CLAIMS

1. A peptide comprising one of the following FVIII-derived sequences:

GTLMVFFGNVDSSGI
TQTLHKFILLFAVFD
SLYISQFIIMYSLDG
PPIIARYIRLHPTHY
PPLLTRYLRIHPQSW
MHTVNGYVNRSLPGL
LGQFLLFCHISSHQH
DTLLIIFKNQASRPY
PRCLTRYYSSFVNME
TENIQRFLPNPAGVQ
DNIMVTFRNQASRPY
RYLRIHPQSWVHQIA

with one or more of the following modifications:

(i) removal of one or more hydophobic amino acid(s);

(ii) replacement of one or more hydrophobic amino acid(s) with charged hydrophilic amino acid(s); and

(iii) insertion of a charged amino acid at one or both terminus(i)

which modified peptide is capable of binding to an MHC class II molecule without further antigen processing and being recognised by a factor VIII specific T cell.

2. A peptide comprising the sequence

$X(aa)_n$-core sequence -$(aa)_m$

wherein X is a charged hydrophilic residue;

aa is an amino acid;

n is an integer between 0 and 5;

m is an integer between 0 and 5; and

the "core sequence" is selected from the following group of FVIII-derived peptides: LYISQFIIM

FIIMYSLDG

IARYIRLHP

LIIFKNQAS

LTRYYSSFV

MVTFRNQAS

LRIHPQSWV

which peptide is capable of binding to an MHC class II molecule without further antigen processing and being recognised by a factor VIII specific T cell.

3. A peptide according to claim 1, which comprises the sequence XDNIMVTFRNQAS.

4. A peptide comprising the sequence:

$Y(aa)_n$-core sequence-$(aa)_mZ$

wherein Y and Z are charged amino acids having reverse polarity;

aa is an amino acid;

n is an integer between 0 and 5;

m is an integer between 0 and 5; and

the "core sequence" is selected from the following group of FVIII-derived peptides:

LYISQFIIM
FIIMYSLDG
IARYIRLHP
LIIFKNQAS
LTRYYSSFV
MVTFRNQAS
LRIHPQSWV

which peptide is capable of binding to an MHC class II molecule without further antigen processing and being recognised by a factor VIII specific T cell.

5. A pepide according to claim 4, which comprises the sequence: YDNIMVTFRNQASZ

6. A peptide according to claim 4 or 5, wherein Y is a positively charged amino acid and Z is a negatively charged amino acid.

7. A peptide according to claim 4, 5 or 6, wherein Z is K or R.

8. A peptide according to any of claims 2 to 7, wherein X or Y is D or E.

9. A peptide according to any preceding claim, which comprises the sequence EDNIMVTFRNQASR.

10. A peptide according to any preceding claim which consists of the sequence EDNIMVTFRNQASR.

11. A composition comprising a plurality of peptides, including one or more peptide(s) according to any preceding claim.

12. A peptide according to any of claims 1 to 10, or a composition according to claim 11, for use in suppressing or preventing the production of factor VIII inhibitor antibodies *in vivo*.

13. The use of a peptide according to any of claims 1 to 10, or a composition according to claim 11, in the manufacture of a medicament to suppress or prevent the production of factor VIII inhibitor antibodies *in vivo*.

14. A method for suppressing or preventing the production of factor VIII inhibitor antibodies in a subject, which comprises the step of administration of a peptide according to any of claims 1 to 10, or a composition according to claim 11, to the subject.

15. A method for treating haemophilia in a subject which comprises the step of administration of a peptide according to any of claims 1 to 10, or a composition according to claim 11, to the subject.

16. A method according to claim 14 or 15, wherein the subject has haemophilia A, and is undergoing, or is about to undergo, factor VIII replacement therapy.

17. A method according to claim 14 or 15, wherein the subject has, or is at risk from contracting, acquired haemophilia.

18. A method according to any of claims 14 to 17, wherein the subject is HLA-DR2.

CLAIMS

1. A peptide comprising one of the following FVIII-derived sequences:

PRCLTRYYSSFVNME
VEDNIMVTFRNQASR
DNIMVTFRNQASRPY
IMVTFRNQASRPYSF
MVTFRNQASRPYSFY
VTFRNQASRPYSFYS
TKSDPRCLTRYYSSF
KSDPRCLTRYYSSFV
SDPRCLTRYYSSFVN
DPRCLTRYYSSFVNM
RCLTRYYSSFVNMER
CLTRYYSSFVNMERD
PPIIARYIRLHPTHY
PIIARYIRLHPTHYS
IARYIRLHPTHYSIR
ARYIRLHPTHYSIRS

with one or more of the following modifications:

(i) removal of one or more hydophobic amino acid(s);

(ii) replacement of one or more hydrophobic amino acid(s) with charged hydrophilic amino acid(s); and

(iii) insertion of a charged amino acid at one or both terminus(i)

which modified peptide is capable of binding to an MHC class II molecule without further antigen processing and being recognised by a factor VIII specific T cell.

2. A peptide according to claim 1, which comprises the sequence

XDNIMVTFRNQAS.

wherein X is a charged hydrophilic residue.

3. A peptide according to claim 1, which comprises the sequence:

YDNIMVTFRNQASZ

wherein Y and Z are charged amino acids having reverse polarity.

4. A peptide according to claim 3, wherein Y is a positively charged amino acid and Z is a negatively charged amino acid.

5. A peptide according to claim 3 or 4, wherein Z is K or R.

6. A peptide according to any of claims 3 to 5, wherein X or Y is D or E.

7. A peptide according to any preceding claim, which comprises the sequence EDNIMVTFRNQASR.

8. A peptide according to any preceding claim which consists of the sequence EDNIMVTFRNQASR.

9. A composition comprising a plurality of peptides, including one or more peptide(s) according to any preceding claim.

10. A peptide according to any of claims 1 to 8, or a composition according to claim 9, for use in suppressing or preventing the production of factor VIII inhibitor antibodies *in vivo*.

11. The use of a peptide according to any of claims 1 to 8, or a composition according to claim 9, in the manufacture of a medicament to suppress or prevent the production of factor VIII inhibitor antibodies *in vivo*.

12. The use of a peptide according to any of claims 1 to 8, or a composition according to claim 9 in the manufacture of a medicament for suppressing or preventing the production of factor VIII inhibitor antibodies in a subject.

13. The use of a peptide according to any of claims 1 to 8, or a composition according to claim 9 in the manufacture of a medicament for treating haemophilia in a subject.

14. The use according to claim 12 or 13, wherein the subject has haemophilia A, and is undergoing, or is about to undergo, factor VIII replacement therapy.

15. The use according to claim 13 or 14, wherein the subject has, or is at risk from contracting, acquired haemophilia.

17. The use according to any of claims 12 to 15, wherein the subject is HLA-DR2.