



# HBsAg declines observed with VRON-0200 alone are rapidly enhanced with the addition of combination antiviral therapies: results from a Phase 1b study for functional cure in chronically HBV-infected patients

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# Disclosures of Conflict of Interest

- **Grace Wong** Grace Wong has served as an advisory committee member for AstraZeneca, Gilead Sciences, GlaxoSmithKline, Janssen, & Virion Therapeutics, and as a speaker for Abbott, Abbvie, Ascleptis, Bristol-Myers Squibb, Echosens, Ferring, Gilead Sciences, GlaxoSmithKline, Janssen, and Roche. She has also received research grants from Gilead Sciences.
- **Ed Gane** has served as an advisor and/or speaker for AbbVie, Abbott Diagnostics, Aligos, Arbutus, Arrowhead, Assembly, Dicerna, Gilead Sciences, Glaxo Smith Kline, Intellia, Janssen, Merck, Novartis, Precision Biosciences, Genentech-Roche, Tune, Vaccitech, Vir Bio & Virion Therapeutics
- **Tien-Huey Lim** has nothing to disclose
- **Marie Bonhomme** is an employee of PPD<sup>®</sup>, part of Thermo Fisher Scientific, who is the laboratory contracted to perform work on the VRON-0200 study
- **Sue Currie** and **Andrew Luber** work at Virion Therapeutics, LLC and own shares in the company

# VRON-0200: Background

- VRON-0200 is a therapeutic vaccine for HBV functional cure designed to enhance and broaden immune responses to HBV core & pol<sup>1</sup>
- VRON-0200 contains a novel checkpoint modifier which works by lowering the T cell activation threshold\*
- In chronically HBV-infected patients, VRON-0200 has demonstrated<sup>2</sup>:
  - ✓ A favorable safety and tolerability profile
  - ✓ Immunogenicity
  - ✓ Anti-HBV activity (HBsAg declines)

## Benefits of Checkpoint Modification



**Amplifies**  
T cell Responses



**Broadens**  
T cell Responses  
(e.g., sub-dominant epitopes)



**Limits**  
T cell Impairment



**Mitigates**  
Safety Concerns  
(e.g., locally acting)

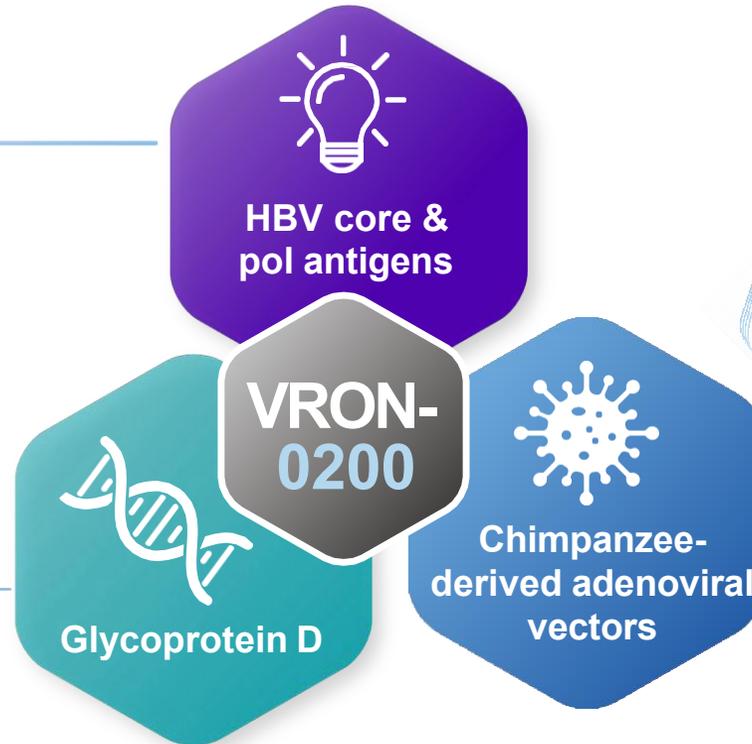
# VRON-0200: A Potential First-in-Class Immunotherapy for HBV Functional Cure

