



## Reduce, Reuse, Recycle

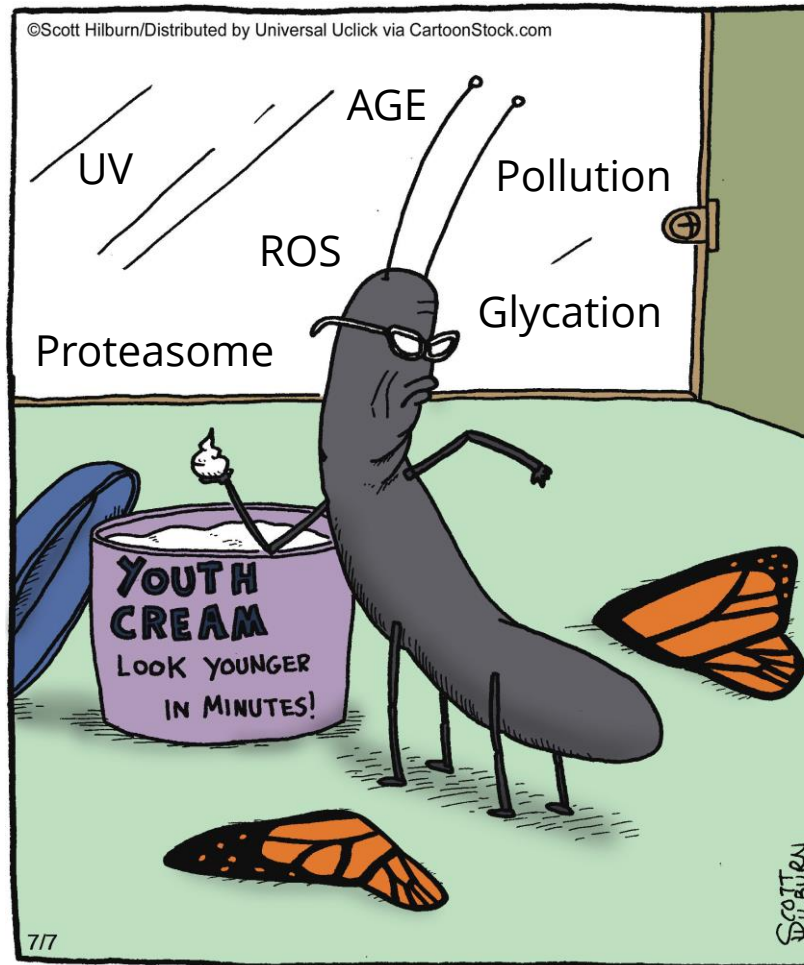
Waste management in the skin from science into practice

**RAHN**

Your partner for excellence

# From science into an appealing cosmetic concept

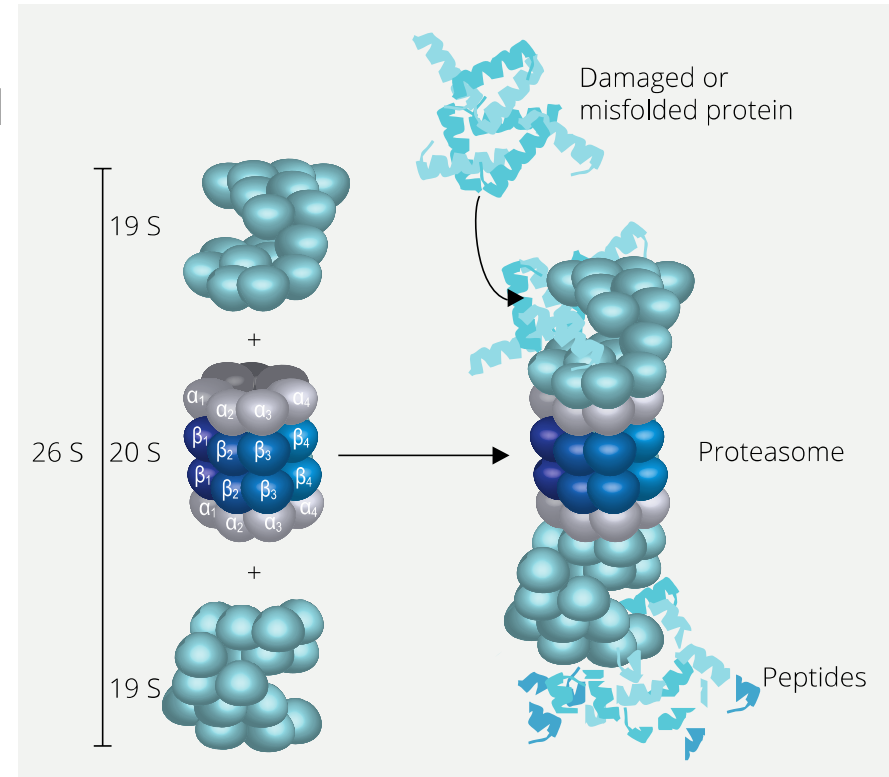
## The challenges of a modern active supplier



# Proteasomal activation

A novel anti-ageing strategy inspired by Nobel Prize

- The proteasome is an essential cell compound which degrades damaged proteins
- The accumulation of damaged proteins is prevented
- The longevity of skin cells is maintained



# Systematic management of protein cell waste

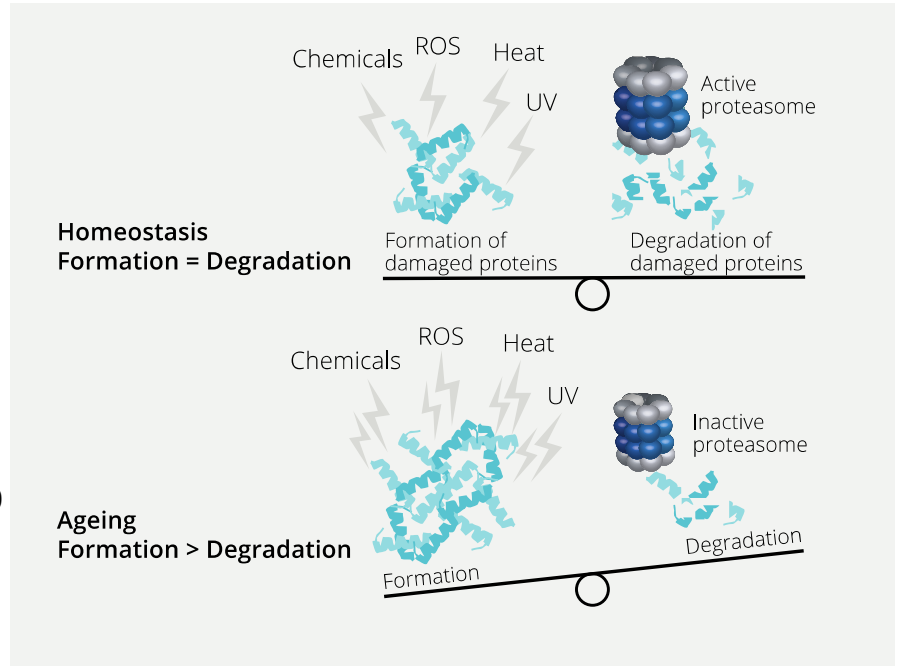
plays an important role in skin ageing

## Young cells:

- Relationship between development and degradation of damaged proteins is fully in balance

## Ageing cells:

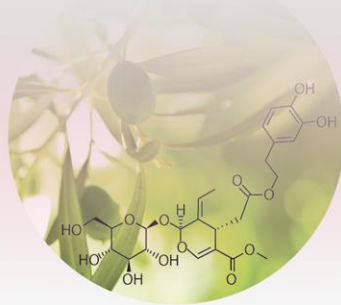
- With age the activity of the proteasome decreases by up to 50 %
- Accumulation of damaged proteins (cellular waste)
- Cellular ageing is enhanced





