Claims:

[Claim 1]. A T Cell Receptor (TCR), ~~or a fragment thereof,~~ optionally isolated, comprising:

a TCR α-chain variable region comprising a CDR3a having the amino acid sequence:

CDR3a: AETLDNYGQNFV (SEQ ID NO:3), ~~or a variant thereof in which one or two amino acids are replaced with another amino acid~~;

and~~,~~

a TCR β-chain variable region comprising a CDR3b having the amino acid sequence:

CDR3b: SAVDRDEPFHSNQPQH (SEQ ID NO:6) ~~or a variant thereof in which one or two amino acids are replaced with another amino acid~~.

[Claim 2]. A T Cell Receptor (TCR), ~~or a fragment thereof,~~ optionally isolated, comprising:

a TCR α-chain variable region comprising CDRs having the amino acid sequences i) to iii):

i) CDR1a: DXSSTY (SEQ ID NO:1);

ii) CDR2a: IFSNMDM (SEQ ID NO:2);

iii) CDR3a: AETLDNYGQNFV (SEQ ID NO:3);

~~or a variant thereof in which one or two amino acids in one or more of the sequences i) to iii) are replaced with another amino acid;~~

where X = S or I.

[Claim 3]. A T Cell Receptor (TCR), ~~or a fragment thereof,~~ optionally isolated, comprising:

a TCR β-chain variable region comprising CDRs having the amino acid sequences iv) to vi):

iv) CDR1b: DFQATT (SEQ ID NO:4);

v) CDR2b: SNEGSKA (SEQ ID NO:5);

vi) CDR3b: SAVDRDEPFHSNQPQH (SEQ ID NO:6);

~~or a variant thereof in which one or two amino acids in one or more of the sequences iv) to vi) are replaced with another amino acid~~.

[Claim 4]. The TCR ~~or a fragment~~ according to claim 1, comprising:

a TCR α-chain variable region comprising CDRs having the amino acid sequences i) to iii):

i) CDR1a: DXSSTY (SEQ ID NO:1);

ii) CDR2a: IFSNMDM (SEQ ID NO:2);

iii) CDR3a: AETLDNYGQNFV (SEQ ID NO:3);

and~~;~~

a TCR β-chain variable region comprising CDRs having the amino acid sequences iv) to vi):

iv) CDR1b: DFQATT (SEQ ID NO:4);

v) CDR2b: SNEGSKA (SEQ ID NO:5);

vi) CDR3b: SAVDRDEPFHSNQPQH (SEQ ID NO:6);

~~or a variant thereof in which one or two amino acids in one or more of the sequences i) to vi) are replaced with another amino acid;~~

where X = S or I.

[Claim 5]. The TCR ~~or a fragment~~ according to any one of claims 1 to 4, which is capable of binding to a peptide of a Hepatitis B Virus (HBV) Env polypeptide presented by an MHC class I molecule comprising an MHC class I α-chain encoded by an HLA-Cw*08 allele.

~~6. A T Cell Receptor (TCR), or a fragment thereof, optionally isolated, comprising an α-chain variable region and a β-chain variable region, wherein the TCR or fragment is capable of binding to a peptide of a Hepatitis B Virus (HBV) Env polypeptide presented by an MHC class I molecule comprising an MHC class I α-chain encoded by an HLA-Cw*08 allele.~~

[Claim ~~7~~6]. The TCR ~~or fragment~~ according to claim 5 ~~or claim 6~~, wherein the peptide comprises positions 171-180 of HBV Env polypeptide.

[Claim ~~8~~7]. The TCR ~~or fragment~~ according to ~~any one of~~ claim~~s~~ 5 ~~t~~o~~r~~ ~~7~~6, wherein the peptide comprises or consists of the amino acid sequence FLGPLLVLQA (SEQ ID NO:19) or LLGPLLVLQA (SEQ ID NO:20).

[Claim ~~9~~8]. The TCR ~~or fragment~~ according to any one of claims 5 to ~~8~~7, wherein the HLA-Cw*08 allele is HLA-Cw*0801.

[Claim ~~10~~9]. The TCR ~~or fragment~~ according to any one of claims 5 to ~~8~~7, wherein the HLA-Cw*08 allele is not HLA-Cw*0801.

[Claim 1110]. An isolated nucleic acid encoding a TCR ~~or fragment~~ according to any one of claims 1 to ~~10~~9.