## HBV antigens

- Optimized **HBV core & pol antigens**
- Pan genotypic (A, B, C, D)
- **S antigen not included**

## Checkpoint modifier\*

- **Amplifies** and **broadens** immune responses



## Viral vector platform

- Limited pre-existing vector immunity



# Purpose

To report safety, immunogenicity, and HBsAg changes in chronically HBV-infected patients, up to 360 days, post VRON-0200 dosing

# Methods: Clinical Assessments

Patients were evaluated for safety, immunologic, and virologic measures at multiple time points, and blood samples were collected at every visit:

## **Safety (data cutoff October 1, 2025)**

- Adverse events(AEs) and SAEs (CTCAE) monitored and labs, including LFTs, vital signs, and PEs

## **Immunologic Assessments: IFN $\gamma$ ELISpot (data cutoff July 7, 2025)**

- IFN $\gamma$  ELISpot to core and pol peptide pools

## **Virologic Assessments: HBsAg (data cutoff August 20, 2025)**

- ELISA HBsAg II Quant; LLOD 0.05 IU/mL
- Absolute values (IU/mL), and absolute changes ( $\log_{10}$  IU/mL)

# Patient Demographics & Baseline Characteristics (N=35)

	Cohort 1 (n=13)	Cohort 2 (n=14)	Cohort 3# (n=8)
<b>Median age, yrs (range)</b>	<b>45 (37-54)</b>	<b>46 (41-55)</b>	<b>51 (41-55)</b>
<b>Sex, n (%)</b>			
<b>Male</b>	<b>12 (92%)</b>	<b>10 (71%)</b>	<b>6 (75%)</b>
<b>Race, n (%)</b>			
<b>Asian</b>	<b>11 (85%)</b>	<b>13 (93%)</b>	<b>6 (75%)</b>
<b>Other</b>	<b>2 (15%)</b>	<b>1 (7%)</b>	<b>2 (25%)</b>
<b>BMI (kg/m<sup>2</sup>), median (range)</b>	<b>26.3 (20.2-32)</b>	<b>25.9 (19.7-31.6)</b>	<b>21.7 (18.6-32)</b>
<b>Baseline HBsAg Levels (IU/mL), median (range)*</b>	<b>179 (16-623)</b>	<b>149 (10-563)</b>	<b>469 (12-1169)</b>
<b>Baseline HBsAg Levels, n (%)</b>			
<b>≥500 IU/mL</b>	<b>1 (8%)</b>	<b>1 (7%)</b>	<b>4 (50%)</b>
<b>200 to &lt;500 IU/mL</b>	<b>6 (46%)</b>	<b>4 (29%)</b>	<b>1 (13%)</b>
<b>100 to &lt;200 IU/mL</b>	<b>2 (15%)</b>	<b>6 (43%)</b>	<b>0 (0%)</b>
<b>&lt;100 IU/mL</b>	<b>4 (31%)</b>	<b>3 (21%)</b>	<b>3 (38%)</b>
<b>Baseline ALT (x ULN), n (%)</b>			
<b>1.5 to ≤2x ULN</b>	<b>1 (8%)</b>	<b>0 (0%)</b>	<b>0 (0%)</b>
<b>1 to &lt;1.5x ULN</b>	<b>0 (0%)</b>	<b>1 (7%)</b>	<b>0 (0%)</b>
<b>&lt;1 x ULN</b>	<b>12 (92%)</b>	<b>13 (93%)</b>	<b>8 (100%)</b>
<b>HBeAg Status at Baseline, n (%)</b>			
<b>Negative</b>	<b>12 (92%)</b>	<b>14 (100%)</b>	<b>8 (100%)</b>

# 1 pt withdrew consent at D28 (Group 3), and is included in demographics and baseline characteristics, and safety, but excluded from Clinical Data (not evaluable)

\*As per protocol, participants had prior HBsAg at screening ≤500 IU/mL in Groups 1 and 2, and ≤1000 IU/mL in Group 3.

