



The signs of ageing becomes even more visible – particularly in our lower face as we age.

The loss of skin elasticity and thickness, along with a reduction in bone structure and fatty tissue lead to sagging and a shift in volume.

Beyond loss in volume, the quality of our skin also changes as we age. This is due to our skin gradually losing collagen and elastin that gives the skin its strength and elasticity. As a result, lines and wrinkles starts to appear, reflecting this changes happening within.

Regardless of age, your patients want to own their youth and beauty with confidence. Demanding for more than just an everyday filler, they want to have best of both worlds. Not just to have defined contours but taking it a step further to also achieve energized and improved skin quality, allowing them to put their best face forward.

So how can you help your patients repair their skin from within and gain the confidence from all angles?









Calcium hydroxylapatite (CaHA) forms the unique cornerstone of RADIESSE®.¹ Metabolized naturally and completely biodegradable².³, the CaHA microspheres are suspended in a gel ideal for injection, with RADIESSE® Lidocaine having added lidocaine for your patients' comfort.⁴.⁵

Far beyond volumizing, discover the triple effect of RADIESSE®.



### TRIPLE EFFECT: A UNIQUE MODE OF ACTION



### **IMMEDIATE**

### **VERSATILE FILLING**<sup>6,13</sup>

Immediate effect due to gel matrix

### **VOLUME LIFTING & CONTOURING**<sup>8-10,14</sup>

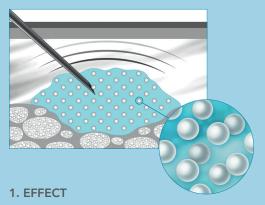
Collagen production through CaHA-induced biostimulation

# AND LONGER<sup>15,16</sup>

### NEOCOLLAGENESIS<sup>3,10-12,17</sup>

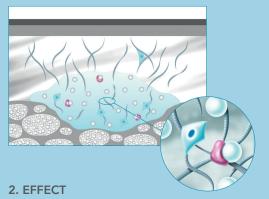
Collagen-induced improvement of skin quality

### IMMEDIATE 1:1 CORRECTION



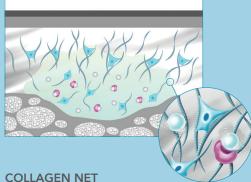
Gel matrix with CaHA microspheres results in effective wrinkle filling and 1:1 correction.

### STIMULATION OF **COLLAGEN NEOGENESIS**



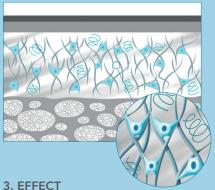
CaHA microspheres form a "scaffold" that provides mechanical stimuli, triggering fibroblasts to produce collagen.

### TIGHT COLLAGEN NETWORK STRENGTHENS THE DERMIS



A firm network of collagen fibers forms in the dermis, providing a lifting and contouring effect.

### HIGH DENSITY OF **COLLAGEN AND ELASTIN**



The newly formed network provides long-term structural support to the dermal microenvironment.



Gel matrix



Fibroblasts

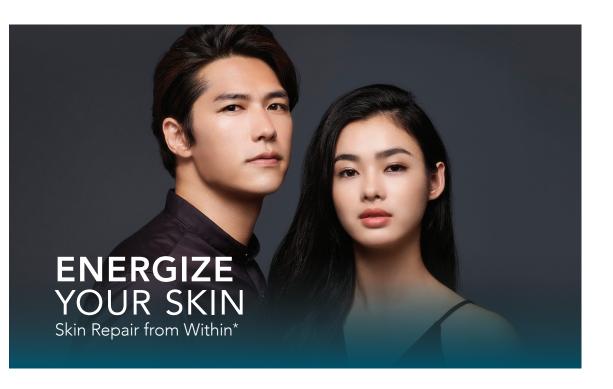


**₡₡** Macrophages









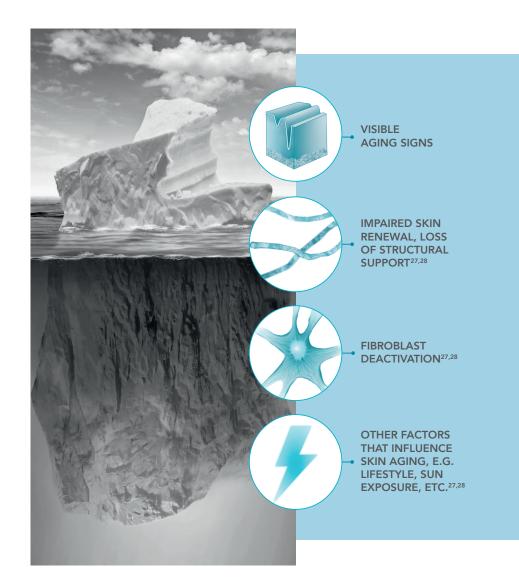
# SKIN AGEING STARTS FROM WITHIN, SO DOES SKIN REPAIR

As skin ages, the wrinkles and lines on the surface reflects the changes happening within.

