

Sustained reduction of HBV antigen levels at ≥6 months follow-up in HBeAg-positive participants with chronic hepatitis B infection after 96 weeks of 300 mg pevifoscorvir sodium monotherapy



Contact information

Dr. Lung-Yi Mak
Email: lungyi@hku.hk
Prof. Man-Fung Yuen
Email: mfyuen@hku.hk

Lung-Yi Mak¹, Andreas Jekle², Mark Anderson³, Sushmita Chanda², Lilian Adame², Tiffany Fortney³, Heleen Roose⁴, Lawrence Blatt², Rene Geissler³, Min Wu², Kha Le², Gavin Cloherty³, Tse-I Lin⁴, Man-Fung Yuen¹
1 Department of Medicine, School of Clinical Medicine, The University of Hong Kong, HKSAR of China; 2 Aligos Therapeutics, Inc., San Francisco, United States
3 Abbott Laboratories, Abbott Diagnostics Division, Abbott Park, IL, USA; 4 Aligos Belgium, Leuven, Belgium

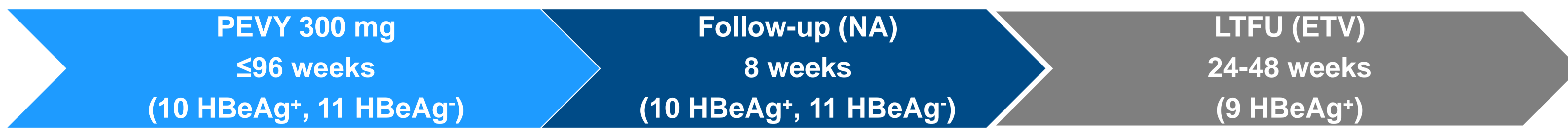
Introduction

Pevifoscorvir sodium (PEVY, ALG-000184) is a prodrug of ALG-001075, a novel Type E Capsid Assembly Modulator (CAM-E). In the Phase 1 study ALG-000184-201 (NCT04536337), PEVY has demonstrated potent on-treatment suppression of HBV DNA, RNA, and viral antigens in participants with chronic hepatitis B infection who received oral, once daily 300 mg PEVY for 96 weeks. After the end of the PEVY treatment (EOT), these antiviral effects were sustained during an 8-week follow-up (FU) period on entecavir (ETV)¹.

Aim

The aim of this study is to investigate if the antiviral effects observed at the end of PEVY treatment were sustained during a long-term follow-up (LTFU) of 24-48 weeks on ETV in a subset of 9 HBeAg-positive subjects from ALG-000184-201.

Method



ALG-000184-201 Part 4 Cohort B

REG26-1185

In this investigator-initiated study (REG26-1185), 9 of 10 HBeAg-positive participants from ALG-000184-201 Part 4 Cohort B were evaluated for HBV DNA, RNA and antigen changes during ≥24 weeks of ETV-only LTFU after the end of 300 mg PEVY for 96 weeks.

