CLAIMS:

1. A topical liquid composition for intrauterine washing, the composition comprising:

a. 2-200 ng/ml melatonin (*N*-acetyl-5-methoxytryptamine) or an analog thereof, or a pharmaceutically acceptable salt or solvate thereof;

b. 0.01-100 mM phosphate buffer system;

c. 1×10^{-6}-5 mg/ml methionine or cysteine;

d. 0.0008-8 mg/ml arginine;

e. 1-100 mg/ml sodium chloride;

f. a surfactant selected from 0.001-10 mg/ml polysorbate 20 and 0.1-100 mg/ml propylene glycol; and

g. water,

wherein the pH of the composition is pH 7-8.5, and the composition has an osmolality of 250-350 mOsm/kg.

2. The topical liquid composition as claimed in claim 1, wherein the amino acid in c. is methionine.

3. The topical liquid composition as claimed in claim 1, wherein the surfactant is polysorbate 20.

4. The topical liquid composition as claimed in claim 1, wherein the composition is free of any protein or protein compounds, or else comprises no more than 0.1 wt % of any protein or protein compounds.

5. The topical liquid composition as claimed in claim 1, wherein the composition is free of further amino acids other than those stipulated or else comprise no more than 0.1 mM of any individual further amino acid.

6. The topical liquid composition as claimed in claim 1, wherein the composition has an osmolality of 280-330 mOsm/kg.

7. The topical liquid composition as claimed in claim 1, wherein the composition has a pH between 7.6 and 7.8.

8. The topical liquid composition as claimed in claim 1, wherein the composition comprises:

a. 15-25 ng/mL melatonin (*N*-acetyl-5-methoxytryptamine) or an analog thereof, or a pharmaceutically acceptable salt or solvate thereof; and
b. 5-15 mM phosphate buffer system;
c. 0.005-0.015 mg/mL methionine;
d. 0.04-0.4 mg/mL arginine;
e. 5-12 mg/mL sodium chloride;
f. 0.025-0.075 mg/mL polysorbate 20;
g. water (as the remaining balance by weight);

wherein the pH of the composition is pH 7.6-7.8, and the composition has an osmolality of 295-320 mOsm/kg.

9. A package or medical device, comprising a sterile container pre-filled or configured for filling with a topical liquid composition as claimed in claim 1.

10. Use of a topical liquid composition, as claimed in claim 1, for the preparation of a medicament for use in inhibiting and/or preventing embryonic implantation failure during assisted reproduction treatments.

11. The topical liquid composition as claimed in claim 2, wherein the concentration of methione is from 13 ng/ml to 0.01 mg/ml.

12. The topical liquid composition as claimed in claim 1, wherein the composition comprises:

a. 15-25 ng/ml melatonin (*N*-acetyl-5-methoxytryptamine) or an analog thereof, or a pharmaceutically acceptable salt or solvate thereof;
b. 5-15 mM phosphate buffer system;
c. 0.005-0.015 mg/ml methionine or cysteine;
d. 0.04-0.4 mg/ml arginine;

e. 5-12 mg/ml sodium chloride;

f. a surfactant selected from 0.025-0.075 mg/ml polysorbate 20 and 4-8 mg/ml propylene glycol; and

g. water,

wherein the pH of the composition is pH 7.6-7.8, and the composition has an osmolality of 295-315 mOsm/kg.

13. The topical liquid composition as claimed in claim 8, wherein the composition comprises:

a. 20 ng/ml melatonin (N-acetyl-5-methoxytryptamine) or an analog thereof, or a pharmaceutically acceptable salt or solvate thereof;

b. 10 mM phosphate buffer system;

c. 0.01 mg/ml methionine;

d. 0.1 mg/ml arginine;

e. 9 mg/ml sodium chloride;

f. 0.05 mg/ml polysorbate 20; and

g. water,

wherein the pH of the composition is pH 7.6-7.8, and the composition has an osmolality of 295-320 mOsm/kg.

14. The topical liquid composition as claimed in claim 1, wherein the composition comprises:

a. 20 ng/ml melatonin (N-acetyl-5-methoxytryptamine) or an analog thereof, or a pharmaceutically acceptable salt or solvate thereof;

b. 10 mM phosphate buffer system;

c. 0.01 mg/ml methionine;

d. 0.1 mg/ml arginine;

e. 7 mg/ml sodium chloride;

f. 6 mg/ml propylene glycol; and

g. water,

wherein the pH of the composition is pH 7.6-7.8, and the composition has an osmolality of 295-320 mOsm/kg.

15. The topic liquid composition as claimed in claim 11, wherein the composition comprises:

a. 20 ng/ml melatonin (N-acetyl-5-methoxytryptamine) or an analog thereof, or a pharmaceutically acceptable salt or solvate thereof;

b. 10 mM phosphate buffer system;

c. 13 ng/ml methionine;

d. 0.1 mg/ml arginine;

e. 9 mg/ml sodium chloride;

f. 0.05 mg/ml polysorbate 20; and

g. water,

wherein the pH of the composition is pH 7.6-7.8, and the composition has an osmolality of 295-320 mOsm/kg.