In young skin, interaction with the dense collagen network activates dermal fibroblasts that continually renew the primary components of the skin's structural scaffolding, keeping it firm and elastic. <sup>27,28</sup>

Over time, this "power switch" starts to fail. Gradual loss of collagen due to intrinsic and extrinsic aging factors deprives the fibroblasts of mechanical stimulation, switching them to and "off" state. As a result, the fibroblasts lose their skin-renewing capacity – intensifying the appearance of aging signs. <sup>27,28</sup>

Beyond volumizing, Repair your skin from within with RADIESSE®, for improved skin quality and Energized Skin.



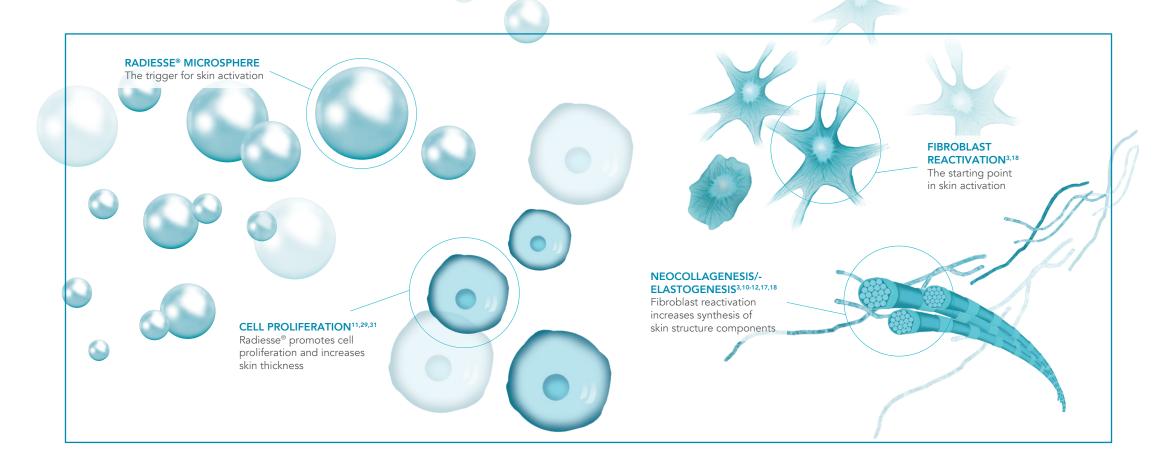
### TIME TURNS THE SKIN OFF

Loss of fibroblast activity is a key event in skin aging. The progressive fragmentation of collagen fibers deprives dermal fibroblasts of activation cues and downregulates synthesis of the skin's essential components. 27,28

RADIESSE® ENHANCES STRUCTURAL SUPPORT OF THE DERMAL MICROENVIRONMENT – REACTIVATING FIBROBLASTS AND SUPPORTING REGENERATION. 3,10-12,17,18,29,31

# RADIESSE® TURNS THE SKIN BACK ON

The unique composition of RADIESSE® mimics the collagen scaffolding of the skin to reactivate dermal fibroblasts. Switching the fibroblasts to an "on" state, RADIESSE® triggers neocollagenesis and – elastogenesis, promoting skin repair from within. 3.10-12,17,18

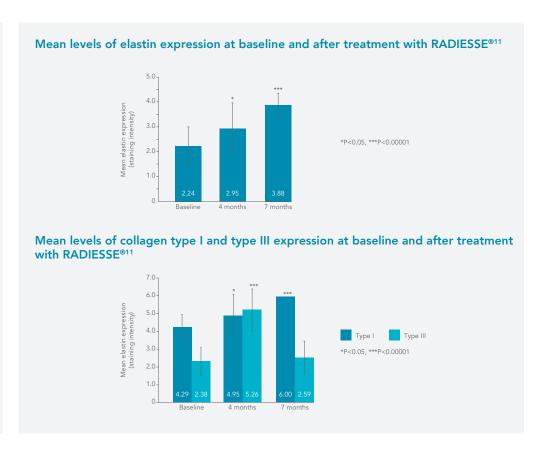


# RADIESSE® REACTIVATES DERMAL FIBROBLAST

Compared to normal aged fibroblasts, wrinkle fibroblasts develop less contractile forces.<sup>30</sup>