[Claim 1211]. The isolated nucleic acid according to claim ~~11~~10, wherein the nucleic acid comprises:

(a) a nucleic acid sequence encoding a TCR α-chain comprising a variable region and a constant region;

(b) a nucleic acid sequence encoding a TCR β-chain comprising a variable region and a constant region; and

(c) a nucleic acid sequence encoding a cleavable linker;

wherein sequence (c) is located in the isolated nucleic acid between sequences (a) and (b), and wherein sequences (a), (b) and (c) are in the same reading frame.

[Claim 1312]. The isolated nucleic acid according to claim ~~12~~11, wherein sequences (a), (b) and (c) are provided with the 5' to 3' orientation: 5'-(b)-(c)-(a)-3'.

[Claim 1413]. The isolated nucleic acid according to claim ~~12~~ 11 or claim ~~13~~12, wherein the cleavable linker is a Picornavirus 2A (P2A) linker.

[Claim 1514]. The isolated nucleic acid according to any one of claims ~~12~~ 11 to ~~14~~13, wherein the constant region of the TCR α-chain and/or the constant region of the TCR β-chain additionally encode at least one non-native cysteine residue for forming a disulphide bond between the TCR α-chain and TCR β-chain.

[Claim 1615]. A vector comprising the isolated nucleic acid according to any one of claims ~~11~~ 10 to ~~15~~14, wherein the vector is selected from a group consists of plasmids, binary vectors, DNA vectors, mRNA vectors, retrovial vectors, lentiviral vectors, transposon-based vectors, and artificial chromosomes.

[Claim 1716]. An isolated polypeptide encoded by the isolated nucleic acid according to any one of claims ~~11~~ 10 to ~~15~~ 14 or the vector of claim ~~16~~15.

[Claim 1817]. An isolated TCR α-chain variable region polypeptide, comprising CDRs having the amino acid sequences i) to iii):

i) CDR1a:	DXSSTY	(SEQ ID NO:1);
ii) CDR2a:	IFSNMDM	(SEQ ID NO:2);

iii) CDR3a: AETLDNYGQNFV (SEQ ID NO:3);

~~or a variant thereof in which one or two amino acids in one or more of the sequences i) to iii) are replaced with another amino acid;~~

where X = S or I.

[Claim ~~19~~18]. An isolated TCR β-chain variable region polypeptide comprising CDRs having the amino acid sequences iv) to vi):

iv) CDR1b: DFQATT (SEQ ID NO:4);

v) CDR2b: SNEGSKA (SEQ ID NO:5);

vi) CDR3b: SAVDRDEPFHSNQPQH (SEQ ID NO:6);

~~or a variant thereof in which one or two amino acids in one or more of the sequences iv) to vi) are replaced with another amino acid~~.

[Claim ~~20~~19]. A cell, optionally isolated, comprising the TCR ~~or fragment~~ according to any one of claims 1 to ~~10~~9, the isolated nucleic acid according to any one of claims ~~11~~ 10 to ~~15~~14, the vector of claim ~~16~~ 15 or the isolated polypeptide of any one of claims ~~17~~ 16 to ~~19~~18.

~~21. A cell, optionally isolated, comprising an exogenous T Cell Receptor (TCR) reactive to a peptide of a Hepatitis B Virus (HBV) Env polypeptide presented by an MHC class I molecule comprising an MHC class I α-chain encoded by an HLA-Cw*08 allele.~~

[Claim ~~22~~20]. The cell according to claim ~~20~~ 19~~or claim 21~~, wherein the cell displays one or more of the following properties:

a) expression of IFNγ;

b) cytotoxicity to a cell infected with HBV or comprising or expressing an HBV Env peptide or polypeptide;

c) proliferation, increased IFNγ expression, increased IL-2 expression, increased TNFα expression, increased perforin expression, increased granzyme expression and/or increased FAS ligand (FASL) expression in response to contact with a cell infected with HBV or comprising or expressing an HBV Env peptide or polypeptide;

[Claim ~~23~~21]. An *in vitro* method of producing a Hepatitis B Virus (HBV) reactive T cell, comprising introducing into a cell the isolated nucleic acid according to any one of claims ~~11~~ 10 to ~~15~~14, or the vector according to claim ~~16~~15.

[Claim 2422]. The method of claim 2321, wherein the method additionally comprises culturing the cell under conditions suitable for expression of the isolated nucleic acid or vector by the cell.

[Claim 2523]. A cell, optionally isolated, wherein the cell is obtained or obtainable by the method of claim 23 21 or claim 2422.

