WHAT IS CLAIMED IS:

1. ~~A method of~~ Use of an exosome-enriched product comprising intact bovine milk-derived exosomes in the manufacture of a medicament for improving joint health in a subject in need thereof, ~~comprising administering an exosome-enriched product comprising intact bovine milk-derived exosomes~~ wherein the medicament is to be administered to the subject in need thereof.

~~2. The method of claim 1, wherein the intact bovine milk-derived exosomes are sourced from a whey-containing bovine milk fraction.~~

~~3. The method of claim 1 or claim 2, wherein the exosome-enriched product comprises at least 0.001 wt% exosomes.~~

~~4~~2. The ~~method~~ use of ~~any one of claims 1-3~~claim 1, wherein greater than 90% of the bovine milk-derived exosomes are from about 10 nanometers to about 250 nanometers in diameter.

~~5. The method of any one of claims 1-4, wherein at least about 50 wt% of the exosomes in the exosome-enriched product are intact.~~

~~6~~3. The ~~method~~ use of claim ~~5~~1 or 2, wherein at least about 50, 55, 60, 65, 70, 75, 80, 85, 90, or 95 wt% of the exosomes in the exosome-enriched product are intact.

~~7~~4. The ~~method~~ use of any one of claims 1-~~6~~3, wherein the exosome-enriched product comprises at least 0.001 wt% exosomes, wherein at least about 50 wt% of exosomes in the exosome-enriched product are intact, and/or wherein the exosome-enriched product is lactose-free.

~~8. The method of any one of claims 1-7, wherein the exosome-enriched product is administered in the form of an exosome-enriched powder.~~

~~9. The method of any one of claims 1-7, wherein the exosome-enriched product is administered in the form of an exosome-enriched liquid.~~

~~10~~5. The ~~method~~ use of any one of claims 1-~~9~~4, wherein the exosome-enriched product comprising the intact bovine milk-derived exosomes is to be administered to the subject at a dose of about 0.01 to about 30 g.

~~11. The method of any one of claims 1-10, wherein the exosome-enriched product is administered to the subject orally.~~

~~12~~6. The ~~method~~ use of any one of claims 1-~~11~~5, wherein the subject is a human adult 20 years of age or older, or 65 years of age or older.

~~13. The method of claim 12, wherein the subject is 65 years of age or older.~~

~~14~~7. The ~~method~~ use of any one of claims 1-~~13~~6, wherein the exosome-enriched product is to be administered to the subject following exercise and/or prior to exercise.

~~15. The method of claim 14, wherein the exosome-enriched product is administered to the subject prior to exercise.~~

~~16~~8. The ~~method~~ use of any one of claims 1-~~15~~7, wherein the subject is suffering from a joint disease, joint injury after trauma, declining joint health as a result of normal aging, articular cartilage lesions, or a combination thereof.

~~17~~9. The ~~method~~ use of claim ~~16~~8, wherein the joint disease is selected from the group consisting of synovitis, spondyloarthritis, bursitis, infectious arthritis, rheumatoid arthritis, psoriatic arthritis, osteoarthritis, chondromalacia patellae, lupus, gout, juvenile idiopathic arthritis, and combinations of two or more thereof.

~~18~~10. The ~~method~~ use of any one of claims 1-~~17~~9, wherein the subject is suffering from one or more symptoms selected from the group consisting of joint swelling, joint inflammation, joint pain, joint stiffness, joint degeneration, reduced mobility, and combinations of two or more thereof.

~~19~~11. The ~~method~~ use of any one of claims 1-~~18~~10, wherein the exosome-enriched product comprising intact bovine milk-derived exosomes is to be administered to the subject in a nutritional composition comprising protein, carbohydrate, and/or fat.

~~20~~12. The ~~method~~ use of claim ~~19~~11, wherein the nutritional composition comprises protein, carbohydrate, fat, and one or more nutrients selected from the group consisting of vitamins and minerals.

~~21~~13. The ~~method~~ use of claim ~~19~~ 11 or claim ~~20~~12, wherein the nutritional composition comprises from about 0.001 to about 30 wt % of the exosome-enriched product comprising the intact bovine milk-derived exosomes, based on the weight of the nutritional composition.

~~22~~14. The ~~method~~ use of any one of claims ~~19-21~~11-13, wherein the protein comprises whole egg powder, egg yolk powder, egg white powder, whey protein, whey protein concentrates, whey protein isolates, whey protein hydrolysates, acid caseins, casein protein isolates, sodium caseinates, calcium caseinates, potassium caseinates, casein hydrolysates, milk protein concentrates, milk protein isolates, milk protein hydrolysates, nonfat dry milk, condensed skim milk, whole cow's milk, partially or completely defatted milk, coconut milk, soy protein concentrates, soy protein isolates, soy protein hydrolysates, pea protein concentrates, pea protein isolates, pea protein hydrolysates, rice protein concentrate, rice protein isolate, rice protein hydrolysate, fava bean protein concentrate, fava bean protein isolate, fava bean protein hydrolysate, collagen proteins, collagen protein isolates, meat proteins, potato proteins, chickpea proteins, canola proteins, mung proteins, quinoa proteins, amaranth proteins, chia proteins, hemp proteins, flax seed proteins, earthworm proteins, insect proteins, one or more amino acids and/or metabolites thereof, or combinations of two or more thereof.