# Contractile forces developed by wrinkle fibroblasts with and without RADIESSE® 1.4e+5 1.2e+5 1.0e+5 8.0e+4 4.0e+4 2.0e+4 4.0e+4 1.2e+5 1.2e+5

# RADIESSE® STIMULATES COLLAGEN AND ELASTIN SYNTHESIS

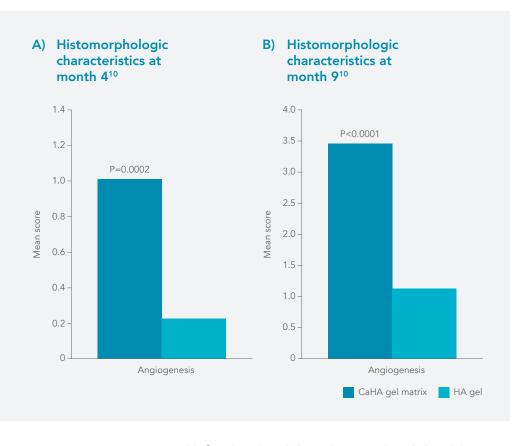


RADIESSE® RESTORES THE CONTRACTILE PROPERTIES OF WRINKLE FIBROBLASTS TO SIMILAR LEVELS OF NORMAL AGED FIBROBLASTS.30

WITH RADIESSE®, YOU CAN INDUCE TARGETED COLLAGEN BIOSTIMULATION.11,32



# RADIESSE® STIMULATES ANGIOGENESIS



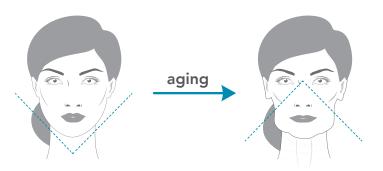
TREATMENT WITH RADIESSE® RESULTS IN SIGNIFICANT NEOANGIONESIS, WHICH SUGGESTS IMPROVED BLOOD FLOW AND DELIVERY OF NUTRIENTS TO THE SKIN. 10,111

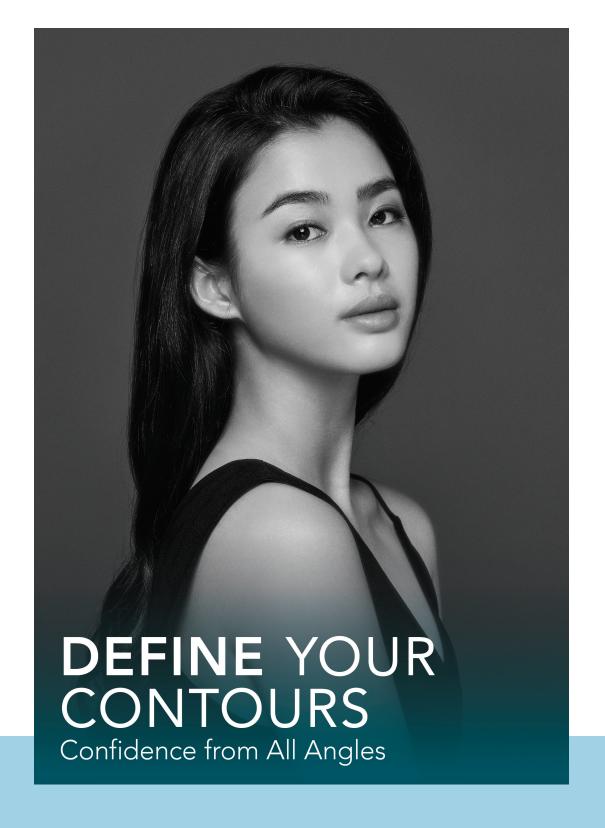
# TAILORED DEFINITION

With the loss of skin elasticity and thickness, along with a reduction in bone structure and fatty tissue leads to sagging and a shift in volume.

The face we see in the mirror begins to lack the contours that define our appearance, particularly in our lower face.

How can you provide an exclusive tailored solution that defines each individual patient giving them the confidence from all angles?





# UNIQUE PATIENT, UNIQUE INJECTION TECHNIQUE

To ensure patient satisfaction, it is important to understand each patient's unique aesthetic goal.

