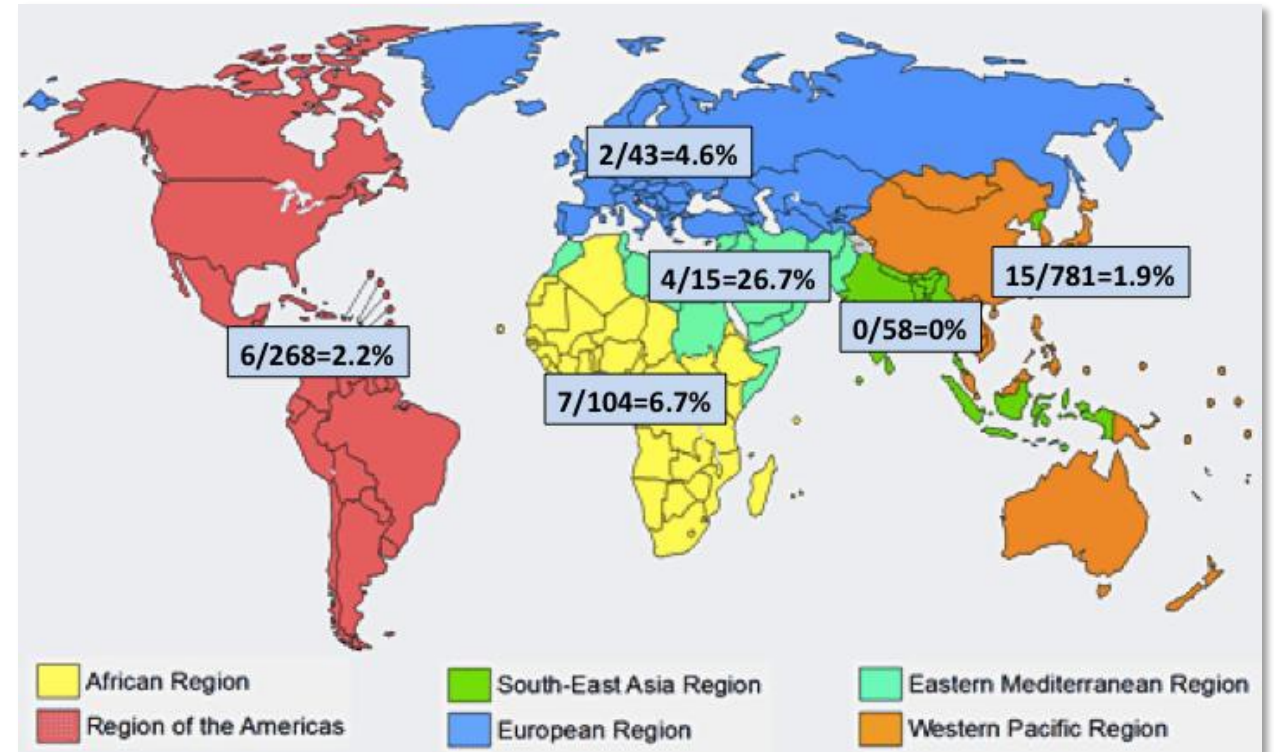


- Adolescents/Adults: most common in developed countries → IDU, sex
- Poor medical care, folk remedies, scarification

HDV Epidemiology Changing Due to Global Migration



HBRN: North American HBsAg⁺ participants
Anti-HDV prevalence by Country of Origin



- Highest among those born in East Mediterranean (27%), Europe (5%), Africa (7%)
- Lowest among those born in the Western Pacific (1.9%) and SE Asia (0%)

Recommendations for HDV Screening



Targeted approach: Screen high-risk HBsAg⁺ patients

- **Persons born in regions with reported high HDV endemicity**
 - Africa (West Africa, horn of Africa)
 - Asia (Central and Northern Asia, Vietnam, Mongolia, Pakistan, Japan, Taiwan)
 - Pacific Islands (Kiribati, Nauru)
 - Middle East (all countries)
 - Eastern Europe (Eastern Mediterranean regions, Turkey)
 - South America (Amazonian basin)
 - Other (Greenland)
- **Individuals with elevated ALT or AST with low or undetectable HBV DNA**
- **Persons who have ever injected drugs**
- **Individuals infected with HCV or HIV**
- **Men who have sex with men**
- **Persons with multiple sexual partners or any history of sexually transmitted disease**



Screen ALL HBsAg⁺ patients

Diagnosis of HDV Infection

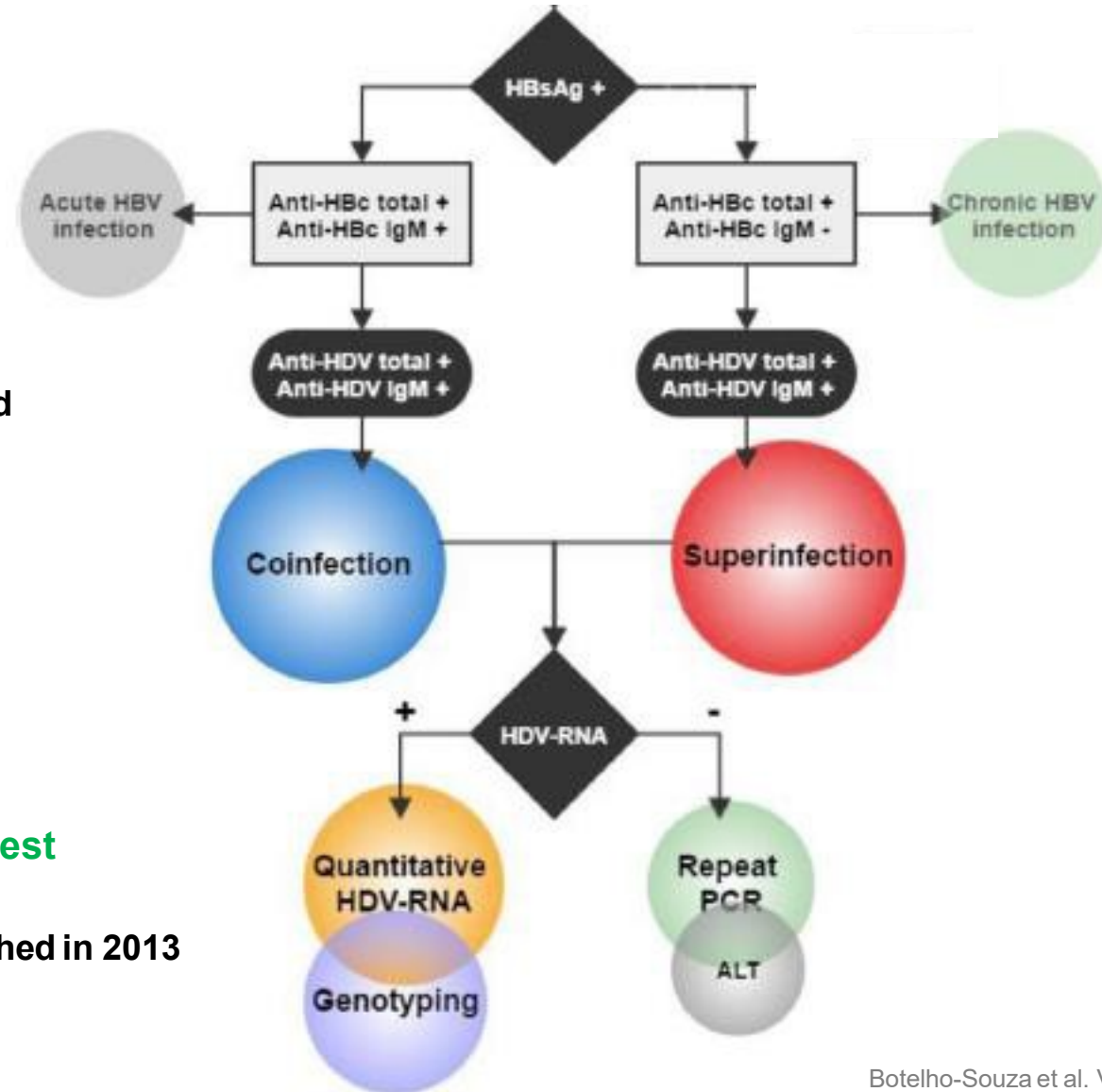
HDV RNA QUANTITATION IS GOLD STANDARD TO CONFIRM ACTIVE HDV INFECTION

Screening = Anti-HDV test

- Anti-HDV assays not standardized
- Variability in accuracy
- No FDA-approved assays

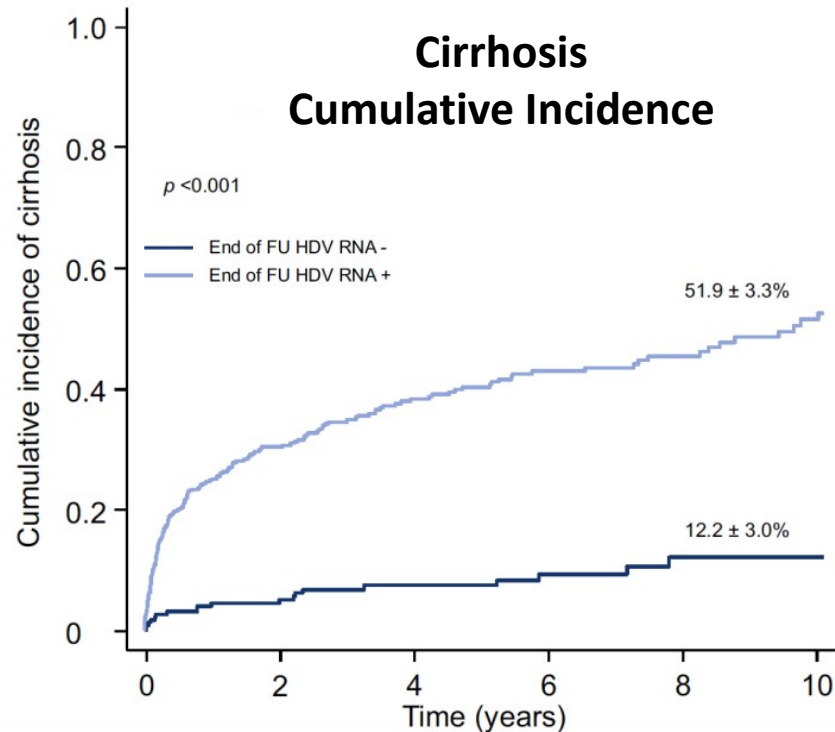
Confirmation = HDV RNA quant test

- WHO standard for HDV RNA NAT (nucleic acid amplification) established in 2013
- Commercial test available at Quest Diagnostics in 2019

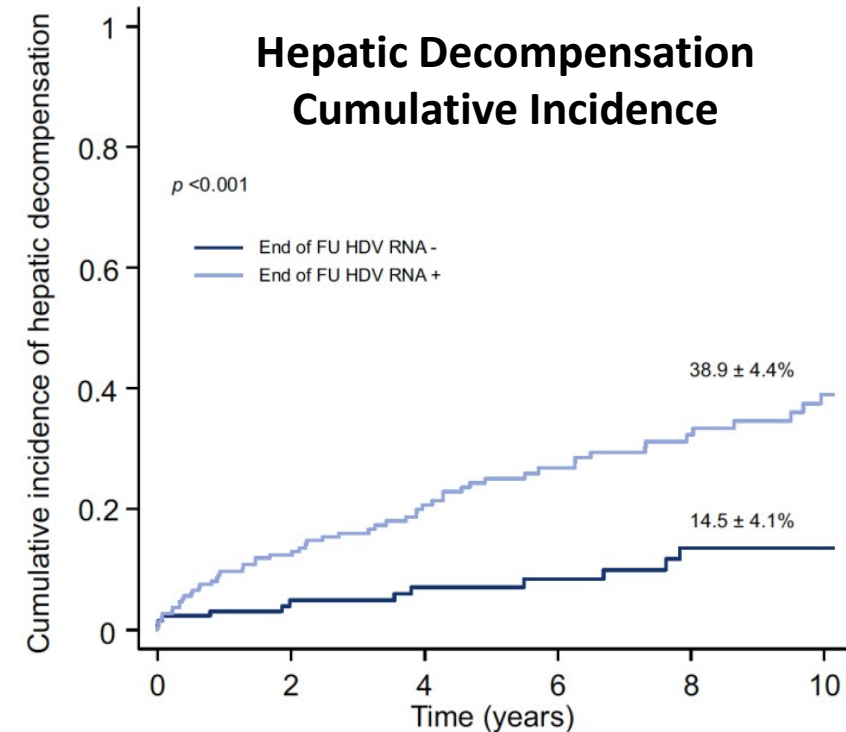


HDV Viremia Increases Risk of Cirrhosis

FRENCH COHORT N = 1112



N° at risk (events)						
HDV RNA -	242 (10)	169 (5)	126 (2)	91 (2)	50 (0)	33
HDV RNA +	506 (138)	250 (25)	163 (11)	115 (4)	74 (7)	41



