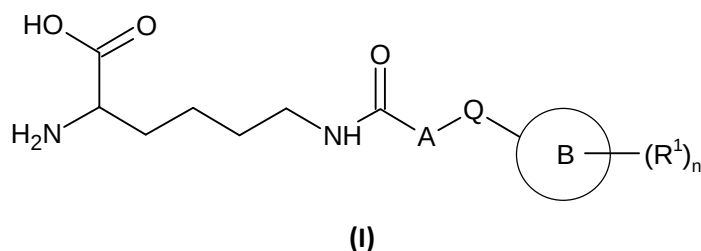


CLAIMS

What is claimed is:

1. A peptide dendron comprising one or more residues derived from a modified lysine of formula (I):



wherein:

A is a bond, C₁₋₆alkylene, carbocyclyl or heterocyclyl; wherein said carbocyclyl or heterocyclyl may be optionally substituted on carbon by one or more R²; and wherein if said heterocyclyl contains an -NH- moiety that nitrogen may be optionally substituted by a group selected from R^A;

Q is a bond, carbocyclyl or heterocyclyl; wherein said carbocyclyl or heterocyclyl may be optionally substituted on carbon by one or more R³; and wherein if said heterocyclyl contains an -NH- moiety that nitrogen may be optionally substituted by a group selected from R^B;

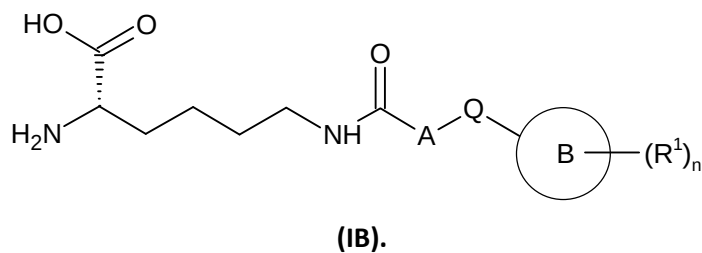
Ring B is morpholinyl or thiomorpholinyl; wherein if said morpholinyl or thiomorpholinyl contains an -NH- moiety that nitrogen may be optionally substituted by a group selected from R^C;

R¹, R² and R³ are each independently selected from halo, nitro, cyano, hydroxy, trifluoromethoxy, trifluoromethyl, amino, carboxy, carbamoyl, mercapto, sulphamoyl, methyl, ethyl, methoxy, ethoxy, acetyl, acetoxyl, methylamino, ethylamino, dimethylamino, diethylamino, N-methyl-N-ethylamino, acetylamino, N-methylcarbamoyl, N-ethylcarbamoyl, N,N-dimethylcarbamoyl, N,N-diethylcarbamoyl, N-methyl-N-ethylcarbamoyl, methylthio, ethylthio, methylsulphinyl, ethylsulphinyl, mesyl, ethylsulphonyl, methoxycarbonyl, ethoxycarbonyl, N-methylsulphamoyl, N-ethylsulphamoyl, N,N-dimethylsulphamoyl, N,N-diethylsulphamoyl and N-methyl-N-ethylsulphamoyl;

n is 0-4;

R^A, R^B and R^C are independently selected from methyl, ethyl, propyl, isopropyl, acetyl, mesyl, ethylsulphonyl, methoxycarbonyl, ethoxycarbonyl, propoxycarbonyl, butoxycarbonyl, carbamoyl, N-methylcarbamoyl, N-ethylcarbamoyl, N,N-dimethylcarbamoyl, N,N-diethylcarbamoyl and N-methyl-N-ethylcarbamoyl.

