Claims

1. A method for culturing isolated corneal endothelial cells comprising the steps of:

(i) maintaining isolated corneal endothelial cells which have not been transformed to immortalized cells with a maintenance medium comprising Human Endothelial-Serum Free Medium (Human Endothelial-SFM) and serum to stabilize the corneal endothelial cells;

(ii) culturing the isolated stabilized corneal endothelial cells with M2 or M4 medium as defined in Table 2 of the specification to propagate and/or expand corneal endothelial cells; and

(iii) maintaining the propagated and/or expanded corneal endothelial cells with said maintenance medium to substantially preserve the morphology and characteristics of the corneal endothelial cells.

2. The method according to claim 1, wherein step (iii) is performed before the isolated corneal endothelial cells differentiate or change morphology and/or characteristics.

3. The method according claim 1 or 2 wherein step (iii) comprises replacing said M2 or M4 medium with the maintenance medium.

4. The method according to any one of the preceding claims wherein step (iii) comprises culturing the propagated and/or expanded corneal endothelial cells in the maintenance medium.

5. The method according to any one of claims 1 to 3, wherein step (iii) comprises passaging the propagated and/or expanded corneal endothelial cells in the maintenance medium.

6. The method according to any one of the preceding claims, wherein the maintenance medium comprises at least 2% serum.

7. The method according to any one the preceding claims, wherein maintenance medium comprises 2.5% or 5% serum.

8. The method according to any one of the preceding claims, wherein maintenance medium is supplemented with at least one antimicrobial.