Claims

1. An *in vitro* method for producing a human milk like product comprising:

A) Generating lactocytes mammary-like gland organoids derived from human adult breast milk stem cells (hBSCs) by aggregating and culturing hBSCs in 3D-suspension conditions to form mammospheres and culturing said mammospheres in 3D-suspension conditions for at least 10 days to generate lactocytes;

B) Secreting the human milk like product from such lactocytes from human adult breast milk stem cells (hBSCs).

2. The *in vitro* method according to claim 1, wherein the human milk like product comprises one or more of the nutrients or bioactives selected from the group consisting of proteins, peptides, lipids, carbohydrates, vitamins, minerals, choline, myoinositol, L-carnitine, growth factors, cytokines, probiotics, extracellular vesicles, bioactives from exosome and secretory IgA.

3. The *in vitro* method according to claims 1 or 2, wherein step A) is conducted for at least 42 days.

4. The *in vitro* method according to any one of claims 1 to 3, wherein step A) is conducted in a bioreactor.

5. The *in vitro* method according to any one of claims 1 to 4, further comprising a step C) whereby the human milk like product is further treated to obtain a modified human milk like product.

6. The *in vitro* method according to claim 5, wherein step C) is selected from the group consisting of: a purification step, an isolation process, an extraction process, a

fractionation step, an enrichment process, an enzymatic treatment, the addition of further components and combinations thereof.

7. The *in vitro* method according to anyone of claims 5 or 6, wherein the modified human milk like product is obtained under step C) by adding to the human milk like product of step B) one or more human breast milk components that are not secreted by the lactocytes in step B).

8. The *in vitro* method according to any one of claims 1 to 7, wherein the human milk like product consists or comprises bioactives selected from the group consisting of: oligosaccharides, lipids and proteins.

9. The *in vitro* method according to any one of claims 1 to 8, wherein the human milk like product consists or comprises bioactives selected from the group consisting of: lactose, C12:0, C16:0, C18:0, C18:1 n-9, C18:2, lactoferrin and alphalactalbumin.

10. A human milk like product which is obtainable according to the method described in any one of claims 1 to 9.

11. The human milk like product according to claim 10 which comprises or consists of bioactives selected form the group consisting of: oligosaccharides, lipids and proteins.

12. The human milk like product according to claim 11 which comprises or consists of bioactives selected from the group consisting of: lactose, C12:0 fatty acid, C16:0 fatty acid, C18:0 fatty acid, C18:1 n-9 fatty acid, C18:2 fatty acid, lactoferrin and alphalactalbumin.

13. A human milk like product according to any one of claims 10 to 12 for use in therapy.

14. Use of a human breast milk like product according to any one of claims 10 to 12 as a breast feeding substitute.