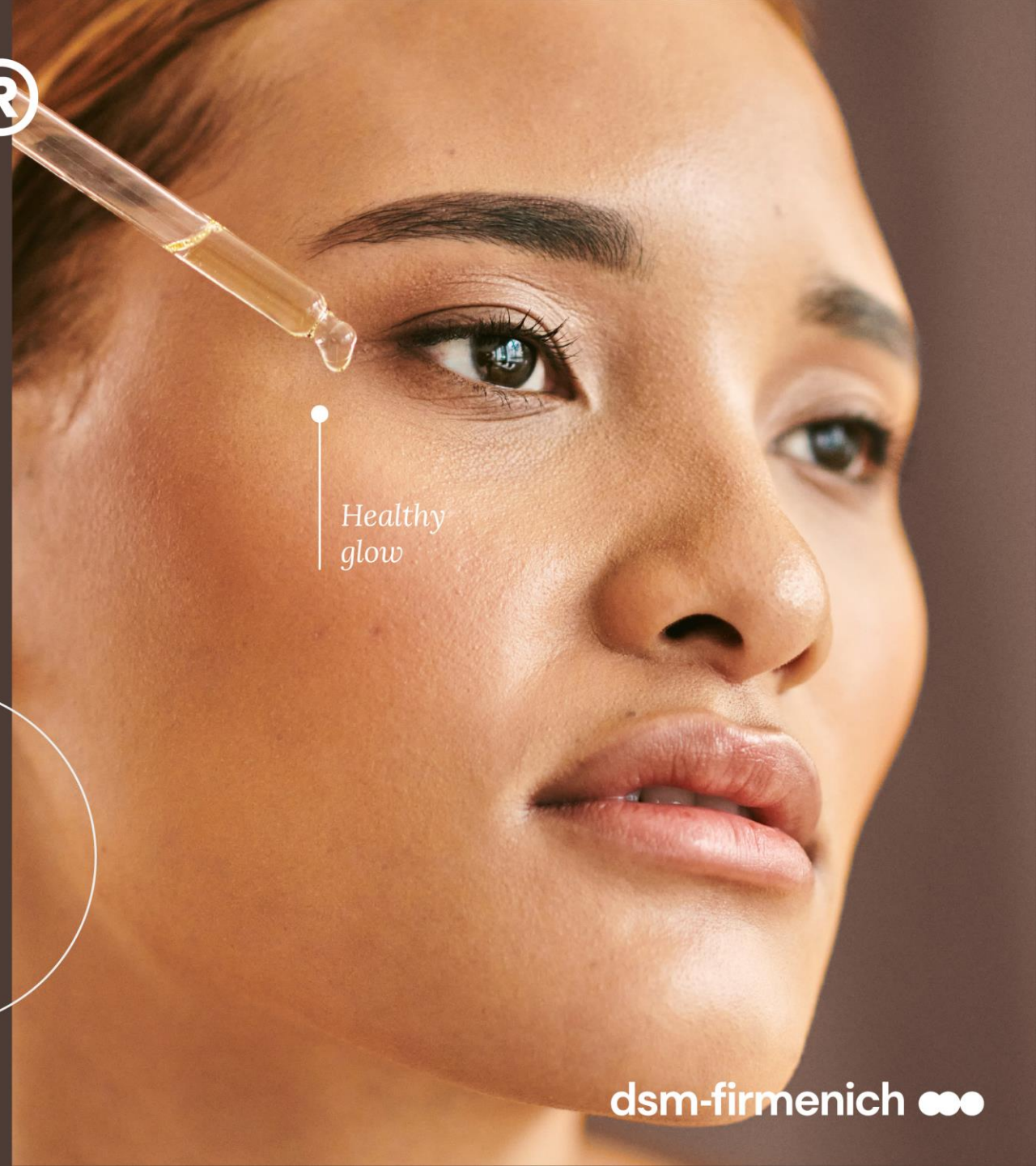


SYN-GLOW®

Reveal your summer glow



Healthy
glow

June 2025

Peptides | Pharma-inspired skincare

dsm-firmenich 

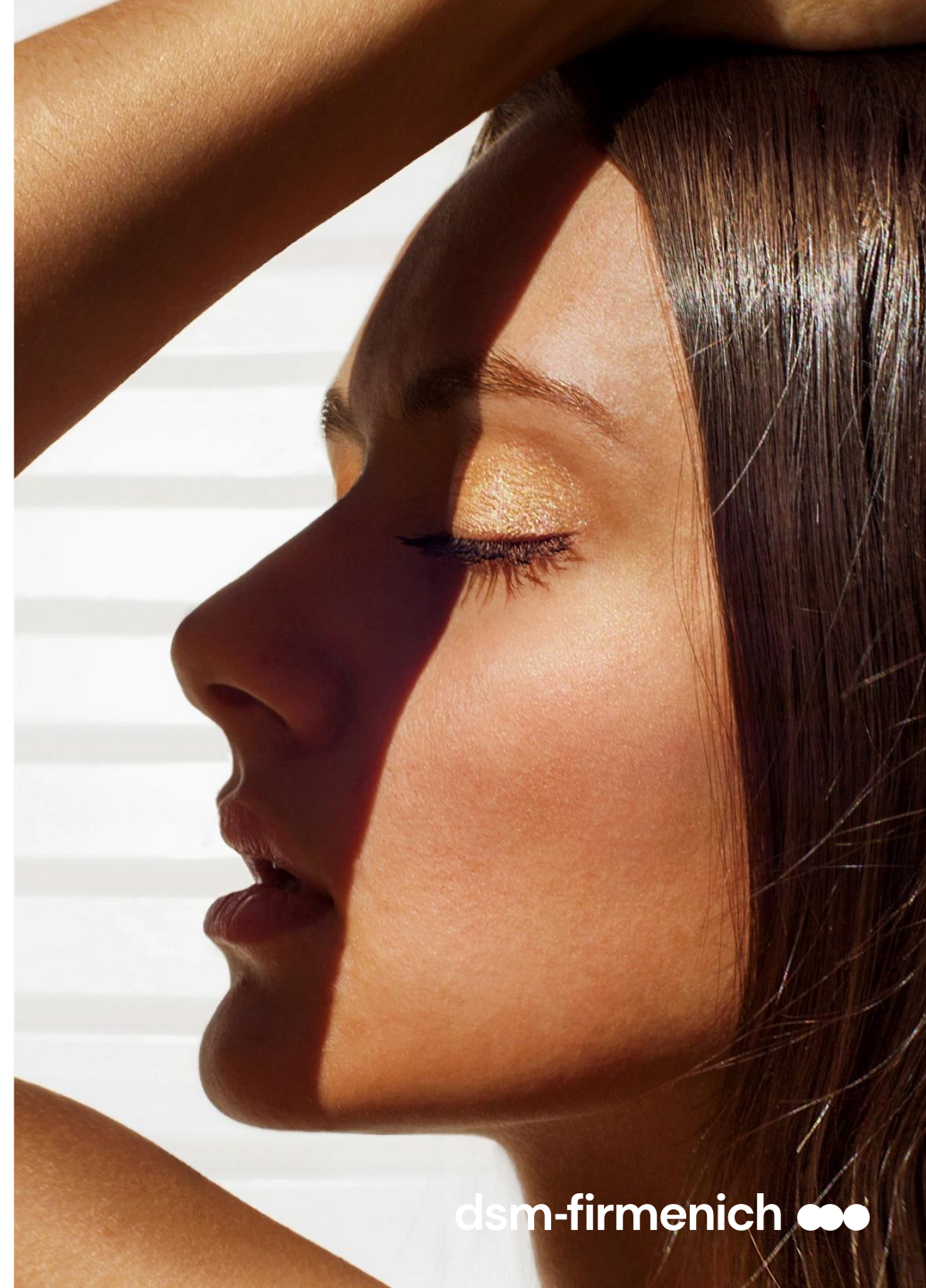
We all love that natural sun-kissed glow that we get from a summer holiday

Sunbathing bronzed skin makes us feel beautiful and confident, healthier and revitalised.

Besides the joys, dangers of sunbathing and deep tanning are well recognized, with beauty standards evolving towards more natural and healthier glow.

Skin pigmentation is mostly achieved via chemical tanners which usually provide unnatural, uneven look.

Consumers want more...



Consumer insights

A woman with short grey hair is shown in profile, looking towards the left. She is wearing large, black, over-ear headphones. Her right hand is resting on her chin, with her fingers slightly curled. She is wearing a dark, possibly black, turtleneck sweater. The background is blurred, showing horizontal lines of light and dark colors, suggesting an indoor setting with shelves or a wall.