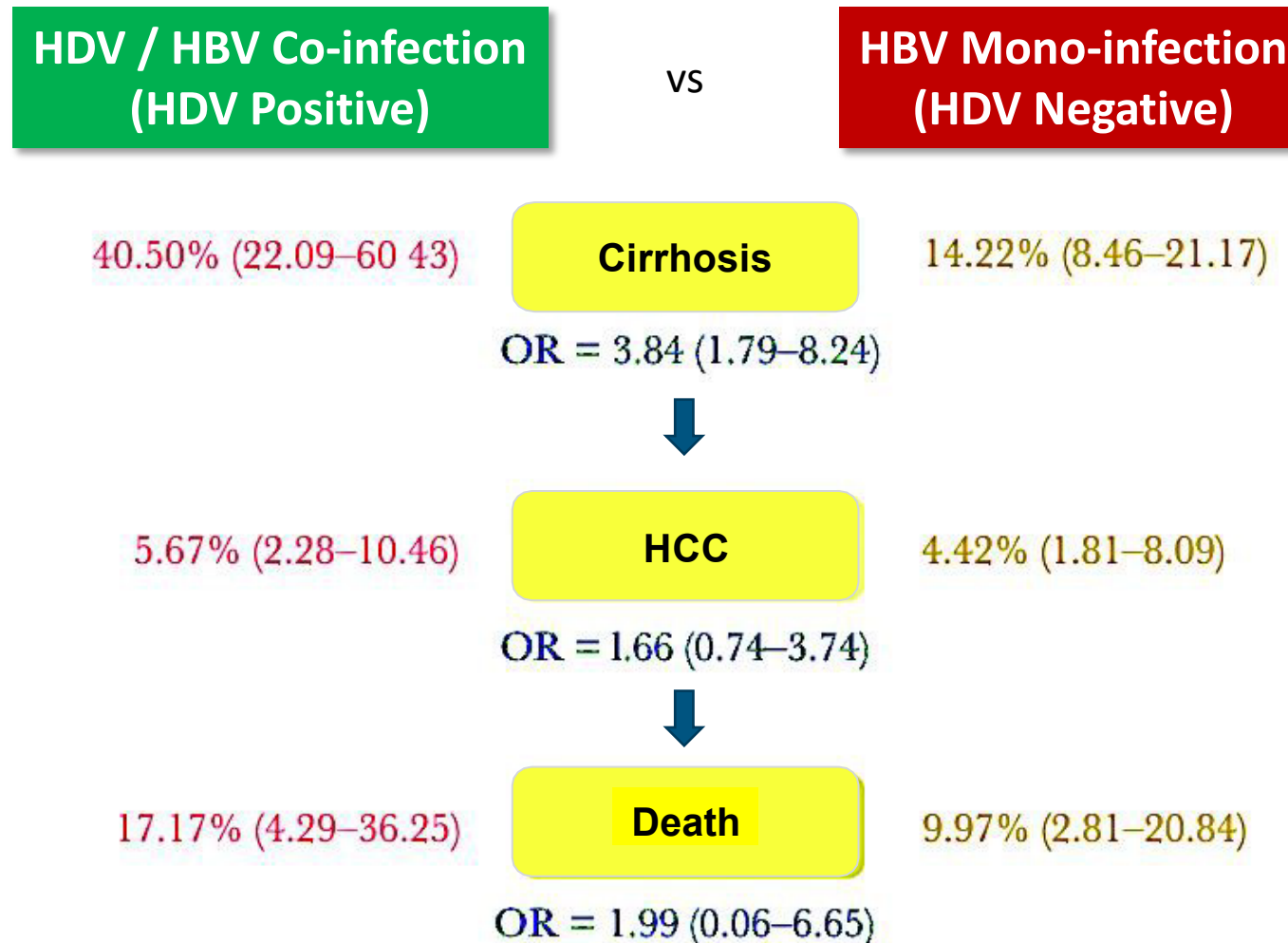
N° at risk (events)						
HDV RNA -	122 (6)	101 (2)	76 (1)	61 (3)	39 (0)	31
HDV RNA +	216 (25)	136 (13)	107 (8)	79 (7)	55 (4)	36

Multivariate analysis of factors independently associated with cirrhosis:

- HDV viremia - Hazard Ratio: 6.11
- Country of origin (N. Africa / Middle East vs France) - Hazard Ratio: 2.0

HDV Associated with Higher Likelihood of Liver-Related Outcomes Compared to HBV

N=634 STUDIES; SYSTEMATIC REVIEW AND META-ANALYSIS



Hepatitis D: Summary

- ~20 million HDV-infected individuals estimated globally
 - ~5% of HBsAg⁺ individuals are co-infected with HDV
 - Prevalence estimates limited by availability of accurate testing
- Increased focus on performance of anti-HDV assays
- Commercial HDV RNA quantitative assay available from Quest Diagnostics
- Epidemiology influenced by HBV vaccination and immigration
- HDV has higher risk for progression to cirrhosis and development of HCC than HBV alone
 - HDV viremia important driver of risk
- **ALL** HBsAg⁺ individuals should be tested for HDV

HDV Treatments in Development

- Lonafernib – Phase 3 *D-LIVR* Study
- Peginterferon Lambda – Phase 3 *LIMT-2* Study
- Lonafernib + Peginterferon Lambda – Phase 2 *LIFT* Studies



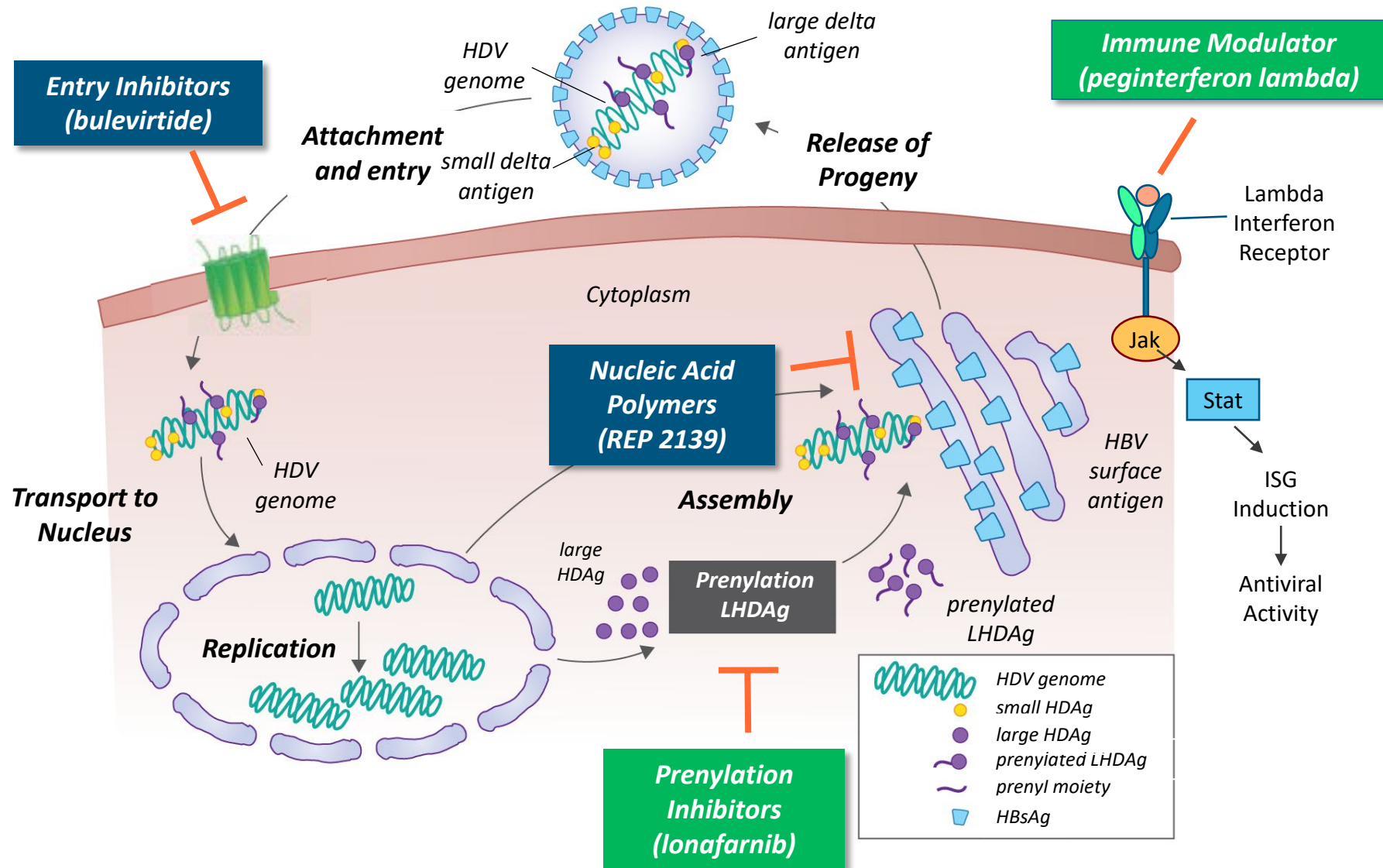
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Director, Department of Gastroenterology and Liver Diseases
Soroka University Medical Center, Israel

Disclosures

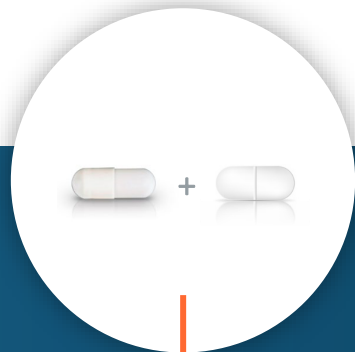
- **Honoraria for consulting or speaking and/or research grants:**
 - Eiger BioPharmaceuticals
 - HepQuant Diagnostics
 - CanFite
 - Chemomab
 - Abbvie
 - Gilead
 - MSD
 - Roche
 - HBV Foundation