# PROTEOLEA® in a nutshell

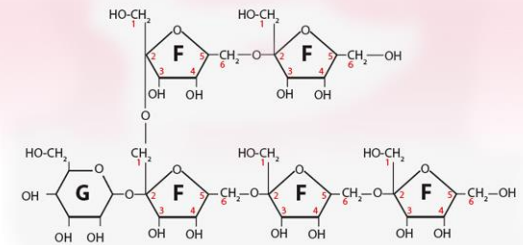
Olive leaf extract



Jujube extract



Levan



Contains oleuropein

Contains jujubosides

Polysaccharide containing fructose molecules

Activates proteasome

Strengthens antioxidative protection system

High molecular weight

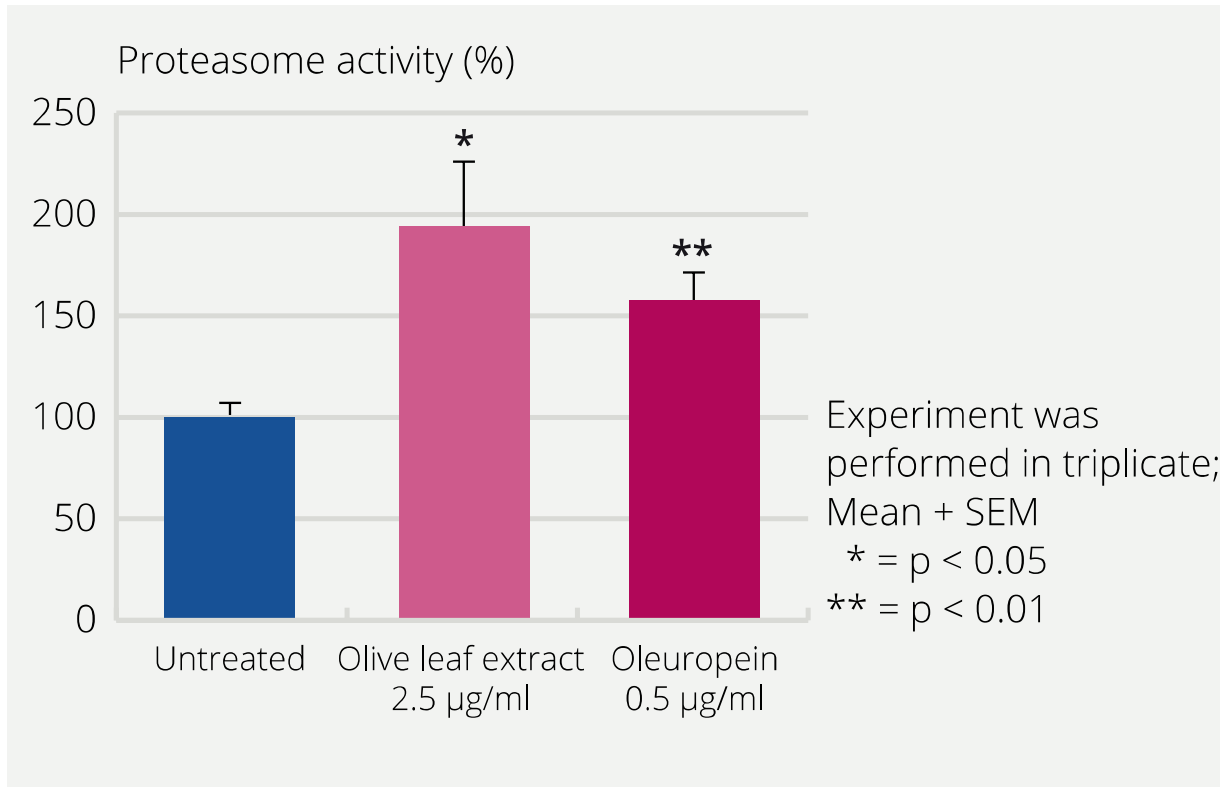
Improves degradation of cellular waste

Prevents formation of oxidised cellular waste / AGE

Creates a firming and moisturising film

# PROTEOLEA® activates the proteasome

Olive leaf extract doubles the proteasome's activity

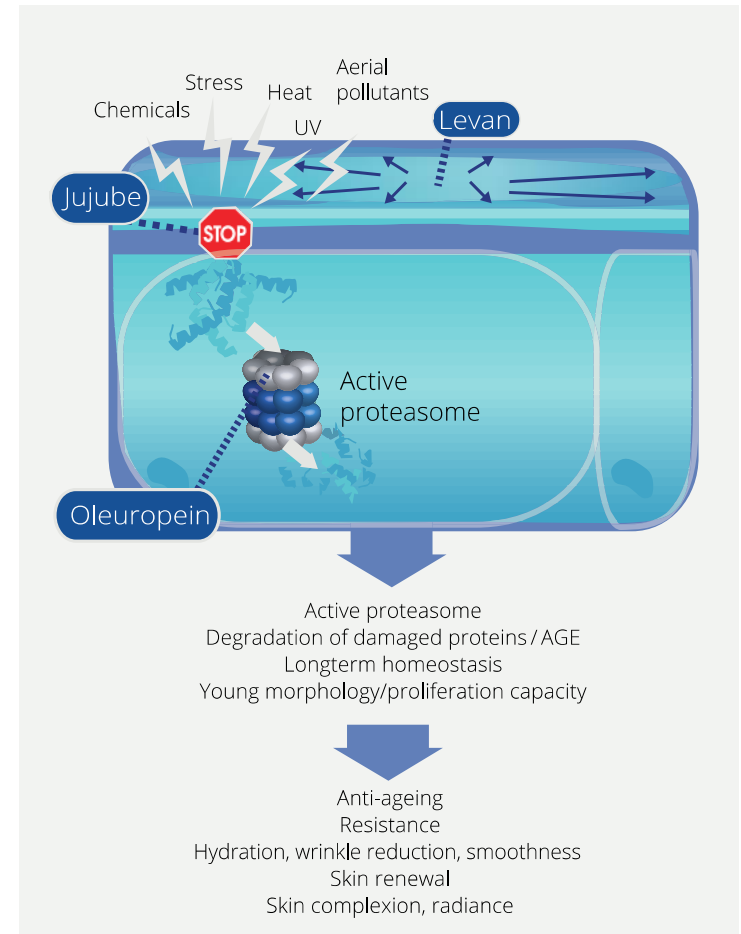


2.5 µg/ml Olive leaf extract ~ 0.0005 % PROTEOLEA®

# Significance of protein recycling

Maintaining skin cells – counteracting signs of time

- Increased stress resistance
- Improvement of cell- and skin renewal
- Maintenance of skin's longevity



# PROTEOLEA®

3 concept routes from science into practice

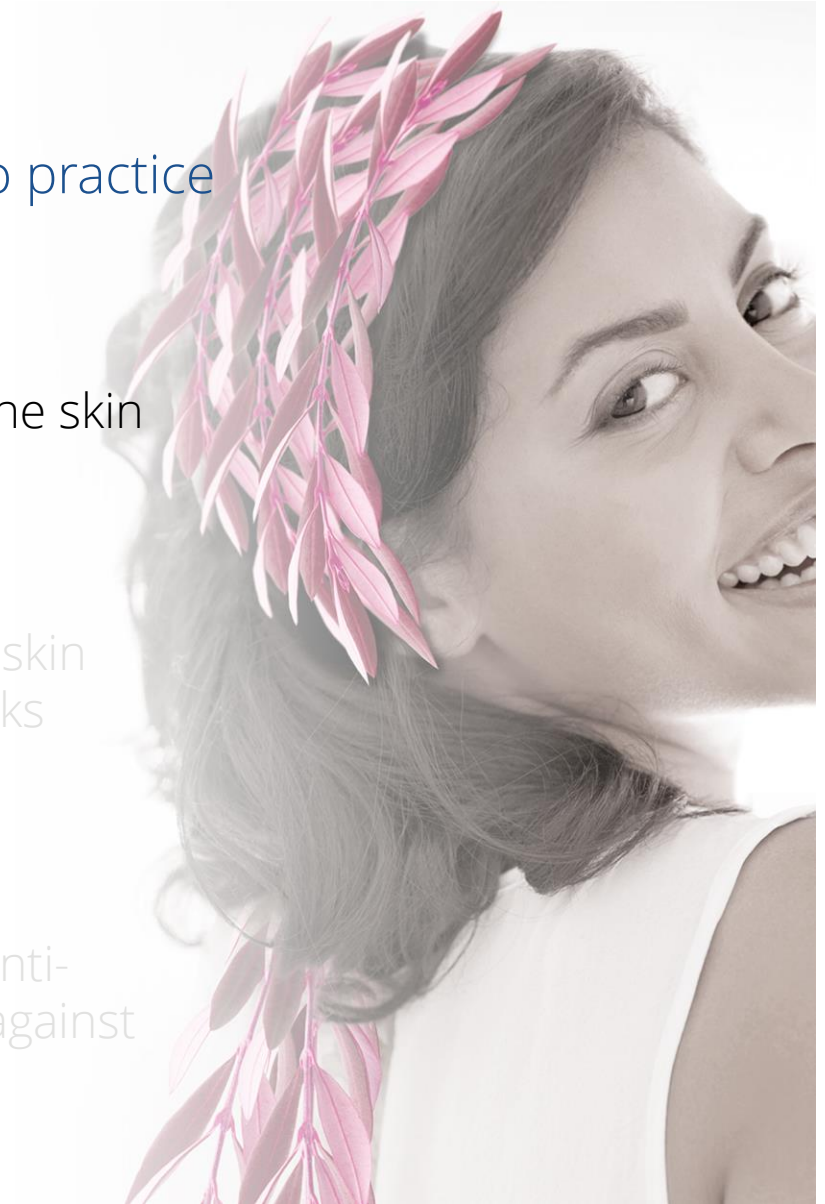
- **Detoxifying**  
Improves skin complexion by liberating the skin from harmful waste
- **Anti-glycation**  
Reduces the accumulation of AGE in the skin  
Rejuvenates skin by 6 years within 4 weeks  
Improves skin complexion
- **Anti-pollution**  
Protects skin with a powerful barrier of anti-oxidants and strengthens its resistance against oxidative stress