Consumers value having some tan to look good & healthy

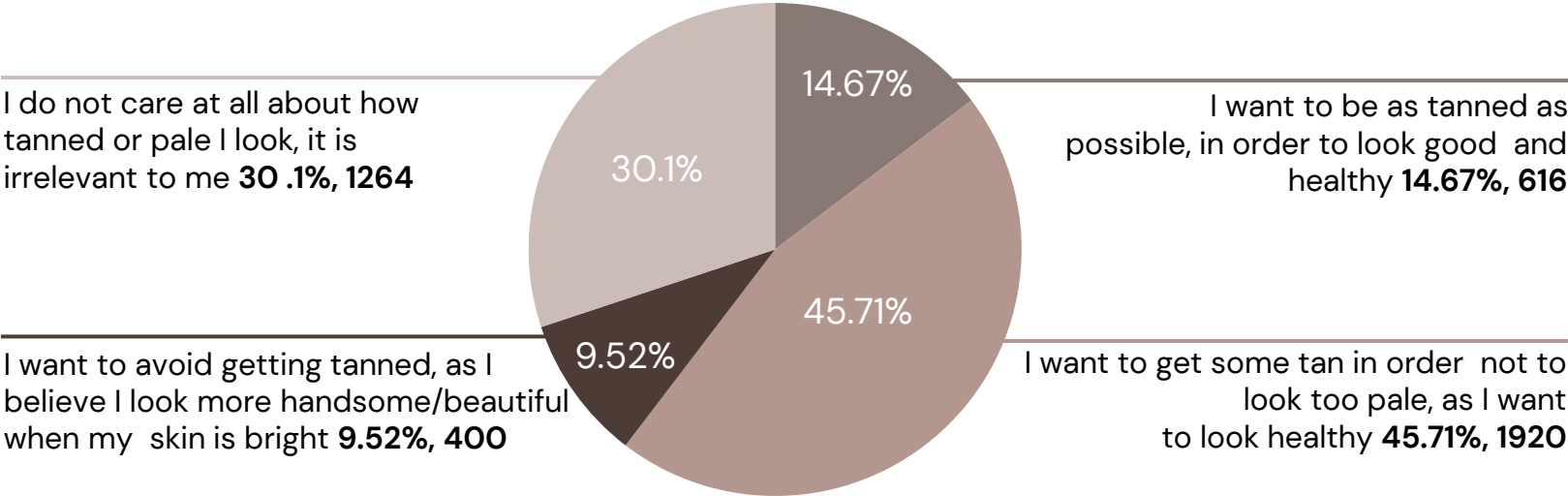
Beauty standards evolved towards a more natural effect, diverting from deep tanning

Consumer insights

Q:

Think about your skin complexion, how tanned or neutral or pale it is and its role in your grooming/ beauty habits or personal look.

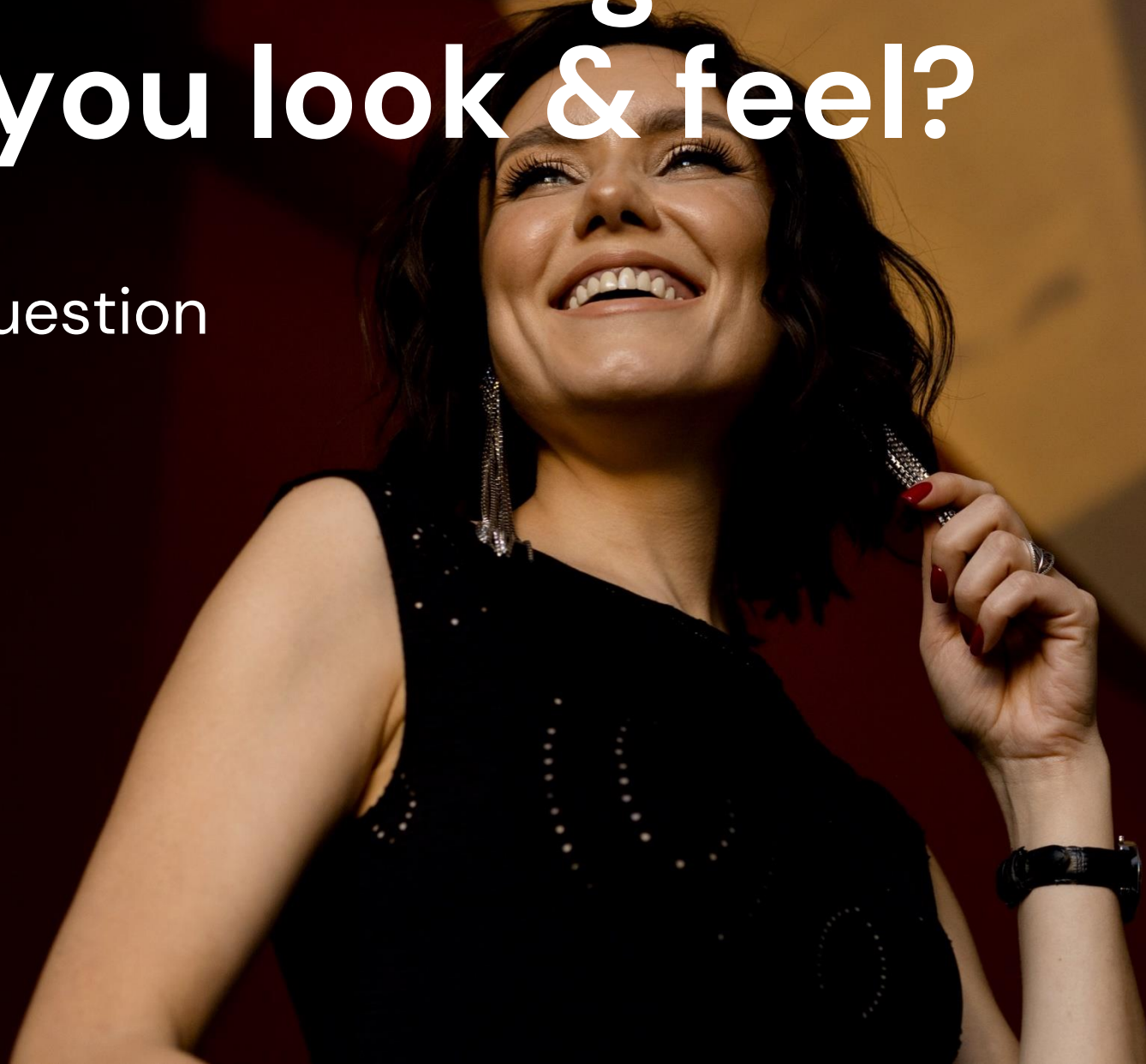
What's your general attitude towards it?



Source: dsm-firmenich Sun Protection and Skin Cancer Survey, 2017/2018.
Global Data excluding Asian Countries

How does having a tan make you look & feel?

Consumer question



With a just back from holiday look, people feel...

More youthful, beautiful & confident to wear less
make-up

"I definitely think having a tan makes me feel and look younger and more confident".

Staci, 35

"...my preference is to have a tan, because it can affect the evenness on my face".

Ashley, 30

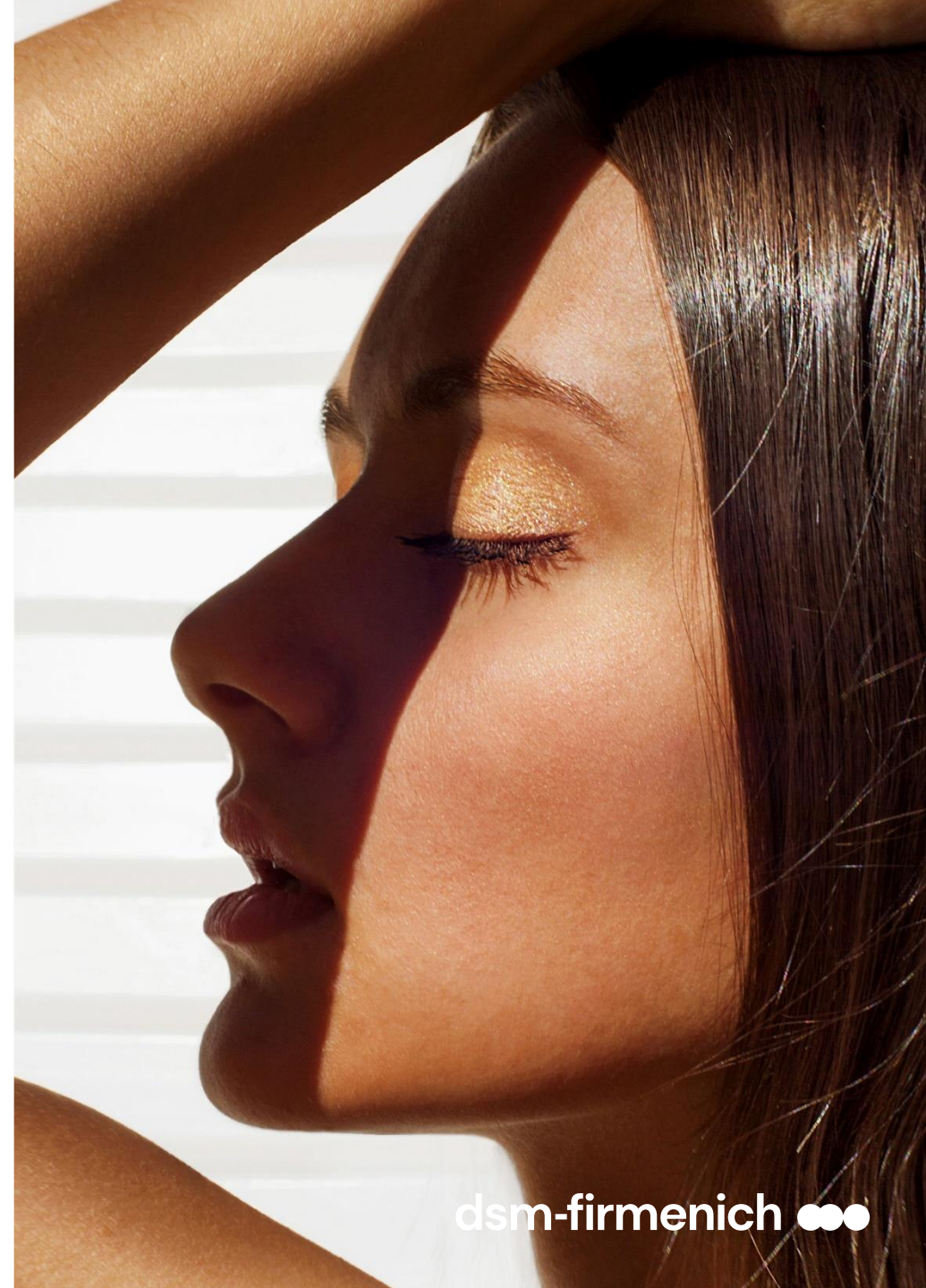
"I think when I'm more tanned I probably do wear less make-up because I feel a bit more confident in my skin tone".