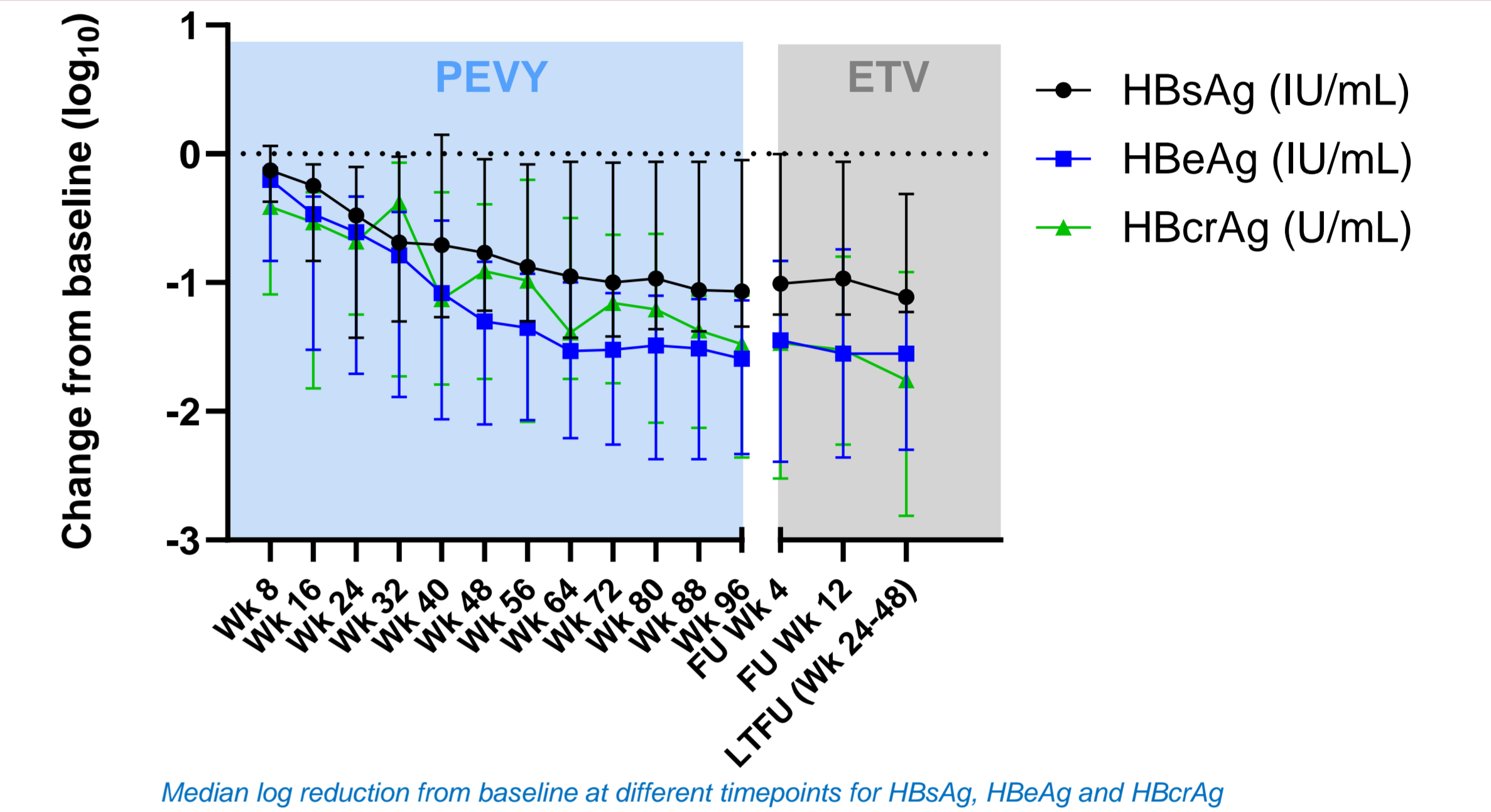
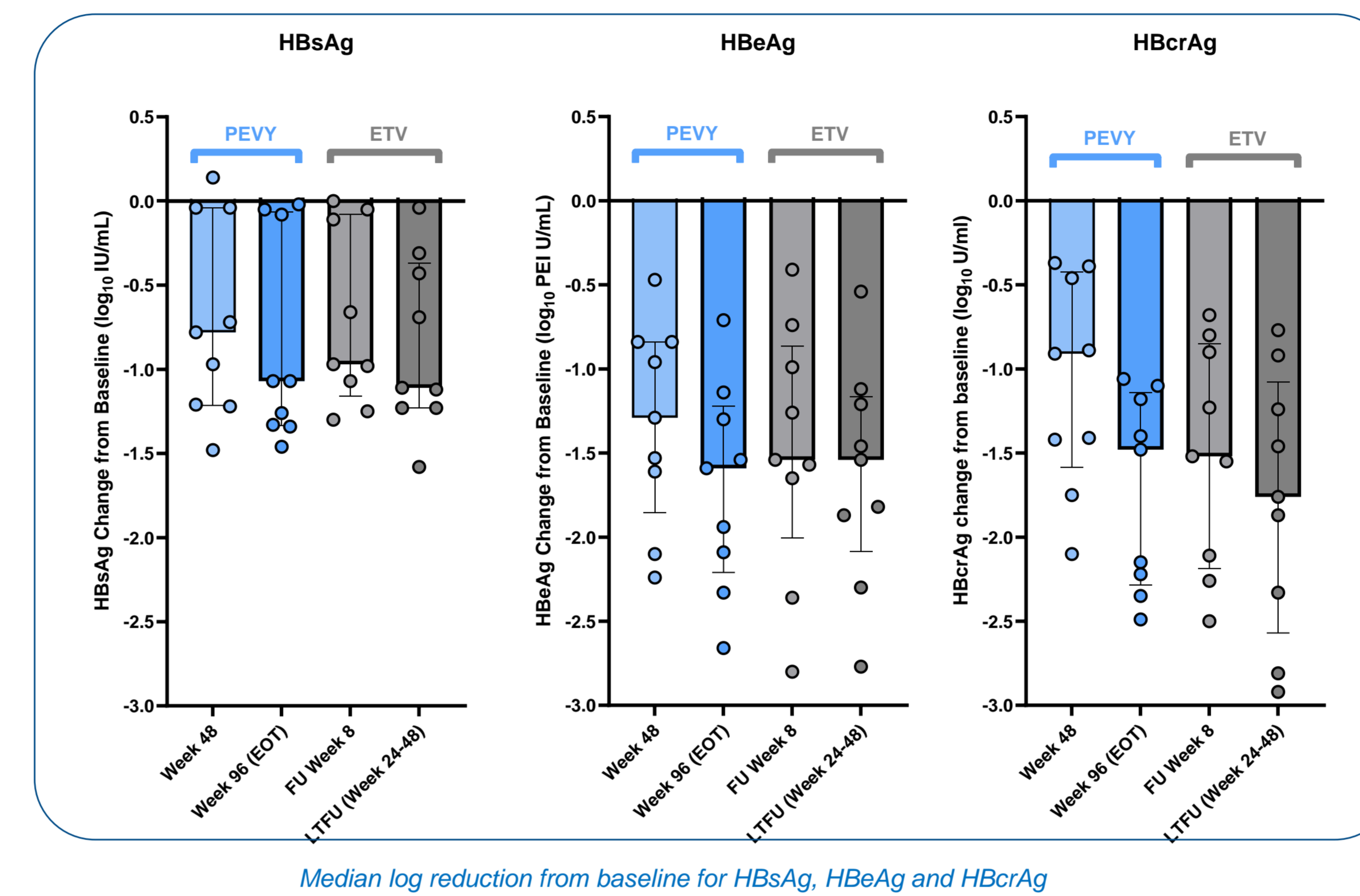
