



(51) International Patent Classification:

C07K 16/08 (2006.01) C12N 15/86 (2006.01)
A61K 39/42 (2006.01) A61K 39/00 (2006.01)
A61P 1/16 (2006.01)

(21) International Application Number:

PCT/US2024/032725

(22) International Filing Date:

06 June 2024 (06.06.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/506,582 27 June 2023 (27.06.2023) US

(71) Applicant: HBVTECH LLC [US/US]; 4539 Metropolitan
Ct., LAB 237, Frederick, Maryland 21701 (US).

(72) Inventor: ZHANG, Yong-Yuan; 13901 Lullaby Road,
Germantown, Maryland 20874 (US).

(74) Agent: MASON, J. Derek; Tucker Ellis LLP, 950 Main
Avenue, Suite 1100, Cleveland, OH 44113 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,
NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, CV,

GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST,
SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ,
RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT,
LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE,
SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, KM, ML, MR, NE, SN, TD, TG).

(54) Title: METHODS FOR REDUCING HEPATITIS B VIRUS SURFACE ANTIGEN (HBsAg) AND DRUGS USED IN THE
METHODS THEREOF

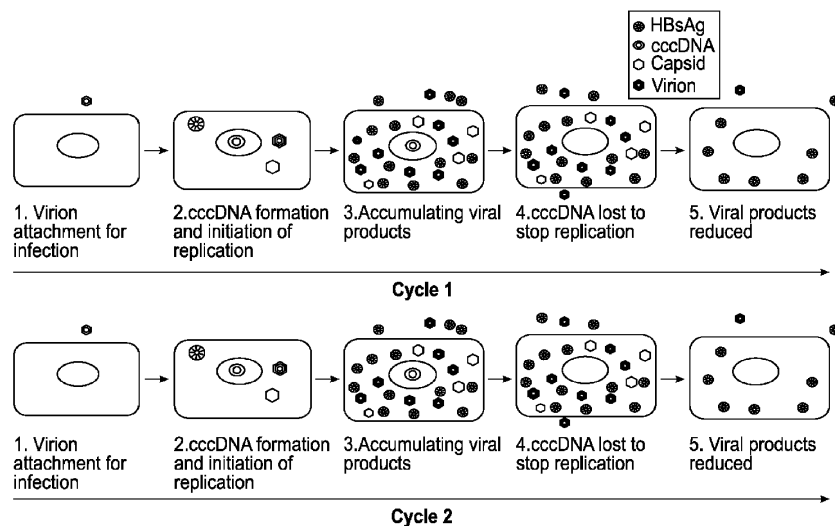


FIG. 11A

(57) Abstract: A method of curing chronic hepatitis B infection in humans is provided, the method including administering to a subject in need thereof, an effective amount of one or both of an exogenous anti-HBs antibody or an anti-HBs antibody producing vector to reduce cellular and blood hepatitis B surface antigen (HBsAg), by providing a sustained elevated level of anti-HBs antibody in the subject.

[Continued on next page]

Published:

- *with international search report (Art. 21(3))*
- *with sequence listing part of description (Rule 5.2(a))*

(88) Date of publication of the international search report:

13 February 2025 (13.02.2025)