Kirsten, 34

"When I've got a tan, my skin definitely looks healthier. It looks younger, more even, and smoother. Having a tan definitely makes me feel younger. I feel more confident, and I feel like I can go out without wearing as much make-up, or any make-up".

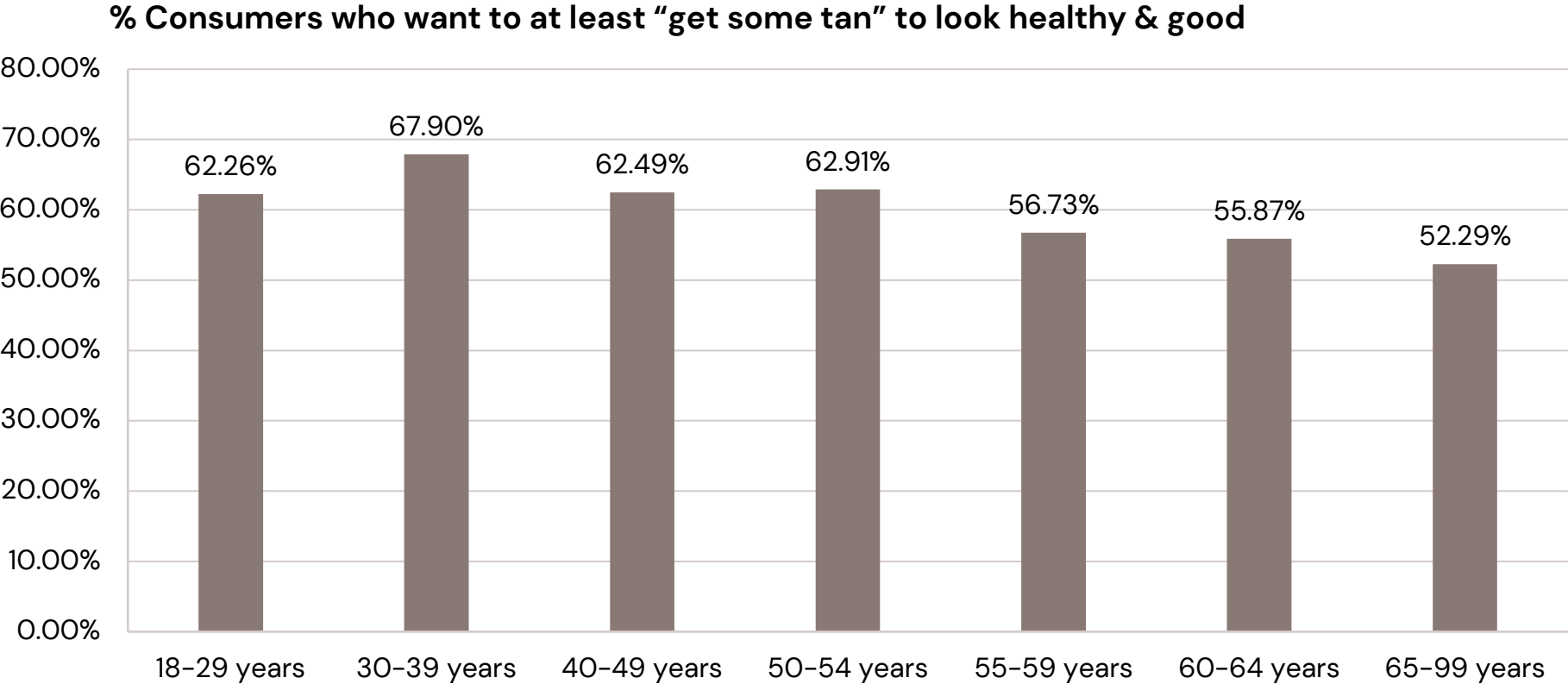
Lucy, 31

Consumer insights
Source: dsm-firmenich Consumers Insights Hub – 2019 Survey

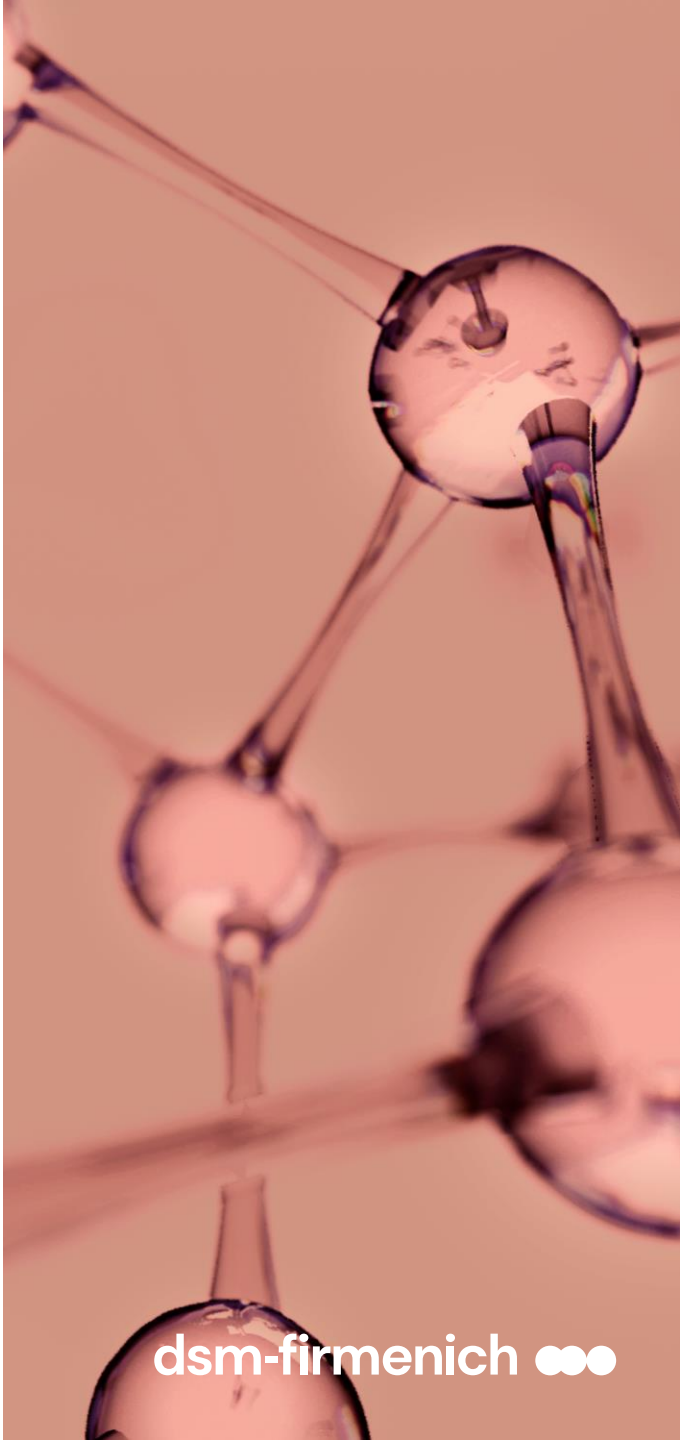


...and this is true across age groups

With bigger relevance below 55 y.o.