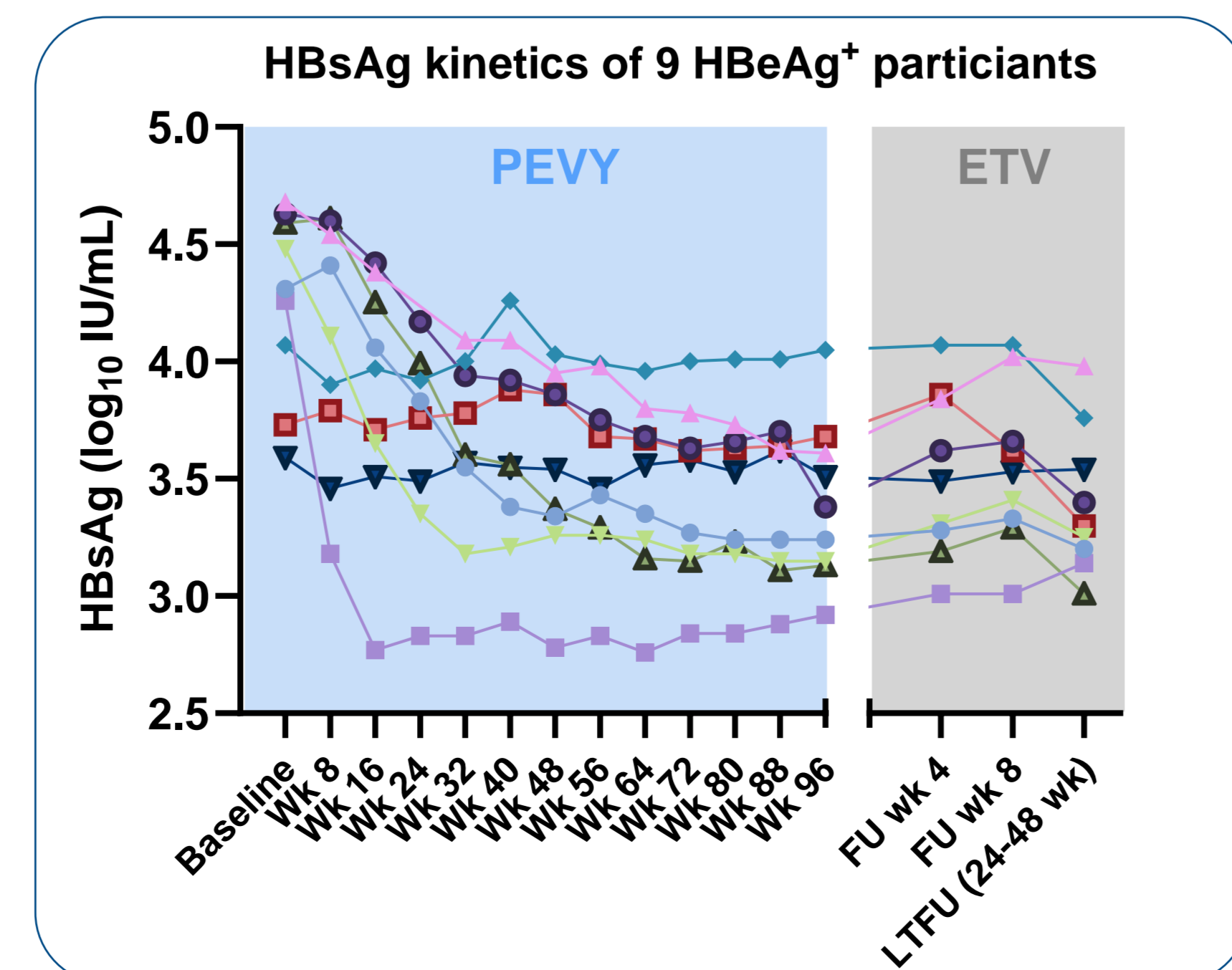
HBV biomarkers measurement

