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CLAIMS

1. A method for producing mammalian hair microfollicle comprising the steps of:
   (a) providing at least one *de novo* papilla,
   (b) providing at least one other cell population selected from the group of fibroblasts, keratinocytes and/or melanocytes, and
   (c) co-culturing the *de novo* papilla with the at least one other cell population under non-adherent culture conditions.

2. Method according to claim 1, wherein the at least one other cell population is derivable and/or derived from a mammal hair follicle, which is selected from the group of fibroblasts of the connective tissue sheath, keratinocytes and/or melanocytes.

3. Method according to claim 1 or 2, wherein the *de novo* papilla of step (a) is coated with extracellular matrix proteins, preferably collagen IV, fibronectin and/or laminin.

4. Method according to one of claims 1 to 3, wherein *de novo* papillae are produced according to one of the methods of anyone of claims 5 to ~~8 6 to 10~~.

5. A method for producing *de novo* papillae usable in a method of one of claims 1 to 4, comprising the steps of:
   (a) providing at least one dermal papilla (DP) from at least one mammal hair follicle,
   (b) isolating dermal hair papilla fibroblasts (DPFs) from the DP by mechanically fixing said DP at the surface of a cell culture vessel, whereby the basal lamina is perforated to allow said DPFs migrating out,
   (c) expanding the isolated DPFs in monolayer culture without collagen coating, wherein said DPFs are passaged at least once,
   (d) condensing the expanded DPFs into cell aggregates that exhibit the size and shape of the physiological DP, wherein said DPFs are differentiated in non-adhesive culture vessels in a cell concentration per vessel surface of 1.000 to 100.000 DPFs/cm², and
   (e) coating the *de novo* papillae with extracellular matrix proteins, preferably collagen IV, fibronectin and/or laminin.

6. The method of claim 5, wherein the expanded DPFs are condensed for at least 48h.

7. The method according to claim 6, wherein the expanded DPFs are condensed for 2 to 21 days.

8. The method according to one of the claims 5 to 7, wherein in step (d) non-inductive DPFs are condensed.

9. *De novo* papillae comprising a cell aggregate of mammalian dermal hair papilla fibroblasts (DPF), the cell aggregate exhibiting at least half the size and approximately the shape ~~and the size~~ of a physiological dermal papilla (DP) of a hair follicle after isolation and being coated with extracellular matrix proteins, wherein the *de novo* papilla is produced by the method according to one of claims 5 to 8.

10. Hair microfollicle composed of a *de novo* papilla of ~~one of~~ claims 91 ~~to 4~~ that is stably covered by cells of at least one other cell population selected from the group of fibroblasts, keratinocytes and/or melanocytes, wherein the hair microfollicle is produced by a method comprising the steps of:
    (a) providing at least one *de novo* papilla of ~~one of~~ claims ~~1 to 4~~9,
    (b) providing at least one other cell population selected from the group of fibroblasts, keratinocytes and/or melanocytes, and
    (c) co-culturing the *de novo* papilla of ~~one of~~ claims ~~1 to 4~~ 9 with the at least one other cell population under non-adherent culture conditions.

11. Hair microfollicles according to claim 10, wherein the at least one other cell population is derivable and/or derived from a mammal hair follicle, which is selected from the group of fibroblasts of the connective tissue sheath, keratinocytes and/or melanocytes.

12. Skin equivalent comprising the hair microfollicles according to claim 10, or the *de novo* papillae according to claim 9.

13. Implant comprising as active ingredient the hair microfollicles according to claim 10 and/or the *de novo* papillae according to claim 9, optionally together with pharmaceutically tolerable adjuvants.

14. Transplant comprising as active ingredient an effective amount of the skin equivalent according to claim 12, optionally together with pharmaceutically tolerable adjuvants.

15. Hair microfollicles according to claim 10, *de novo* papillae according to claim 9 and/or skin equivalent according to claim 12 for the prophylactic or therapeutic treatment of a condition of reduced amount of hair.

16. A kit comprising the hair microfollicles according to claim 10, the *de novo* papillae according to claim 9, the skin equivalent according to claim 12, the implant according to claim 13 and/or the transplant according to claim 14.

17. Use of the hair microfollicles according to claim 10, the *de novo* papillae according to claim 9 and/or the skin equivalent according to claim 12 for *in vitro* testing hair-modulating effects of substances.

18. Use of the hair microfollicles according to claim 10, the *de novo* papillae according to claim 9 and/or the skin equivalent according to claim 12 for *in vitro* testing toxic effects of substances.

19. ~~A method for treating a condition of reduced amount of hair, wherein the hair microfollicles according to claim 10, the *de novo* papillae according to claim 9, and/or the skin equivalents according to claim 12 are incorporated into the skin of a mammal in need of such treatment~~.

~~20~~19. A method for high-throughput screening substances, which modulate hair properties, comprising the steps of:

- providing a sample of the *de novo* papillae according to claim 9, the hair microfollicles according to claim 10 and/or the skin equivalent according to claim 12,
- dividing the respective sample into portions,
- incubating at least one portion with substances to be screened, and
- comparing parameters of hair properties in the portion with another portion that is not incubated with the substances.