Source: dsm-firmenich Sun Protection and Skin Cancer Survey, 2017/2018.
Global Data excluding Asian Countries



The desire to get tanned can represent a barrier for using a sun protector

High negative correlation between desire to get tanned and sun protection consumption

People desire	Correlation with sunscreen usage %
Want to get as tanned as possible %	-0.90 negative correlation



Do you think sun protection prevents from tanning?

Consumer question



Many believe protection means “no tan”

Protecting from sun damages is seen as a compromise on beauty

“I definitely think that sun creams stop you tanning. I’m not going to use SPF 50 because I think it will stop me from tanning”

Jessica, 18

“Yes I think that sunscreen inhibits tanning, that is a fact. But it is also a fact that there is no way to have a contact with the sun without the sunscreen, for preventing skin cancer”

Julianna, 38

“...UV filters limit my ability to tan. I just wish there was a product where I can tan and protect from the UV rays at the same time.”

Rocio, 23

“Sunscreen is a mess, so when I want to tan myself, I try to avoid using it. And when I don’t want to tan a lot, I use the sunscreen once and over time it loses efficacy, so I get some natural colour.”

Veronica, 31

“...when you use a protective factor the tan isn't intense, although it's safer.”

Lidia, 33

“...using sunscreen lotions definitely limit your ability to tan. I don't expect to get a really dark golden tan, when I'm using a sunscreen, hence I'm trying to keep my skin safe.”

Nicola, 33

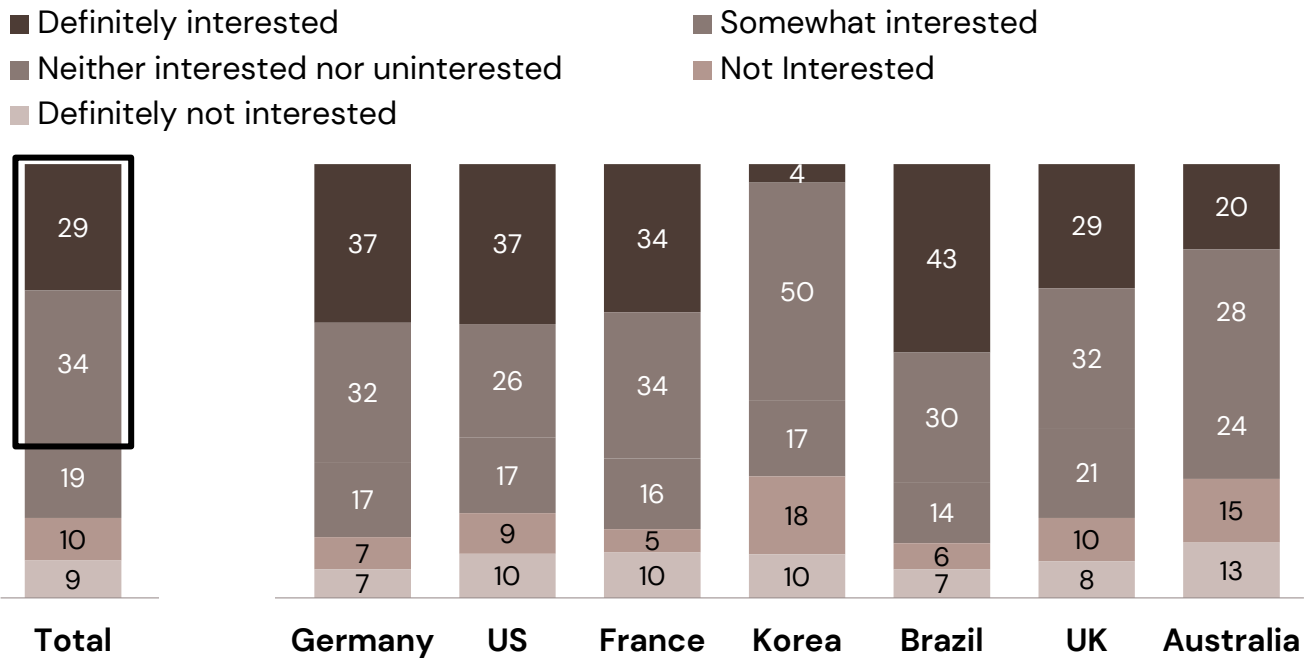
Consumer insights
Source: dsm-firmenich Consumers Insights Hub – 2019 Survey



Global interest in sunscreen that tans while protecting

63% of respondents are either «definitely» or «somewhat» interested

Q: To what extent would you be interested in a product that gives you skin tanning while protecting you from the sun?



Source: dsm-firmenich Sun Protection and Skin Cancer Survey, 2017/2018



Many believe protection means “no tan”

Protecting from sun damages is seen as a compromise on beauty

Consumers' expectations:

- Natural looking glow
- Long lasting tan
- Homogenous skin tone
- No streaking
- Healthy tanning with less skin drying
- No bad smell

Source: dsm-firmenich Research 2014 /Ipsos 2009



dsm-firmenich proudly introduces the perfect solution for this market context

SYN-GLOW®

The Glow-boosting Peptide

It works with skin to bring out its natural pigmentation from within
...bringing out a visible healthy glow in just 5 days, with long lasting effect!



SYN-GLOW®

ID Card

INCI NAME:	Benzoyl Dipeptide-18 D-Phenylalanyl Arginyl D-Tryptophan Dipropylamide Mesylate, Aqua, Glycerin		
TECHNOLOGY:	- Highly potent patented pentapeptide, made by cutting-edge SYN®-Peptide technology, designed to highly selectively boost MC1R (Melanocortin-1 receptor), a biochemical switch (off/on) of the Melanin synthesis - From a library of more than 100 peptides, SYN-GLOW® has been - identified to be the best candidate to activate MC1R - In silico structure-based peptide design and artificial intelligence (AI), visualized with molecular modelling - TFA-free1 99.9% of natural origin (according to ISO 16128)		
TECHNICAL:	Form: Liquid pH of use: 4.0-7.5	Use level: 1-3% Preservative: Free	Solubility: Water miscible
BENEFITS:	- Highly selectively MC1R booster* - Significantly boosting key regulators of Melanin synthesis MITF, TYR, TRP1* - Stimulates anti-oxidant defense factor (Nrf2) after UVA-irradiation* - Healthy, youthful, fresh-from-holiday look all year long** - Promotes a visible healthy glow in just 5 days, with long lasting result and natural personalized effect**		
REGISTRATION CERTIFICATION:	   		

1. Non-intentionally added TFA
* in vitro ** in vivo

SYN-GLOW® is a pentapeptide

Designed to highly selectively boost MC1R (or Melanocortin-1 receptor)

MC1R is the biochemical switch (off/on) of the Melanin synthesis.

MC1R is a transmembrane protein, integrated into the cellular membrane and, in this role, it's the unique gate to biological tanning.

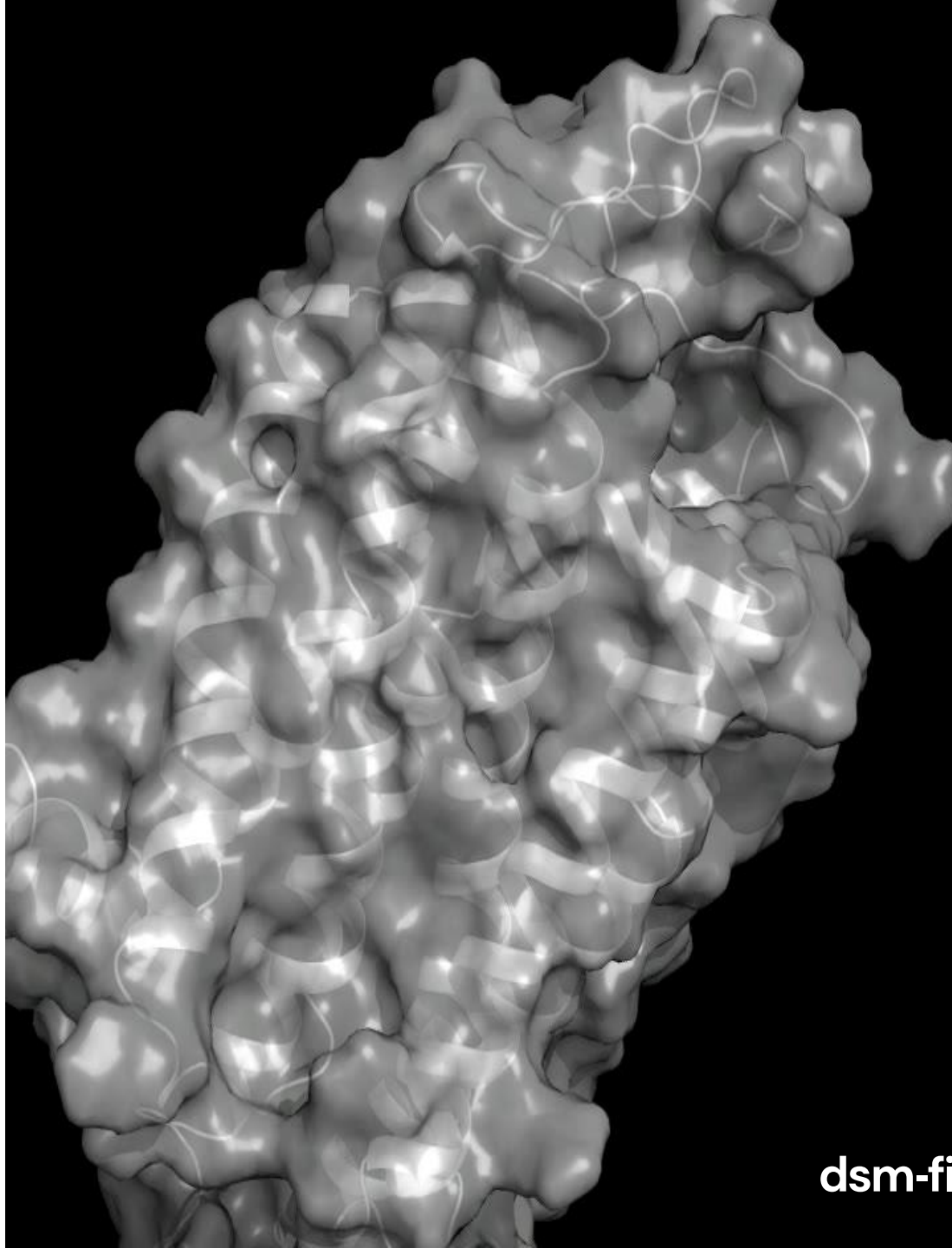
Melanin is the pigment that gives skin its unique sun-kissed tone.