# Safety and Tolerability (N=35)

## 11,629 Patient Safety Days

	Cohort 1 (n=13)	Cohort 2 (n=14)	Cohort 3 (n=8)
<b>Any AE, n</b>	<b>16</b>	<b>29</b>	<b>40</b>
<b>Grade 1</b>	<b>13</b>	<b>19</b>	<b>35</b>
<b>Grade 2</b>	<b>3</b>	<b>10</b>	<b>5</b>
<b>Grade 3 or 4</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>SAE, n</b>	<b>0</b>	<b>0</b>	<b>1*</b>
<b>TRAEs, n</b>	<b>5</b>	<b>16</b>	<b>16</b>
<b>AEs leading to Study Drug Discontinuation, n</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Study Discontinuations, n</b>	<b>0</b>	<b>0</b>	<b>1**</b>
<b>ALT elevations, n</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Grade 1</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grade 2</b>	<b>0</b>	<b>0</b>	<b>1</b>

**No serious TRAEs, treatment-related discontinuations or clinical laboratory abnormalities**

86 AEs in 24 patients; 37 TRAEs included 4 - Grade 2: eczema, myalgia, headache, injection site reaction, all others Grade 1; All TRAE symptoms have resolved

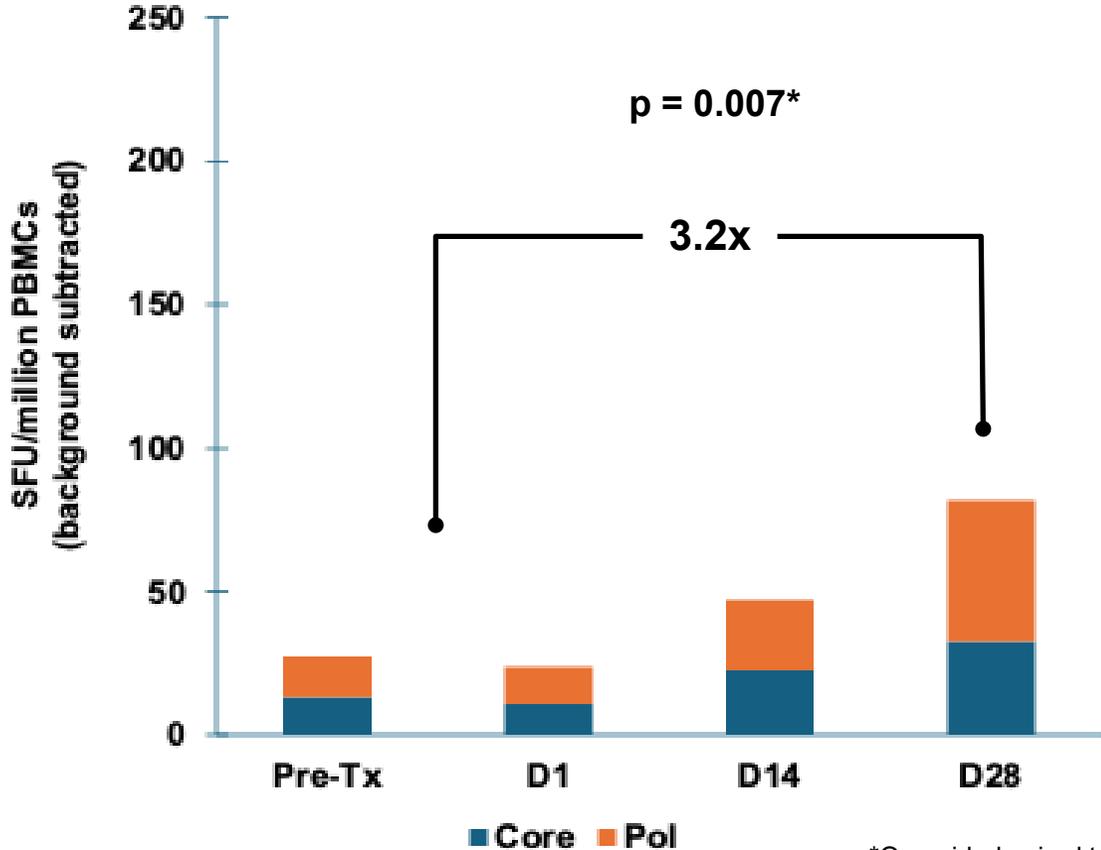
Safety data as of October 1, 2025.