With RADIESSE®, you can customize your treatment to restore and define your patients' contours

### **INJECTION DEPTH**<sup>1</sup>



Subdermal injection

### **DEEP INJECTION**

The injection is delivered into the deep or subdermal tissue layer, near the subcutaneous structure.<sup>1</sup>

### **GOOD MODELLING POSSIBILITY**

The cohesive gel matrix is easy to shape and simple to model.<sup>7,23,24</sup>

### **INJECTION SITES**

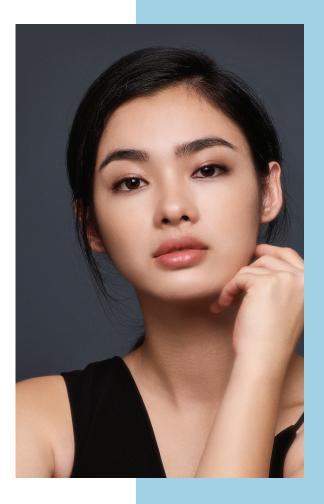












# VISCOSITY & ELASTICITY, AND WHY IT MATTERS

RADIESSE® demonstrates higher levels of viscosity and elasticity compared to HA-based fillers, giving it the strength to stay where you put it and deliver more lift with less volume for optimal results.<sup>7,24-26</sup>

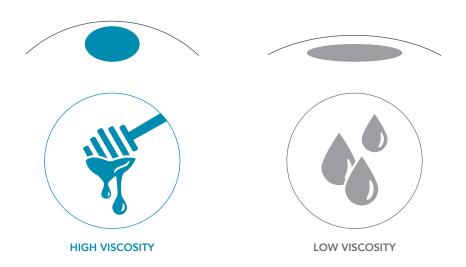
### **DEFINING HIGH VISCOSITY**

- + Stays where you put it without spreading to surrounding tissues<sup>24</sup>
- + Resists shearing forces within the tissues, or muscle movements<sup>2,3</sup>
- + What you see is what you get<sup>7,25,26</sup>

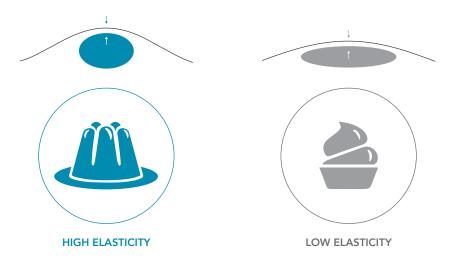
### **DEFINING HIGH ELASTICITY**

- + Resists forces it encounters regularly, such as gravity and skin laxity<sup>6,7</sup>
- + Provides greater lift to the overlying tissue<sup>6,7</sup>
- + Less volume achieves the desired results<sup>7,24</sup>

### RADIESSE®/RADIESSE® LIDOCAINE VS. HA-PRODUCTS®



### RADIESSE®/RADIESSE® LIDOCAINE VS. HA-PRODUCTS6

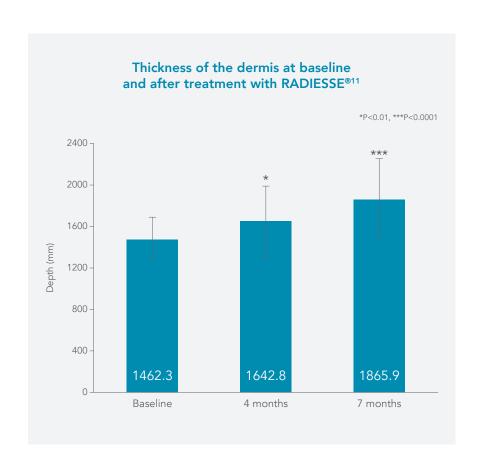


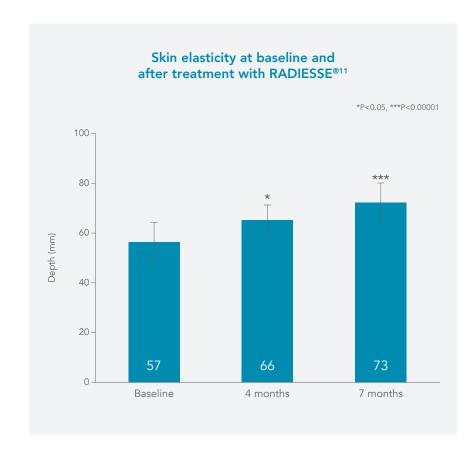
HIGH VISCOSITY = STAYING POWER<sup>7,25,26</sup>

HIGH ELASTICITY = ROBUST LIFTING POWER<sup>7,24</sup>

# RADIESSE® INCREASES SKIN THICKNESS AND ELASTICITY<sup>11,29</sup>

Treatment with RADIESSE® includes dermal remodeling, which is associated with an increase in skin thickness and improved skin elasticity. 11,29





# IMMEDIATELY VISIBLE RESULTS WITH LONG TERM EFFECTS

With its unique triple effect, RADIESSE® offers versatile treatment options for each unique patient with long term effects.

