CLAIMS

1. A peptide or peptide derivative comprising:

(i) an amino acid sequence comprising imfwydcye; or

(ii) a variant amino acid sequence comprising one, two, three, or four amino acid substitutions in imfwydcye, wherein the variant amino acid sequence comprises an amino acid sequence comprising $X_1X_2mX_4wydX_8ye$, wherein X_1, when present, is c, C or D-Pen, X_2 is i or y, X_4 is f, t, or v and X_8 is c or e;

wherein said peptide or peptide derivative has procoagulant activity, and wherein the peptide or peptide derivative has a molecular weight of between 0.5 and 3.5kD.

2. The peptide or peptide derivative of Claim 1 comprising:

(i) an amino acid sequence comprising cimfwydcye.

3. The peptide or peptide derivative of Claim 1 which is acetylated at the N-terminus, amidated at the C-terminus and/or PEGylated at either terminus.

4. The peptide or peptide derivative of Claim 2 which is acetylated at the N-terminus, amidated at the C-terminus and/or PEGylated at either terminus.

5. The peptide or peptide derivative of Claim 1 or claim 2 which is cyclic.

6. The peptide or peptide derivative of Claim 1 comprising or consisting of:
Ac-cimfwydeye-NH_2, Disulphide-Dimer(Ac-cimfwydeye-NH_2)$_2$, Ac-TTDS-(cymfwydc)-ye-NH_2, K-TTDS-(cymfwydc)-ye-NH_2, Ac-cimtwydcye-NH_2, Ac-cimvwydcye-NH_2, cymfwydcye, Ac-(cymfwydc)-yeG-NH_2, Ac-(D-Pen)imfwydeye-NH_2, O(CH_2-CH_2-O-CH_2-CO-imfwydeye-NH_2)$_2$, Pyridine-3,5-(CO-imfwydeye-NH_2)$_2$, H_2N-E-TTDS-(cymfwydc)-ye-NH_2, Ac-(cymfwydc)-yeK, Ac-(cymfwydc)-ye-TTDS-K, Ac-simfwydeye-NH_2, Ac-simfwydeye-NH_2, Ac-ydmcwcefyi-NH_2, Ac-idmccyfywe-NH_2, Ac-cimfwyddye-NH_2, Ac-(cymfwydc)-ye, Ac-(cymfwydc)-ye-TTDS-NH_2, Ac-TTDS-(cymfwydc)-ye-TTDS-NH_2, K-(cymfwydc)-ye-NH_2, Ac-K-(cymfwydc)-ye-NH_2, E-(cymfwydc)-ye-NH_2, Ac-K-TTDS-(cymfwydc)-ye-NH_2, Ac-(cymfwydc)-yeK-NH_2, Ac-(cymfwydc)-ye-TTDS-K-NH_2, Ac-(cymfwydc)-ye-TTDS-E-NH_2, Ac-timfwydeye-NH_2, Ac-(cimfwydc)-ye-NH_2, Ac-(cymfwydc)-ye-NH_2, Ac-(cwmfwydc)-ye-NH_2, Ac-cicfwydcye-NH_2, Ac-

(D-Nva)imfwydeye-NH_2, Ac-(D-Nle)imfwydeye-NH_2, Ac-(Cys)imfwydeye-NH_2, (cymfwydc)-ye-NH_2, TTDS-(cymfwydc)-ye-TTDS-NH_2, Ac-kimfwydeye-NH_2,
wherein TTDS is 4,7,10-trioxa-1,13-tridecanediamine, (D-Pen) is D-penicillamine, (D-Nva) is D-norvaline, (D-Nle) is D-norleucine.

7. A dual peptide comprising a peptide or peptide derivative as defined in any preceding claim conjugated to a further peptide or peptide derivative as defined in any preceding claim, wherein the peptide or peptide derivative may be the same as or different from the further peptide or peptide derivative, and wherein the dual peptide has procoagulant activity.

8. The peptide or peptide derivative of any one of claims 1-6, wherein the procoagulant activity is a thrombin generation time of 25, 50 or 100 µM of peptide, or peptide derivative equivalent to that of at least 100 mU/mL Factor Eight Inhibitor Bypassing Activity (FEIBA), preferably at least 300 mU/mL FEIBA, more preferably at least 900 mU/mL FEIBA, most preferably at least 1200 mU/mL FEIBA in the Defined Intrinsic Thrombin Generation Assay.

9. The peptide or peptide derivative of any one of claims 1-6, wherein the procoagulant activity is a thrombin generation time of 25, 50 or 100 µM of peptide or peptide derivative in a Defined Intrinsic Thrombin Generation Assay peaking within 30 minutes, preferably within 15 minutes and most preferably within 10 minutes.

10. The peptide or peptide derivative of any one of claims 1-6 which can at least partially compensate for the absence of biologically active FVIII when administered in an animal model of severe human hemophilia A.

11. The peptide or peptide derivative of any one of claims 1-6 which has a stability in human plasma at 30 minutes of at least 50%, preferably at least 70%, more preferably at least 80% and most preferably at least 90%.

12. The peptide or peptide derivative of any one of claims 1-6 which has an aqueous solubility in phosphate buffered saline pH 7.4 of at least 25 µM, preferably at least 60 µM and most preferably at least 100 µM.

13. A pharmaceutical composition comprising the peptide, peptide derivative or dual peptide of any one of claims 1-7 and one or more pharmaceutically acceptable excipients, carriers and/or diluents.

14. The pharmaceutical composition of Claim 13 suitable for subcutaneous, nasal, buccal, oral or pulmonary administration.

15. The pharmaceutical composition of Claim 13 suitable for intravenous administration.

16. The peptide or peptide derivative of any one of claims 1-6 for use in medicine.

17. The peptide or peptide derivative of any one of claims 1-6 for treating a patient having a deficiency in FV, FVII, FVIII, FX and/or FXI.

18. Use of a peptide or peptide derivative of any one of claims 1-6 in the manufacture of a medicament for the treatment of a deficiency in FV, FVII, FVIII, FX and/or FXI.

19. Use of a therapeutically effective amount of the pharmaceutical composition of Claim 13 in the manufacture of a medicament for treating a patient having a deficiency in FV, FVII, FVIII, FX and/or FXI.

20. Use of a therapeutically effective amount of the pharmaceutical composition of Claim 14 in the manufacture of a medicament for treating a patient having a deficiency in FV, FVII, FVIII, FX and/or FXI.

21. Use of a therapeutically effective amount of the pharmaceutical composition of Claim 15 in the manufacture of a medicament for treating a patient having a deficiency in FV, FVII, FVIII, FX and/or FXI.

22. A method of making the peptide or peptide derivative of any one of claims 1-6 by solid phase synthesis.