HDV Treatments in Development



Eiger HDV Platform in Phase 3

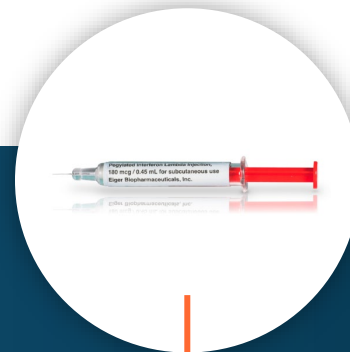
FOUNDATIONAL THERAPIES FOR FUTURE COMBINATIONS



Lonafarnib/Ritonavir

ORAL

D-LIVR



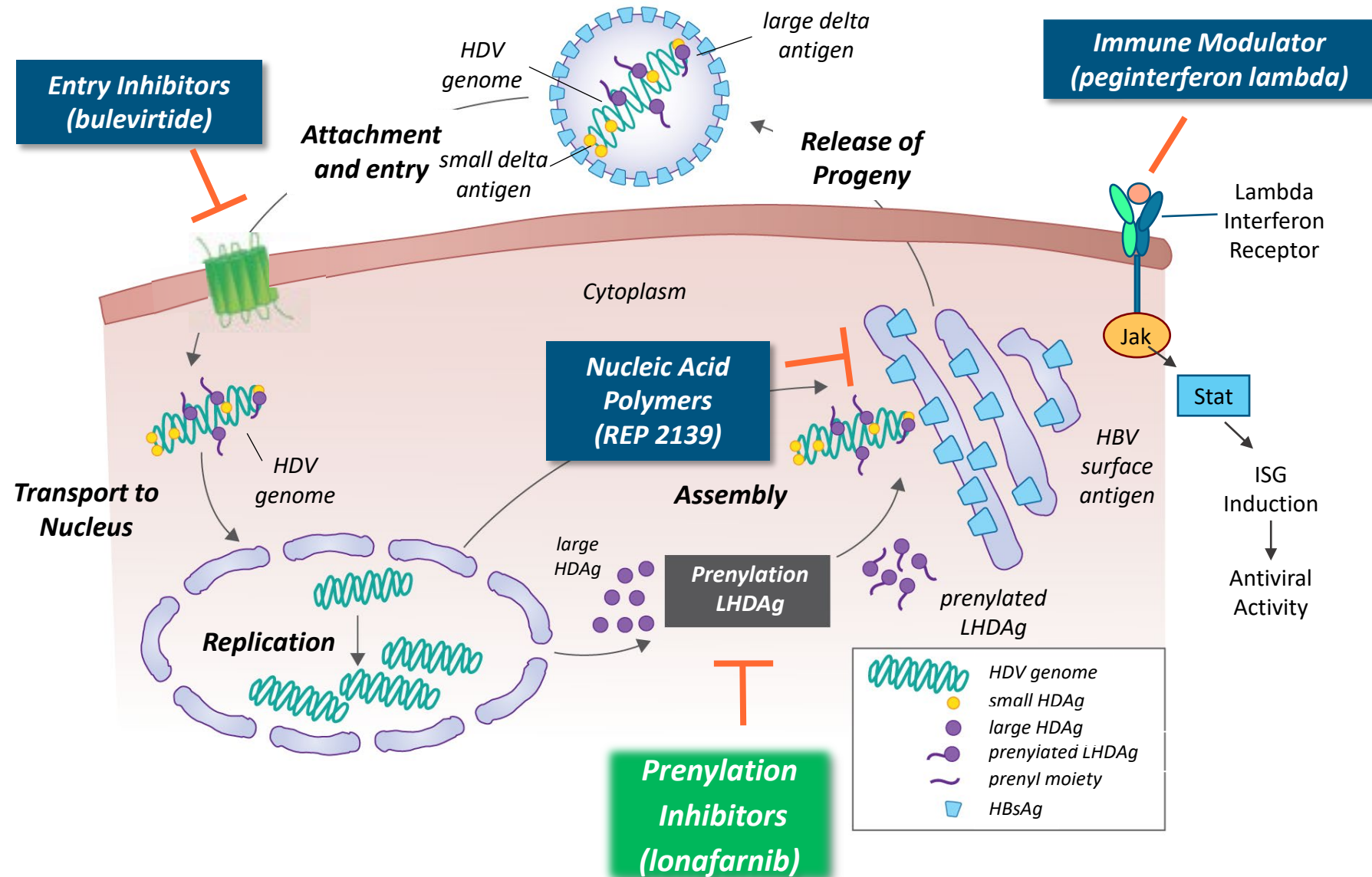
Peginterferon Lambda

WEEKLY SUB Q

LMT-2

Convenient administration for improved patient compliance

HDV Treatments in Development



Lonafarnib for HDV

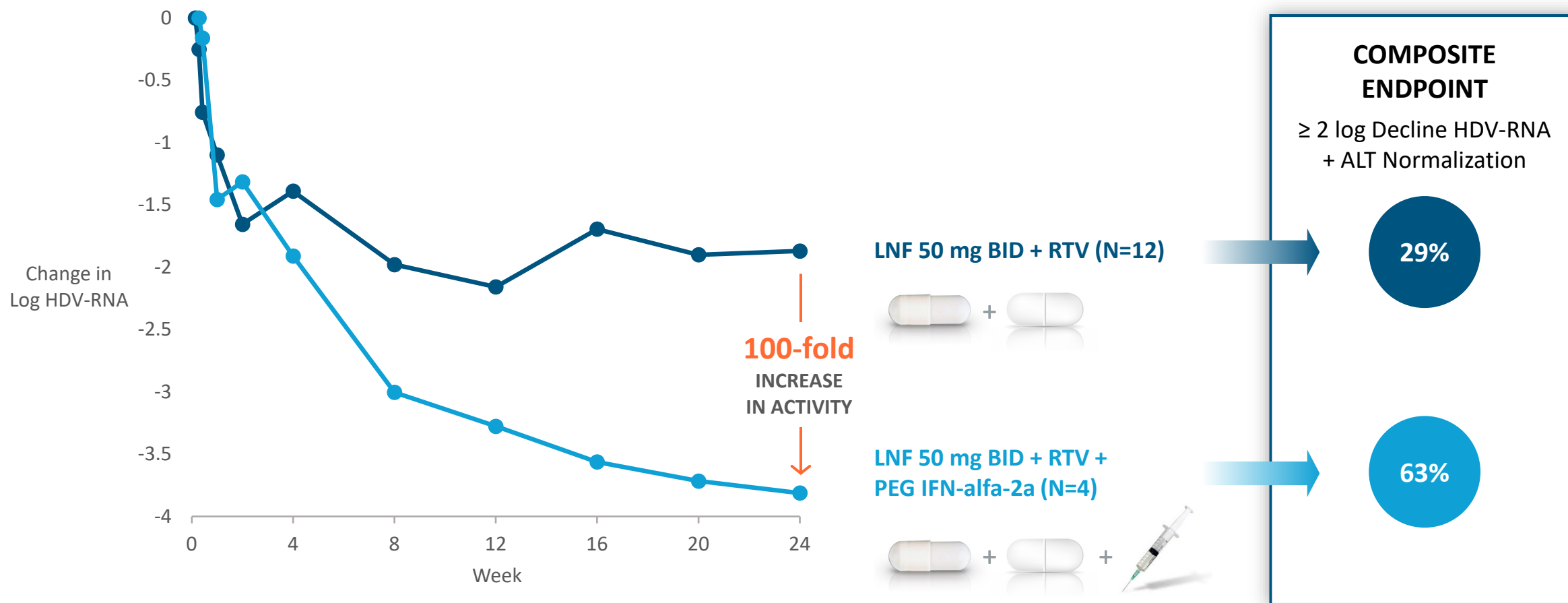
ONLY ORAL AGENT IN CLINICAL DEVELOPMENT FOR HDV

- Well-characterized in patients
 - > 2,000 patients dosed in oncology program by Merck (Schering)
 - > 90 children dosed in Progeria program by Boston Children's Hospital
 - > 170 patients dosed in HDV program
 - Longest duration of dosing > 10 years
- Most common experienced AEs are GI related (class effect)



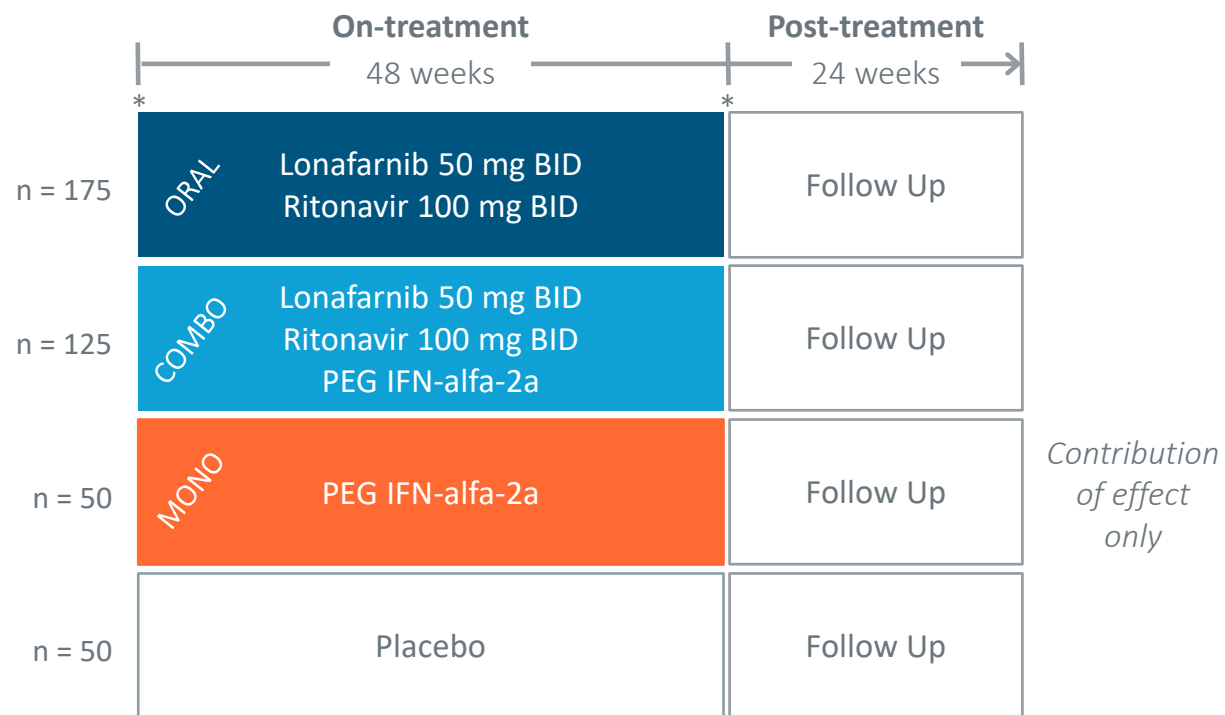
Lonafarnib Phase 2 Data

TWO LONAFARNIB-BASED REGIMENS IDENTIFIED FOR REGISTRATION



D-LIVR Phase 3 Global Study

MULTIPLE PATHWAYS TO APPROVAL



* biopsy

All patients will be maintained on background HBV nucleoside therapy.
Superiority over PEG IFN-alfa-2a not required.

Primary Endpoint at Week 48

≥ 2 log decline in HDV RNA
+
Normalization of ALT

Secondary Endpoint at Week 48

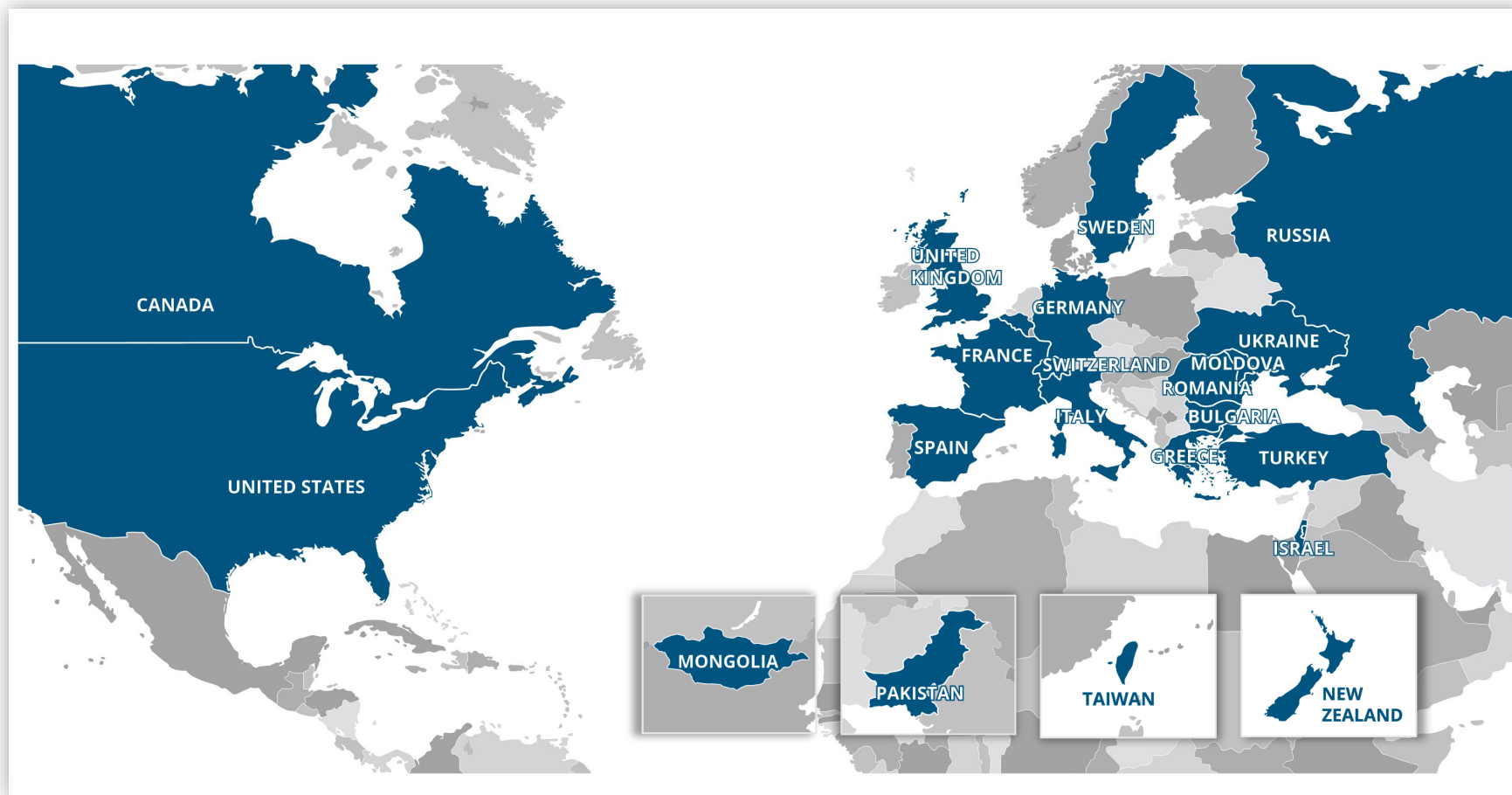
Histologic improvement
Improvement of fibrosis