In vitro: from a library of more than 100 peptides, SYN-GLOW® has been identified to be the best candidate to activate MC1R. Results published in Int. J. of Molecular Sciences:

<https://www.ncbi.nlm.nih.gov/pubmed/31817532>

Mode of action: Mc1R activation, related to scientific evidences.

This is not intended to be final product claim



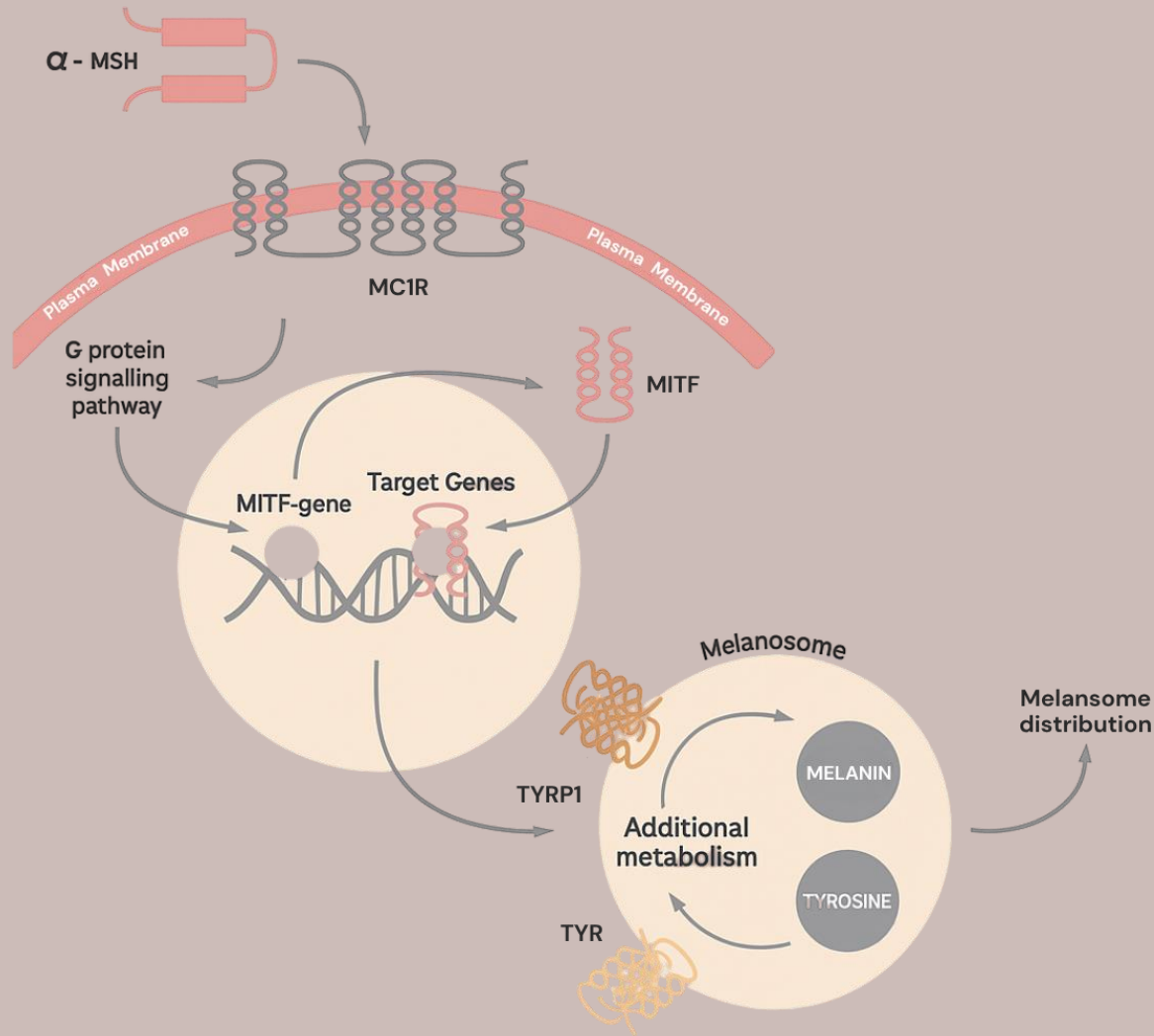
A close-up, high-contrast photograph of a person's face, focusing on the right eye. The person has light-colored eyes and is wearing orange-toned eye makeup. The skin is warm and glowing, and the background is blurred. The text "Let's get to know MC1R better..." is overlaid in white at the top.

Let's get to know MC1R better...

MC1R is the master regulator of skin tanning.

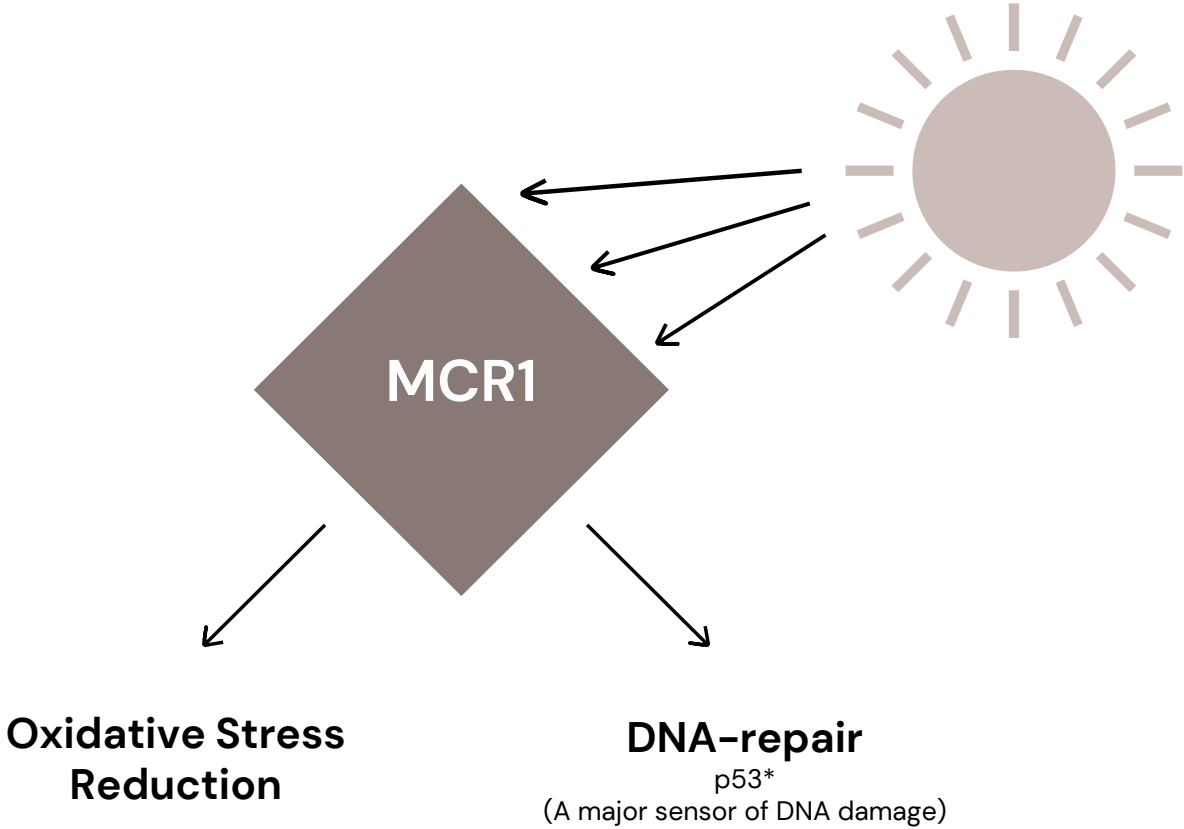
MC1R is a transmembrane protein so it is integrated into the cellular membrane: in this role the MC1R is the unique gate to the melanogenesis pathway.