\* 1 pt in Cohort 3 had a non-treatment-related significant adverse event that resulted in a 2-dose elebsiran+tobevibart treatment interruption.

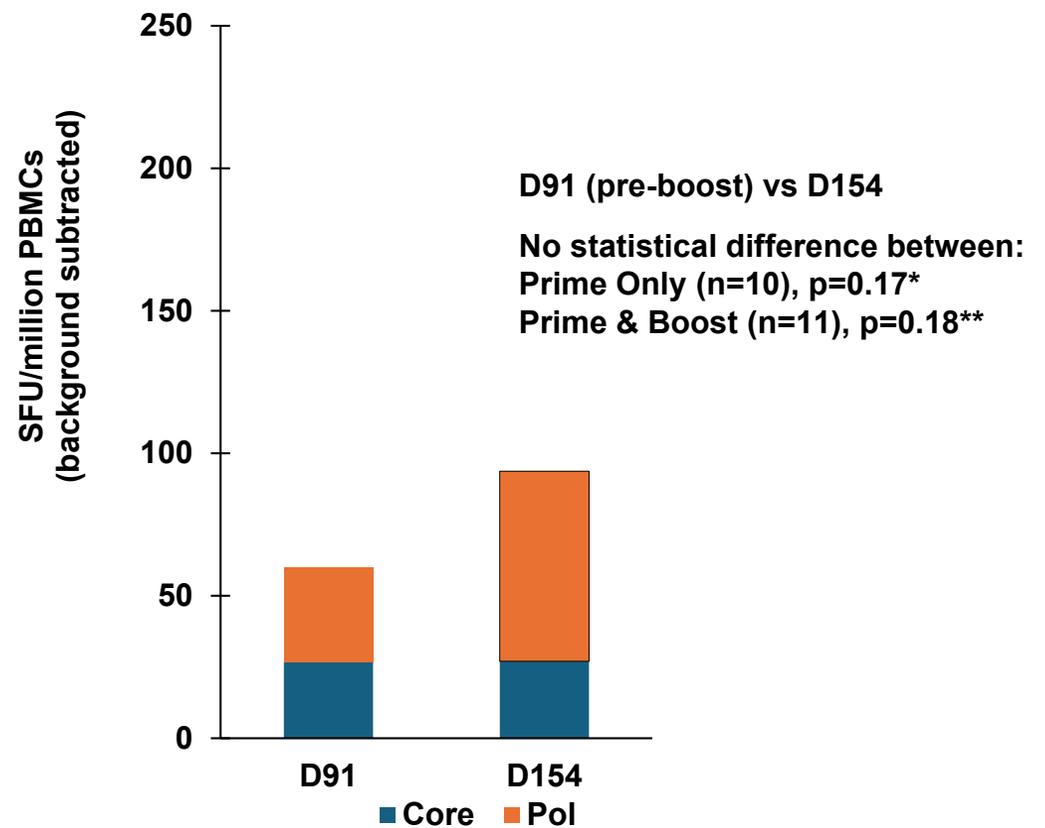
\*\* Pt withdrew consent at D28 - included in demographics, baseline characteristics, and safety, but excluded from Clinical Data (not evaluable).