Timing: at baseline, every 8 weeks while on PEVY, and wk 8 (FU), wk 24-48 (LTFU) off-PEVY

- qHBsAg by Roche Elecsys HBsAg II assay by cobas analyzer (LLOD 0.05 IU/mL)
- qHBeAg by Elecsys HBeAg quant (LLOD 0.10 IU/mL)
- HBV RNA by Research Use Only (RUO) RealTime HBV RNA v2.0 (Abbott Diagnostics, LLOQ 0.49 Log U/mL, 10 copies/mL)
- iTACT-HBcrAg (Fujirebio, LLOQ 2.1 log U/mL)
- HBcAg, P-HBcAg, and HBsAg isoforms were measured by prototype RUO assays (Abbott Diagnostics) and expressed in S/CO

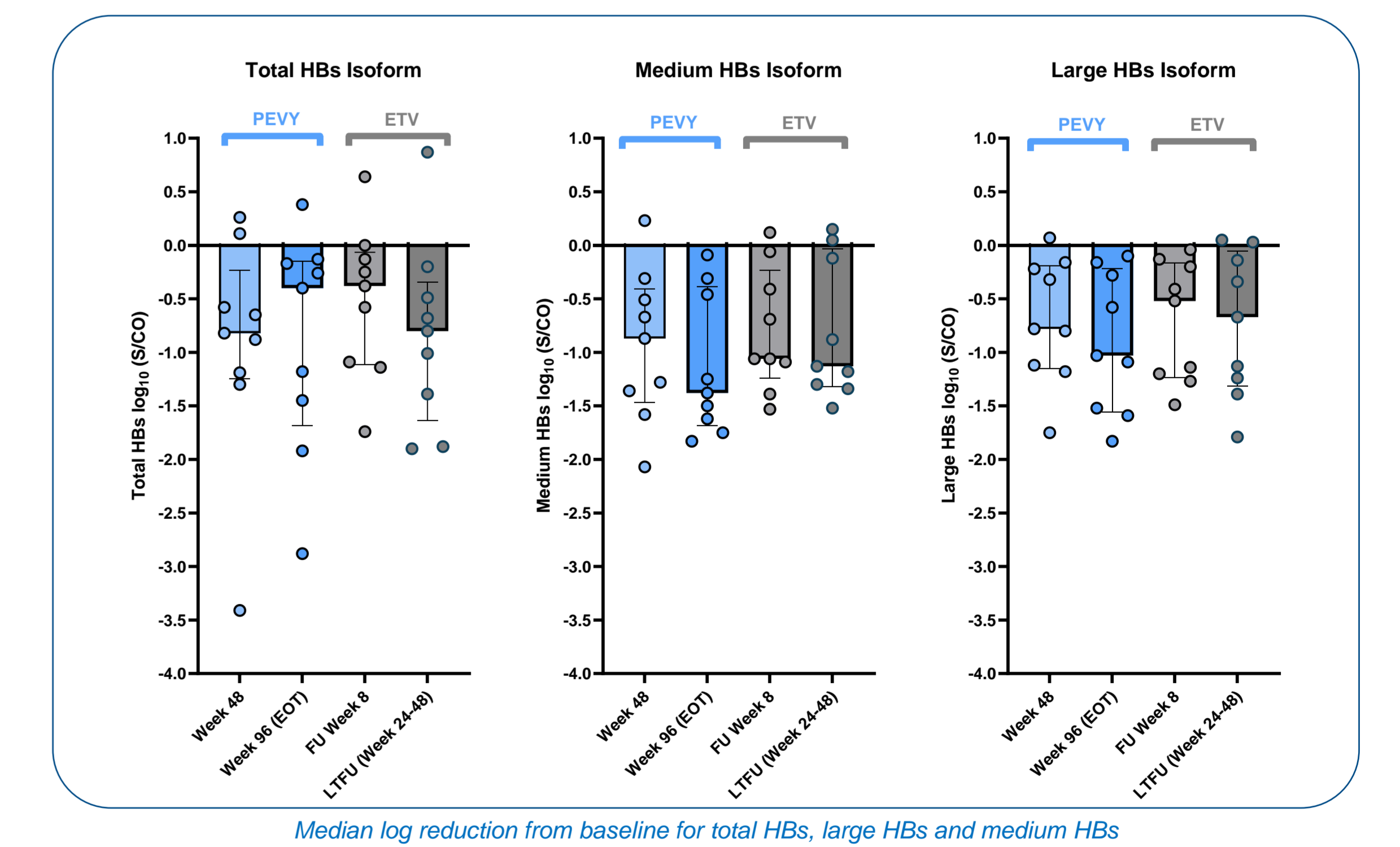
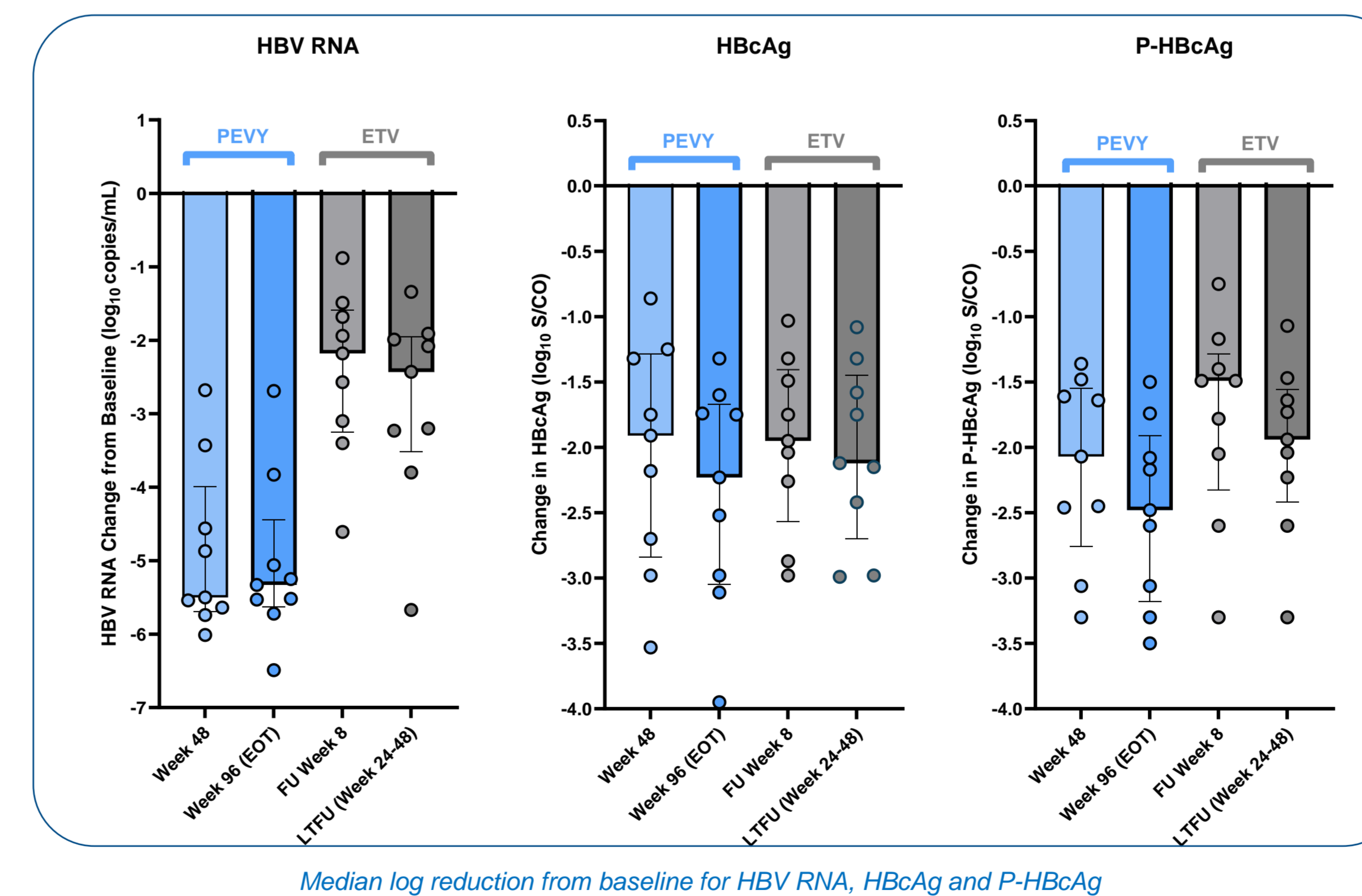
Results

