



US008492112B2

(12) **United States Patent**
Lin et al.

(10) **Patent No.:** **US 8,492,112 B2**
(45) **Date of Patent:** **Jul. 23, 2013**

(54) **METHOD FOR THE MANUFACTURE OF
MICROTISSUES FOR INDUCING THE
GROWTH OF A HAIR FOLLICLE**

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(*) **Notice:** **Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.**

(21) **Appl. No.:** **13/008,669**

(22) **Filed:** **Jan. 18, 2011**

(65) **Prior Publication Data**

US 2012/0183985 A1 Jul. 19, 2012

(51) **Int. Cl.**
C12Q 1/02 (2006.01)
C12N 5/00 (2006.01)

(52) **U.S. Cl.**
USPC 435/29; 435/325; 435/373

(58) **Field of Classification Search**
USPC 435/29, 325, 373
See application file for complete search history.

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Chien-Mei Yen et al., High-throughput reconstitution of epithelial-mesenchymal interaction in folliculoid microtissues by biomaterial-facilitated self-assembly of dissociated heterotypic adult cells, *Biomaterials*, 2010, pp. 4341-4352, vol. 31.

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(57) **ABSTRACT**

Disclosed is a method for the manufacture of microtissues, comprising the steps of: providing a biomaterial substrate; simultaneously seeding a plurality of dermal papilla (DP) cells and keratinocytes on the substrate surface with a predetermined ratio and cellular density; co-culturing for a predetermined period; and carrying the keratinocytes to the substrate surface by the dermal papilla cells, aggregating and finally form a plurality of keratinocyte-dermal papilla cell microtissues, wherein the dermal papilla cells are located in a center of the microtissue and the keratinocytes are sorted to a surface of the microtissue, and the keratinocytes are adult keratinocytes. The method can help to simply and economize the procedures for production of folliculoid microtissues with high-throughput. Once microtissues are transplanted to skin of subject, hair follicles can be regenerated.

5 Claims, 13 Drawing Sheets
(8 of 13 Drawing Sheet(s) Filed in Color)