D-LIVER Phase 3 Global Study

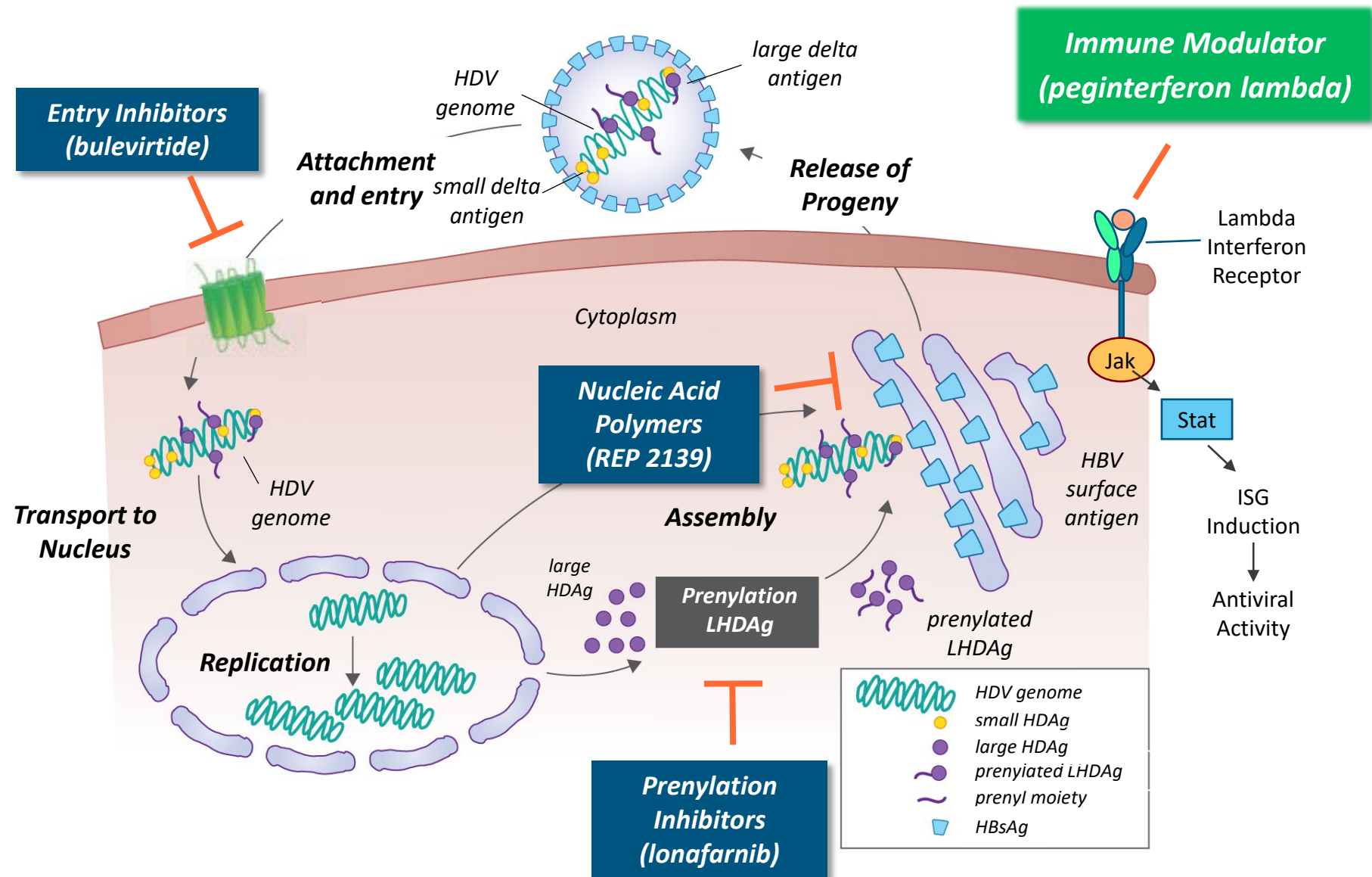
Fully Enrolled

407 PATIENTS
20+ COUNTRIES
100+ SITES

**Topline Data Planned
by End of 2022**



HDV Treatments in Development



Peginterferon Lambda (Lambda)

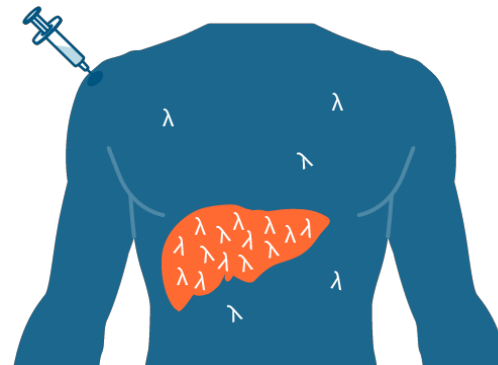
A WELL TOLERATED INTERFERON

- Binds to a unique receptor vs type I IFN- α
 - Highly expressed on hepatocytes
 - Limited expression on hematopoietic and CNS cells
- Uses similar downstream signaling pathway to IFN- α
- 3,000+ patients in 19 clinical trials (HCV / HBV / HDV)

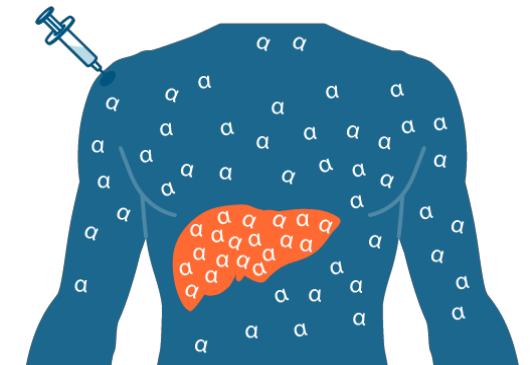


Lambda Receptors Highly Expressed in the Liver

LAMBDA RECEPTORS NOT WIDELY
DISTRIBUTED THROUGHOUT BODY

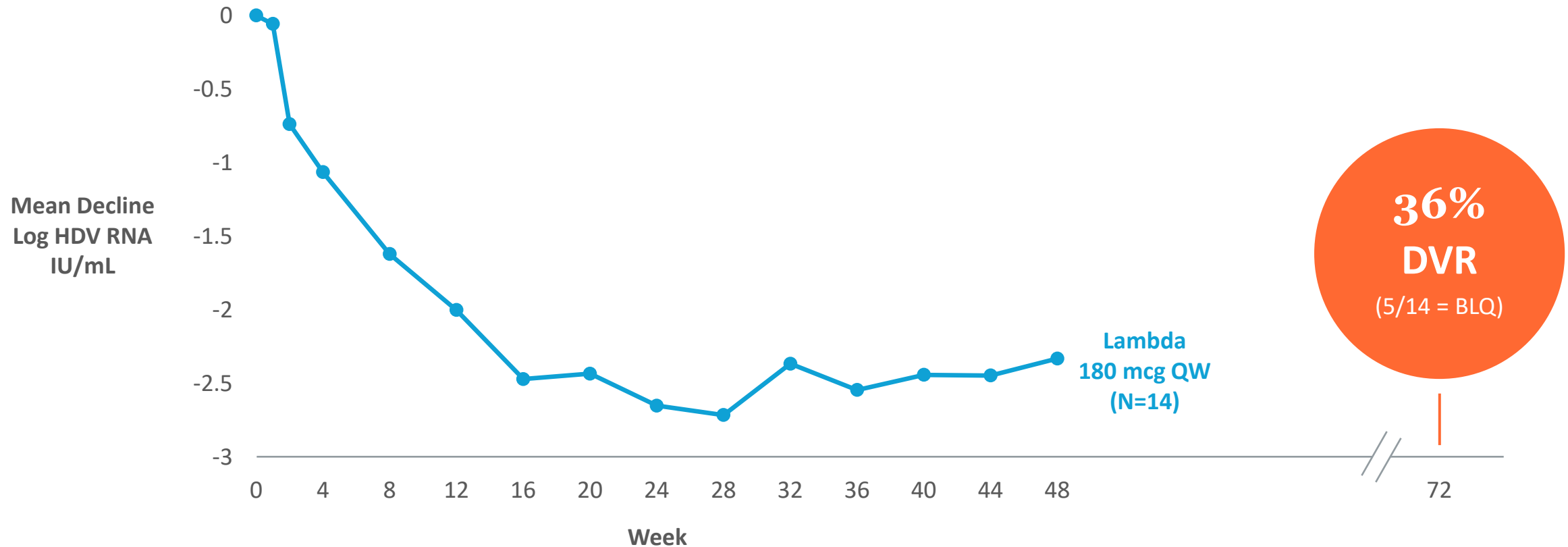


IFN- α RECEPTORS WIDELY
DISTRIBUTED THROUGHOUT BODY



Phase 2 Peginterferon Lambda Study

36% DURABLE VIROLOGIC RESPONSE (DVR) WITH PEGINTERFERON LAMBDA



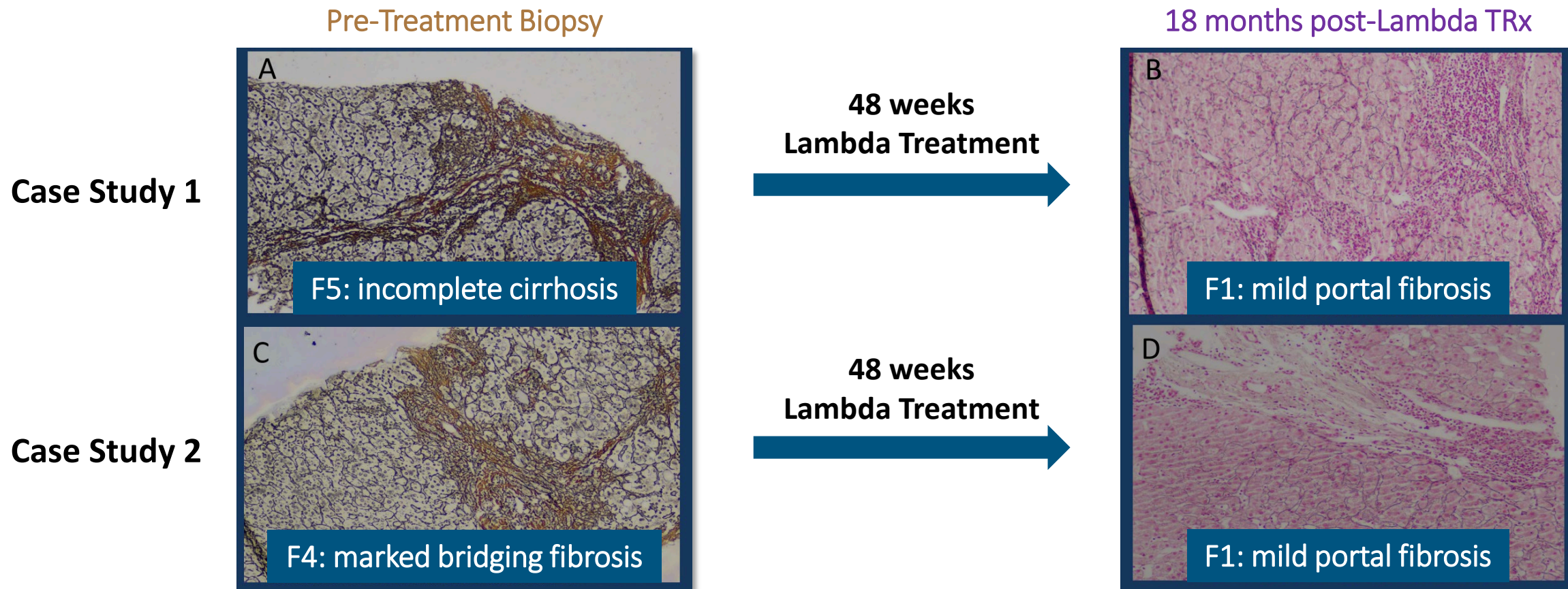
DVR = below the limit of quantification (BLQ) at 24 weeks post-treatment