[Claim 2624]. A complex, optionally an *in vitro* complex, comprising the TCR or fragment according to any one of claims 1 to 109, a polypeptide according to any one of claims 17 16 to 1918, or a cell according to any one of claims 20 19, to 22 20 or claim 25 23 and a Hepatitis B Virus (HBV) Env peptide or polypeptide, optionally further comprising an MHC class I molecule comprising an MHC class I α-chain encoded by an HLA-Cw*08 allele.

[Claim 2725]. A pharmaceutical composition comprising a TCR or fragment according to any one of claims 1 to 109, the isolated nucleic acid according to any one of claims 11 10 to 1514, the vector according to claim 1615, the isolated polypeptide according to any one of claims 17 16 to 1918, or the cell according to any one of claims 20 19, to 202 or claim 2523, and a pharmaceutically acceptable carrier, adjuvant, excipient, or diluent.

[Claim 2826]. The TCR or fragment according to any one of claims 1 to 109, the isolated nucleic acid according to any one of claims 11 10 to 1514, the vector according to claim 1615, the isolated polypeptide according to any one of claims 17 16 to 1918, the cell according to any one of claims 20 to 2219, 20 or claim 2523, or the pharmaceutical composition of claim 27 25 for use in a method of treating or preventing a disease or disorder.

[Claim 2927]. Use of the TCR or fragment according to any one of claims 1 to 109, the isolated nucleic acid according to any one of claims 11 10 to 1514, the vector according to claim 1615, the isolated polypeptide according to any one of claims 17 16 to 1918, the cell according to any one of claims 19, 20 to 22 or claim 2523, or the pharmaceutical composition of claim 27 25 in the manufacture of a medicament for treating or preventing a disease or disorder wherein the disease or disorder is caused or exacerbated by Hepatitis B Virus (HBV) infection, or a disease or disorder for which HBV infection is a risk factor.

30. A method of treating or preventing a disease or disorder, comprising administering to a subject a therapeutically or prophylactically effective amount of the TCR or fragment

~~according to any one of claims 1 to 10, the isolated nucleic acid according to any one of claims 11 to 15, the vector according to claim 16, the isolated polypeptide according to any one of claims 17 to 19, the cell according to any one of claims 20 to 22 or claim 25, or the pharmaceutical composition of claim 27.~~

~~31. A method of treating or preventing a disease or disorder in a subject, comprising:~~

~~(a) isolating at least one T cell from a subject;~~

~~(b) introducing into the at least one T cell the isolated nucleic acid according to any one of claims 11 to 15, or the vector according to claim 16, thereby modifying the at least one T cell; and~~

~~(c) administering the modified at least one T cell to the subject.~~

~~32. A method of treating or preventing a disease or disorder in a subject, comprising:~~

~~(a) isolating at least one T cell from a subject;~~

~~(b) modifying the at least one T cell to express or comprise a TCR or fragment according to any one of claims 1 to 10, the isolated nucleic acid according to any one of claims 11 to 15, the vector according to claim 16, or the isolated polypeptide according to any one of claims 17 to 19; and~~

~~(c) administering the modified at least one T cell to a subject.~~

[Claim 28~~33~~]. The TCR ~~or fragment~~, isolated nucleic acid, vector, isolated polypeptide, cell or pharmaceutical composition for use~~, the use, or the method of~~according to ~~any one of~~ claim~~s~~ 2~~86 to 32~~, wherein the disease or disorder is caused or exacerbated by Hepatitis B Virus (HBV) infection, or a disease or disorder for which HBV infection is a risk factor.

[Claim 29~~34~~]. The TCR ~~or fragment~~, isolated nucleic acid, vector, isolated polypeptide, cell or pharmaceutical composition for use according to ~~, the use, or the method of any one of~~ claim~~s~~ ~~28~~ 26 to~~r~~ ~~33~~28, wherein the disease is one or more of hepatitis B, hepatocellular carcinoma or pancreatic cancer.

[Claim 30~~5~~]. The TCR ~~or fragment~~, isolated nucleic acid, vector, isolated polypeptide, cell or pharmaceutical composition for use according to ~~, the use, or the method of any one of~~ claim~~s~~ ~~28~~ 26, 28 ~~to 34~~or 29, wherein the subject to be treated has an HLA-C genotype comprising an HLA-Cw*08 allele.

[Claim 316]. The TCR ~~or fragment~~, isolated nucleic acid, vector, isolated polypeptide, cell or pharmaceutical composition for use according to ~~, the use, or the method of~~ claim ~~35~~30, wherein the HLA-Cw*08 allele is HLA-Cw*0801.