# VRON-0200 Prime Significantly Improved IFN $\gamma$ ELISpot Responses, but was NOT enhanced with a Boost

Sum Core & Pol IFN $\gamma$  ELISpot Overall (n=31)



Sum Core & Pol IFN $\gamma$  ELISpot Prime, Prime & Boost (n=21)



\*One-sided paired t-test; \*\*Two-tailed paired t-test

# VRON-0200 Added to SOC Produces Sustained and/or Continued HBsAg Declines

## VRON-0200 Does NOT Target HBsAg

Pt #	D1
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	

Log Change from BL
$\leq -0.06$
-0.07 to -0.49
-0.50 to -0.99
$\geq -1.00$

Boost D91

EOT - Day 1 for Prime Only: 6 mos post-tx (D180)  
 EOT - Day 91 for Prime and Boost: 6 mos post-tx (D271)

# VRON-0200 Added to SOC Produces Sustained and/or Continued HBsAg Declines

## VRON-0200 Does NOT Target HBsAg

- Declines begin around Day 28

Pt #	D1	D14	D28
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			

Log Change from BL
≤ -0.06
-0.07 to -0.49
-0.50 to -0.99
≥ -1.00

Boost D91

EOT - Day 1 for Prime Only: 6 mos post-tx (D180)  
 EOT - Day 91 for Prime and Boost: 6 mos post-tx (D271)

# VRON-0200 Added to SOC Produces Sustained and/or Continued HBsAg Declines

## VRON-0200 Does NOT Target HBsAg

- Declines begin around Day 28

Pt #	D1	D14	D28	D60	D91
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					N/A
23					

Log Change from BL
≤ -0.06
-0.07 to -0.49
-0.50 to -0.99
≥ -1.00

Boost D91

EOT - Day 1 for Prime Only: 6 mos post-tx (D180)  
 EOT - Day 91 for Prime and Boost: 6 mos post-tx (D271)

# VRON-0200 Added to SOC Produces Sustained and/or Continued HBsAg Declines

## VRON-0200 Does NOT Target HBsAg

Pt #	D1	D14	D28	D60	D91	D104	D118	D154	D360
1						N/A			
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									#
22					N/A				
23									

- Declines begin around Day 28
- Day 91 boost does not appear to improve HBsAg declines
- At Day 360:
  - 19/23 (83%) pts with sustained control and/or continued declines
  - 4 pts with  $\geq 1 \log_{10}$  IU/mL decline<sup>#</sup>

Log Change from BL
$\leq -0.06$
-0.07 to -0.49
-0.50 to -0.99
$\geq -1.00$

Boost D91

EOT - Day 1 for Prime Only: 6 mos post-tx (D180)  
 EOT - Day 91 for Prime and Boost: 6 mos post-tx (D271)

# VRON-0200 Added to SOC Produces Sustained and/or Continued HBsAg Declines

## VRON-0200 Does NOT Target HBsAg

Pt #	D1	D14	D28	D60	D91	D104	D118	D154	D360
1	622.9					N/A			406.9
2	562.6								39.8
3	441.9								297.7
4	322.2								184.8
5	319.2								323.7
6	273.4								195.5
7	271.0								127.9
8	265.4								271.2
9	226.0								101.1
10	225.3								187.4
11	221.8								197.9
12	178.9								141.2
13	177.1								155.3
14	150.2								67.0
15	112.8								81.9
16	101.3								77.5
17	94.2								56.3
18	43.2								20.1
19	28.6								22.9
20	25.4								0.7
21	17.1								1.8 <sup>#</sup>
22	15.5				N/A				0.1
23	9.7								3.8

- Declines begin around Day 28
- Day 91 boost does not appear to improve HBsAg declines
- At Day 360:
  - 19/23 (83%) pts with sustained control and/or continued declines
  - 4 pts with  $\geq 1 \log_{10}$  IU/mL decline<sup>#</sup>
  - HBsAg declines independent of BL levels
  - 9/19 (47%) had > 50% declines