# PROTEOLEA®

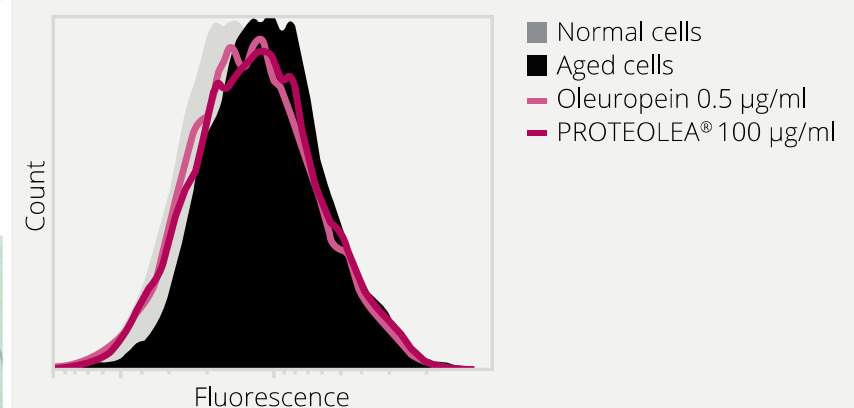
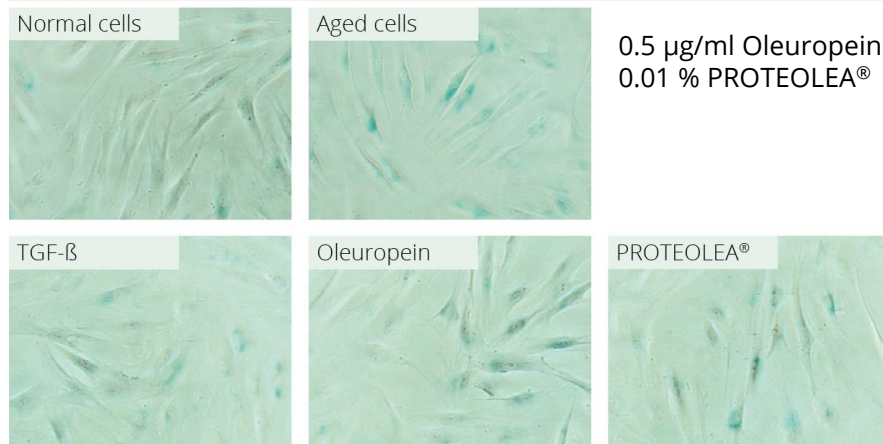
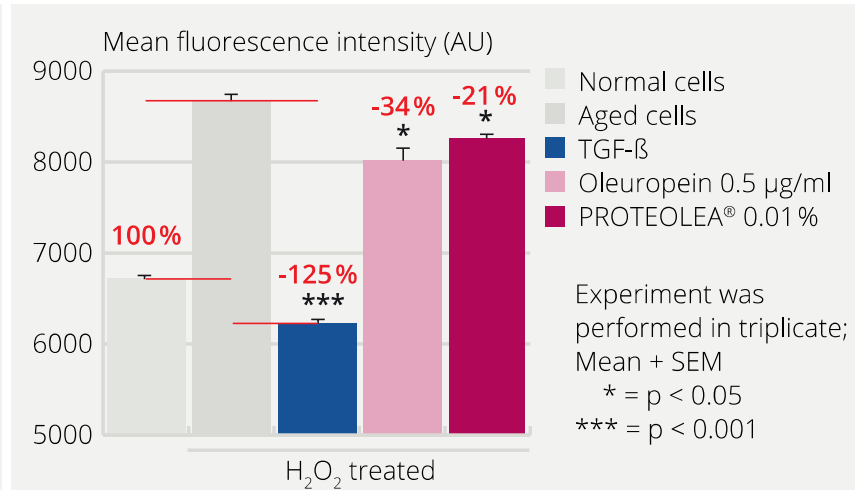
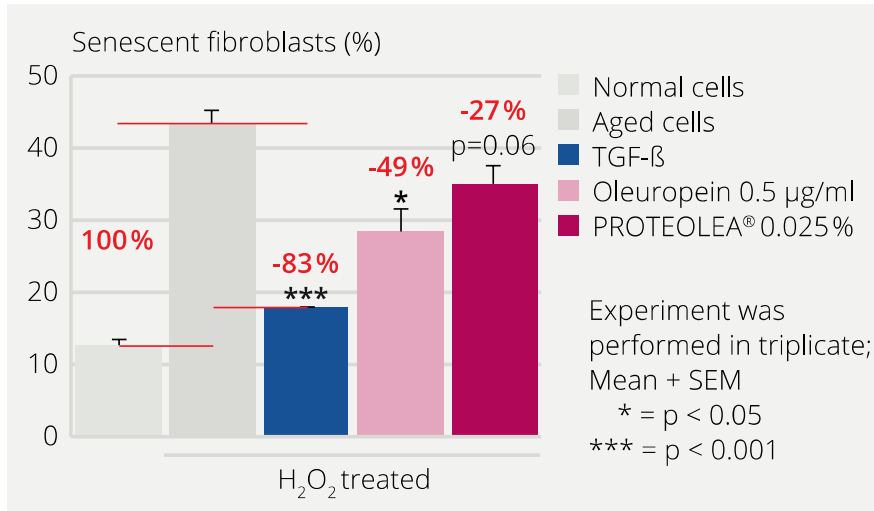
3 concept routes from science into practice

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# Detoxifying = Anti-ageing

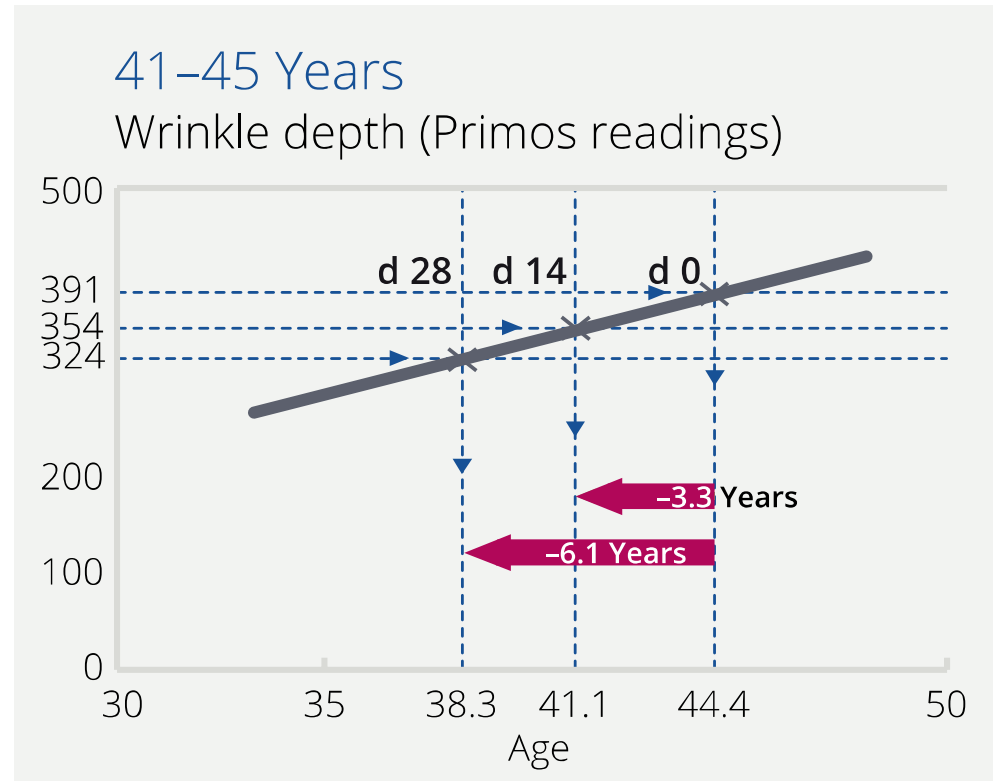
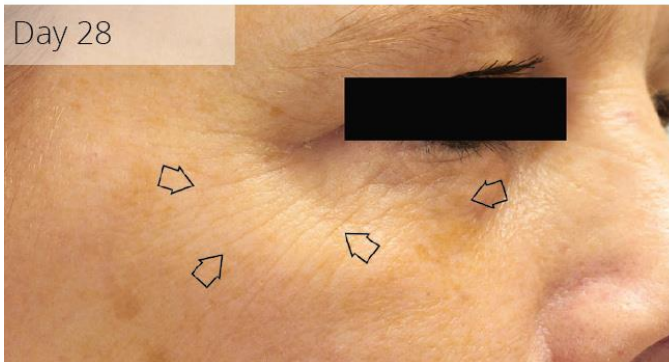
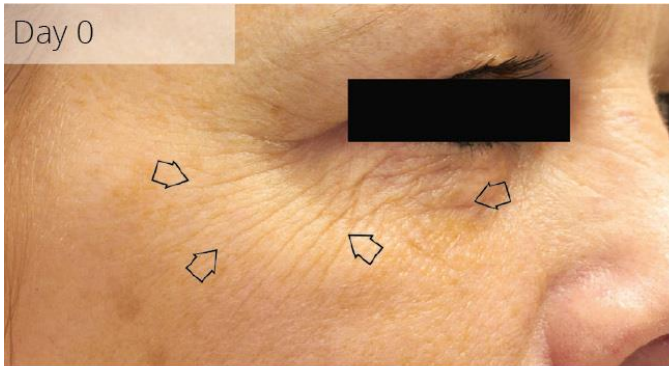
(*in-vitro* study)



