CLAIMS

1. A pharmaceutical composition for use in regenerating cartilage, the pharmaceutical composition comprising hyaluronan and proteoglycan link protein 1 (HAPLN1) as an active ingredient.

2. The pharmaceutical composition for use in regenerating cartilage of claim 1, wherein the HAPLN1 stimulates cartilage formation and protects articular cartilage.

3. The pharmaceutical composition for use in regenerating cartilage of claim 1, wherein the HAPLN1 increases Transforming growth factor beta receptor I (TGF-β receptor I) protein to increase the population of cells having cartilage formation ability and to induce regeneration of cartilage tissues.

4. A food composition for regenerating cartilage, the food composition comprising HAPLN1 as an active ingredient.

5. An animal feed composition for regenerating cartilage, the animal feed composition comprising HAPLN1 as an active ingredient.

6. A pharmaceutical composition for use in the prevention or treatment of osteoarthritis, the pharmaceutical composition comprising HAPLN1 as an active ingredient.

7. A pharmaceutical composition for use in proliferating growth plate cartilage or promoting bone length growth, the pharmaceutical composition comprising HAPLN1 as an active ingredient.

8. A pharmaceutical composition for use in the treatment or prevention of bone-length growth disorders, the pharmaceutical composition comprising HAPLN1 as an active ingredient.

9. The pharmaceutical composition of claim 8, wherein the bone-length growth disorders are short stature, dwarfism, nanism, or precocious puberty.

10. A method of regenerating cartilage tissues using HAPLN1, the method comprising:

isolating chondrocytes from a subject; and

treating the chondrocytes with HAPLN1.