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Follicular stem cells and their potential applications

Publication status and date:

Published: 24/05/2019

Document Version

Other version

Citation for the published version (APA):
Gho, C. (2019). Follicular stem cells and their potential applications. [Doctoral Thesis, Erasmus University Rotterdam]. Erasmus Universiteit Rotterdam (EUR).

Link to publication on the EUR Research Information Portal

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Stellingen behorend bij het proefschrift

"Follicular stem cells and their potential applications"

Conradus G Gho

Follicular stem cells in whole hair follicles as well as plucked hairs are located in the bulge area of the hair follicle.

This thesis.

A solution containing Bis (maltolato) oxovanadium (BMOV) which inhibit tyrosine phosphatase and is protective against apoptosis, preserves the viability of hair transplantation grafts better compared to Ringers' lactate or saline solution. This thesis.

Transplanted partial longitudinal follicular units (PL-FU's) which contain sufficient viable follicular stem cells, can be used as grafts to generate hair growth with the same characteristics as in the donor area.

This thesis

Partial Longitudinal follicular unit transplantation (PL-FUT) has shown to be an effective technique for androgenic and cicatricial alopecia as well as facial hair restoration of the eyebrows with a high patients satisfaction, minimal side effects, natural result and preservation of the donor area.

This thesis.

Follicular stem cells derived from plucked hairs allow practical application of hair follicle stem cells as a source for regenerative medicine because these follicular stem cells has neural crest stem cells (NCSC) characteristics and can easily be cultivated, expanded and kept frozen until needed while keeping NCSC characteristics. This thesis.

Cultured follicular stem cells derived from plucked hair can regenerate new hair, in vitro as well as in vivo.

Lee et al (Cell Rep 2018, 22(1):242-254)

Imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution. Albert Einstein.

The more you know, the more you know you don't know. Aristotle.

Water is the softest thing, yet it can penetrate mountains and earth. This shows clearly the principle of softness overcomes hardness.

Lao Tzu.

The only thing you do not want to become in your life is bald. Gerard Joling.

The only moment you are allowed to be angry, is the moment you cannot be angry anymore.