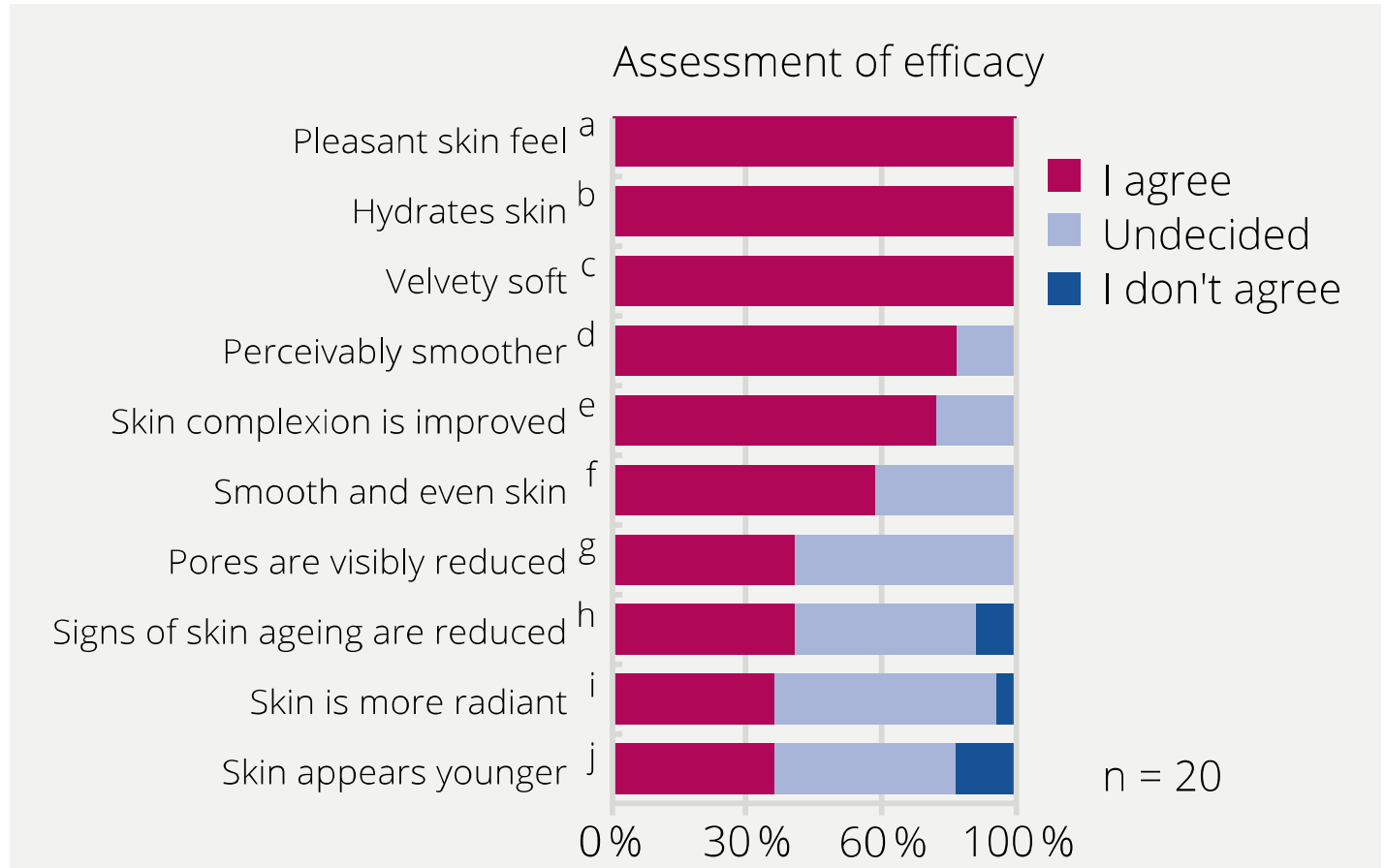


# PROTEOLEA® rejuvenates the eye area

(in-vivo study)

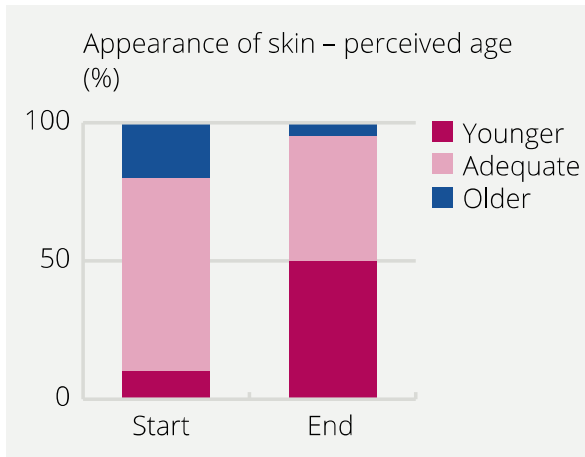


# PROTEOLEA® perceivably counteracts the signs of time (controlled user test)

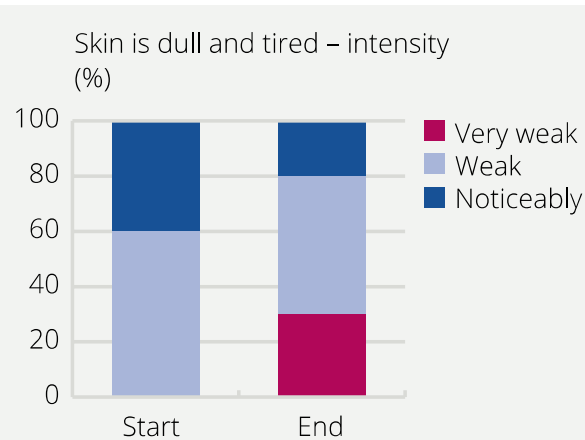


# PROTEOLEA® perceivably counteracts the signs of time (controlled user test)

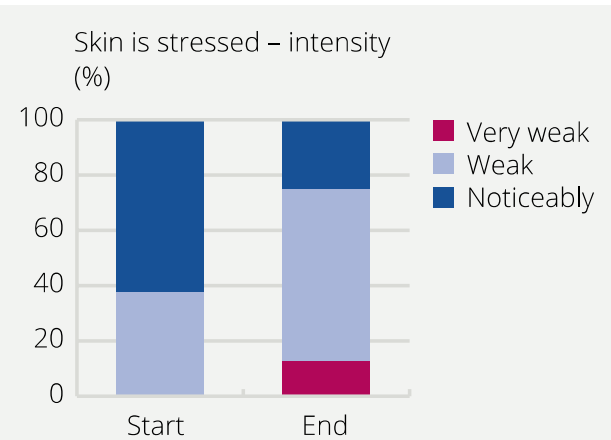
Visibly and perceivably younger skin



Burst of freshness for tired skin



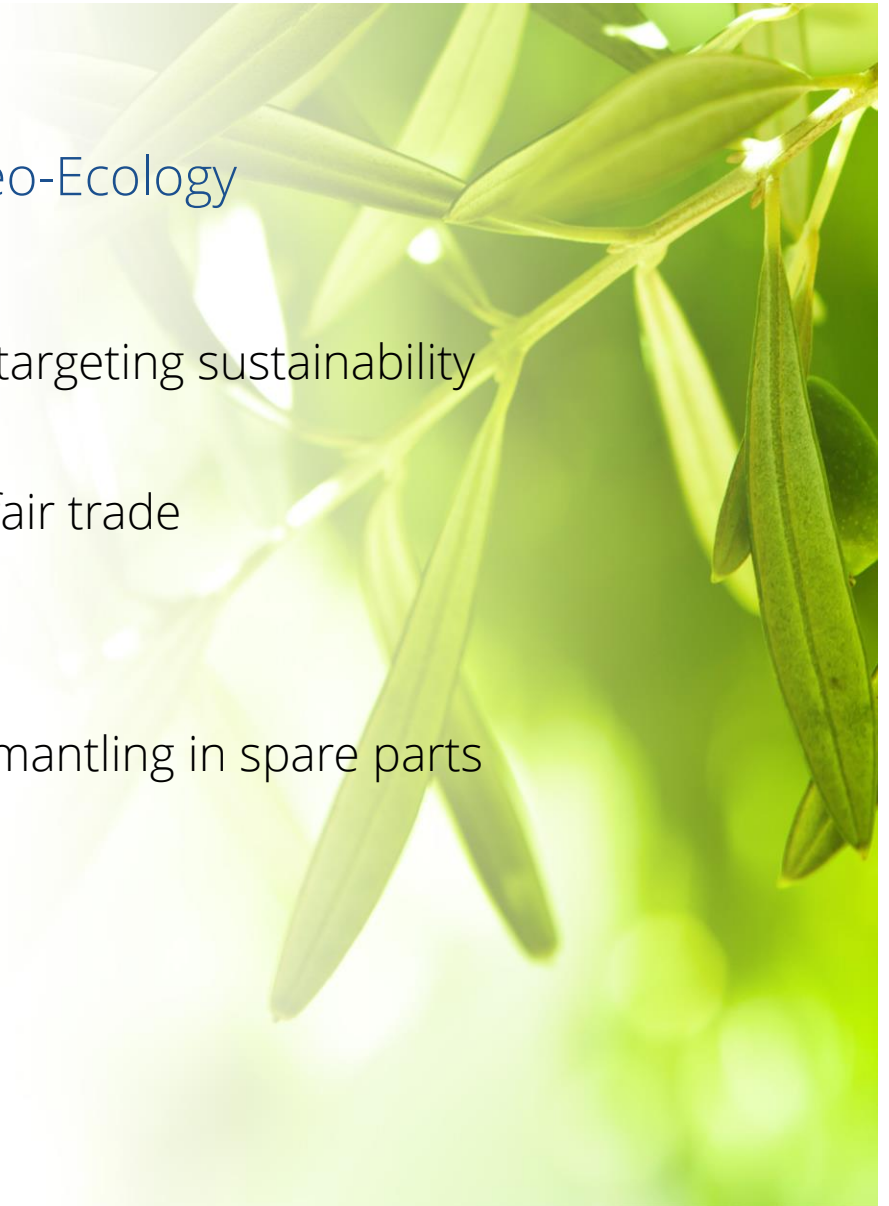
Recovery for stressed skin



# Detoxifying

Underlying mega-trend: Neo-Ecology

- Creation of new economy specifically targeting sustainability of resources and ecologic landscape
- Organic vs. conventional – regional – fair trade
- Reuse: swapping – let's share
- Reduce: reduction of waste quantity
- Recycle: Reprocessing waste after dismantling in spare parts
- High consumer awareness