The signal to switch on is triggered by alphaMSH or by **SYN-GLOW®**.

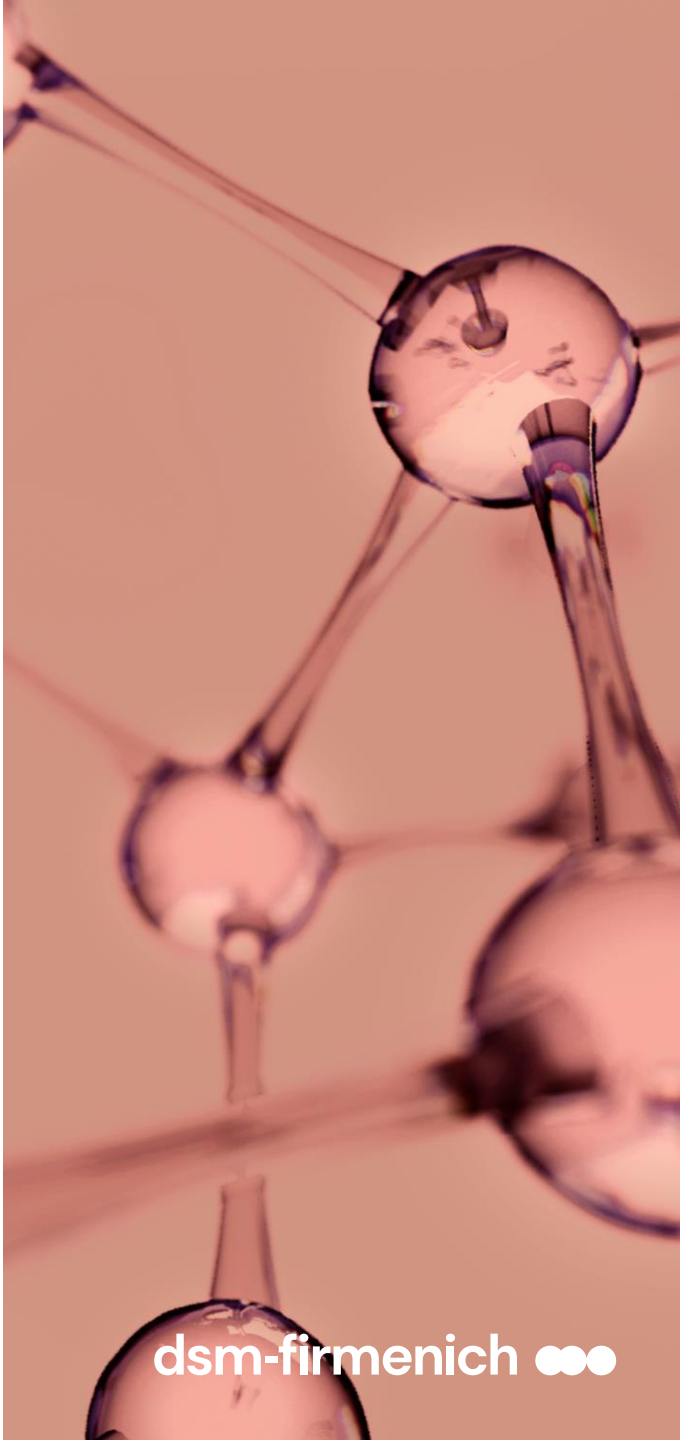


MC1R = Melanocortin 1 Receptor
Alfa-MSH = peptide of 13 amino acids, the natural agonist of MC1R
MITF = Microphthalmia-associated transcription factor
TYR = Tyrosinase
TYRP1 = Tyrosinase related protein 1
G protein = GTP (Guanintriphosphate) binding protein

Strengthening skin's defences from within



Source: Alpha-Melanocyte-Stimulating Hormone Suppresses Oxidative Stress through a p53-Mediated Signaling Pathway in Human Melanocytes; Kadekaro, Chen et al, Mol Cancer Res; 10(6) June 2012.



**The efficacy of SYN-GLOW® has been proven
ex vivo and in vivo with amazing results**

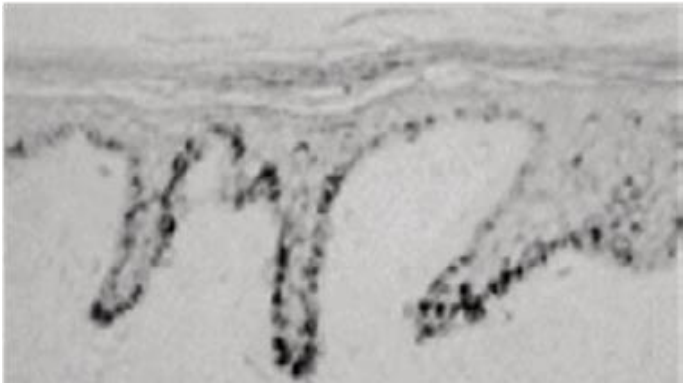
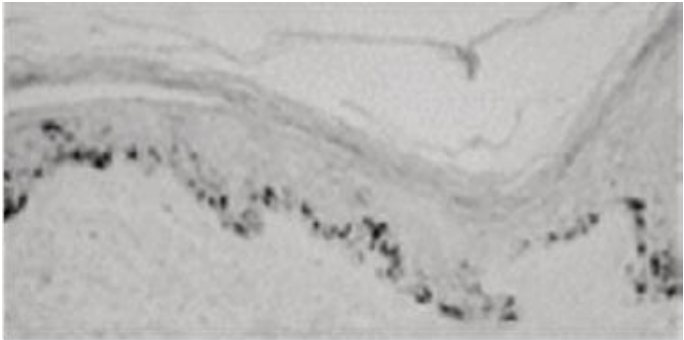