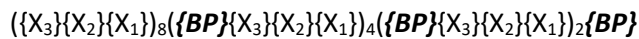
2. The peptide dendron as claimed in claim 1 wherein **A** is a bond, C₁₋₆alkylene or heterocyclyl.
3. The peptide dendron as claimed in claim 1 or claim 2 wherein **Q** is a bond.
4. The peptide dendron as claimed in any one of claims 1 – 3 wherein **n** is 0.
5. The peptide dendron as claimed in any one of claims 1 – 4 wherein **Ring B** is morpholinyl.
6. The peptide dendron as claimed in any one of claims 1 – 4 wherein **Ring B** is thiomorpholinyl.
7. The peptide dendron as claimed in any one of claims 1 – 4 wherein:
A is a bond, methylene or a pyridyl;
Q is a bond;
Ring B is morpholinyl or thiomorpholinyl; and
n is 0.
8. The peptide dendron as claimed in any one of claims 1 – 7 wherein the residue derived from a modified lysine is of formula **(IB)**:



9. The peptide dendron as claimed in any one of claims 1 – 4, 7 or 8 wherein the residue derived from a modified lysine is:
(S)-2-amino-6-[[6-(morpholin-4-yl)pyridine-3-carbonyl]amino]hexanoic acid;
(S)-2-amino-6-[(thiomorpholine-3-carbonyl)amino]hexanoic acid; and
(S)-2-amino-6-[2-(morpholin-4-yl)acetamido]hexanoic acid.
10. The peptide dendron as claimed in any one of the preceding claims wherein the dendron comprises fewer than six generations.

11. The peptide dendron as claimed in any one of the preceding claims wherein the peptide dendron comprises branch points, generation 0 and successive generations and wherein the branch points, generation 0 and successive generations together comprise fewer than 100 amino acid residues.

12. The peptide dendron as claimed in any one of the preceding claims wherein the peptide dendron comprises a peptide dendron of formula (II):



(II)

wherein:

one of X_1 , X_2 , or X_3 is a basic amino acid residue;

another X_1 , X_2 , or X_3 is a hydrophobic amino acid residue;

the remaining X_1 , X_2 , or X_3 is a residue derived from a modified lysine as defined in any one of claims 1-9; and

BP is a branch point amino acid residue.

13. The peptide dendron as claimed in claim 12 wherein the basic amino acid residue is selected from arginine.

14. The peptide dendron as claimed in claim 12 or claim 13 wherein the hydrophobic amino acid residue is selected from leucine.

15. The peptide dendron as claimed in any one of claims 12-14 wherein BP is lysine.

16. The peptide dendron as claimed in any one of the preceding claims further comprising a Generation 0 sequence of amino acid residues attached to the 1st branch point amino acid of the peptide dendron.

17. The peptide dendron as claimed in claim 16 wherein the Generation 0 sequence consists of GLY-VAL-CIT-GLY-GLY-SER-CYS (SEQ ID NO 5) wherein the terminal CYS carboxy group has been amidated to form a C(O)NH₂ group.

18. The peptide dendron as claimed in any one of the preceding claims further comprising a polyethylene glycol group consisting of -(OCH₂CH₂)_n- repeating subunits where n > 3.

19. The peptide dendron as claimed in any one of the preceding claims further comprising a targeting group selected from a peptide, antibody, sugars or small molecule targeting group.
20. The peptide dendron as claimed in any one of the preceding claims for use in delivering a pharmaceutically active agent into a cell.
21. A pharmaceutical composition which comprises one or more peptide dendrons as claimed in any one of the preceding claims and a pharmaceutically active agent.
22. The use or pharmaceutical composition as claimed in claim 20 or claim 21 wherein the pharmaceutically active agent is genetic material.
23. The use or pharmaceutical composition as claimed in claim 22 wherein the genetic material is DNA.
24. The use or pharmaceutical composition as claimed in claim 22 wherein the genetic material is RNA.
25. The use or pharmaceutical composition as claimed in claim 22 wherein the genetic material is DNA and RNA.
26. The use or pharmaceutical composition as claimed in any one of claims 20-25 further comprising a lipid.
27. Use of the pharmaceutical composition as claimed in any one of claims 21-26 in the manufacture of a medicament for gene therapy, wherein an effective amount of the pharmaceutical composition is to be administered to said animal.