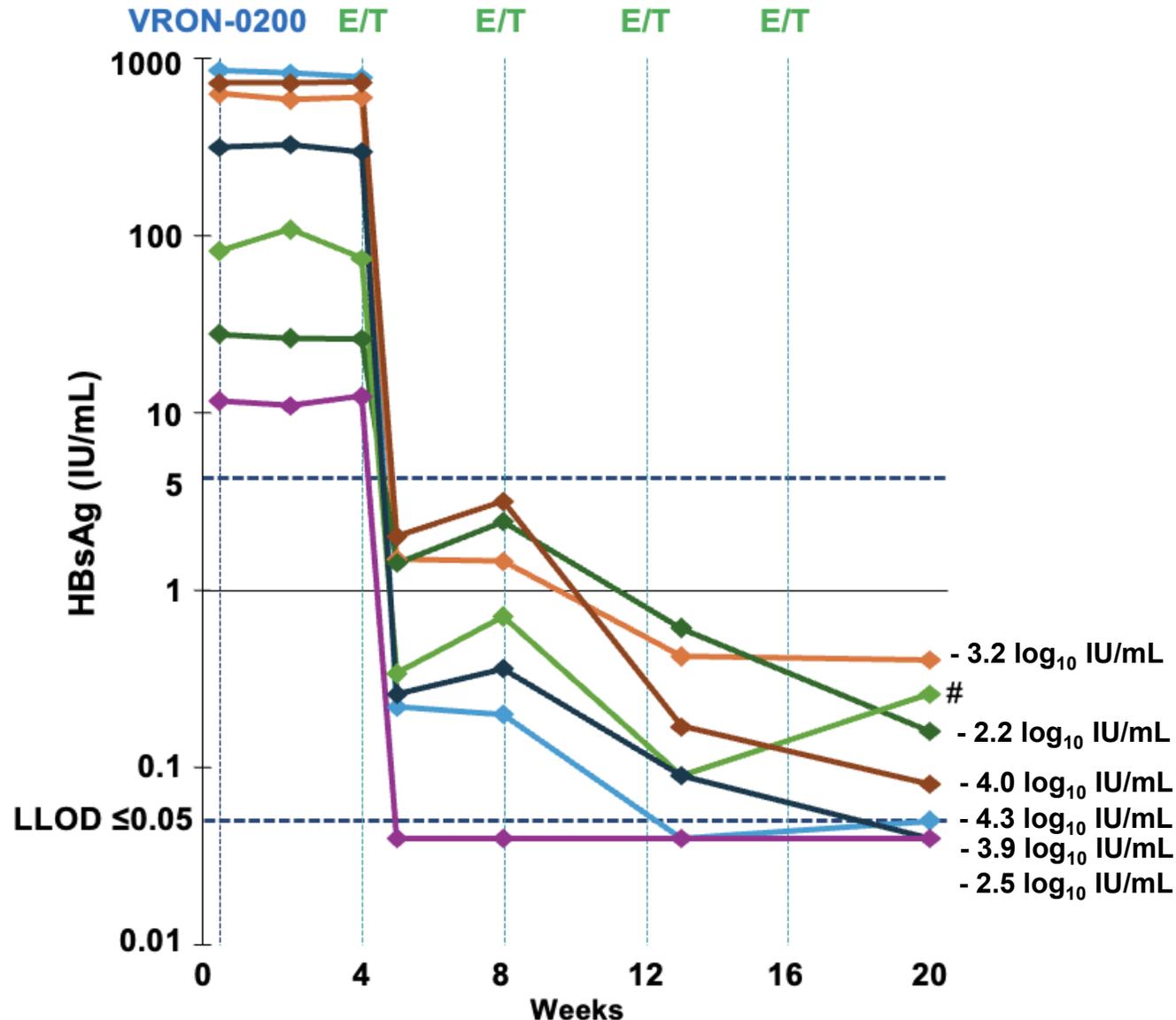
EOT - Day 1 for Prime Only: 6 mos post-tx (D180)  
 EOT - Day 91 for Prime and Boost: 6 mos post-tx (D271)