RADIESSE® can provide both instant volume correction and long-term skin quality improvement.<sup>2,11,3,14,33,34</sup>

### BEFORE







AFTER - 2 weeks after injection







**Treatment with RADIESSE® in cheeks** 

### **BEFORE**







AFTER - 2 weeks after injection





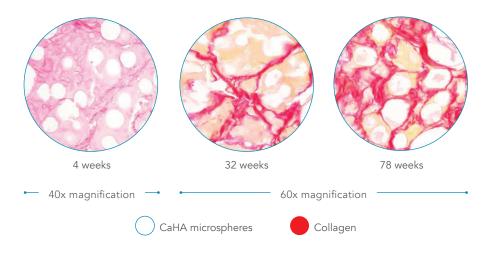


Treatment with RADIESSE® Lidocaine in chin, jawline

# LASTING RESULTS & HIGH SATISFACTION

RADIESSE® builds structural scaffolding by stimulating collagen production for a year or longer after only one injection. 15,16

### COLLAGEN AS STIMULATED BY RADIESSE®



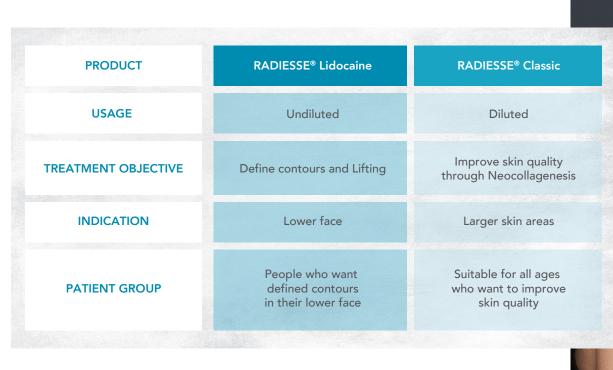
Histology slides demonstrate the deposition of new collagen around CaHA microspheres over an extended period of time. Collagen fibers stain red, while other tissue elements appear more yellow.\*

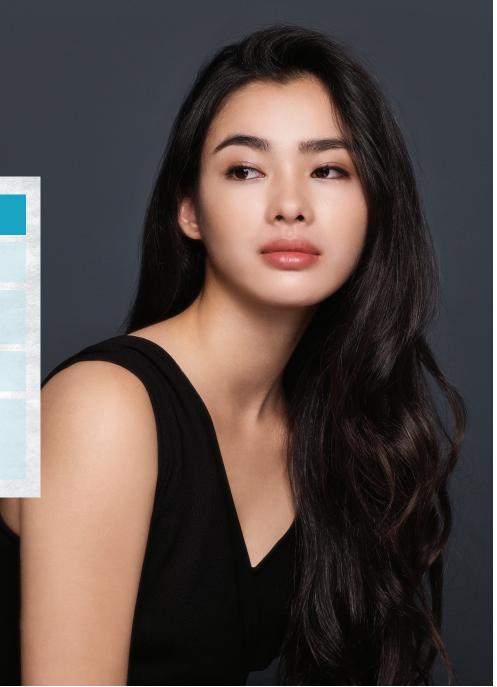
with over 7,500 patients HIGH PATIENT SATISFACTION<sup>21</sup> In a post-marketing study, all subjects reported to be willing to repeat and recommend treatment<sup>5</sup> **10 MILLION SYRINGES SHIPPED WORLDWIDE** 

AN EXCELLENT SAFETY PROFILE<sup>4,6,20</sup>

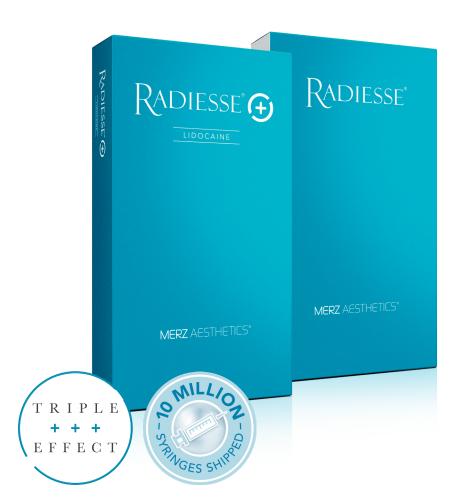
Confirmed in over 200 publications,

### **RADIESSE® PORTFOLIO**





### **ENERGIZE YOUR SKIN, DEFINE YOUR CONTOURS**





### THE TRIPLE EFFECTS

Vertical lifting<sup>6,7</sup>, Defined contours<sup>8-11</sup>, Neocollagenesis<sup>3,10-12</sup>