Robogene® 2.0 HDV RNA PCR assay, LOQ = 14 IU/mL; LOD = 6 IU/mL

Etzion et al, EASL 2019; dose reductions allowed

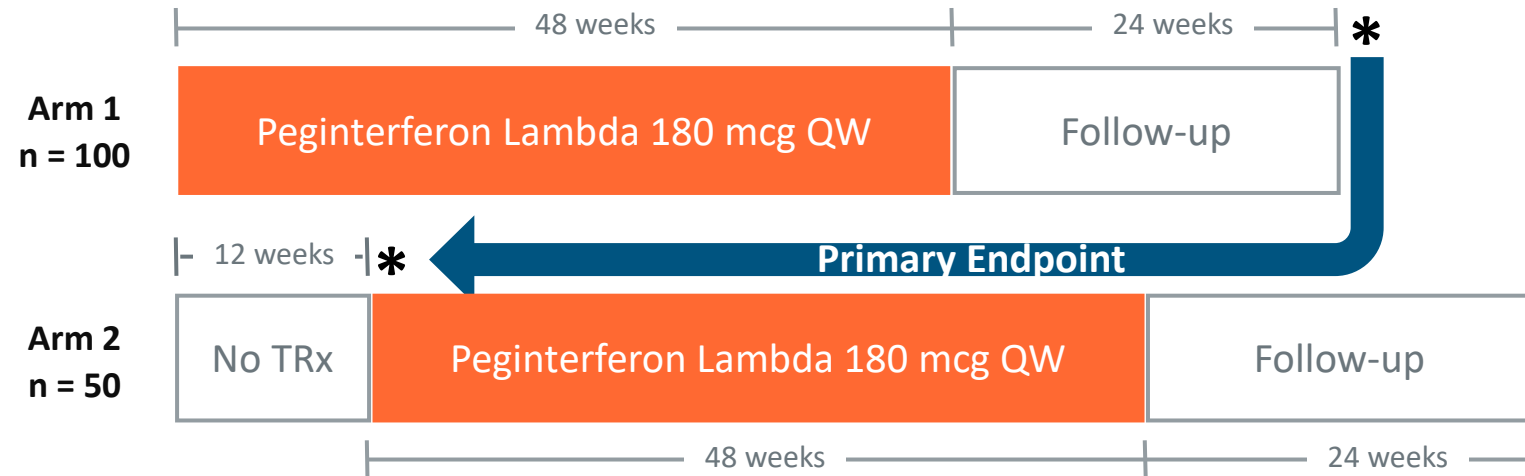
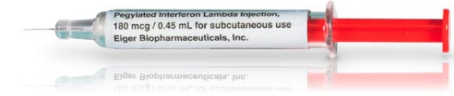
Regression of Liver Fibrosis Following 48 Weeks of Lambda in HDV

BIOPSIES FROM PRE- AND POST-LIMIT LAMBDA MONOTHERAPY STUDY



L_{MT-2} Phase 3 Peginterferon Lambda Study

SCREENING PATIENTS AND ACTIVATING SITES



*** Primary Endpoint:**

DVR (Arm 1) vs
12 Weeks No TRx (Arm 2)

DVR (Durable Virologic Response) =
Below the Limit of Quantification at
24 Weeks Post-Treatment

- Key inclusion criteria will facilitate enrollment
 - Quantifiable HDV RNA (> 40 IU/mL)
 - Suppressed HBV DNA (< 100 IU/mL)
 - ALT > ULN
- All patients will receive treatment

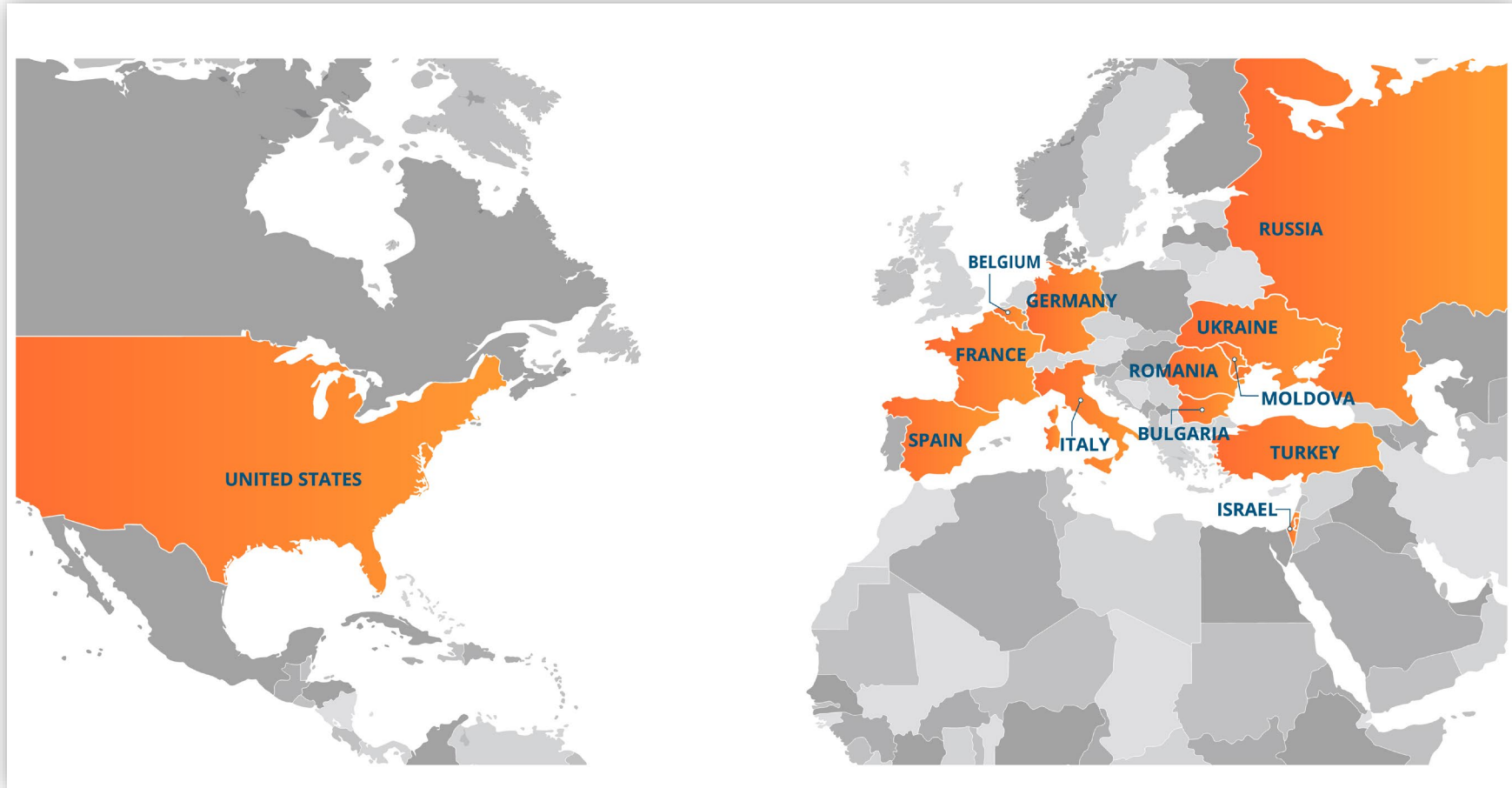
L↓MT-2 Phase 3 Global Study

Screening Patients &
Activating Sites

N=150

13
COUNTRIES

50
SITES



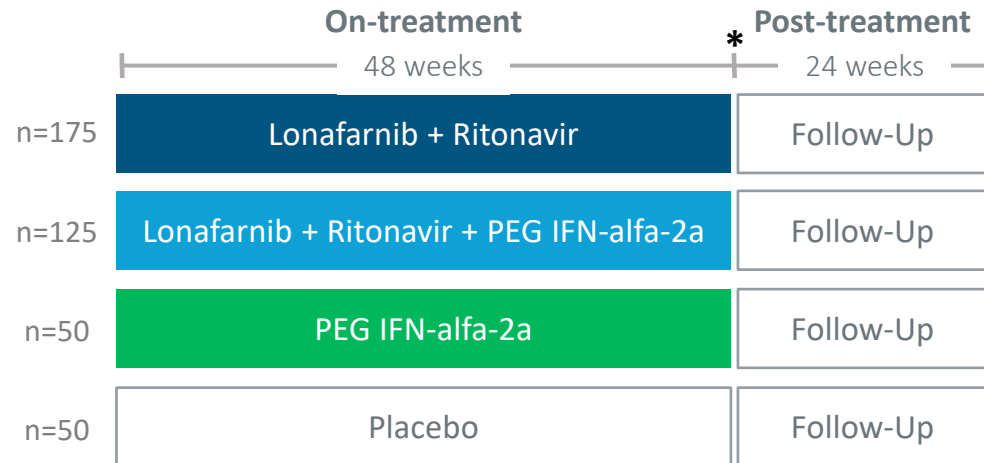
FDA Accelerated Approval Paths for Lonafarnib and Peg IFN Lambda

COMPLEMENTARY TREATMENTS FOR HDV

Phase 3 *D-LIVR* (Lonafarnib) Study for **CHRONIC** Therapy

FDA guidance on **CHRONIC**, ON-TREATMENT endpoint:

“... ≥ 2 log decline in HDV RNA and ALT normalization on-treatment could be considered an acceptable surrogate endpoint...”

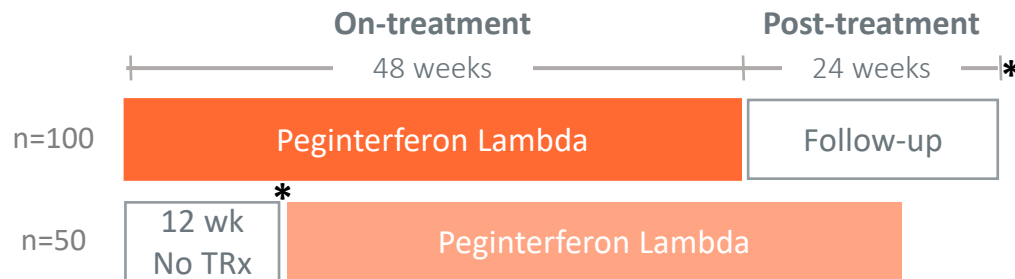


- Complete Enrollment Nov 2021
- Topline data planned by end of 2022

Phase 3 *LIMIT-2* (Peginterferon Lambda) Study for **FINITE** Therapy (Cure)

FDA guidance on **FINITE**, OFF-TREATMENT endpoint:

“...the proportion of trial patients with undetectable HDV RNA (defined as less than the lower limit of quantitation (LLOQ) and ALT normalization...”

