

# Super whitening

# **SLC24A5** Inhibitor II

## ampoule



# Clinical Study



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### Introduction

SLC24A5 is a genetic protein produced by SLC24A5 gene in human chromosome 15 (1), which is comprises of 396 amino acid molecules, classified as one of the Potassium Dependent Sodium/Calcium Exchanger family. Clinical studies have revealed that the activities of SLC24A5 gene is closely related to the complexion of an organism, and low level of SLC24A5 gene activities is regarded as the major factor which contributed to lighter complexion in Caucasians versus other ethnics.

In 2005, we found SLC24A5 Inhibitor II in organisms with albinism which inhibits the activities of SLC24A5 gene, which can disable the activities of SLC24A5 gene, disrupting the processes of melanogenesis. An animal study was conducted, which successfully whitened the complexion of zebra fish, with results as shown below (4) :



The above clinical study is followed by an in vitro study of synthetic SLC24A5 apply II, which shown that it is able to reduce the number and size of melanocytes, as in the following diagram (5):



All the above studies had revealed the potentials of SLC24A5 inhibitor II as an ideal skin whitening therapy, as in theory, treatment of SLC24A5 Inhibitor will disable the

SLC24A5 gene in the body permanently, rendering a permanent solution to skin whitening in aesthetic medicines. However, the activities of such inhibitor have to be contemplated sufficiently to avoid the consequences of pathologic, systemic albinism (loss of pigments in hairs and eyes).

In 2008, a Research Team of Genetic Medicines of Institution of Biomedical Sciences, led by myself, had improvised on the previous SLC24A5 Inhibitor, with clearly defined and predictable biochemical pathways, with whitening effects confined to the skin cell only, without affecting the hair and eyes.

After careful improvisation and research, we started the first clinical study with SLC24A5 Inhibitor II in human subjects in 2008.

### Details:

1200 subjects of different ethnics took part in this clinical study, comprises of 500 black Africans and 700 Asians of darker complexion (From China, Korea, Japan, Thailand, India, Indonesia, Middle East...etc), 600 females and 600 males, age between 15-65. All subjects were treated with 500mg of SLC24A5 Inhibitor at alternate day, of different duration, depending on their complexion. Subjects with darker complexion, e.g. Africans, Indians,

Indonesian...etc, will be treated 54 times (in 108 days) while those of lighter complexion will be treated 18 times (in 36 days). Changes of pigments in skin, hair and eyes are recorded weekly throughout the period of clinical study, and continue to observe the subject for 6 months after the completion of the study, to make sure there's no spread of SLC24A5 Inhibitor's effects to the hair and eyes.

### Result:

Complexion of 300 Asian subjects of darker complexion become fairer after the 9th treatments (18th day) of SLC24A5 Inhibitor II, characterized as slightly whitening and glowing of facial complexion, with improvement of 40-55% fairer then before treatment. Asian subjects of darker complexion also have shown a 25-35% improvement in complexion following 9 treatment. Approximately 5% of African subjects shown slight lightening of facial complexion after the 8th treatment. The efficacies of SLC24A5 Inhibitor is consistent, which begins from the head, then gradually extended downwards to the face and neck, and continue to the whole body. 36 days after treatments: Subjects with lighter complexion had obtained very good skin complexion after the 18th treatment, with ideal and even whitening of skin of their whole body. Subjects with darker complexion achieved 35% lightening of the complexion in 30% of the skin surface and they shall continue to treat 400ma of SLC24A5 Inhibitor II till the 54th treatment.

72 days after treatment: Subjects of darker complexion continue to show improvements in complexion, with 70% of skin surface become fairer. 108 days after treatment: At the completion of the study, all subjects of darker complexion become as fair as Caucasians.

### Conclusion:

SLC24A5 Inhibitor II invented by Institution of Biomedical Sciences has exhibited superb inhibition of SLC24A5 gene in all ethnics, exerting whitening of pigments confined only to the skin. This is an unprecedented achievement, which can whiten the skin effectively and safely. All subjects are observed for 6 more months after the completion of clinical study and it is concluded that all organ functions are not affected by the treatment of SLC24A5 gene, without cytotoxic effects of this treatments against the pigments in the hair and eyes.



The most commendable achievements of this study is, with our effort, what used to be regarded as impossible had come true, where even the genetically dark skin Africans can now become as fair as Caucasians. The following is the end result of some African black subjects:

As we can see from the above diagram, the effect of SLC24A5 gene inhibitor will whiten the skin without

affecting the pigment of eyes and hairs. Hence, concluded that the newly improvised SLC24A5 Inhibitor acts only on skin pigments without affecting other pigment cells. The followings are before and after comparisons of other subjects:





Before

After the 18th treatment



After the 36th treatment



After the 54th treatment



Before

After the 9th treatment

After the 18th treatment

#### References:

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2. SLC24A5 Encodes a trans-Golgi Network Protein with Potassiumdependent Sodium-Calcium Exchange Activity That Regulates Human Epidermal Melanogenesis, Rebecca S. Ginger, Sarah E. Askew, Richard M. Ogborne, Stephen Wilson, Dudley Ferdinando, Tony Dadd, Adrian M. Smith, Shubana Kazi, Robert T. Szerencsei, Robert J. Winkfein, Paul P. M. Schnetkamp and Martin R. Green.

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