# Detoxifying

## Target group



Lifestyle	LOHAS 2.0, health and sustainability with fun factor
Situation / story	Young couple or family; enjoying the moment, engaged in social projects or school
Beauty attitude	Health as prerequisite for beauty, healthy food and sports
Brands	Brands that are likeable, authentic and personal (story), e.g. Kiehl's
Retail	Drugstore, foodstore
Mood / values	Colourful, eclectic, authentic, harmony, balance



# Detoxifying

Target group



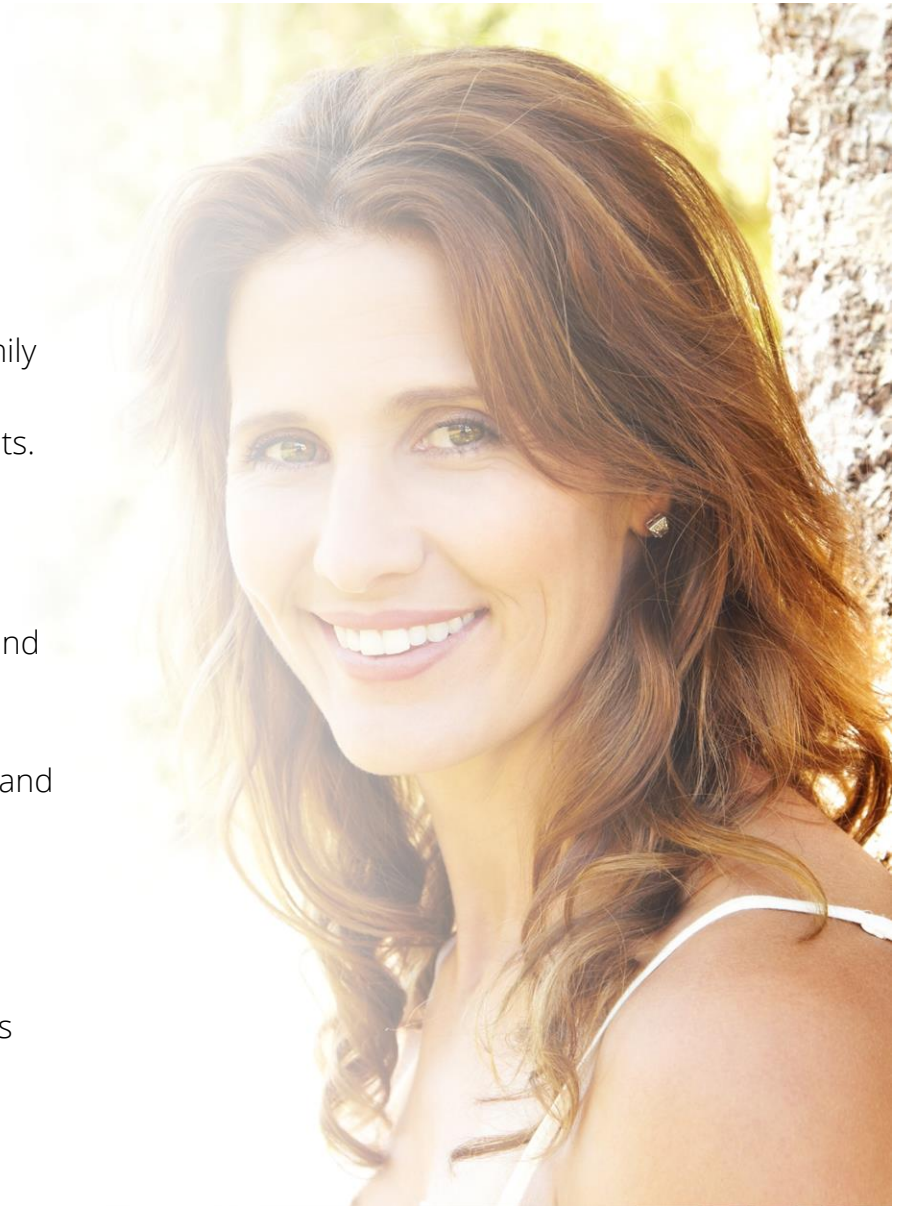


# Detoxifying Concept

Meeting my best friends means talking about kids and family but also about how to preserve a youthful appearance. A healthy lifestyle as pre-condition is already part of my habits. Additionally, I like cosmetics that stimulate body's inner processes so that skin can help itself.

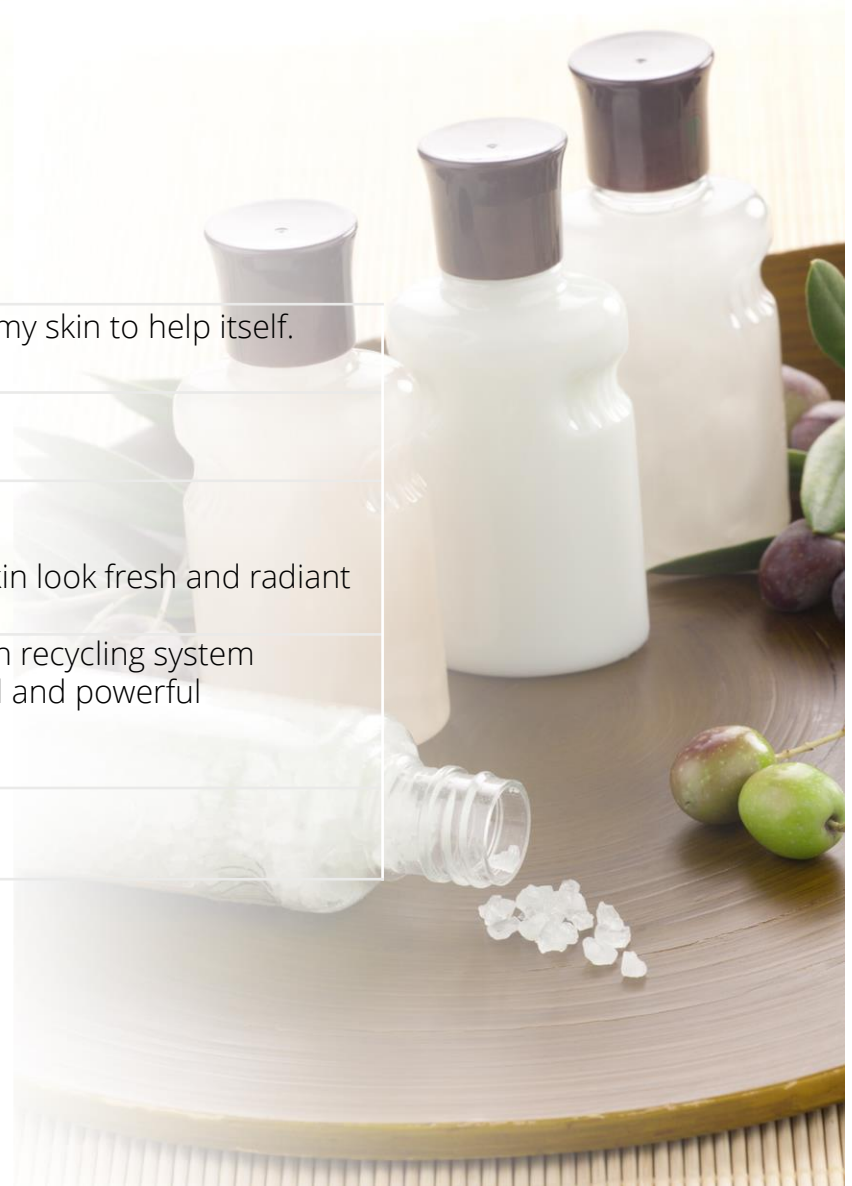
PROTEOLEA® stimulates the anti-age process within skin and detoxifies it. This natural ingredient complex is inspired by Traditional Chinese Medicine (TCM) and encourages the breakdown of harmful cell waste. Skin looks radiant, fresh and taut: for an appearance years younger.

Extracts from olive leaf and Chinese date with valuable antioxidants are powerful partners in fighting first signs of ageing. They help stimulate the proteasome which recycles proteins and thus detoxifies cells from stress damage.