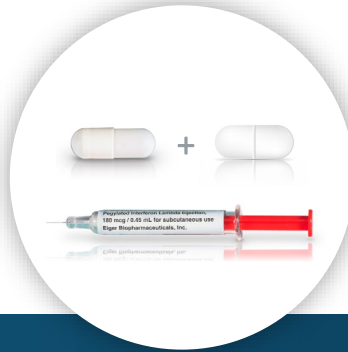


Combination Therapies Will be Needed for HDV



Lonafarnib/Ritonavir

ORAL



Lonafarnib/Ritonavir +
Peginterferon Lambda

COMBO

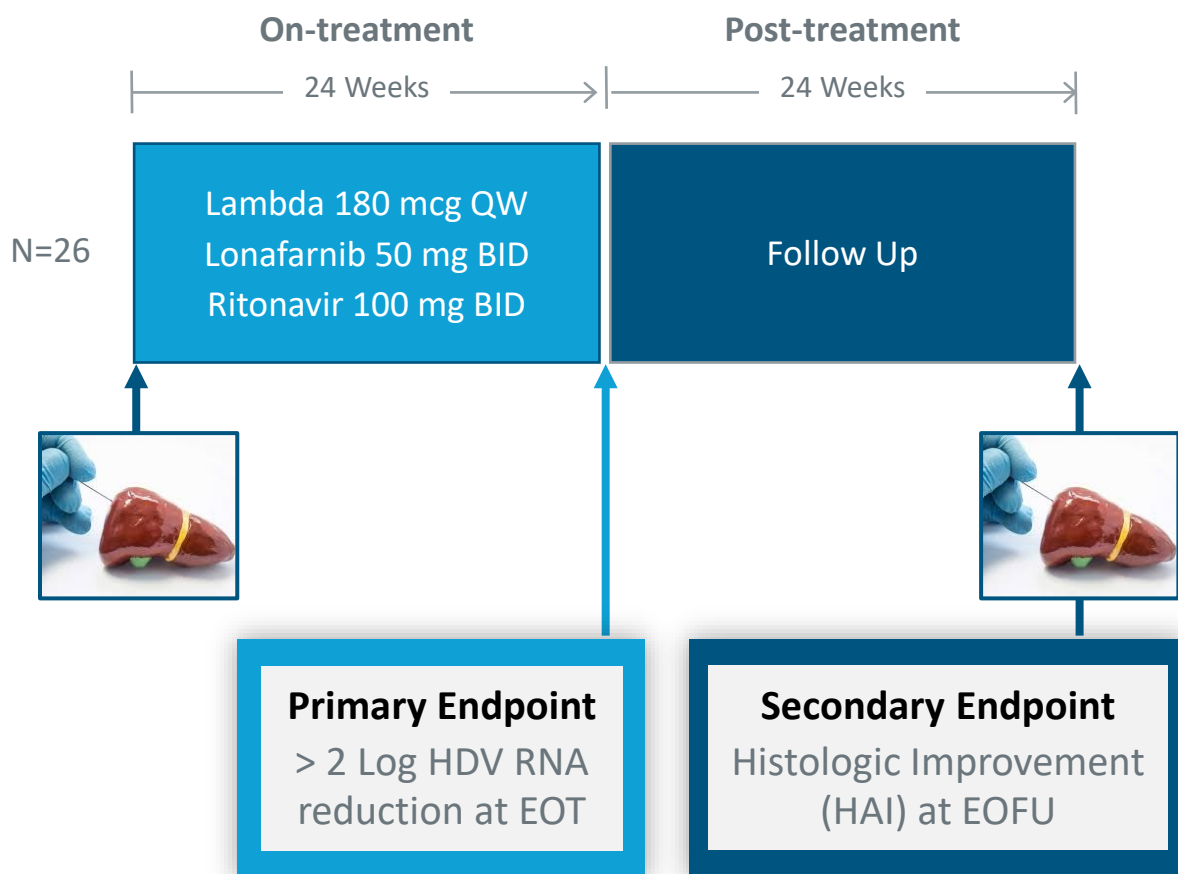


Peginterferon Lambda

MONOTHERAPY SUB Q

LIFT-1 Peginterferon Lambda + Lonafarnib Combo Study

TREATMENT FOR 24 WEEKS



Week 24 End of Treatment*

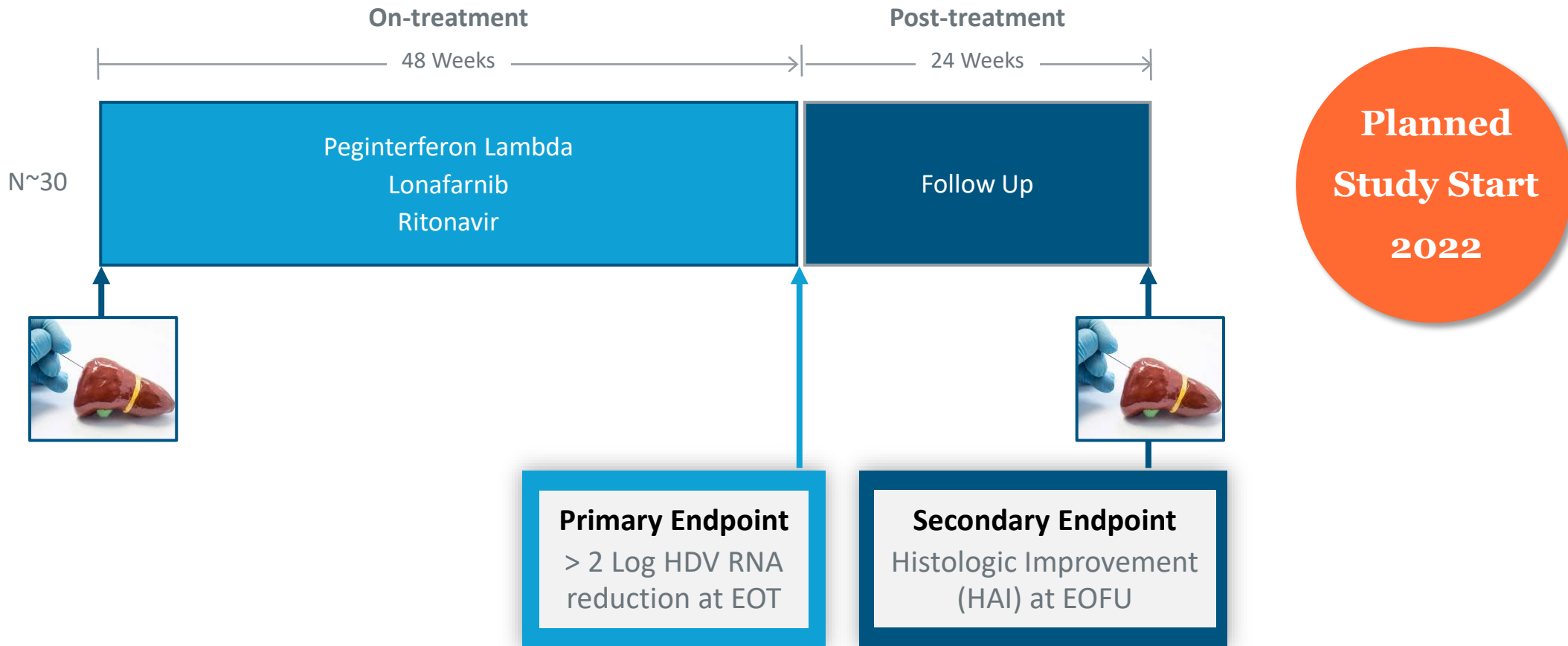
- 11 / 22 patients (50%) were HDV RNA BLQ or undetectable
- 17 / 22 patients (77%) achieved primary endpoint of > 2 log decline in HDV RNA
- Adverse events were mostly mild to moderate and included GI-related side effects

Week 48 End of Follow-Up*

- 5 / 22 patients (23%) were HDV RNA BLQ or undetectable
- 6 / 20 patients (30%) achieved the secondary endpoint of > 2-point improvement in HAI

LIFT-2 Peginterferon Lambda + Lonafarnib Combo Study

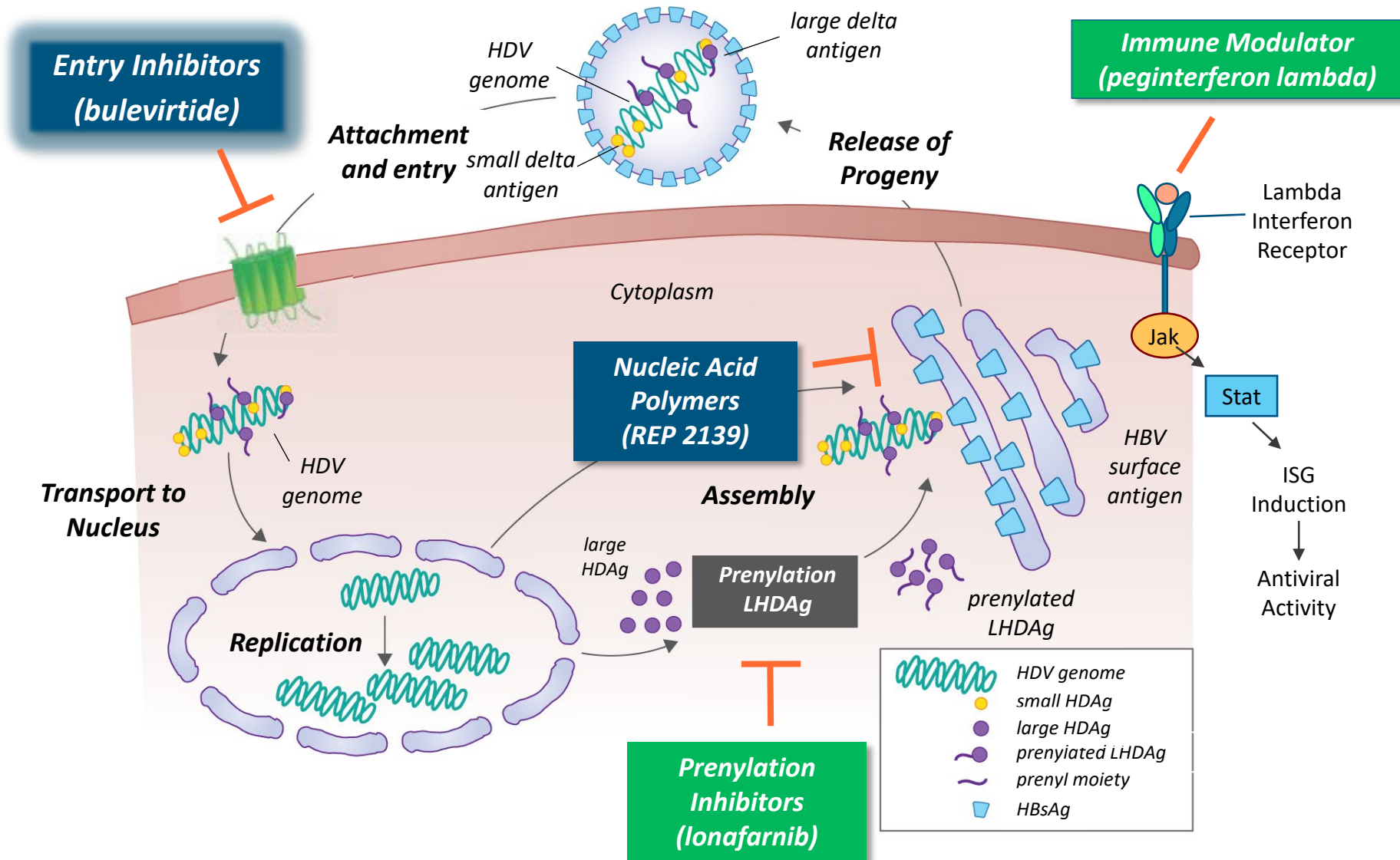
TREATMENT FOR 48 WEEKS



Peginterferon Lambda Is A Well Tolerated Interferon

- Majority of patients were previously exposed to Alfa and reported far better experience with Lambda
- Head-to-head studies of Alfa vs Lambda have been conducted in chronic HBV patients - Phase 2 *LIRA-B* Study
 - Fewer and less severe flu-like symptoms with Lambda vs Alfa
 - No cytopenias or thrombocytopenias with Lambda vs Alfa
- Although head-to-head studies of Alfa vs Lambda have not been conducted in HDV, *LIMT-1* and *LIFT-1* results suggest Lambda may offer not just better tolerability compared to Alfa, but also comparable if not superior efficacy (durable virologic response, DVR)

HDV Treatments in Development



Bulevirtide (BLV) Week 24 Interim Data Summary

MONOTHERAPY AND IN COMBINATION WITH PEG IFN- α



- BLV Monotherapy at Week 24: **Comparable to LNF / RTV**
 - Phase 2 LNF / RTV (**ORAL**) achieved a **30% composite endpoint**
 - Phase 3 BLV monotherapy (**daily SUB-Q INJECTION**) achieved a **37% composite endpoint**
- BLV Combo Therapy with PEG IFN- α at Week 24: **No Synergy**
 - Phase 2 LNF / RTV + PEG IFN- α achieved a **60% composite endpoint**
 - Phase 2b BLV + PEG IFN- α achieved a **30% composite endpoint**

Summary

THREE THERAPIES IN DEVELOPMENT FOR HDV, EACH WITH A DISTINCT MECHANISM OF ACTION

- **Lonafarnib (Oral)**
 - Phase 3 *D-LIVR* now fully enrolled (N=407); topline data expected by the end of 2022
 - Single, largest source of HDV patient data from a well-controlled, global study to better characterize HDV
- **Peginterferon Lambda (Weekly Sub-Q Injection)**
 - Phase 3 *LIMIT-2* enrolling; could lead to approval of Peginterferon Lambda as a monotherapy for HDV
 - Peginterferon Lambda's tolerability could lead to better compliance and improved outcomes in HDV
- **Bulevirtide (Daily Sub-Q Injection)**
 - Conditionally approved in Europe
 - Two registration-enabling studies on-going

Conquering HDV Will Require Combination Therapy



Market Opportunity



Eldon Mayer

Chief Commercial Officer, Eiger

What Does a Win Look Like for HDV Patients?

