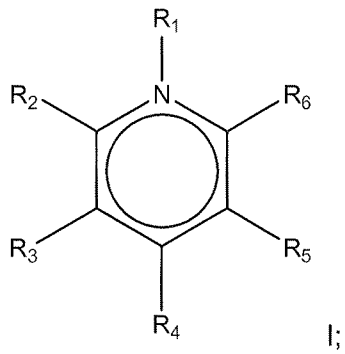
Claims

1. A tissue-targeting complex comprising a tissue targeting moiety selected from the group consisting of antibodies, antibody constructs, fragments of antibodies, peptides, amino acids, steroidal or non-steroidal hormones, folate, estrogen, testosterone and biotin;
an octadentate hydroxypyridinone-containing ligand;
and an ion of an alpha-emitting 227-thorium radionuclide;
wherein said octadentate hydroxypyridinone-containing ligand comprises four independently chosen chelating moieties of formula I



I;

wherein R_1 is an optional N-substituent group and is absent or is a) selected from the group consisting of hydrocarbyl, OH, O-hydrocarbyl, SH and S-hydrocarbyl groups; b) comprises a linker moiety; and/or c) comprises a coupling moiety;
groups R_2 to R_6 are each independently selected from the group consisting of H, OH, =O, C1 to C8 hydrocarbyl, linker moieties and a coupling moieties;
and wherein at least one of groups R_1 to R_6 is OH and at least one of groups R_2 to R_6 is =O.

2. The complex as claimed in claim 1, wherein at least one of groups R_1 to R_6 is a linker moiety.

3. The complex as claimed in any one of claims 1 or 2 comprising at least one 3,2-hydroxypyridinone moiety.

4 The complex as claimed in any one of claims 1 to 3, wherein said ion of the alpha-emitting 227-thorium radionuclide is the 4+ ion of the alpha-emitting 227-thorium radionuclide.

5. Use of a tissue-targeting complex as claimed in any one of claims 1 to 4 in the manufacture of a medicament for the treatment of hyperplastic or neoplastic disease.

6. The use as claimed in claim 5 wherein said hyperplastic or neoplastic disease is selected from the group consisting of a carcinoma, sarcoma, myeloma, leukemia, lymphoma and mixed type cancer.

7. A tissue-targeting complex as claimed in any one of claims 1 to 4 for use as a medicament.

8. A pharmaceutical composition comprising a tissue-targeting complex as claimed in any one of claims 1 to 4 together with at least one pharmaceutical carrier or excipient.

9. A tissue-targeting complex as claimed in any one of claims 1 to 4 for use in the treatment of hyperplastic or neoplastic disease.

10. The tissue-targeting complex as claimed in claim 9 wherein said hyperplastic or neoplastic disease is selected from the group consisting of a carcinoma, sarcoma, myeloma, leukemia, lymphoma and mixed type cancer.