CLAIMS

1. ~~A~~ Use of a fucosylated human milk oligosaccharide (HMO), preferably a fucosylated neutral HMO, in the manufacture of a medicament for ~~use in~~ improving sleep maturation, for example improving trouble sleeping, in a non-infant.

2. The fucosylated HMO for the use according to claim 1, which is 2'-FL, 3-FL, DFL, LNFP-I, LNFP-II, LNFP-III, LNFP-V, LNFP-VI or any combination thereof.

3. The fucosylated HMO for the use according to claim 1 or 2, which is 2'-FL.

4. The fucosylated HMO for the use according to claim 1 or 2, which is a combination of 2'-FL and DFL.

5. The fucosylated HMO for the use according to claim 1 or 2, which is a combination of 2'-FL and LNFP-I.

6. The fucosylated HMO for the use according to claim 1 or 2, which is a combination of 2'-FL and (LNT and/or LNnT).

7. The fucosylated HMO for the use according to claim 1 or 2, which is a combination of 2'-FL, DFL and (LNT and/or LNnT).

8. ~~A~~ Use of a synthetic composition in the manufacture of a medicament for ~~use in~~ improving sleep maturation, for example improving trouble sleeping, in a non-infant wherein the composition comprises, consists of or consists essentially of an effective amount of one or more fucosylated human milk oligosaccharides (HMOs), preferably fucosylated neutral HMOs.

9. The composition for the use according to claim 8, wherein the composition comprises, consists of or is consists essentially of a fucosylated human milk oligosaccharide according to any one of claims 2 to 7.

~~9. The composition for the use according to claim 8 comprising, consisting of or consisting essentially of 2'-FL, 3-FL, DFL, LNFP-I, LNFP-II, LNFP-III, LNFP-V, LNFP-VI or any combination thereof.~~

~~10. The composition for the use according to claim 8 or 9, wherein the HMO is 2'-FL.~~

~~11. The composition for the use according to claim 8 or 9, wherein the HMO is a combination of 2'-FL and DFL.~~

~~12. The composition for the use according to claim 8 or 9, wherein the HMO is a combination of 2'-FL and LNFP-I.~~

~~13. The composition for the use according to claim 8 or 9, wherein the HMO is a combination of 2'-FL and (LNT and/or LNnT).~~

~~14. The composition for the use according to claim 8 or 9, wherein the HMO is a combination of 2'-FL, DFL and (LNT and/or LNnT).~~

~~15.~~10. ~~A pack for use in improving sleep maturation, for example improving trouble sleeping, in a non-infant,~~ The fucosylated HMO or composition for the use according to any one of claims 1 to 9, wherein the medicament is contained in a ~~the~~ pack comprising at least 14 individual daily doses of the medicament. ~~an effective amount of one or more fucosylated human milk oligosaccharides (HMOs), preferably fucosylated neutral HMOs.~~

~~16.~~11. The pack for the use according to claim ~~15~~ 10, which comprises at least about 21 individual daily doses, for example about 28 daily doses.

~~17.~~12. The pack for the use according to claim ~~16~~ 10 or 11, wherein each daily dose contains 0.1 g to 10 g, more preferably 0.2 g to 7.5 g, for example 1 g to 5 g, of HMO.

~~18.~~13. Use of

- one or more fucosylated human milk oligosaccharides (HMOs), preferably fucosylated neutral HMOs,
- a synthetic composition comprising, consisting of or consisting essentially of one or more fucosylated human milk oligosaccharides (HMOs), preferably fucosylated neutral HMOs, or
- a pack comprising at least 14 individual daily doses of an effective amount of one or more fucosylated human milk oligosaccharides (HMOs), preferably fucosylated neutral HMOs

in the manufacture of a medicament for the dietary management of a non-infant human having fragmented sleep composed of frequent short bout of sleeps and absence of circadian cycle.

~~19.~~14. The ~~pack for the~~ use according to ~~any of claims 15 to 17~~ claim 13, ~~or the use according to claim 18,~~ wherein the HMO is as recited in any of the claims 2 to 7~~, or 9 to~~

~~14.~~ the synthetic composition is as recited in claim 8 or 9 and the pack is as recited in claims 10 to 12.

~~20. A method for improving sleep maturation, for example improving trouble sleeping, in a non-infant, the method comprising administering to the non-infant human an effective amount of one or more fucosylated human milk oligosaccharides (HMOs), preferably fucosylated neutral HMOs.~~

~~21.~~15. The ~~method according to claim 20,~~ fucosylated HMO or composition for the use according to any one of claims 1 to 12, or the use according to claim 13 or 14, wherein ~~the non-infant human is administered~~ the HMO is administered to the non-infant human for a period of at least 1 week, more preferably for at least 2 weeks.

~~22. The method according to claim 20 or 21, wherein the non-infant human is administered a daily dose of 0.1 g to 10 g, more preferably 0.2 g to 7.5 g, for example 1 g to 5 g, of HMO.~~

~~23. The method according to any of claims 20 to 22, wherein the non-infant human is administered a higher dose initially followed by a lower dose.~~

~~24.~~16. The ~~method~~ use according to claim ~~23~~ 15, wherein the HMO is administered to the non-infant human at a ~~the~~ higher dose ~~is~~ of about 0.5 g to about 10 g per day, for example about 1 g to about 7.5 g per day~~, and the~~ initially followed by a lower dose ~~is~~ of about 0.1 g to about 5 g per day, for example about 0.2 g to about 3 g per day.

~~25. The method according to any of claims 20 to 24, wherein the HMO is as recited in any of the claims 2 to 7 or 9 to 14.~~

~~26.~~17. The HMO for the use according to any of claims 1 to 7, the synthetic composition for the use according to any of claims 8 ~~to 14~~ or 9, the pack for the use according to any of claims ~~15 to 17 and 19~~ 10 to 12, the use according to claims ~~18 or 19~~ 13 to 16, ~~or the method according to any of claims 20 to 25,~~ wherein the non-infant is a child, a teenager, an adult or an elderly person.

~~27. The HMO for the use according to any of claims 1 to 7, the synthetic composition for the use according to any of claims 8 to 14, the pack for the use according to any of claims 15 to 17 and 19, the use according to claim 18 or 19, or the method according to any of claims 20 to 25, wherein the non-infant is a teenager, an adult or an elderly person.~~

~~28. The HMO for the use according to any of claims 1 to 7, the synthetic composition for the use according to any of claims 8 to 14, the pack for the use according to any of claims 15 to 17 and 19, the use according to claim 18 or 19, or the method according to any of claims 20 to 25, wherein the non-infant is an adult or an elderly person.~~

~~29.~~18. The HMO for the use, the synthetic composition for the use, the pack for the use~~,~~ or the ~~use or the method~~ uses according to ~~any of claims 26 to 28~~ claim 17, wherein the non-infant is an IBS patient.