Claims

1. A controlled-release C-type natriuretic peptide ("CNP") agonist, wherein said controlled-release CNP agonist releases at least one CNP agonist, which is CNP, with a release half-life of at least 6 hours under physiological conditions, wherein the controlled-release CNP agonist is a conjugate comprising a CNP moiety which is covalently and reversible conjugated to a carrier moiety via a reversible prodrug linker moiety and from which the CNP moiety is released in the form of the corresponding free CNP, wherein the carrier is a multi-branched carrier attached to the ring moiety formed by the consecutive amino acid residues of CNP located between two cysteine residues connected by an intramolecular disulfide bridge or by two amino acids homologous to said two cysteine residues that are connected through a chemical linker having a first branching point less than 300 atoms from the CNP moiety, and which controlled-release CNP agonist has an affinity, as defined by the IC_{50}, to the NPR-C receptor that is at least 5-fold higher than the affinity of the corresponding free CNP agonist.

2. The controlled-release CNP agonist of claim 1, wherein the affinity as defined by the IC_{50}, to the NPR-C receptor is at least 20-fold higher than the affinity of the corresponding free CNP.

3. The controlled-release CNP agonist of claim 1 or 2, wherein the affinity as defined by the IC_{50}, to the NPR-C receptor is at least 50-fold higher than the affinity of the corresponding free CNP.

4. The controlled-release CNP agonist of any one of claims 1 to 3, wherein the CNP is released with a release half-life of at least 24 hours under physiological conditions.

5. The controlled-release CNP agonist of any one of claims 1 to 4, wherein the CNP is released with a release half-life of at least 168 hours under physiological conditions.

6. The controlled-release CNP agonist of any one of claims 1 to 5, wherein the first branching point of the carrier is less than 200 atoms from the CNP moiety.

7. The controlled-release CNP agonist of any one of claims 1 to 6, wherein the first branching point of the carrier is less than 100 atoms from the CNP moiety.

8. The controlled-release CNP agonist of any one of claims 1 to 7, wherein the first branching point of the carrier is less than 50 atoms from the CNP moiety.

9. The controlled-release CNP agonist of any one of claims 1 to 8, wherein the first branching point of the carrier is less than 25 atoms from the CNP moiety.

10. The controlled-release CNP agonist of any one of claims 1 to 9, wherein the first branching point is less than 10 atoms from the CNP moiety.

11. The controlled-release CNP agonist of any one of claims 1 to 10, wherein one or more further branching points is located within less than 500 atoms from the CNP moiety.

12. The controlled-release CNP agonist of any one of claims 1 to 8, wherein the controlled-release CNP agonist is water-soluble.

13. A pharmaceutical composition comprising the controlled-release CNP agonist of any one of claims 1 to 12 and at least one excipient.

14. The controlled-release CNP agonist of any one of claims 1 to 12 or the pharmaceutical composition of claim 13 for use as a medicament.

15. The controlled-release CNP agonist or the pharmaceutical composition of claim 14, wherein the medicament is used in the treatment of achondroplasia.

16. Use of the controlled-release CNP agonist of any one of claims 1 to 12 or the pharmaceutical composition of claim 13 for the manufacture of a medicament for treating a disease selected from the group consisting of achondroplasia, hypochondroplasia, short stature, dwarfism, osteochondrodysplasias, thanatophoric dysplasia, osteogenesis imperfecta, achondrogenesis, chondrodysplasia punctata, homozygous achondroplasia, camptomelic dysplasia, congenital lethal hypophosphatasia, perinatal lethal type of osteogenesis imperfecta, short-rib polydactyly syndromes, rhizomelic type of chondrodysplasia punctata, Jansen-type metaphyseal dysplasia, spondyloepiphyseal dysplasia congenita, atelosteogenesis,

diastrophic dysplasia, congenital short femur, Langer-type mesomelic dysplasia, Nievergelt-type mesomelic dysplasia, Robinow syndrome, Reinhardt syndrome, acrodysostosis, peripheral dysostosis, Kniest dysplasia, fibrochondrogenesis, Roberts syndrome, acromesomelic dysplasia, micromelia, Morquio syndrome, Kniest syndrome, metatrophic dysplasia, spondyloepimetaphyseal dysplasia, neurofibromatosis, Legius syndrome, LEOPARD syndrome, Noonan syndrome, hereditary gingival fibromatosis, neurofibromatosis type 1, Legius syndrome, cardiofaciocutaneous syndrome, Costello syndrome, SHOX deficiency, idiopathic short stature, growth hormone deficiency, osteoarthritis, cleidocranial dysostosis, craniosynostosis, dactyly, brachydactyly, camptodactyly, polydactyly, syndactyly, dyssegmental dysplasia, enchondromatosis, fibrous dysplasia, hereditary multiple exostoses, hypophosphatemic rickets, Jaffe-Lichtenstein syndrome, Marfan syndrome, McCune-Albright syndrome, osteopetrosis and osteopoikilosis.

17. The use of claim 16, wherein the disease is achondroplasia.