







# Certificate

This is to certify that

DR. Dr. Ago Halim MARS, SpKK

has attended:

7th International SWAM
Anti Aging Exhibition 2016

# **Defeating Aging**

as:

### SPEAKER

December 2nd - 4th 2016

Indonesia Convention Exhibition, BSD City, Tangerang - Indonesia Accreditation: 00775/PB/A.4/11/2016

Participant: 15 SKP IDI Speaker: 12 SKP IDI Moderator: 4 SKP IDI Organizing Committee: 2 SKP IDI

Prof. DR. Dr. Abdul Razak Thaha, MSC. SpGK

Chairman of Perdaweri

Dr. Teguh Tanuwidjaja, M. Biomed (AAM)

Main Commissiner







### international SWAM - Anti-Aging Exhibition 2016

Indonesia Convention Exhibition (ICE) BSD – Tangerang, December 2<sup>nd</sup> – 4<sup>th</sup>, 2016

No : 187/PGM/X/2016 Issue : Speaker invitation

To the Honorable DR. Dr. Ago Harlim MARS., SpKK in Indonesia

With Regards,

Through this letter, We are as the Organizing Committee of INTERNATIONAL SWAM – ANTI AGING EXHIBITION 2016, at Indonesia Convention Exhibition (ICE) BSD – Tangerang, Indonesia, pleads willingness DR. Dr. Ago Harlim MARS., SpKK, as a Speaker in our event on 2<sup>nd</sup> - 4<sup>th</sup> December, 2016, as follows:

Day & Date : Sunday, 4th December, 2016

Time : 10.30 - 11.15 WIB

Topic 1 : Adipose Stemcell for Aesthetic

Place : Classroom A , Nusantara Hall 2

Day & Date : Sunday, 4th December, 2016

Time : 15.45 - 16.30 WIB

Topic 1 : Growth Factor make your Skin Regeneration

Place : Classroom D, Garuda 8 ab

We would like you to fill the Speaker Form, and also send your lecture matter and curriculum vitae to our email address: <a href="mailto:anne.pgm@yahoo.com">anne.pgm@yahoo.com</a> before November 12, 2016. We hope Your Honor may provide the time to give a lecture, at our Seminar. Thank you for your kindness and attention.

Jakarta, 30 November 2016 Sincerely,

(dr. Teguh Tanuwidjaja, M. Biomed AAM) Chairman of the Organizing Committee FW: Letter Speaker of International SWAM 2016

To: Dr harlim xl xl xl, Jessica Angelina

Kepada Yth.

Nurcholis @

DR.dr.Ago Harlim MARS., SpKK

Berikut ini kami lampirkan undangan untuk DR.dr.Ago Harlim MARS., SpKK. Sebagai pembicara pada acara SWAM INTERNATIONAL - ANTI AGING EXHIBITION 2016 yang berlangsung di Indonesia Convention Exhibition (ICE) BSD – Tangerang, sebagai berikut:

== Hari & Tanggal : Minggu, 4 Desember 2016

: 15.45 – 16.30 WIBB == Waktu

: Classroom D == Tempat

Terimakasih banyak atas perhatian dan kerjasamanya yang baik.

Best regards, Nurcholis Kurniawan



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# Anti Aging Exhibition 2016 Defeating Aging

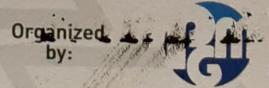


Speaker

DR. Dr. Ago Harlim MARS., SpKK



December 2nd - 4th 2016 Indonesia Convention Exhibition, BSD City, Tangerang - Indonesia



PT.Perdesti Global Medicom.

### **Growth Factor Make Your Skin Regeneration**

## Ago Harlim Universitas Kristen Indonesia

### **Abstract**

Growth factors play a key role in the regulation of numerous cell processes including wound healing. More recently, they have been recognized also for use in skin rejuvenation. Aged skin reveals a similarly altered growth factor response as a chronic wound. Growth factors may reduce signs of skin aging due to their capacity to promote dermal fibroblast proliferation and to stimulate extracellular matrix formation. Growth factor products for skin rejuvenation can contain either recombinant growth factors, growth factors as part of conditioned cell culture media, or growth factors as part of cell lysates. Numerous randomized controlled clinical trials demonstrated the good tolerability and efficacy of those products. Today, there is evidence that the signs of aging skin may be best improved with a balanced mixture of growth factors.

Chronic sun exposure causes various forms of skin damage. Chronic exposure to solar ultraviolet irradiation can result in facial photoaging such as fine lines and wrinkles, poor texture, and sagging skin. Facial photoaging has become one of the most prevalent aesthetic concerns. New topical formulas can facilitate the skin to repair wrinkles, leading to a younger, healthier looking face and glowing skin. Furthermore, these topical formulas can mitigate further aging by accelerating the synthesis of collagen. An improved understanding of the biochemical mechanisms of skin aging has resulted in the identification of key pathways of intervention to reverse of skin aging.

### Intoduction

Growth factors are polypeptides or proteins that play a key role in the regulation of physiological processes. Growth factors are produced and secreted by skin cells such as fibroblasts, keratinocytes, and melanocytes. One type of these growth factors is cytokines, which are involved in regulating the immune system and repairing the skin.<sup>1-4</sup> Many growth factors are involved in wound healing, both chronic and acute in nature. Various signals direct the cellular responses during each phase of healing, but growth factors are among the most important. For effective wound repair, the correct growth factors should be presented within the proper framework.<sup>3,5</sup>

Successful skin repair requires a balance between the function of multiple growth factors and cytokines. Within the past decade, there has been an increasing depth of knowledge about the benefits of topical growth factors for skin rejuvenation. Results from previous clinical studies demonstrate signficiently increased production of new collagen following the topical application of physiologically balanced growth factors mixtures.<sup>3, 6</sup>

The present report details a retrospective study that examined the efficacy of the application of topical growth factors (Wove Style, Tokyo, Japan) after microneedling treatment for the reduction of visual signs of facial photoaging.