[Claim 327]. The TCR ~~or fragment~~, isolated nucleic acid, vector, isolated polypeptide, cell or pharmaceutical composition for use according to ~~, the use, or the method of~~ claim ~~35~~30, wherein the HLA-Cw*08 allele is not HLA-Cw*0801.

[Claim 338]. The TCR ~~or fragment~~, isolated nucleic acid, vector, isolated polypeptide, cell or pharmaceutical composition for use according to ~~, the use, or the method of any one of~~ claim~~s 28~~ 26 or claims 28 to 327, wherein the subject is infected with, or wherein the subject is at risk of infection by, Hepatitis B Virus (HBV).

[Claim 349]. The TCR ~~or fragment~~, isolated nucleic acid, vector, isolated polypeptide or cell for use according to ~~, the use, or the method of~~ claim 338, wherein the HBV is selected from HBV genotype A, B, C, D, E, F, G, H, I or J.

[Claim 3540]. An *in vitro* method for preparing a modified T cell, the method comprising introducing into a T cell the TCR ~~or fragment~~ according to any one of claims 1 to ~~10~~9, the isolated nucleic acid according to any one of claims ~~11~~ 10 to ~~15~~14, the vector according to claim ~~16~~15, or the isolated polypeptide according to any one of claims ~~17~~ 16 to ~~19~~18.

[Claim 3641]. A method of identifying a subject for therapeutic or prophylactic treatment of a disease or disorder using the TCR or fragment according to any one of claims 1 to 10, the isolated nucleic acid according to any one of claims 11 to 15, the vector according to claim 16, the isolated polypeptide according to any one of claims 17 to 19, the cell according to any one of claims 20 to 22 or claim 25, or the pharmaceutical composition of claim 27, the method comprising determining the HLA-C genotype ~~for the~~ in a sample obtained from a subject, wherein a sample obtained from a subject determined to have an HLA-Cw*08 allele is identified as being a subject suitable for therapeutic or prophylactic treatment.

[Claim 3742]. The method according to claim ~~41~~36, wherein the HLA-Cw*08 allele is HLA-Cw*0801.

[Claim 438]. The method according to claim ~~41~~36, wherein the HLA-Cw*08 allele is not HLA-Cw*0801.

[Claim 4439]. A method of identifying a subject for therapeutic or prophylactic treatment of a disease or disorder using the TCR or fragment according to any one of claims 1 to 109, the isolated nucleic acid according to any one of claims 11 10 to 1514, the vector according to claim 1615, the isolated polypeptide according to any one of claims 17 16 to 19 18 the cell according to any one of claims 1920 to 22 20 or claim 2523, or the pharmaceutical composition of claim 2725, the method comprising determining whether the subject is infected with, or determining whether the subject is at risk of infection by, Hepatitis B Virus (HBV).

[Claim 405]. The method according to claim 4439, wherein the HBV is selected from HBV genotype A, B, C, D, E, F, G, H, I or J.

[Claim 416]. A method for diagnosing Hepatitis B Virus (HBV) infection in a subject, the method comprising detecting in a sample obtained from a subject, optionally *in vitro*, the presence of the TCR or fragment according to any one of claims 1 to 10, the complex according to claim 26, the isolated nucleic acid according to any one of claims 11 to 15, the vector according to claim 16, the isolated polypeptide according to any one of claims 17 to 19, or the cell according to any one of claims 20 to 22 or claim 25.

[Claim 427]. The method according to claim 4641, wherein the HBV is selected from HBV genotype A, B, C, D, E, F, G, H, I or J.

[Claim 438]. The method according to claim 46 41 or 4742, wherein the subject has an HLA-Cw*08 allele.

[Claim 449]. The method according to claim 4843, wherein the HLA-Cw*08 allele is HLA-Cw*0801.

[Claim 4550]. The method according to claim 4843, wherein the HLA-Cw*08 allele is not HLA-Cw*0801.

[Claim 4651]. A kit of parts comprising a predetermined quantity of the TCR or fragment according to any one of claims 1 to 109, the isolated nucleic acid according to any one of claims 11 10 to 1514, the vector according to claim 1615, the isolated polypeptide according

to any one of claims ~~17~~ 16 to ~~19~~ 18 the cell according to any one of claims ~~20~~ 19 to ~~22~~ 20 or claim ~~25~~23, or the pharmaceutical composition of claim ~~27~~25.