# Detoxifying Concept

Insight	I like the idea of cosmetics helping my skin to help itself.
Role of PROTEOLEA®	It brings out the best in your skin
Benefit of PROTEOLEA®	Detoxifies cells from stress damage Slows down skin ageing Rejuvenates eye area and makes skin look fresh and radiant
Reason to believe / substantiation	Activates the proteasome, cells' own recycling system Olive leaf and Chinese date: natural and powerful Inspired by TCM
Product title	Be detoxed, Be healthy



# PROTEOLEA®

3 concept routes from science into practice

- Detoxifying

Improves skin complexion by liberating the skin from harmful waste

- Anti-glycation

Reduces the accumulation of AGE in the skin  
Rejuvenates skin by 6 years within 4 weeks  
Improves skin complexion

- Anti-pollution

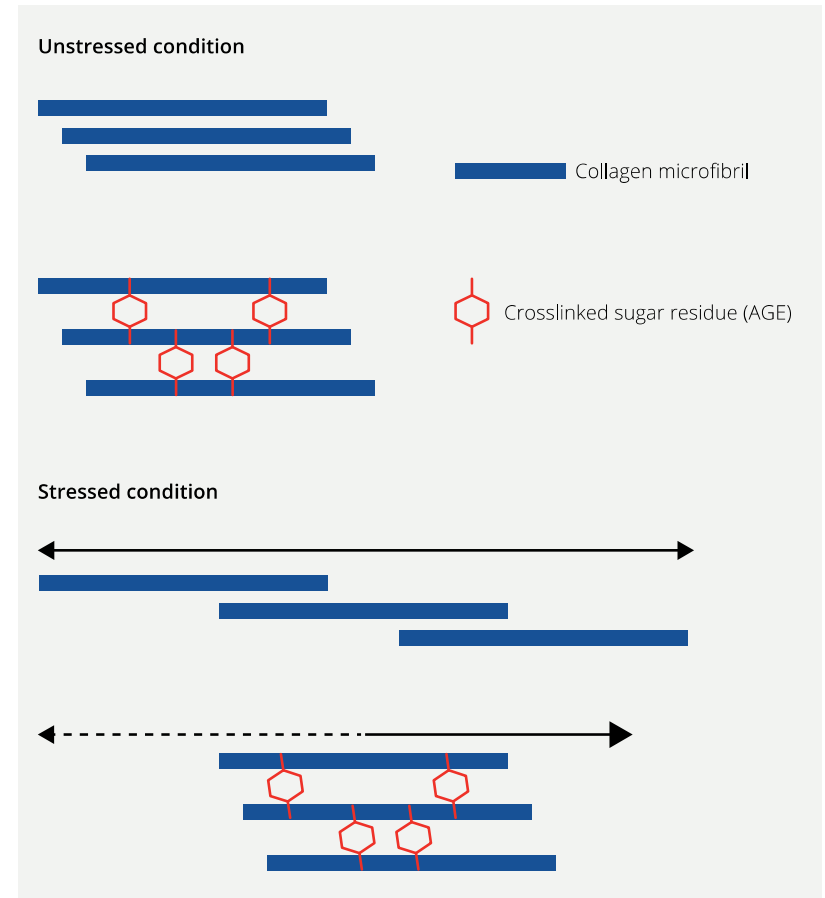
Protects skin with a powerful barrier of anti-oxidants and strengthens its resistance against oxidative stress



# Advanced glycation end products (AGE)

An unwanted form of cellular waste

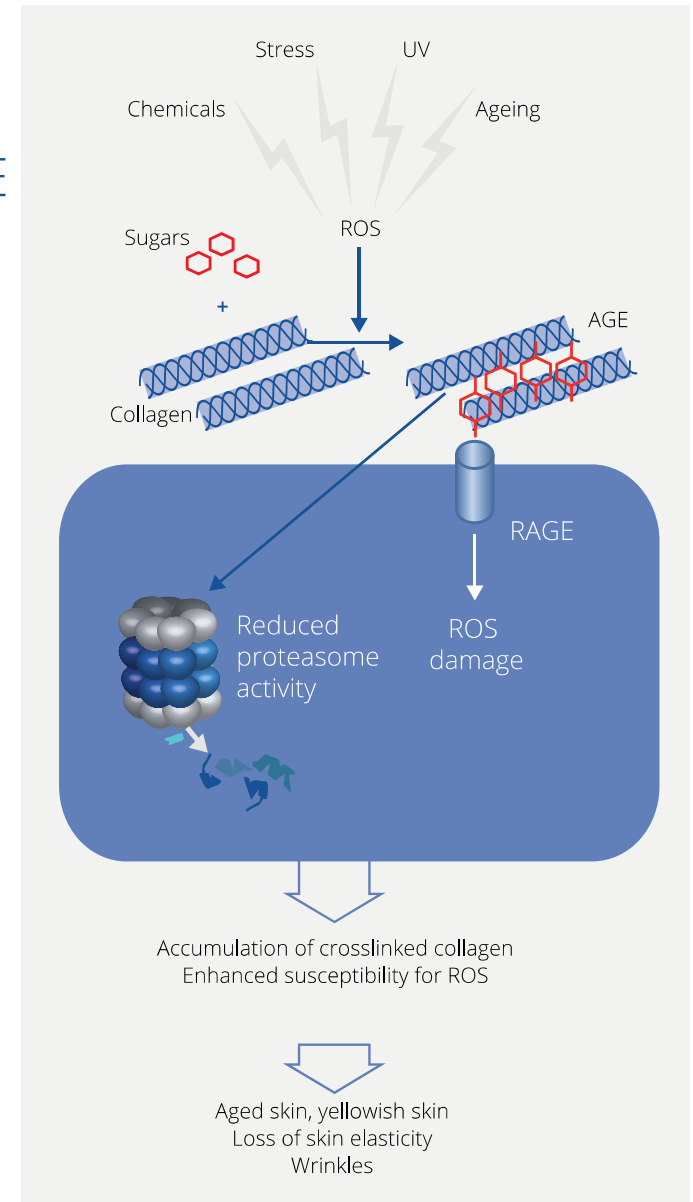
- **Glycation**: non-enzymatic binding of sugars to proteins, DNA and lipids
- Glycation is triggered by oxidative stress or high blood glucose levels
- Glycation leads to the formation of AGE
- AGEs crosslink collagen and thereby drive wrinkle formation
- AGEs are coloured and can cause the skin to appear sallow and yellowish



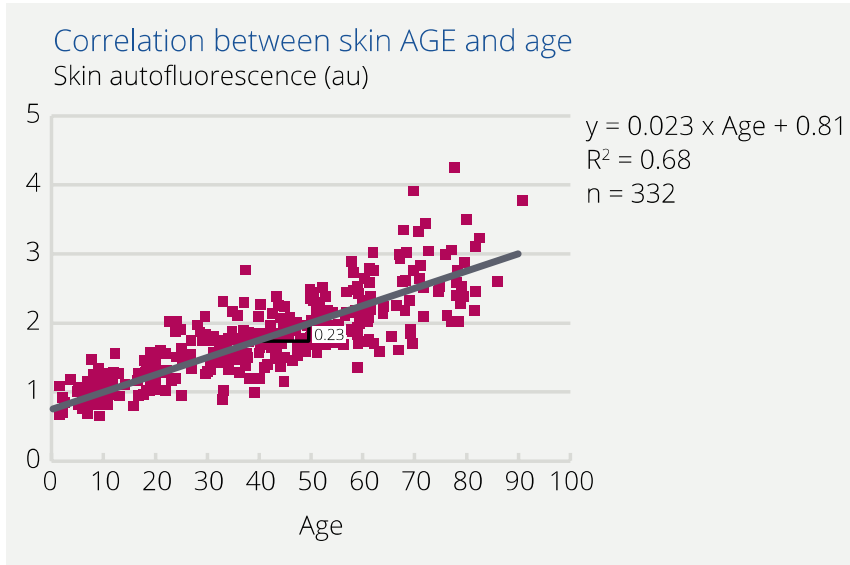
# Proteasome activation

## A new strategy against AGE

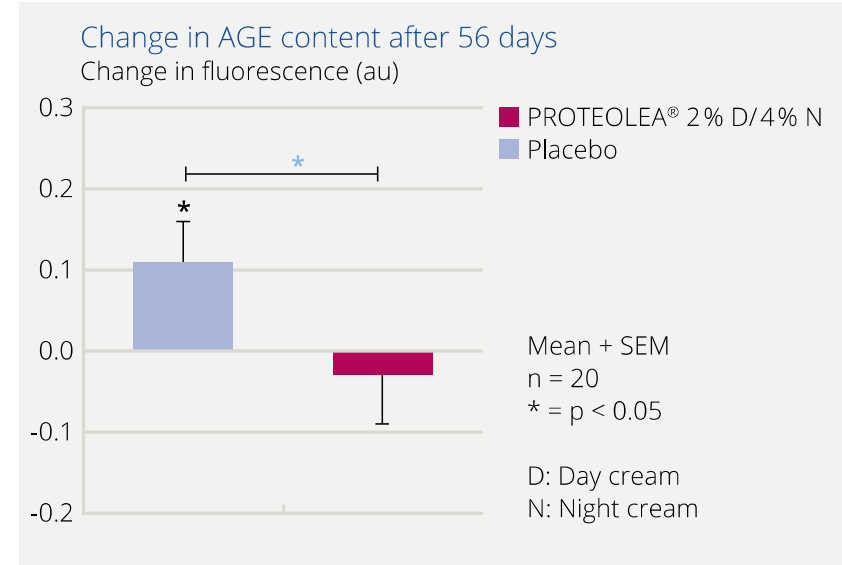
- AGE inhibit the proteasomes leading to elevated level of defective proteins
- AGE bind to specific receptors (RAGE) which reduces the cells capacity to deal with oxidative stress
- Activation of the proteasome
  - reduces the oxidative stress due to AGE accumulation
  - inhibits the formation of additional AGE