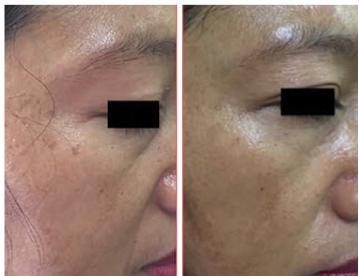
### **METHODS**

Eight female patients between the ages of 35 to 60 years with Fitzpatrick skin types III to IV and mild-to-moderate photodamage, skin laxity, fine lines, and wrinkles (Fitzpatrick Wrinkle Scale: 3–6) were enrolled to receive the treatment protocol. Inclusion criteria were Fitzpatrick skin types III to IV and the presence of mild-to-moderate wrinkles (Fitzpatrick Wrinkle Scale: 3–6). Subjects who did not consent to the study and/or those with any of the following conditions were excluded: pregnant or lactating, Fitzpatrick skin types I to II and V to VI, significant skin disease in the test areas, a history of poor wound healing or keloid formation, and/ or completion of previous skin rejuvenating procedures one month prior to the study.

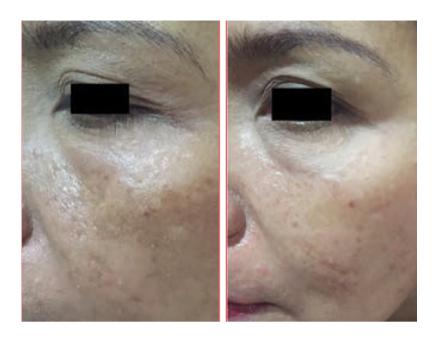
The treatment area was thoroughly cleansed with a mild soap before each procedure. Topical anesthetic cream (lidocaine 2.5%, prilocaine 2.5%; Genero Pharmaceuticals, Bekasi, Indonesia) was applied to the treatment area for 45 minutes before treatment. Eight patients subsequently applied 2mL of gel containing a mixture of four different growth factors (Wove Style, Tokyo, Japan) to photodamaged facial skin after microneedling procedures. This was performed every 10 days, with three treatments total. The gel contained a biosynthetic mixture of epidermal growth factor, fibroblast growth factor, hepatocyte growth factor, and insulin-like growth factor. An independent physician evaluator assessed the treatment response by comparing pre- and posttreatment clinical photographs using the Fitzpatrick Wrinkle Scale (before and after four weeks of treatment). Assessment of side effects was completed after the second and third treatments. Patients were evaluated after each procedure by an independent physician evaluator using the Fitzpatrick Wrinkle Scale. Patient questionnaires were completed during the fourth week.

### **RESULTS**

The independent physician evaluator's assessments of photodamage, texture, fine lines, and wrinkles were collated and analyzed using a nonparametric Wilcoxon signed-rank test. In aggregate, a significant difference was noted in the appearance of the Fitzpatrick Wrinkle Scale between the baseline and posttreatment photographs (p<0.001). Procedural complications were limited to slight erythema lasting 1 to 2 days. No instances of infection, scar, contact dermatitis, or postinflammatory pigmentary alteration were observed (Figures 1 and 2)



Figures 1: Skin laxity and prominent nasolabial fold A) prior to treatment and B) improvement seen after treatment



Figures 2 : Skin texture and wrinkles on the periorbilital area A) before treatment and B) improvement seen after treatment

According to the patient questionnaires that were completed during the fourth week, four patients noted improvement in their wrinkles and fine lines and six patients noted their skin tone had become more even. One patient felt no improvement occurred in either her wrinkles or her skin tone. All patients commented that their skin texture felt smoother.

### **DISCUSSION**

Repetitive exposure to ultraviolet radiation accelerates skin aging, leading to the formation of peroxyl free radicals; these break down to form malondialdehyde and subsequently cross-links and polymerizes collagen, causeing the inactivation of growth factors, breakdown of matrix proteins, and membrane lipid damage.<sup>2,3</sup> Clinical manifestations of photodamage-induced aging processes include a loss of skin elasticity and firmness, fine lines and wrinkles, and uneven skin tone.<sup>3</sup>

Growth factors are chemical messengers that travel between cells and direct them to turn on or off specific cellular activities such as cell proliferation, chemotaxis, and extracellular matrix formation. Topical application of growth factors also reduces signs of photoaging by promoting fibroblast and keratinocyte proliferation and inducing extracellular matrix formation. Growth factors can be derived from several sources, including epidermal cells, human foreskin, placental cells, colostrum, recombinant bacteria, yeast, and plants. Growth factors can also be produced biosynthetically. 11, 12

### **CONCLUSION**

In this study, the application of topical growth factors after microneedling resulted in marked clinical improvement in the signs of facial photoaging as measured by an independent physician assessment of clinical photographs after three treatment sessions.

**Limitations.** This topical treatment is nonsterile and use should be carefully considered before introducing to open skin. In addition, prolonged use could introduce foreign materials into the

skin and cause significant allergic reaction in some people. Further research over a longer period of time is needed for more thorough evaluation of efficacy and safety. Additional studies with larger patient groups and longer term follow up are required to more comprehensively assess and define the optimal benefits of topical biosynthetic growth factors.

### REFERENCES

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