CONSISTENT WITH FDA GUIDANCE ON DEVELOPMENT OF TREATMENTS FOR HDV



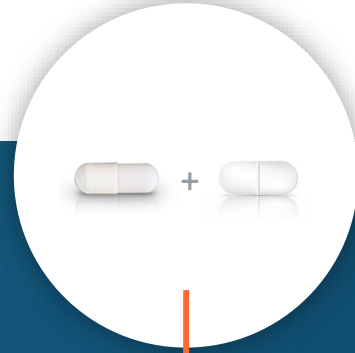
- Reduction in HDV Viral Load
- Improvement in Liver Inflammation (ALT)



- Slows Disease Progression
- Improves Liver Histology
- Improves Survival

Eiger HDV Platform in Phase 3

INNOVATIVE THERAPIES IN DEVELOPMENT TO TREAT AND CURE HDV



Lonafarnib/Ritonavir

ORAL

D-LIVR



Peginterferon Lambda

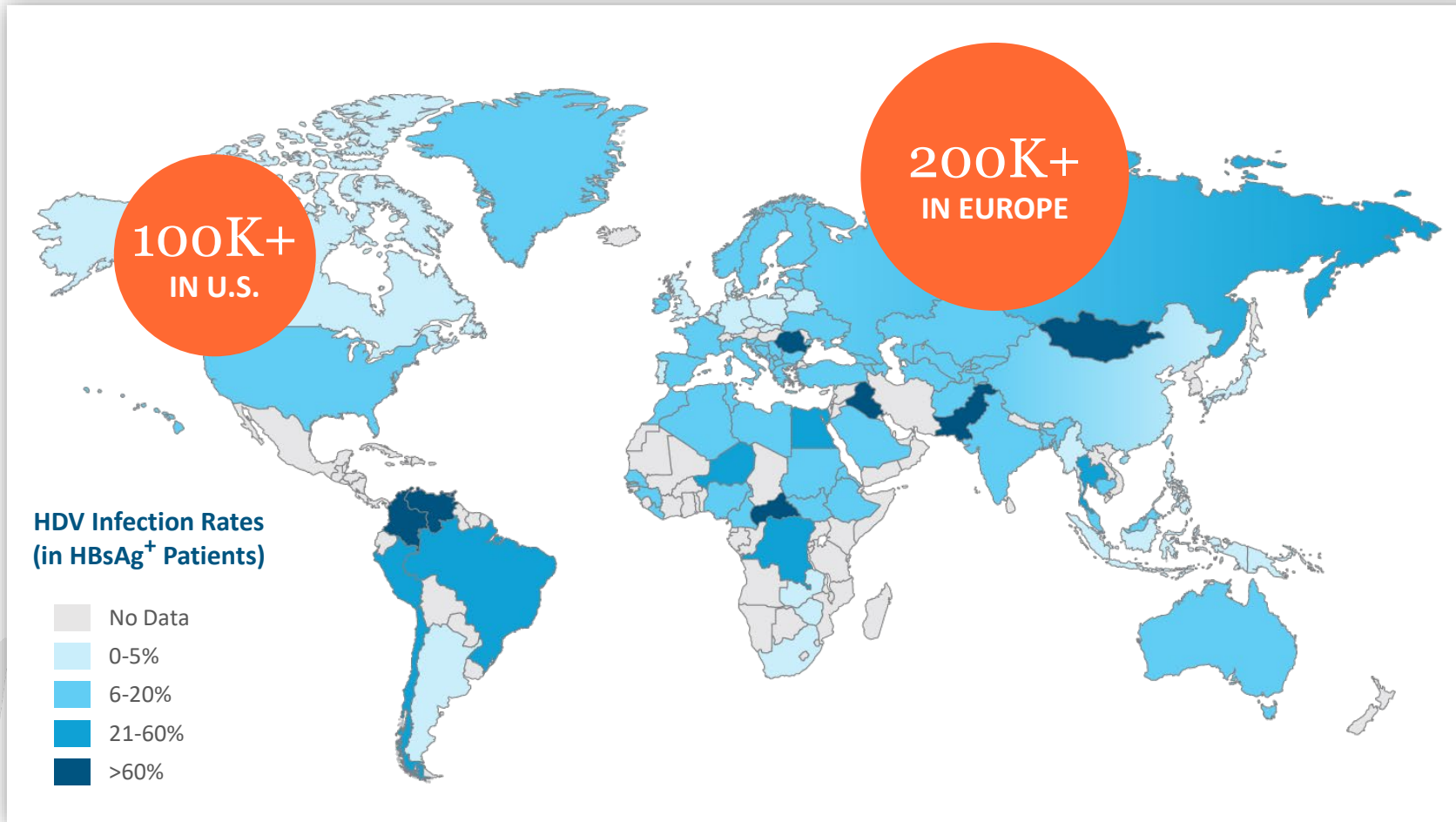
WEEKLY SUB Q

LMT-2

Convenient administration for improved patient compliance

>12M HDV Patients Worldwide

~4-6% OF HBV-INFECTED POPULATION



Migration
Contributing to
Globalization
of Disease

Prevalence and Characteristics of Hepatitis Delta in the United States

- AN ANALYSIS OF ALL-PAYER CLAIMS DATABASES



Abstract 698

Prevalence and Characteristics of Hepatitis Delta in the United States:
an Analysis of All-Payer Claims Databases

Robert Gish,¹ Ira Jacobson,² Joseph Lim,³ Ankita Modi Kaushik,⁴ Nandita Kachru,⁵ Yan Liu,⁶ Anissa Cyhaniuk,⁷ Robert Wong⁸

¹University of Medicine, New York City School of Medicine, New York, NY; ²NYU School of Medicine, New York, NY; ³NYU School of Medicine, New York, NY; ⁴NYU School of Medicine, New York, NY; ⁵NYU School of Medicine, New York, NY; ⁶NYU School of Medicine, New York, NY; ⁷NYU School of Medicine, New York, NY; ⁸NYU School of Medicine, New York, NY

Introduction

- Hepatitis delta virus (HDV) leads to the most severe form of acute and chronic viral hepatitis¹
- Individuals can become infected with HBV and HDV simultaneously (coinfection) or with HDV after the initial HBV infection (superinfection)²
- Chronic HDV infection (CHD) is the most severe form of viral hepatitis, causing rapid progression to cirrhosis, decompensation, or hepatocellular carcinoma²
- HDV affects 15–20 million individuals worldwide³
- Limited real-world data exist regarding the epidemiology, demographics, and clinical characteristics of HDV-infected patients in the United States (US)

Objective

- To estimate the prevalence of HDV infection among adults with HBV infection in the United States, and describe baseline characteristics for patients with HDV infection

Methods

- Adult patients (aged ≥18 years) with ≥1 claim based on International Classification of Diseases 9th/10th Clinical Revision (ICD-9-10-CM) diagnosis codes for HBV or HDV infection were identified in all-payer claims databases (APCD) from 1/1/2014 to 12/31/2020 (study period)
- HDV infection was identified using ICD-9-CM codes 070.21, 070.23, 070.31, 070.33, 070.42, and 070.52, and ICD-10-CM codes B16.0, B16.1, B17.0, and B18.0
- HBV infection was identified using ICD-9-CM codes 070.20, 070.22, 070.30, and 070.32, and ICD-10-CM codes B16.2, B16.9, B18.1, B18.10, and B18.11
- Prevalence was measured as the proportion of patients with HDV infection among those with ≥1 HBV or HDV infection diagnosis
- Among patients with HDV infection, a subcohort was identified with their first HDV diagnosis defined as the index date from 1/1/2015 to 12/31/2020 (identification period)
- All patients in the subcohort were required to have ≥12-month continuous capture prior to the index date to measure baseline characteristics
- Baseline characteristics including age, gender, geographic region, payer type, Charlson Comorbidity Index (CCI) score, comorbidity and liver disease severity prevalence were assessed prior to the index date

Results

Attrition Flowchart

Overall patients diagnosed with HBV mono-infection or HDV infection during 1/1/2014-12/31/2020
N=294,750

Patients aged ≥18 years
n=291,961

Patients diagnosed with HDV infection during 1/1/2014-12/31/2020
n=32,730

Patients with HDV infection with ≥12-month capture prior to index date
n=23,456

Baseline Characteristics of Patients With HDV Infection

Characteristic	Patients With HDV Infection n=23,456
Main age, years (SD)	51.5 (15.9)
Age category, %	
18–34 years	18
35–44 years	15
45–54 years	21
55–64 years	25
65–74 years	15
≥75 years	7
Mean CCI score (SD)	1.5 (2.26)
Women, %	53
Geographic region, %	
North-central	35
Northeast	31
South	22
West	13
Other/unknown	1
Insurance type, %	
Commercial	49
Medicare	23
Medicaid	23
Other	5

- HDV-infected patients primarily resided in the north-central and north-east geographic regions
- 32.8% of HDV-infected adults were ≥44 years of age
- Commercial insurance was the most frequent coverage, followed by Medicare and Medicaid

Heat Map of HDV-Infected Patient Distribution (n=23,456)

- At the state level, the greatest proportion of HDV-infected patients was identified in Illinois (29.5%), followed by New York (22.2%) and California (9.3%), among 23,456 HDV-infected adults

Comorbidities and Liver Disease Severity of HDV-Infected Patients at Baseline

Comorbidities

Liver Disease Severity

- Hypertension, history of smoking, HIV, and substance abuse were the top 4 common comorbidities seen in patients with HDV infection
- Prevalence rates of CC, DCC, HCC, and liver transplant were 13.8%, 9.2%, 2.4%, and 1.3%, respectively

Limitations

- The APCD data is representative of individuals that are insured by commercial plans, Medicare, or Medicaid. Patients under federal programs (Veterans Administration and Department of Defense) are captured here; subjects in closed plans such as Kaiser and those who are uninsured are not captured
- The usual limitations of any retrospective claims analyses apply: the HDV cohort was identified based on a physician documented ICD-9-10-CM code; whether clinical confirmation with a positive HDV RNA test was done is unknown; all diagnoses done via ICD-9-10-CM codes are subject to miscoding and could lead to misclassification bias
- Comorbidity designation is based on identifying a code of interest >12 months look-back until 2014; it is possible that patients may be missing diagnosis codes for comorbidities due to study period limitations
- There is a lack of FDA cleared assays, as well as suboptimal screening practices to determine HDV and HBV status, which could cause this study to underestimate the actual number of patients with an HDV and HBV infection

Conclusions

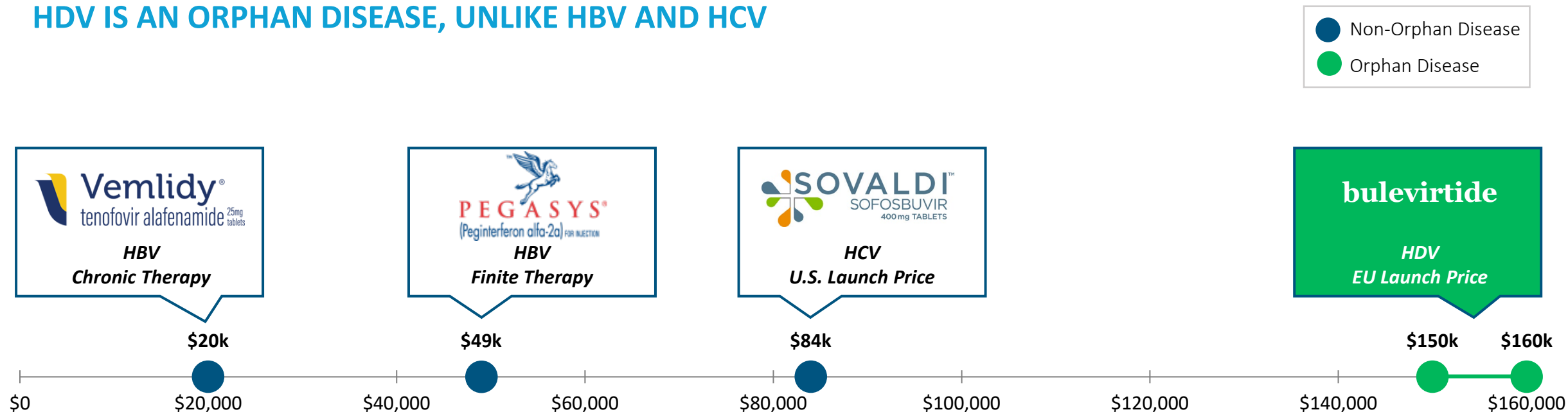
- Among a large population-based database that captures 80% of the US population, HDV infection prevalence of 11.2% was observed among diagnosed HBV-infected patients
- Patients with an HDV infection exhibited a high prevalence of liver disease severity and comorbidities in the baseline period
- The average age of HDV-infected patients in the US is 51 years, normally working age; 53% of adults with HDV infection are women, and 49% are commercially insured; further work to characterize the disease progression, healthcare resource use, cost burden, and broader societal impact of HDV infection is warranted
- Improved disease awareness, screening, and identification of HDV infection in the US may allow opportunities to implement effective linkage to care and early antiviral therapies to reduce the risk of liver complications as well as the risk of morbidity and mortality related to HDV

- Adult claims based on ICD-9/10 diagnosis codes for HBV and HDV from all-payer claims database from 2014 to 2020
- Overall prevalence of HDV coinfection of 11.2% (among 291,961 adults diagnosed with HBV, 32,730 had HDV infection)
- HDV coinfection concentrated in major metropolitan areas
- HDV infection exhibited high prevalence of liver disease severity and comorbidities
- Early screening and identification of HDV in HBV patients may reduce risk of liver-related morbidity and mortality

63

Expect Orphan Disease Pricing for HDV

HDV IS AN ORPHAN DISEASE, UNLIKE HBV AND HCV



Expect **Lonafarnib** pricing to be **>\$150K per patient per year** (chronic therapy);

