In a first aspect, the present invention provides a peptide which is capable of binding to an MHC class II molecule in vitro and being presented to a T cell without antigen processing, which is selected from the following:

RNB_4K: NLPNISRIYVSIDVT (SEQ ID No. 62)

RNB_4K-GKK: KKGNLPNISRIYVSIDVTGKK (SEQ ID No. 63)

RNB_9B: GLKMFPDLTKVYSTD (SEQ ID No 18)

CLAIMS

1. A peptide which is capable of binding to an MHC class II molecule in vitro and being presented to a T cell without antigen processing, which is selected from the following:

RNB_4K: NLPNISRIYVSIDVT (SEQ ID No. 62)

RNB_4K-GKK: KKGNLPNISRIYVSIDVTGKK (SEQ ID No. 63)

RNB_9B: GLKMFPDLTKVYSTD (SEQ ID No 18)

2. A peptide which is capable of binding to an MHC class II molecule in vitro and being presented to a T cell without antigen processing, wherein the peptide is selected from the following group: KKGIYVSIDVTLQQLESHGKK (SEQ ID No 12), KKGKYVSIDVTLQQLESHGKK (SEQ ID No 22), KKGIKVSIDVTLQQLESHGKK (SEQ ID No 23), KKGIYKSIDVTLQQLESHGKK (SEQ ID No 24), KKGIYVSIDVKLQQLESHGKK (SEQ ID No 25), KKGIYVSIDVTLQKLESHGKK(SEQ ID No 26), KKGIYVSIDVTLQQKESHGKK (SEQ ID No 27), KKGIYVSIDVTLQQLKSHGKK (SEQ ID No 28), KKGIYVSIDVTLQQLEKHGKK (SEQ ID No 29), KKGIYVSIDVTLQQLESKGKK (SEQ ID No 30), KKGYVSIDVTLQQLEGKK (SEQ ID No 31), KKGYVSIDVKLQQLEGKK (SEQ ID No 32), KKGYVSIDVTLQKLEGKK (SEQ ID No 33), KKGYVSIDVTLQQKEGKK (SEQ ID No 34), KKGYVSIDVKLQKKEGKK (SEQ ID No 35), KKGIYVSIDVTLQQLEGKK (SEQ ID No 36), KKGIYVSIDVKLQQLEGKK (SEQ ID No 37), KKGIYVSIDVTLQKLEGKK (SEQ ID No 38), KKGIYVSIDVTLQQKEGKK (SEQ ID No 39), KKGIYVSIDVKLQKKEGKK (SEQ ID No 40), KKGTYVSIDVTLQQLEGKK (SEQ ID No 41), KKGTYVSIDVKLQQLEGKK (SEQ ID No 42), KKGTYVSIDVTLQKLEGKK (SEQ ID No 43), KKGTYVSIDVTLQQKEGKK (SEQ ID No 44), KKGTYVSIDVKLQKKEGKK (SEQ ID No 45), KKKIYVSIDVTLQQLESHKKK (SEQ ID No 21), KKKKYVSIDVTLQQLESHKKK (SEQ ID No 46), KKKIKVSIDVTLQQLESHKKK (SEQ ID No 47), KKKIYKSIDVTLQQLESHKKK (SEQ ID No 48), KKKIYVKIDVTLQQLESHKKK (SEQ ID No 49), KKKIYVSIDVKLQQLESHKKK (SEQ ID No 50), KKKIYVSIDVTLKQLESHKKK (SEQ ID No 51), KKKIYVSIDVTLQKLESHKKK (SEQ ID No 52), KKKIYVSIDVTLQQKESHKKK (SEQ ID No 53), KKKIYVSIDVTLQQLKSHKKK (SEQ ID No 54), KKKIYVSIDVTLQQLEKHKKK (SEQ ID No 55), KKKIYVSIDVTLQQLESKKKK (SEQ ID No 56), KKKYVSIDVTLQQLEKKK (SEQ ID No 57), KKKYVSIDVKLQQLEKKK (SEQ ID No 58), KKKYVSIDVTLQKLEKKK (SEQ ID No 59), KKKYVSIDVTLQQKEKKK (SEQ ID No 60), KKKYVSIDVKLQKKEKKK (SEQ ID No. 61).

8. A peptide according to any of claims 1 to 5, or a composition according to claim 6, for use in treating and/or preventing Graves' Disease in a subject.

9. The use of a peptide according to any of claims 1 to 5, or a composition according to claim 6, in the manufacture of a medicament to suppress or prevent the production of TSHR autoantibodies *in vivo*, wherein said peptide or composition is to be administered to the subject.

10. The use of a peptide according to any of claims 1 to 5, or a composition according to claim 6, in the manufacture of a medicament to treat and/or prevent Graves' Disease in a subject, wherein said peptide or composition is to be administered to the subject.

11. The use according to claim 9 or 10, wherein the subject is HLA-DR3.

12. The use according to claim 9 or 10, wherein the subject in HLA-DR4.