Significant *ex vivo* activity for SYN-GLOW®

Scientific Validation *ex vivo*

ex vivo

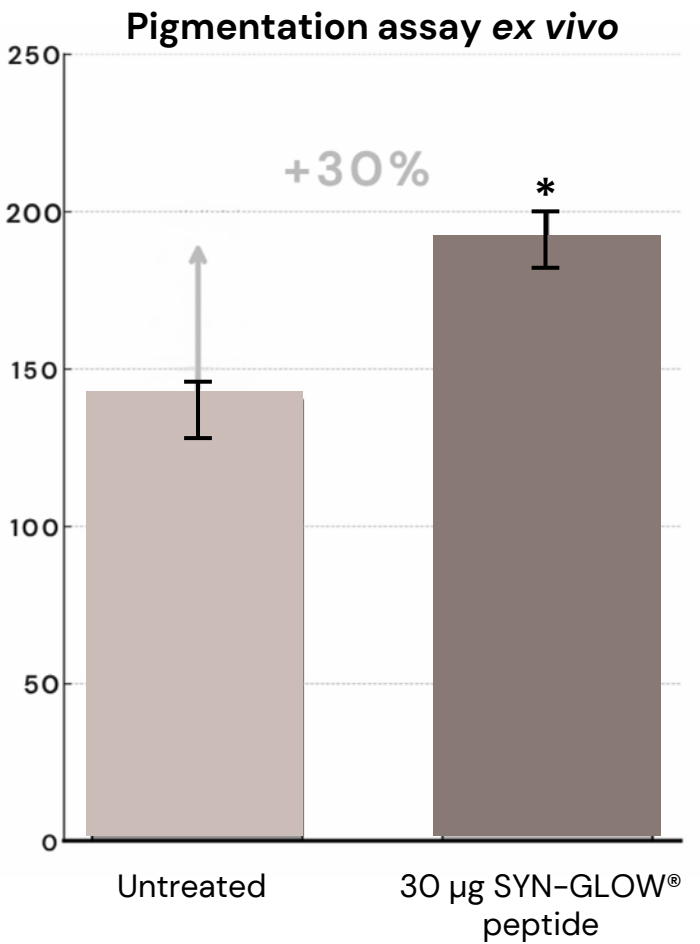
Untreated



SYN-GLOW®

Up to +30%
significant
more pigmentation

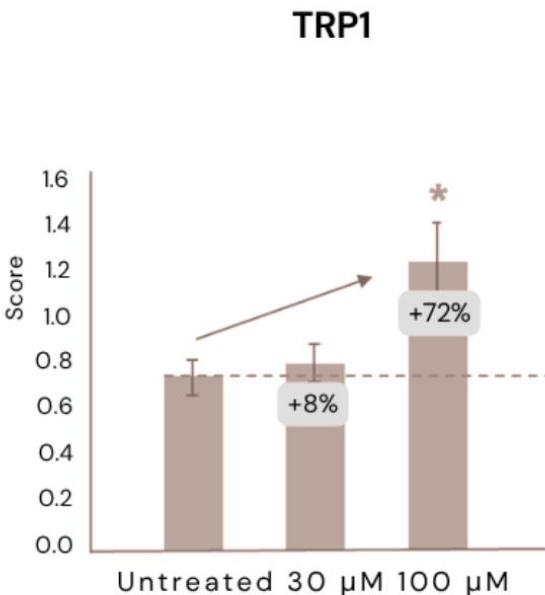
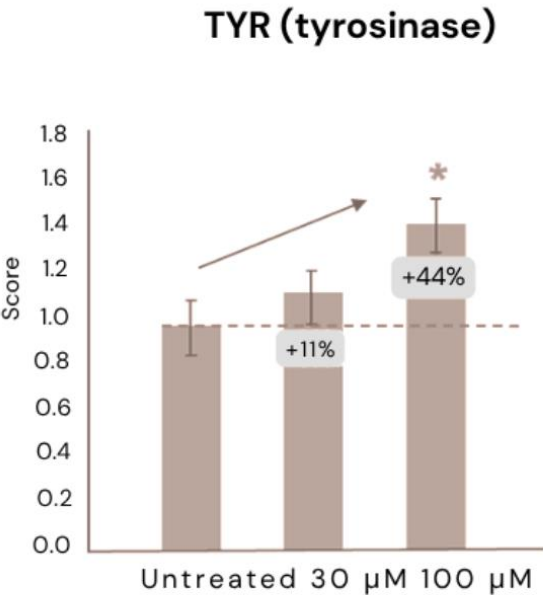
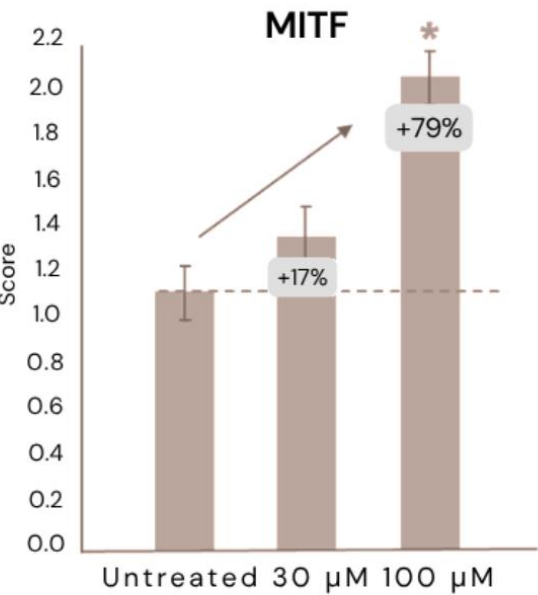
* $p < 0.05$ vs Untreated



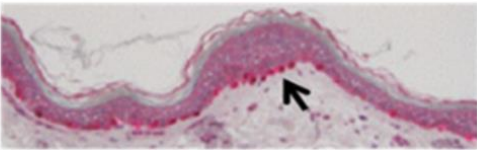
ex-vivo sample shown is from 47y.o female donor abdominal skin (ITA angle 18) with no light exposure

Significant ex vivo activity for SYN-GLOW®

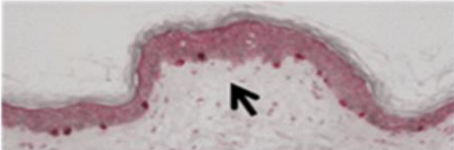
ex vivo



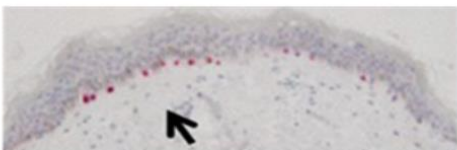
Significantly boosting
key regulators of
Melanin synthesis



Master transcription factor
for melanin synthesis genes



Rate-limiting enzyme
in melanin synthesis



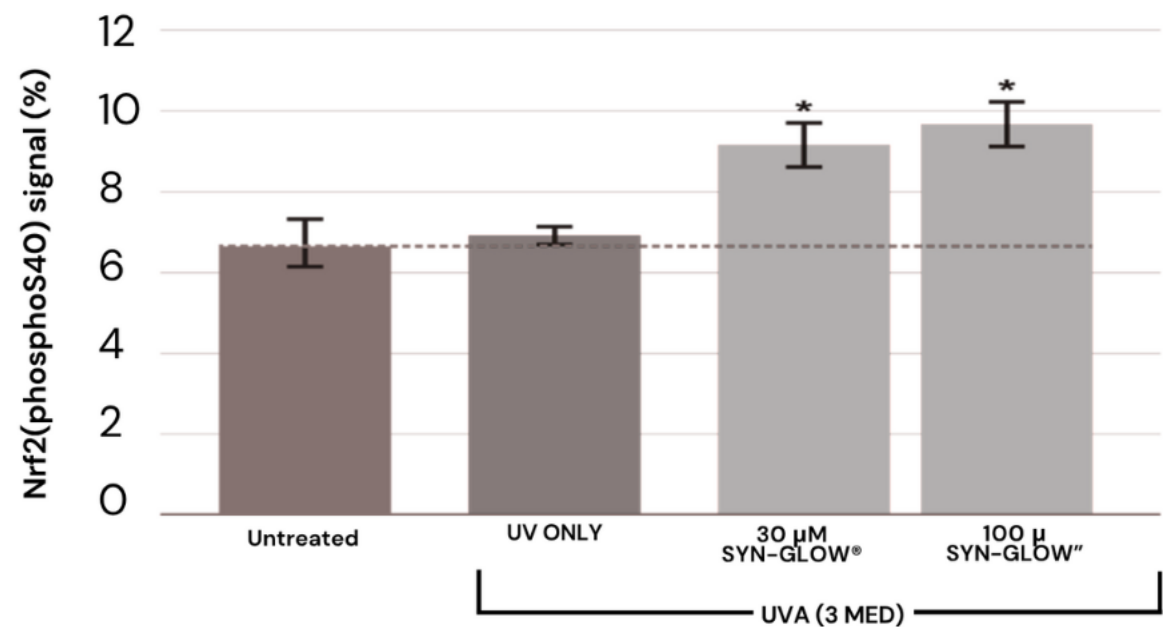
Key enzyme in
melanin synthesis

Scientific Validation ex vivo
Melanin synthesis activation is related to scientific evidences (ex vivo) and is not intended to be final product claim

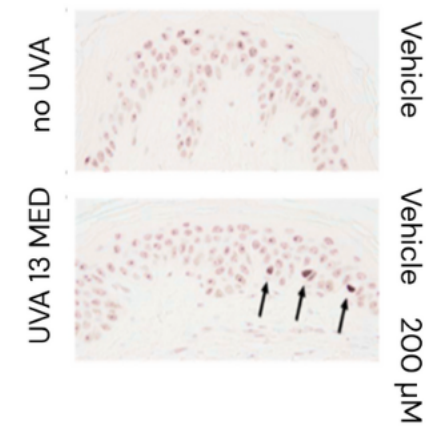
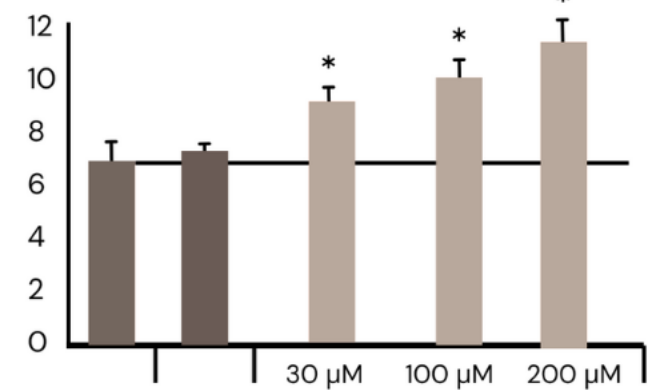
Proved to strengthen skin's defenses from within

SYN-GLOW[®] stimulates anti-oxidant defense factor (Nrf2) after UVA-irradiation

ex vivo



% Nrf2(phosphoS40) signal



Scientific Validation ex vivo
* p < 0.05 vs UVA-irradiated vehicle by unpaired Student's t-test.

