[Non-Patent Literature 1] Festa E. et al., Cell, 146: 761-771, 2011

[Summary of Invention]

[0005]

The present invention provides a composition for hair improvement.

[0006]

The present inventors have found that pioglitazone can be used in improving hair volume or quality. The present invention is based on this finding.

[0007]

The present invention provides the following inventions:

(1) A composition containing pioglitazone, for use in improving hair volume or quality.

(2) The composition according to (1) described above, being a composition for oral administration.

(3) The composition according to (1) described above, being a composition for topical administration to the skin.

[0007a]

In one aspect, the present disclosure provides a use of a composition in the manufacture of a medicament, for use in improving hair quality selected from the group consisting of increasing hair thickness, hair cuticle alignment, and reducing the number or rate of white

hairs, and/ or increasing anagen-stage hairs, wherein the composition comprises pioglitazone.

[0008]

(11) A composition containing pioglitazone, for use in improving hair volume or quality by accelerating tissue repair of the skin accompanying increase of an M2 macrophage and increase of PPARγ expression.

[Document Name] Claims

[Claim 1]

Use of a composition in the manufacture of a medicament, for use in improving hair quality selected from the group consisting of increasing hair thickness, hair cuticle alignment, and reducing the number or rate of white hairs; and/ or increasing anagen-stage hairs, wherein the composition comprises pioglitazone.

[Claim 2]

The use according to claim 1, wherein the composition is for oral administration.

[Claim 3]

The use according to claim 1, wherein the composition is for topical administration to a skin.

[Claim 4]

The use according to claim 1, wherein improving hair quality and/or increasing anagen-stage hairs induces a juvenile adipocyte, or induces histogenesis of a skin accompanying induction of a juvenile adipocyte.

[Claim 5]

The use according to claim 4, wherein the juvenile adipocyte includes a CD34-positive and PPARγ-positive adipocyte.