Claims

What is claimed is:

1. Use of a bovine milk exosome-enriched product and vitamin K2 in the manufacture of a medicament for improving bone formation in an individual, wherein the medicament is to be administered to the individual.

2. Use of a bovine milk exosome-enriched product and vitamin K2 in the manufacture of a medicament for reducing a risk of bone fracture or strengthening bone in an individual, wherein the medicament is to be administered to the individual.

3. The use according to claim 1 or 2, wherein the individual is a pediatric subject.

4. The use according to any one of the preceding claims, wherein the bovine milk exosome-enriched product is to be administered in the form of an exosome-enriched liquid.

5. The use according to any one of claims 1-3, wherein the bovine milk exosome-enriched product is to be administered in the form of an exosome-enriched powder.

6. The use according to any one of the preceding claims, wherein the bovine milk exosome-enriched product comprises from about 10^8 to about 10^{15} exosomes per gram of the exosome-enriched product.

7. The use according to any one of the preceding claims, wherein at least about 50 wt % of exosomes in the bovine milk exosome-enriched product are intact, optionally wherein at least about 55, 60, 65, 70, 75, 80 ,85, 90, or 95 wt % of the exosomes in the bovine milk exosome-enriched product are intact.

8. The use according to any one of the preceding claims, wherein the exosome-enriched product is to be administered to the individual at a dose of about 0.01 to about 30 g per day.

9. The use according to any one of the preceding claims, wherein vitamin K2 is to be administered to the individual at a dose of about 0.001 to about 0.3 mg per day.

10. The use according to any one of the preceding claims, wherein the bovine milk exosome-enriched product and vitamin K2 are to be administered to the individual at least once daily for at least 3 consecutive days, or at least 7 consecutive days, or at least 12 consecutive days.

11. The use according to any one of the preceding claims, wherein the exosome-enriched product and vitamin K2 are to be administered to the individual in a nutritional composition comprising protein, carbohydrate, and/or fat.

12. The use according to claim 11, wherein the nutritional composition comprises from about 0.001 to about 30 wt % of the exosome-enriched product, based on the weight of the nutritional composition.

13. The use according to claim 11 or 12, wherein the nutritional composition comprises at least about 0.0000004 wt %, or at least about 0.000025 wt %, or at least about 0.00005 wt %, or at least about 0.0001 wt %, or at least about 0.0002 wt% of vitamin K2, based on the weight of the nutritional composition.

14. The use according to claim 12 or 13, wherein the nutritional composition is to be administered in the form of a liquid having a serving size ranging from 110 mL to 500 mL.

15. The use according to claim 12 or 13, wherein the nutritional composition is to be administered in the form of a powder having a serving size ranging from about 40-60 g.