# PROTEOLEA® reduces the accumulation of AGE (*in-vivo* study)



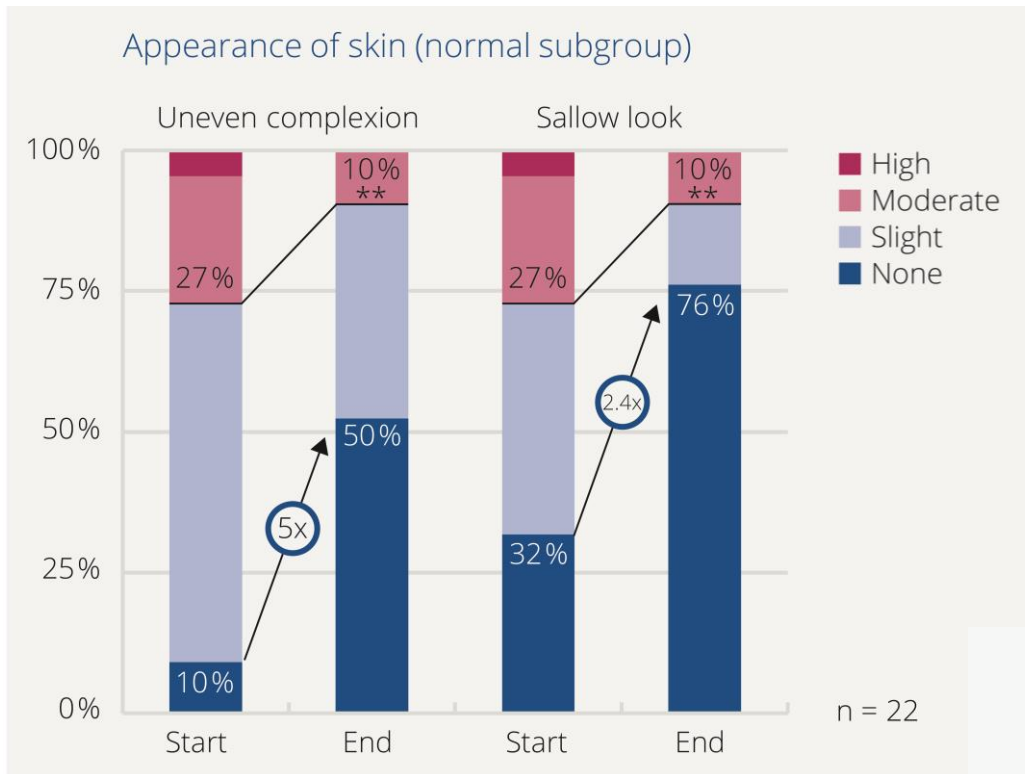
AGE increase per year: 0.023 units  
(Data from Literature)



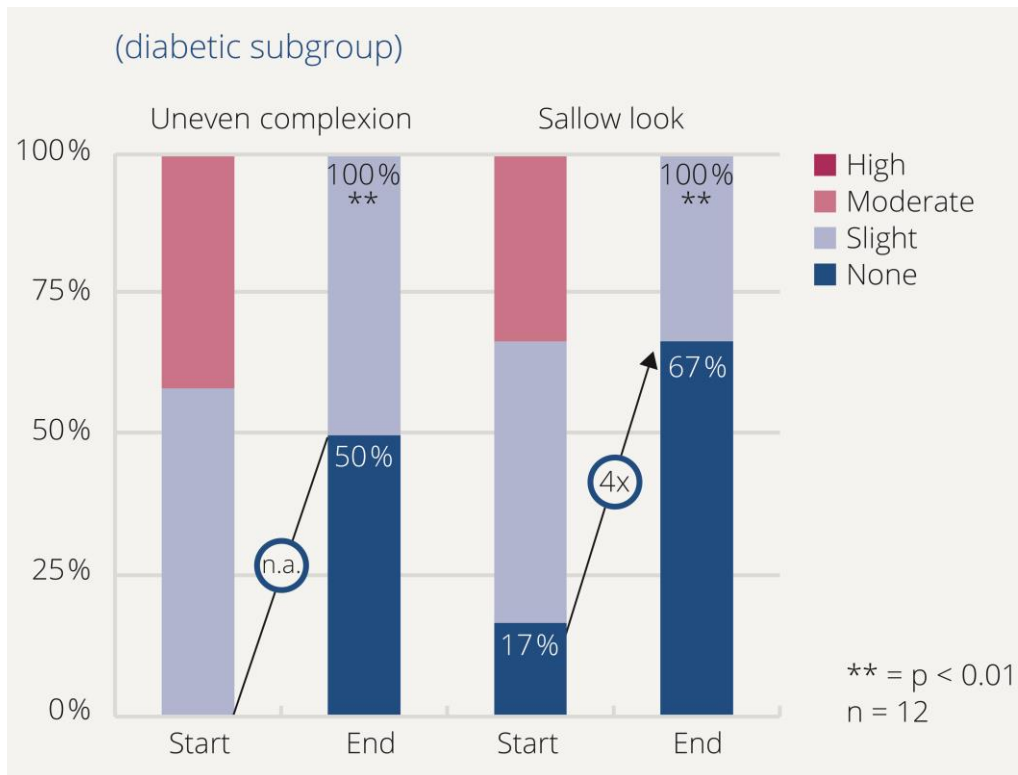
Improvement  
PROTEOLEA® vs. Placebo: 0.14 units  
Rejuvenation effect: 6.8 years



# PROTEOLEA® improves AGE-associated ageing effects (*in-vivo* study)



# Anti-glycation: a promising approach for diabetic skin (*in-vivo* study)



## Diabetics

- have elevated AGE-levels
- were dissatisfied with their skin complexion
- were satisfied with their skin appearance upon application of PROTEOLEA®

# Anti-glycation

Underlying mega-trend: Health

47 %

Of Germans like having technical innovation to individually control health and fitness at home

- “Health is the new wealth”
- Balance of individual energy of life, meaning of life

## Buzzwords

- Work-life blending
- Corporate health
- Foodies
- Ambient Assisted Living
- Self tracking



**AGE**  
**READER** **mu**  
Know their risk.

# Anti-glycation

## Target group

Lifestyle	Well-off, demanding, quality more important than quantity
Situation / story	Couple, on track, found her style, still open for new experiences
Beauty attitude	Interested in latest developments, scientific explanations, professional treatments
Brands	Brands that are competent and premium (doctor's brands), e.g. Skinceuticals
Retail	Pharmacy, perfumery (with staff)
Mood / values	Cool, clean, precise, security, science



# Anti-glycation

Target group





# Anti-glycation

## Concept

I accept the signs of time to a certain extent. And even though I don't hide my age. I want to make the very best of myself, no matter if it's about fashion or beauty. That's why I'm always interested in the latest results of anti-age research in skin care. For promising solutions I don't mind to spend more.

PROTEOLEA® is inspired by Nobel Prize winning biology. It is a powerful ingredient-composition making skin looking 6 years younger within 4 weeks. PROTEOLEA® successfully reduces the accumulation of Advanced Glycation End products (AGE) which glue together collagen fibres so that skin loses elasticity and firmness. PROTEOLEA® prevents this premature ageing. Skin is visibly rejuvenated, deeply hydrated and radiant – younger within weeks.

PROTEOLEA® is a unique *in-vivo* proven combination of 3 natural and biotechnological ingredients:

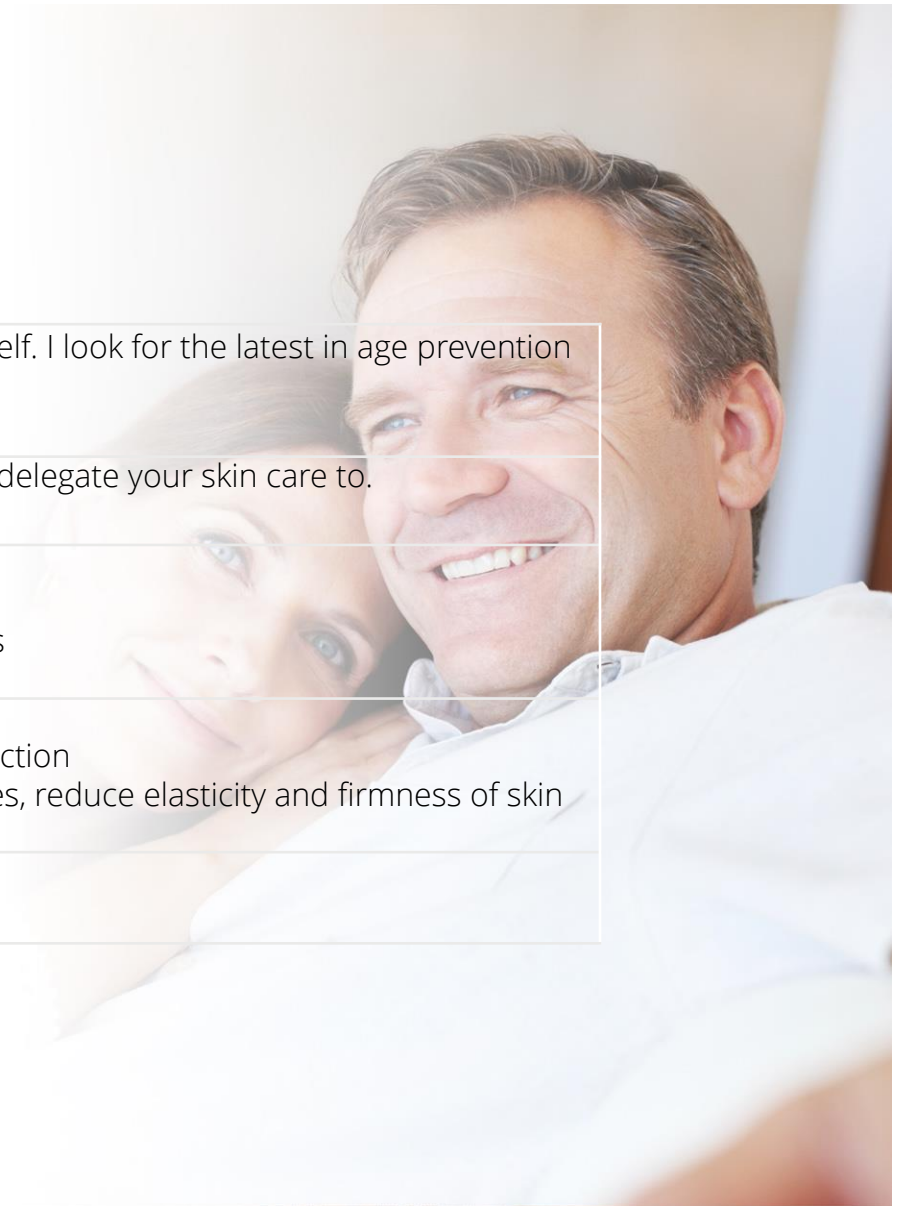
- Oleuropein from olive leaves activates the proteasome and improves degradation of cellular waste such as AGE
- Jujube, a Chinese date prevents the formation of AGE
- Moisture spending Levan additionally possesses film building abilities and balances out uneven skin areas