### **LASTING RESULTS**

Collagen production stimulation improves skin quality beyond the treatment<sup>3,10-12,17</sup>



### **IMMEDIATELY VISIBLE RESULTS**

With effects lasting through 12 months<sup>15,16</sup>



### **GREAT LIFT WITH LESSER VOLUME**

High elasticity and viscosity allows RADIESSE® to stay where you put it<sup>2,3,6,7,24-26</sup>



### **REFERENCES**

- 1. RADIESSE® Instructions for Use. Merz North America, Inc.
- 2. Pavicic T. Clin Cosmet Investig Dermatol. 2015;8:19-25.
- 3. Marmur ES, et al. J Cosmet Laser Ther. 2004;6(4):223-6.
- 4. Schachter D, et al. J Drugs Dermatol. 2016;15(8):1005-10.
- 5. Muti GF. J Drugs Dermatol. 2019;18(1):86-91.
- 6. van Loghem JV, et al. J Clin Aesthet Dermatol. 2015;8(1):38-49.
- 7. Sundaram H, et al. Dermatol Surg. 2010;36 Suppl 3:1859-65.
- 8. Dallara JM, et al. J Cosmet Dermatol. 2014;13(1):3-14.
- 9. Eviatar J, et al. Plast Reconstr Surg. 2015;136(5 Suppl):164S-70S.
- 10. Yutskovskaya Y, et al. J Drugs Dermatol. 2014;13(9):1047-52.
- 11. Yutskovskaya YA, Kogan EA. J Drugs Dermatol. 2017;16(1):68-74.
- 12. Berlin AL, et al. Dermatol Surg. 2008;34 Suppl 1:S64-7.
- **13.** Muti GF, et al. J Drugs Dermatol. 2015:14(9):948-54.
- 14. Pavicic T. Drugs Dermatol. 2013;12(9):996-1002.
- 15. Tzikas TL. Dermatol Surg. 2008;34 Suppl 1:S9-15.
- 16. Jacovella PF. Clin Interv Aging. 2008;3(1):161-74.
- 17. Zerbinati N. Clin Cosmet Investig Dermatol. 2018;11:29-35.

- 18. Zerbinati N, et al. Arch Dermatol Res. 2017;309(5):389-96.
- 19. Graivier MH, et al. Plast Reconstr Surg. 2007;120(6 Suppl):55S-66S.
- 20. Kadouch JA. J Cosmet Dermatol. 2017.
- 21. Juhász MLW, Marmur ES. Dermatol Surg. 2018;44(8)1084-93.
- 22. Data on File. Merz North America, Inc. April 2019.
- 23. Busso M, Voigts R. Dermatol Surg. 2008;34 Suppl 1:S16-23; discussion S4.
- 24. Meland M, et al. J Drugs Dermatol. 2016;15(9):1107-10.
- 25. Moers-Carpi M, et al. Dermatol Surg. 2007;33 Suppl 2:S144-51.
- 26. Moers-Carpi MM, Tufet JO. Dermatol Surg. 2008;34(2):210-5.
- 27. Varani J, et al. Am J Pathol. 2006 Jun;168(6):1861-8.
- 28. Fisher GJ, et al. Arch Dermatol. 2008 May;144(5):666-72.
- 29. Silvers SL, et al. Plast Reconstr Surg. 2006;118(3 Suppl):34S-45S.
- 30. Courderot-Masuyer C, et al. J Cosmet Dermatol. 2016 Sep;15(3):260-8.
- 31. Casabona G, Pereira G. Plast Reconstr Surg Glob Open. 2017;5(7):e1388.
- **32.** Carruthers JD, et al. Dermatol Surg. 2014;40(suppl 12):S136-136.
- 33. Amselem M. Clin Cosmet Investig Dermatol. 2016;9:9-14.
- **34.** Smith S, et al. Dermatol Surg. 2007;33 Suppl 2:S112-21; discussion S21.