~~23. The method of claim 22, wherein the one or more amino acids and/or metabolites thereof comprise one or more branched chain amino acids or metabolites thereof.~~

~~24. The method of claim 23, wherein the one or more branched chain amino acids or metabolites thereof comprise alpha-hydroxy-isocaproic acid (HICA), keto isocaproate (KIC), β-hydroxy-β-methylbutyrate (HMB), and combinations of two or more thereof.~~

~~25~~15. The ~~method~~ use of any one of claims ~~19-24~~11-14, wherein the nutritional composition comprises from about 1 wt% to about 30 wt%, from about 1 wt% to about 25 wt%, from about 1 to about 20 wt%, from about 1 to about 15 wt%, from about 1 to about 10 wt%, or from about 10 wt% to about 30 wt% protein, based on the weight of the nutritional composition.

~~26~~16. The ~~method~~ use of any one of claims ~~19-25~~11-15, wherein the carbohydrate comprises maltodextrin, hydrolyzed starch, modified starch, hydrolyzed cornstarch, modified cornstarch, polydextrose, dextrins, corn syrup, corn syrup solids, rice maltodextrin, brown rice mild powder, brown rice syrup, sucrose, glucose, fructose, lactose, high fructose corn syrup, honey, maltitol, erythritol, sorbitol, isomaltulose, sucromalt, pullulan, potato starch, corn starch, fructooligosaccharides, galactooligosaccharides, oat fiber, soy fiber, gum arabic, sodium carboxymethylcellulose, methylcellulose, guar gum, gellan gum, locust bean gum, konjac flour, hydroxypropyl methylcellulose, tragacanth gum, karaya gum, gum acacia, chitosan, arabinoglactins, glucomannan, xanthan gum, alginate, pectin, low methoxy pectin, high methoxy pectin, cereal beta-glucans, carrageenan, psyllium, fiber, fruit puree, vegetable puree, isomalto-oligosaccharides, monosaccharides, disaccharides, tapioca-derived carbohydrates, inulin, and artificial sweeteners, or combinations of two or more thereof.

~~27~~17. The ~~method~~ use of any one of claims ~~19-26~~11-16, wherein the nutritional composition comprises from about 5 wt% to about 75 wt%, from about 5 wt% to about 70 wt%, from about 5 wt% to about 65 wt%, from about 5 wt% to about 50 wt%, from about 5 wt% to about 40 wt%, from about 5 wt% to about 30 wt%, from about 5 wt% to about 25 wt%, from about 10 wt% to about 65 wt%, from about 20 wt% to about 65 wt%, from about 30 wt% to about 65 wt%, from about 40 wt% to about 65 wt%, or from about 15 wt% to about 25 wt% carbohydrate, based on the weight of the nutritional composition.

~~28~~18. The ~~method~~ use of any one of claims ~~19-27~~11-17, wherein the fat comprises algal oil, canola oil, flaxseed oil, borage oil, safflower oil, high oleic safflower oil, high gamma-linolenic acid (GLA) safflower oil, corn oil, soy oil, sunflower oil, high oleic sunflower oil, cottonseed oil, coconut oil, fractionated coconut oil, medium chain triglycerides (MCT) oil,

palm oil, palm kernel oil, palm olein, long chain polyunsaturated fatty acids, or combinations of two or more thereof.

~~29~~19. The ~~method~~ use of any one of claims ~~19-28~~11-18, wherein the nutritional composition comprises from 0.5 wt% to 20 wt%, from about 0.5 to about 15 wt%, from about 0.5 to about 10 wt%, from about 0.5 to about 5 wt%, or from about 5 to about 15 wt% fat, based on the weight of the nutritional composition.

~~30. The method of any one of claims 19-29, wherein the nutritional composition is administered in the form of a powder.~~

~~31. The method of any one of claims 19-29, wherein the nutritional composition is administered in the form of a liquid.~~

~~32~~20. The ~~method~~ use of ~~claim 31~~any one of claims 11-19, wherein the nutritional composition comprises from about 1 to about 15 wt% of protein, from about 0.5 to about 10 wt% fat, and from about 5 to about 30 wt% carbohydrate, based on the weight of the nutritional composition, wherein the nutritional composition is in the form of a liquid.

~~33~~21. The ~~method~~ use of ~~claim 30~~any one of claims 11-19, wherein the nutritional composition comprises from about 10 to about 30 wt% of protein, from about 5 to about 15 wt% fat, and from about 30 wt% to about 65 wt% carbohydrate, based on the weight of the nutritional composition, wherein the nutritional composition is in the form of a powder.

~~34~~22. The ~~method~~ use of any one of claims ~~19-33~~11-21, wherein the nutritional composition comprises at least one protein comprising milk protein concentrate and/or soy protein isolate, at least one fat comprising canola oil, corn oil, coconut oil, long chain polyunsaturated fatty acid, and/or marine oil, and at least one carbohydrate comprising maltodextrin, sucrose, and/or short-chain fructooligosaccharide.