Log Change from BL
$\leq -0.06$
-0.07 to -0.49
-0.50 to -0.99
$\geq -1.00$

Boost D91

# Cohort 3: VRON-0200 plus Antiviral Combination (N=7) Rapid & Profound HBsAg Declines Observed in All Patients

## HBsAg Declines Over Time (N=7)



### At Week 5 (7 days post 1st E/T Dose):

- Rapid and profound HBsAg declines in all patients
- 100%  $\leq$  2 IU/mL
- These types of responses have not been observed with any antiviral regimen, alone or in combination with PEG-IFN
- Responses independent of BL HBsAg

### At Week 20 (4 of 6 E/T doses):

- 3 of 6 pts had HBsAg loss (LLOD)

# Patient missed E/T Doses 2 & 3 for non-treatment related AE; Cohort ongoing – to receive a total of 6 E/T doses  
E/T – elebsiran plus tobevibart  
Both elebsiran (siRNA) and tobevibart (S-antigen targeted mAb) are part of Vir Biotechnology, Inc.'s, clinical-stage portfolio for Hepatitis

# Key Take Aways

## **VRON-0200, which does NOT target HBsAg:**

- Was safe and well tolerated
- A single dose induced immune responses, starting around Day 28
- HBV-specific immune activation and restoration occurred in the majority of patients (e.g., HBsAg declines)
- HBsAg declines were sustained and/or deepened up to 360 days after end of treatment
  - A long-term study has been implemented to follow these patients
- VRON-0200 prime, followed by the addition of an antiviral combination, resulted in rapid and profound HBsAg declines in all patients
- A “Spark and Fan” model, using VRON-0200 first (“Spark”), followed by an antiviral agent(s) (“Fan”), could position VRON-0200 to be THE immune-modulator backbone for future functional cure regimens

***A Phase 2b SPARK-B combination study is in development***

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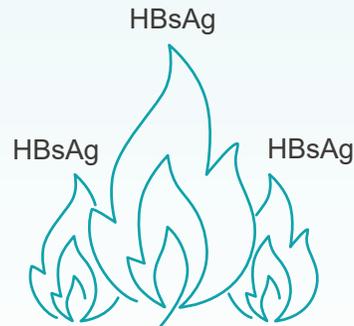
# ”Spark and Fan” Model for Chronic HBV: VRON-0200 as the “Spark”

## VRON-0200 PRIME

**VRON-0200 “Sparks”**  
a new, and broadened,  
anti-HBV immune  
response

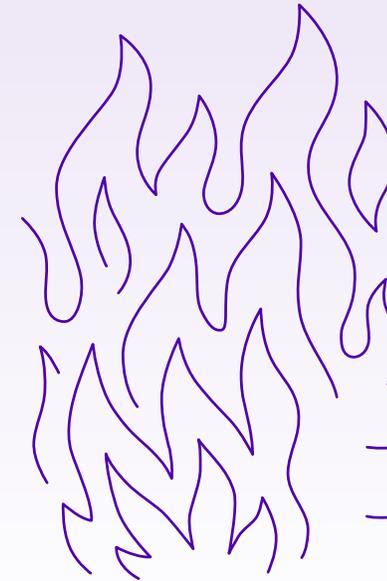


New immune  
response  
**reacts to antigen**  
(e.g. HBsAg)

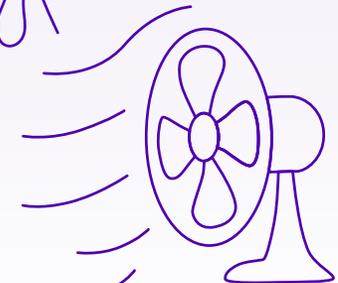


**Any antiviral or  
agent that can  
remove HBsAg  
can be a “Fan”  
for VRON-0200**

## BOOST



Removal of  
HBsAg **“Fans”**  
this new immune  
response



**VRON-0200 could be the immune-modulator backbone  
for many different potential HBV Functional Cure regimens**