Expect **Peginterferon Lambda** to be priced at a **premium over Pegasys**

\$1B+ HDV Market Opportunity in U.S. and Europe

ONLY 3% MARKET PENETRATION REQUIRED



ADDRESSABLE MARKET

~300,000 Patients¹

~100K
in US

~200K
in EU



PENETRATION REQUIRED FOR \$1B SALES

~3% of Patients²

~3K
in US

~6K
in EU



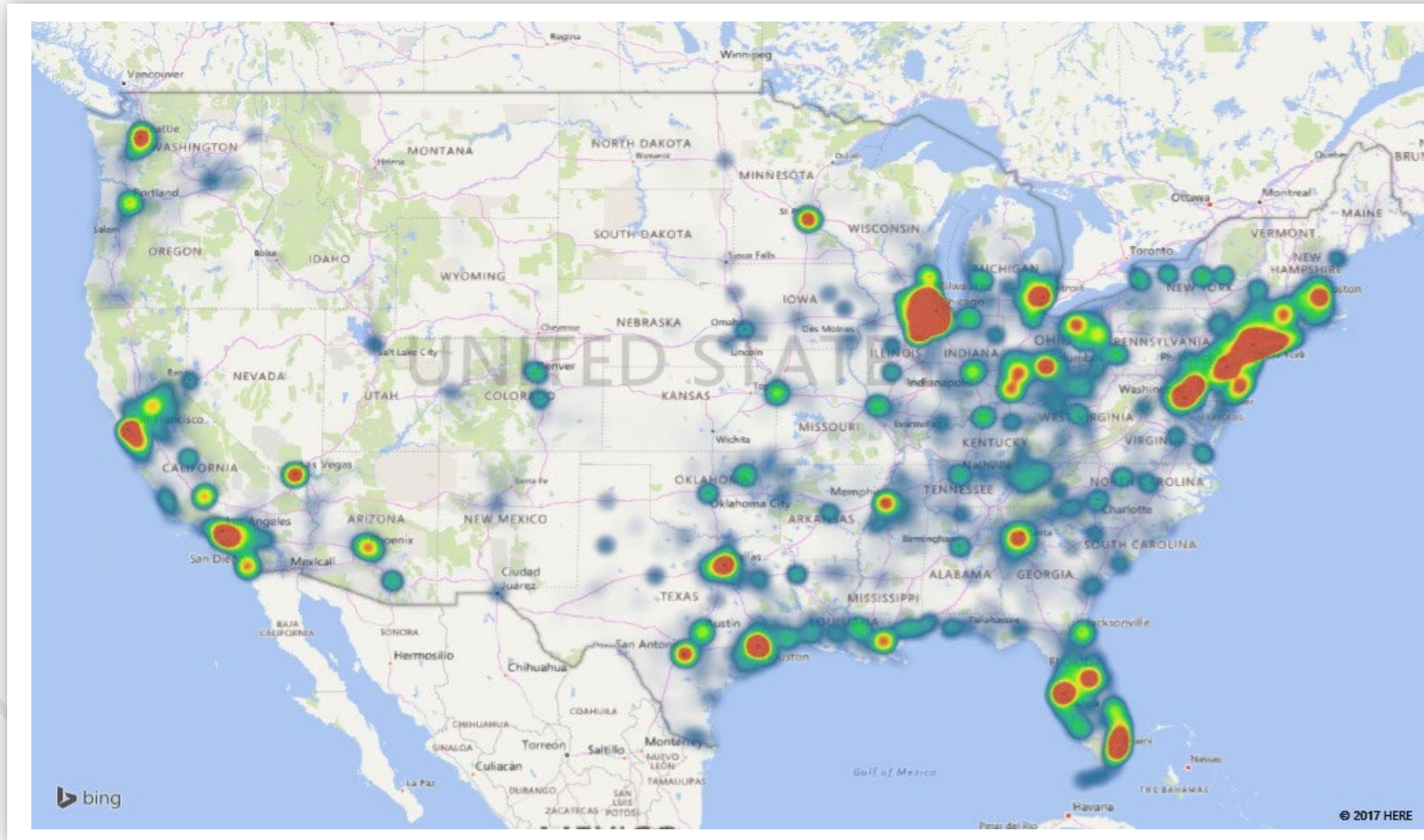
ORPHAN PRICING

Per Year³

~\$150,000
in US and EU

U.S. Major Metro HDV Hotspots Identified

HDV AND HBV GEOGRAPHIC FOOTPRINTS OVERLAP



Top 10 U.S. Cities in 2016

1. Chicago, Illinois
2. Berwyn, Illinois
3. Brooklyn, New York
4. Corona, New York
5. Waukegan, Illinois
6. New York, New York
7. Bronx, New York
8. Jamaica, New York
9. Lombard, New York
10. Aurora, Illinois

Commercial HDV RNA PCR Tests Now Available in U.S.

BUILDING THE HDV MARKET

Commercial HDV RNA PCR Tests Available



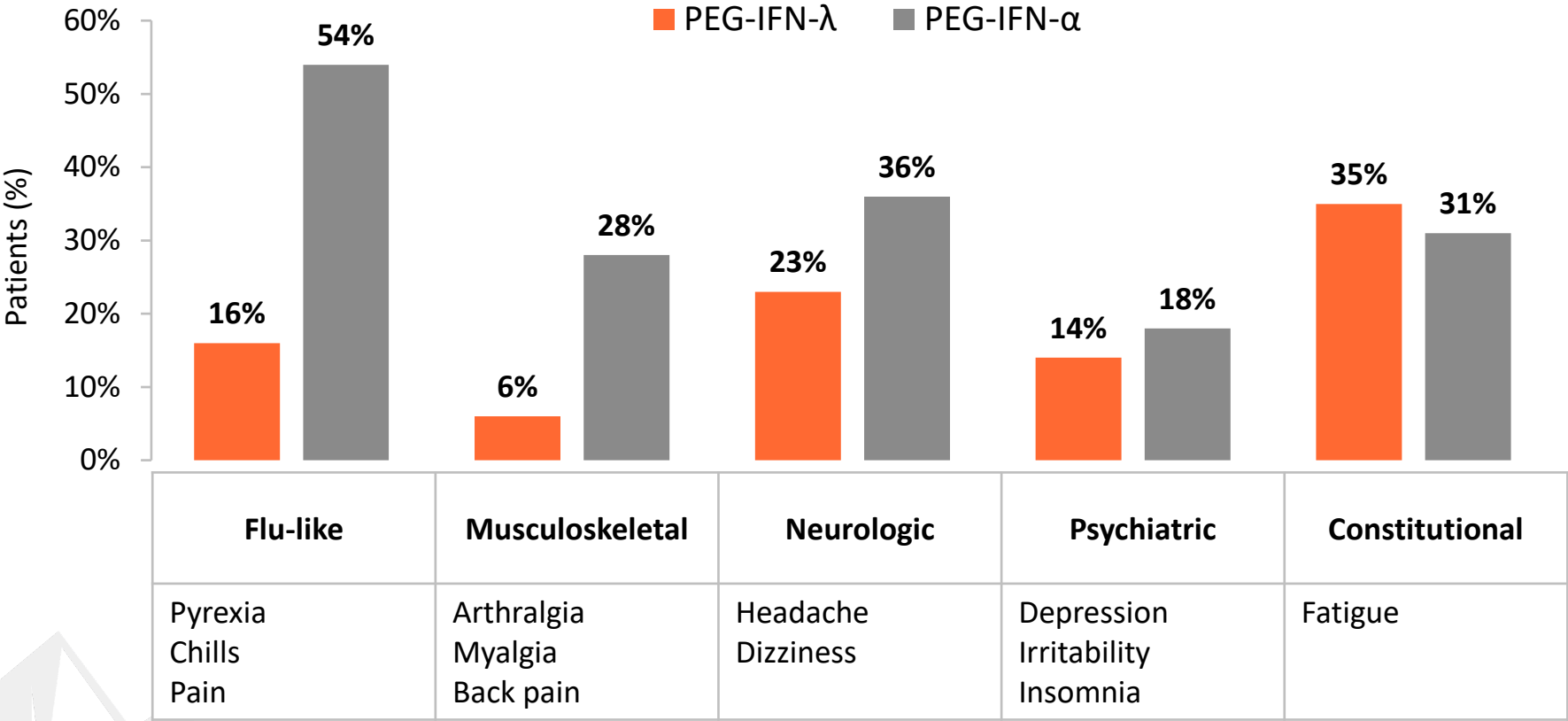
EASL treatment guidelines recommend screening HBsAg⁺ patients for HDV

AASLD treatment guidelines recommend screening high-risk HBsAg⁺ patients for HDV

All HBV-Infected Patients Should Be Tested for HDV

Peginterferon Lambda is a Well Tolerated Interferon

LIRA-B STUDY: PEGINTERFERON LAMBDA VS PEGINTERFERON ALFA IN CHRONIC HBV

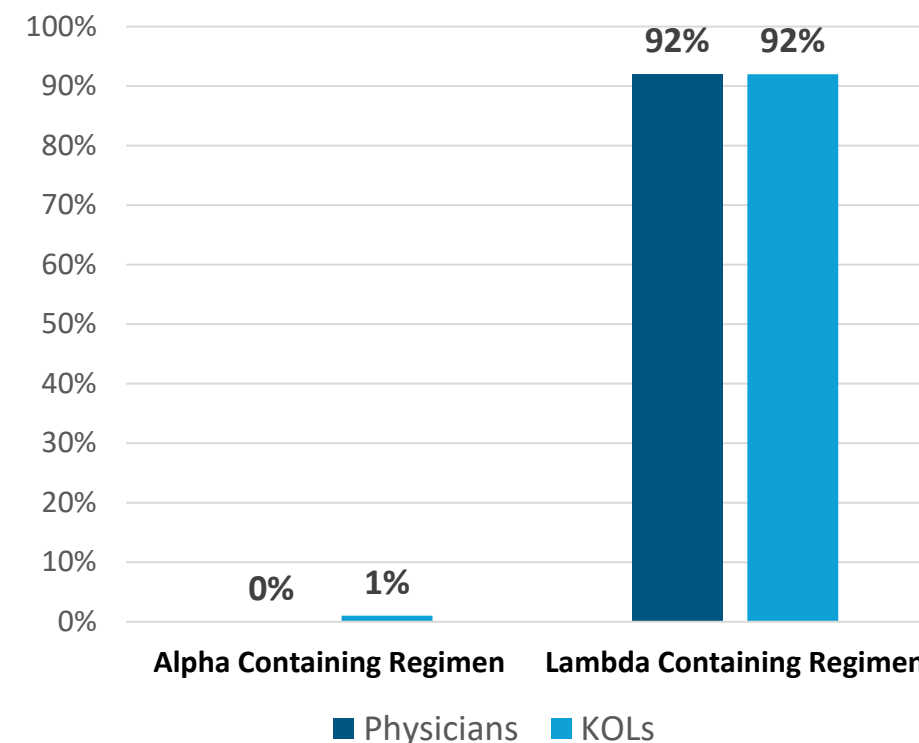


Market Research Suggests Preference for Lambda vs. Alfa

KOL & Physician Perspectives on Prescribing

- **Flu-like symptoms** were most common complaint in Peg-IFN- α patients
- **Reductions in rates of cytopenia and depression** may also be a benefit of Peg-IFN- λ
- Most physicians **prefer to prescribe the combination with Peg-IFN- λ**
- Physicians cited **increased tolerability of Peg-IFN- λ** as reason for prescribing a Peg-IFN- λ containing regimen

Preference for Lambda Containing Therapies



KOL Feedback on Peginterferon Lambda Patient Experience

POTENTIAL FOR LAMBDA TO BE THE INTERFERON OF CHOICE

Physician & Patient Experience (Lambda vs. Alfa)

*"From a tolerability standpoint, I can say that **Lambda is a completely different ballgame compared to Alfa.**"*

*"Most of the patients I treated with Lambda were previously treated with Alfa. But when we started the medication, patients pointed out that **this is a completely different experience compared to Alfa.**"*

*"I can say without hesitation that **all patients I treated with Lambda had either minimal or no side effects whatsoever in terms of their patient experience.**"*

Physician Preference for Lambda vs. Alfa

*"If there were **a treatment option as good as interferon Alfa in terms of efficacy for HDV, nobody would use Alfa anymore.**"*

*"If I can get the **same efficacy with Lambda that I get with Alfa, I would prescribe Lambda over Alfa.**"*



Closing Remarks

Eiger's HDV Treatments in Development

GOAL: COMPLETE SUPPRESSION OF HDV VIRUS AND HDV CURE

- Phase 3 *D-LIVR* fully enrolled (N=407); topline data expected by the end of 2022
 - Will support approval of two Lonafarnib-based regimens for HDV
 - Largest single source of HDV patient data from a well-controlled, global study to better characterize HDV
- Phase 3 *LIMIT-2* enrolling; could lead to approval of Peginterferon Lambda for HDV
 - Potential to be the interferon of choice in combination therapies for the treatment of HDV
 - Peginterferon Lambda's tolerability could lead to better compliance and improved outcomes
- Lonafarnib and Peginterferon Lambda have distinct and complementary mechanisms
 - To be used alone, in combination with each other, and in combination with other HDV regimens to suppress virus, reduce liver inflammation, and improve outcomes



Innovative Therapies to Treat and Cure HDV and Other Serious Rare Diseases

Hepatitis Delta Virus (HDV)
Virtual Key Opinion Leader Meeting

November 15, 2021
9:00 AM -10:30 AM ET