29 Volunteers application at inner forearm of 3% SYN-GLOW®

in vivo study

in vivo

Product application phase (2 times per day)																	Post application phase							
Day		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
ITA Measure & Photo		ITA	«Real life» simulation*				ITA					ITA					ITA & Photo							ITA

Overall set-up

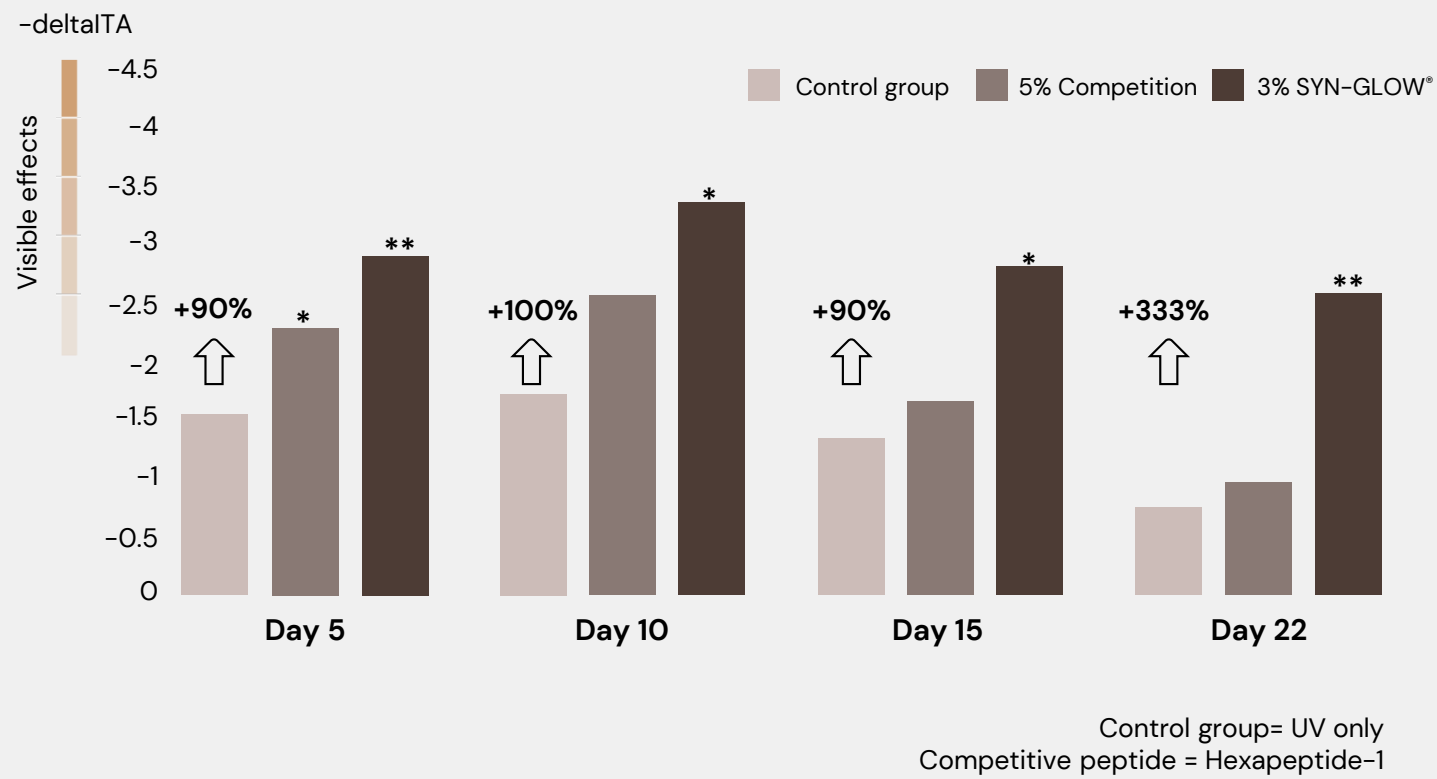
- Pre-conditioning phase: product application, no UV exposure
- Day 1-4: product application, UV exposure
- Day 5-15: product application, no UV exposure
- Day 15-22: no application, no UV exposure

Scientific Validation in vivo
*We exposed skin to some UV light, in order to simulate "real life". UV exposure was done with a sunlight simulator, 40% below the minimal erythral dose (MED): this roughly corresponds to 15-30min outdoor, during avg Spring day in mid-European Country

Outstanding *in-vivo* results!

SYN-GLOW® delivers visible healthy tone in just 5 days with long-lasting effect

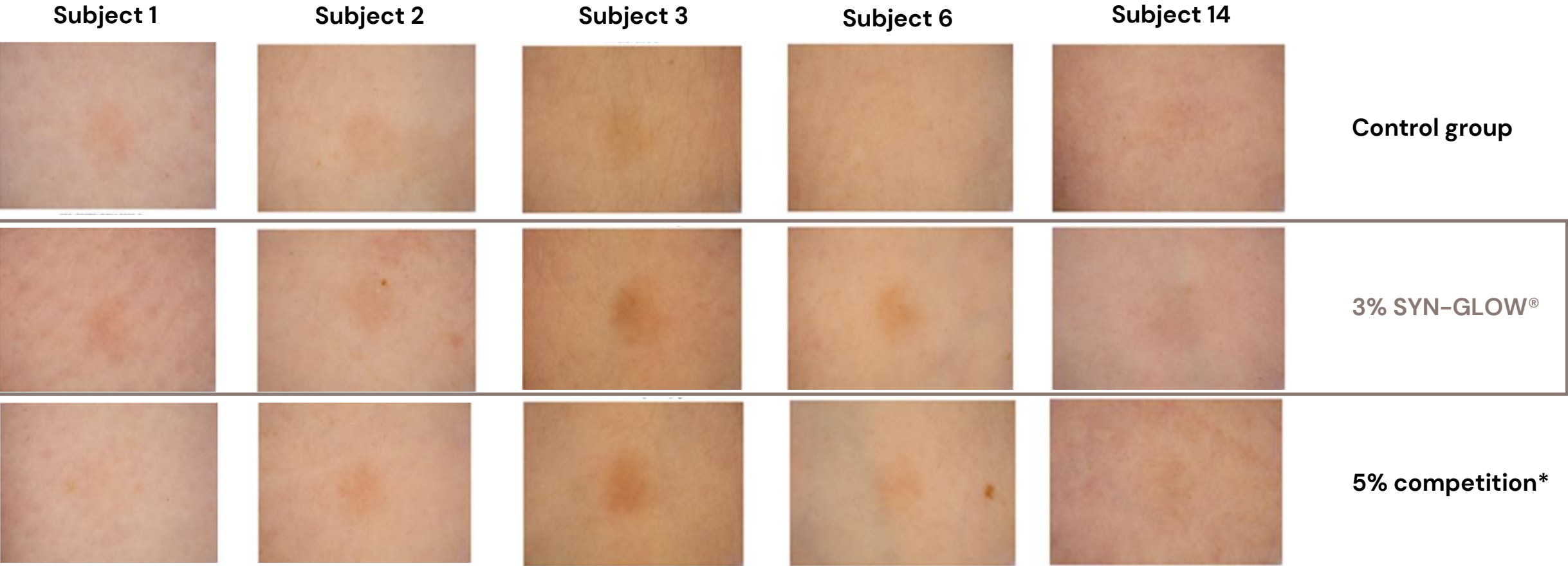
in vivo



* p<0.05 against Untreated skin «significant»
** p<0.01 against Untreated skin «highly significant»

Personalized glow boost with SYN-GLOW®

Skin images taken from test area, at Day 15



Competitive peptide = Hexapeptide-1
Control group= UV only

Amazing feedback after application

Consumer's feedback:

100% of consumers

noticed their skin looking fresher and more revitalized

Over 90% of consumers

noticed their skin looking less dull and tired

Over 80% of consumers , 3X more

noticed a facial healthy glow

Close to 70% of consumers

noticed their skin tone more even and homogeneous

Over 80% of consumers

would use this product again

Qualitative questionnaire: Clinical study, 16 female volunteers, 20–55 y.o., phototype II – IV, with planned outdoor activities. SYN-GLOW® containing formulation was applied on the face twice per day



A close-up, high-contrast photograph of a woman's face. She is smiling, showing her teeth. The lighting is dramatic, with strong shadows and highlights, emphasizing the texture of her skin and the contours of her face. The background is dark and out of focus.

SYN-GLOW®

Speeding up time to market

**Finished product
concepts featuring
SYN-GLOW® showed
significantly higher
purchase intent versus
simple moisturiser
benchmark
(w/o SYN-GLOW®)**

(Source: dsm-firmenich Global Survey via Tuluna - 6.000 responders)

dsm-firmenich 

Supported claims

- Natural healthy glow in just 5 days
- Prolonged summer bronze
- Personalized result, bespoke complexion
- Strengthened skin natural defenses from within



Technical details

Origin

Synthetic pentapeptide with a unique amino acid sequence

Composition

- INCI name (active): Benzoyl Dipeptide-18 D-Phenylalanyl Arginyl D-Tryptophan Dipropylamide Mesylate
- Content of active material: approx. 1000 ppm
- Vegetable glycerin-based aqueous solution
- No preservatives
- PEG free
- Vegan friendly

Manufacturing process

Made by cutting-edge pentapeptide technology

Recommended dosage

1 – 3%



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