- A sustained HBsAg decline was observed after completion of PEVY, with the median reductions from baseline being 1.07 log₁₀ IU/mL at EOT versus 1.11 log₁₀ IU/mL at LTFU
- The median HBsAg levels was 3.38 (range: 2.92-4.05) log₁₀ IU/mL at EOT and 3.30 (range: 3.01-3.98) log₁₀ IU/mL at LTFU, which was still below baseline (median: 4.31, range: 3.59-4.68 log₁₀ IU/mL)
- Similarly, reductions in HBeAg observed during PEVY treatment were sustained during LTFU



	Log reduction at PEVY EOT	Log reduction at 24-48 weeks off PEVY
HBsAg (log ₁₀ IU/mL)	Median: 1.07 (max: 1.46)	Median: 1.11 (max: 1.58)
HBeAg log ₁₀ IU/mL	Median: 1.59 (max: 2.66)	Median: 1.54 (max: 2.77)
HBcrAg (log ₁₀ U/mL)	Median: 1.48 (max: 2.49)	Median: 1.76 (max: 2.92)

- HBV RNA and P-HBcAg strongly decreased during PEVY treatment, followed by a partial increase during LTFU as expected by the mechanisms of PEVY and ETV, respectively
- HBV DNA remained <10 IU/mL in 4/9 subjects at LTFU, with minor increases to 11.1, 18.8, 26.8, 40.2, and 364 IU/mL for the other 5 subjects
- The median decline of total HBs, LHBS and MHBS at the end PEVY monotherapy were 0.40, 1.03, and 1.38 log₁₀ S/CO, respectively, suggesting PEVY acting on all HBsAg isoforms
- Larger reductions in LHBS and MHBS than total HBs during PEVY indicate that PEVY acts on cccDNA-derived HBsAg and that remaining HBsAg is mostly derived from integrated DNA



Conclusions

The potent on-treatment effects on viral antigens induced by 96 weeks of 300 mg PEVY monotherapy were sustainable during ≥24 weeks of ETV LTFU HBeAg-positive participants with chronic hepatitis B infection and might indicate a reduction of the cccDNA pool. Similar sustained reductions in viral antigens were also observed in a preclinical model (see poster THU-634 by B. Testoni). These results support a potential role of PEVY as part of a functional cure regimen.

References

(1) Yuen MF et al. Oral Once-Daily 300 mg ALG-000184, a Novel Capsid Assembly Modulator, Demonstrated Profound and Sustained Suppression of HBV DNA to < 10 IU/mL in All Treatment-Naïve (TN) or Currently-Not Treated (CNT) Subjects with Chronic HBV Infection. AASLD 2025 (Washington DC, USA)

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