CLAIMS

1. An anti-sclerostin antibody for use in treating osteogenesis imperfecta (OI) in a human patient, wherein a therapeutically effective amount of the anti-sclerostin antibody is to be administered to the human patient, and wherein the antisclerostin antibody comprises:
   (a) a heavy chain variable region CDR1 comprising an amino acid sequence set forth in SEQ ID NO:4;
   (b) a heavy chain variable region CDR2 comprising an amino acid sequence set forth in SEQ ID NO: 15;
   (c) a heavy chain variable region CDR3 comprising an amino acid sequence set forth in SEQ ID NO:26;
   (d) a light chain variable region CDR1 comprising an amino acid sequence set forth in SEQ ID NO:37;
   (e) a light chain variable region CDR2 comprising an amino acid sequence set forth in SEQ ID NO:48; and
   (f) a light chain variable region CDR3 comprising an amino acid sequence set forth in SEQ ID NO:59.

2. Use of an anti-sclerostin antibody in the manufacture of a medicament for the treatment of osteogenesis imperfecta (OI) in a human patient, wherein a therapeutically effective amount of the anti-sclerostin antibody is to be administered to the human patient, and wherein the antisclerostin antibody comprises:
   (a) a heavy chain variable region CDR1 comprising an amino acid sequence set forth in SEQ ID NO:4;
   (b) a heavy chain variable region CDR2 comprising an amino acid sequence set forth in SEQ ID NO: 15;
   (c) a heavy chain variable region CDR3 comprising an amino acid sequence set forth in SEQ ID NO:26;
   (d) a light chain variable region CDR1 comprising an amino acid sequence set forth in SEQ ID NO:37;

(e) a light chain variable region CDR2 comprising an amino acid sequence set forth in SEQ ID NO:48; and

(f) a light chain variable region CDR3 comprising an amino acid sequence set forth in SEQ ID NO:59.

3. The anti-sclerostin antibody for use according to claim 1 or the use according to claim 2, wherein the OI is type I OI, type III OI or type IV OI.

4. The anti-sclerostin antibody for use according to claim 1 or 3, or the use according to claim 2 or 3, wherein the human patient has one or more mutations in the COL1A1 and/ or COL1A2 genes.

5. The anti-sclerostin antibody for use according to any one of claims 1, 3 or 4, or the use according to any one of claims 2-4, wherein the anti-sclerostin antibody comprises:

a) a VH polypeptide sequence having at least 90 percent sequence identity to the amino acid sequences set forth as SEQ ID NO:70; and/ or

b) a VL polypeptide sequence having at least 90 percent sequence identity to the amino acid sequences set forth as SEQ ID NO:81.

6. The anti-sclerostin antibody for use according to any one of claims 1, 3, 4 or 5, or the use according to any one of claims 2-5, wherein the anti-sclerostin antibody comprises:

a) a full length heavy chain amino acid sequence having at least 90 percent sequence identity to the amino acid sequence set forth as SEQ ID NO: 172; and/ or

b) a full length light chain amino acid sequence having at least 90 percent sequence identity to the amino acid sequence set forth as SEQ ID NO: 173.

7. The anti-sclerostin antibody for use according to any one of claims 1, 3-5 or 6, or the use according to any one of claims 2-6, wherein the anti-sclerostin antibody comprises a VL polypeptide sequence comprising the amino acid sequence set forth as SEQ ID NO:81

and a VH polypeptide sequence comprising the amino acid sequence set forth as SEQ ID NO:70.

8. The anti-sclerostin antibody for use according to any one of claims 1, 3-6 or 7, or the use according to any one of claims 2-7, wherein the anti-sclerostin antibody comprises a full length light chain amino acid sequence comprising the amino acid sequence set forth as SEQ ID NO: 173 and a full length heavy chain amino acid sequence comprising the amino acid sequence set forth as SEQ ID NO: 172.

9. The anti-sclerostin antibody for use according to any one of claims 1, 3-7 or 8, or the use according to any one of claims 2-8, wherein the anti-sclerostin antibody is to be administered at a dose of 1-50 mg per kg body weight of the human patient.

10. The anti-sclerostin antibody for use according to any one of claims 1, 3-8 or 9, or the use according to any one of claims 2-9, wherein the anti-sclerostin antibody is to be administered:
    (a) at a dose of 1-30 mg per kg body weight of the human patient, for example at a dose of 1-20 mg per kg of body weight of the human patient; or
    (b) at a dose of 10-30 mg per kg body weight of the human patient; and/or
    (c) at a dose of 10-5000 mg, for example at a dose of 100-3000 mg; and/or
    (d) to the human patient on a daily, weekly, bi-weekly, monthly, bi-monthly or quarterly basis.

11. The anti-sclerostin antibody for use according to any one of claims 1, 3-9 or 10, or the use according to any one of claims 2-10, wherein the treatment regimen comprises a first dosing regimen optionally followed by a second dosing regimen.

12. The anti-sclerostin antibody for use according to claim 11, or the use according to claim 11, wherein:

(a) the first dosing regimen is 1-50 mg per kg body weight of the human patient is to be administered on a monthly basis, for example the first dosing regimen is 20 mg per kg body weight of the human patient is to be administered on a monthly basis;

(b) the second dosing regimen is 1-50 mg per kg body weight of the human patient is to be administered on a bi-monthly or quarterly basis, for example the second dosing regimen is 20 mg per kg body weight of the human patient is to be administered on a bi-monthly or quarterly basis; and/or

(c) the first dosing regimen is 20 mg per kg body weight of the human patient is to be administered on a monthly basis and the second dosing regimen is 20 mg per kg body weight of the human patient is to be administered on a bi-monthly or quarterly basis, for example the first dosing regimen is 20 mg per kg body weight of the human patient is to be administered on a monthly basis for a period of 1 year, and the second dosing regimen is 20 mg per kg body weight of the human patient is to be administered on a bi-monthly or quarterly basis for a period of at least 1 year.

13. The anti-sclerostin antibody for use according to claim 11, or the use according to claim 11, wherein:

(a) the first dosing regimen is 10-5000 mg is to be administered on a monthly basis;

(b) the second dosing regimen is 10-5000 mg is to be administered on a bi-monthly or quarterly basis; and/or

(c) the first dosing regimen is 10-5000 mg is to be administered on a monthly basis and the second dosing regimen is 10-5000 mg is to be administered on a bi-monthly or quarterly basis, for example the first dosing regimen is 10-5000 mg is to be administered on a monthly basis for a period of 1 year, and the second dosing regimen is 10-5000 mg is to be administered on a bi-monthly or quarterly basis for a period of at least 1 year.

14. The anti-sclerostin antibody for use according to any one of claims 1, 3-12 or 13, or the use according to any one of claims 2-13, wherein the anti-sclerostin antibody is to be administered intravenously.

15. The anti-sclerostin antibody for use according to any one of claims 1, 3-13 or 14, or the use according to any one of claims 2-14, wherein a further therapeutic agent, such as bisphosphonate, parathyroid hormone, calcilytics, calcimimetics (e.g., cinacalcet), statins, anabolic steroids, lanthanum and strontium salts, and/or sodium fluoride is to be administered.

16. The anti-sclerostin antibody for use according to any one of claims 1, 3-14 or 15, or the use according to any one of claims 2-15, wherein the antibody is formulated in a pharmaceutical composition.