-continued

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    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

Gly Arg Gly Asp Ser Pro Cys Gly Gly Lys Lys Lys Lys Lys Lys Lys
1               5                   10                  15

Lys Lys Lys Lys Lys Lys Lys Lys Lys
            20                  25


(2) INFORMATION FOR SEQ ID NO: 120:

     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 22 amino acids
          (B) TYPE: amino acid
          (C) STRANDEDNESS: not relevant
          (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: peptide

   (iii) HYPOTHETICAL: NO

    (iv) ANTI-SENSE: NO

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

Cys Gly Tyr Gly Pro Lys Lys Lys Arg Lys Val Gly Gly Gly Gly Arg
1               5                   10                  15

Gly Asp Ser Pro Cys Gly
            20
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We claim:

1. A peptide comprising a Tat sequence modified by covalent bonding to a nucleic acid-binding group which is not a Tat sequence.

2. A composition for transfecting a cell which comprises one or more nucleic acid molecules, a peptide of claim **1** and one or more transfection agents.

3. A method for transfecting a cell with a nucleic acid, the method comprising the steps:

(a) admixing a peptide of claim **1** with a nucleic acid to form a peptide-nucleic acid complex;

(b) adding a cationic lipid transfection agent to the complex from step (a) to obtain an aggregate of the transfection agent and said complex; and

(c) contacting said cell with the aggregate from step (b).

4. The composition of claim **1**, wherein said composition comprises a peptide-nucleic acid complex.

5. The composition of claim **2**, wherein said transfection agents comprise one or more cationic lipids.

6. The composition of claim **5**, wherein said transfection agents further comprise one or more neutral lipids.

7. The composition of claim **5**, wherein said cationic lipids comprise one or more monovalent cationic lipids.

8. The composition of claim **7**, wherein said monovalent cationic lipids are selected from the group consisting of N-[1-(2,3-dioleoyloxy)propyl]-N,N,N-trimethylammonium chloride, 1,2-bis(oleoyloxy)-3-3-(trimethylammonium) propane, 1,2-dimyristyloxypropyl-3-dimethylhydroxyethylammonium bromide, and dimethyldioctadecylammonium bromide.

9. The composition of claim **5**, wherein said cationic lipids comprise one or more polyvalent cationic lipids.

10. The composition of claim **9**, wherein said polyvalent cationic lipids are selected from the group consisting of 2,3-dioleyloxy-N-[2(sperminecarboxamido)ethyl]-N,N-dimethyl-1-propanaminium trifluoracetate, 1,3-dioleoyloxy-2-(6-carboxyspermyl)-propylamid, 5-carboxyspermylglycine dioctadecylamide, tetramethyltetrapalmitoyl spermine, tetramethyltetraoleyl spermine, tetramethyltetralauryl spermine, tetramethyltetramyristyl spermine and tetramethyldioleyl spermine.

11. The composition of claim **4**, wherein said neutral lipids are selected from the group consisting of dioleoylphosphatidylethanolamine, diphytanoylphosphatidylethanolamine, and cholesterol.

12. The composition of claim **2**, wherein one or more of said transfection agents are linked to said peptide.

13. The composition of claim **5**, wherein one or more of said cationic lipids are covalently linked to said peptide.

14. The composition of claim **6**, wherein one or more of said neutral lipids are covalently linked to said peptide.

15. The composition of claim **2**, wherein said peptide is conjugated to one or more nucleic acid binding groups.

16. The composition of claim **15**, wherein said nucleic acid binding groups comprise at least one polyamine.

17. The composition of claim **16**, wherein said nucleic acid binding group comprises at least one spermine.

18. The composition of claim **2**, further comprising DEAE-dextran, chloroquine or combinations thereof.

19. The composition of claim **2**, wherein said peptide comprises a dimer or a multimer of a Tat sequence.

20. The composition of claim **2** for transfecting a cell obtained by first forming a peptide-nucleic acid complex followed by addition of a transfection agent that aggregates the peptide-nucleic acid complex.

21. The composition of claim **20** wherein after the peptide-nucleic acid complex is formed, said complex is added to a mixture of a cationic lipid and a neutral lipid.

22. A method for transfecting a cell with a nucleic acid, the method comprising the step of contacting the cell with the transfection composition of claim **2**.

23. A method for transfecting a cell with a nucleic acid, the method comprising the step of contacting the cell with the transfection composition of claim **13**.

24. The method of claim **3** wherein the nucleic acid binding group is spermine.