# Anti-glycation

## Concept

Insight	I want to make the best of myself. I look for the latest in age prevention research.
Role of PROTEOLEA®	Professional assistant you can delegate your skin care to.
Benefit of PROTEOLEA®	Reduces AGE cumulation Skin is visibly rejuvenated 6 years younger within 4 weeks
Reason to believe / substantiation	Highly effective, <i>in-vivo</i> proven Ingredient complex for 3-fold action AGEs glue together elastic fibres, reduce elasticity and firmness of skin
Product title	Bye Bye AGE



# PROTEOLEA®

3 concept routes from science into practice

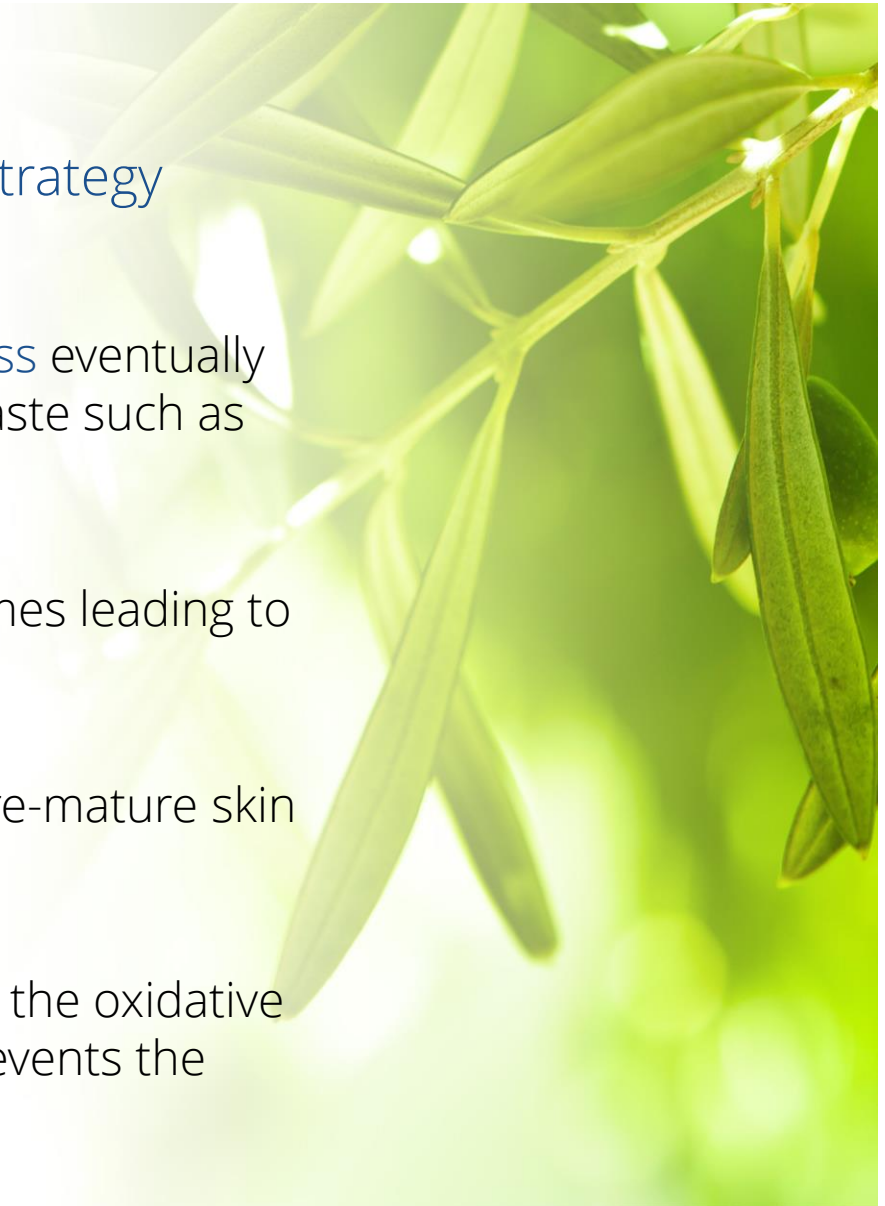
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- Anti-pollution  
Protects skin with a powerful barrier of anti-oxidants and strengthens its resistance against oxidative stress



# Proteasome activation

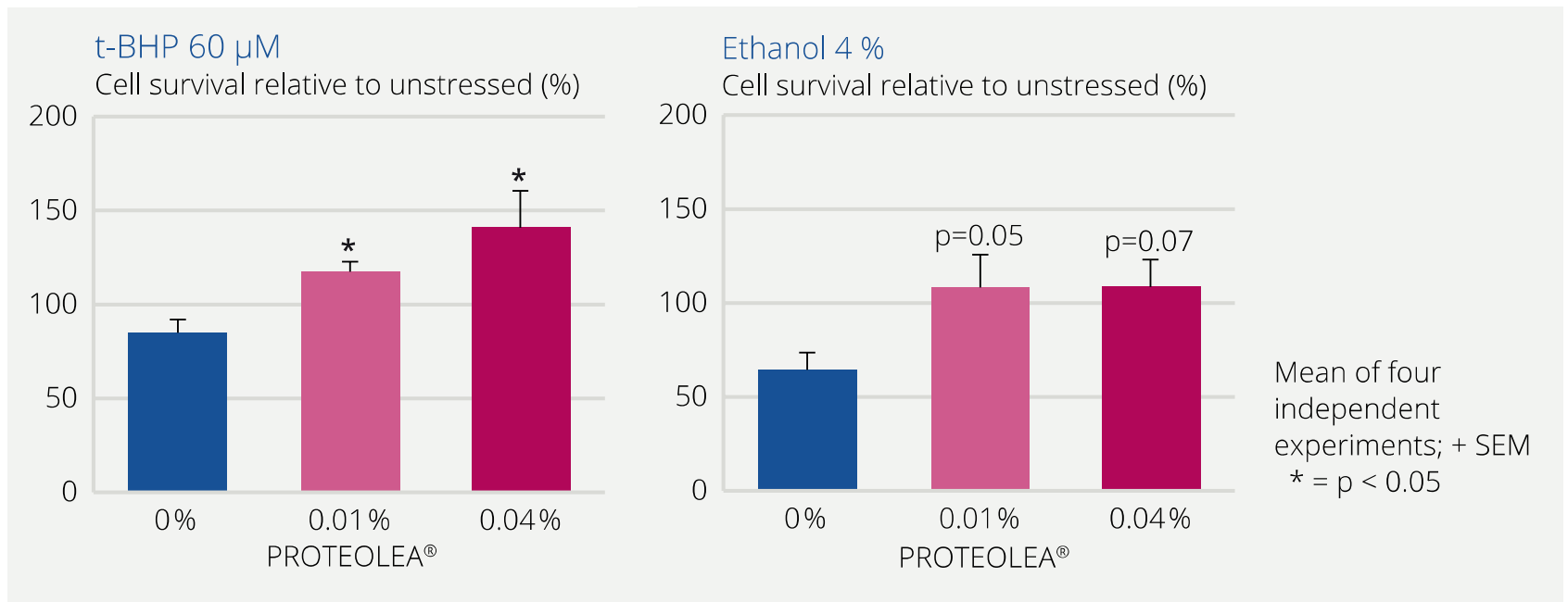
## An effective anti-pollution strategy

- Aerial pollutants trigger **oxidative stress** eventually leading to the formation of cellular waste such as lipofuscin (age spot pigment)
- Aerial pollutants inhibit the proteasomes leading to elevated level of defective proteins
- Aerial pollution is a major driver of pre-mature skin ageing and an uneven complexion
- Activation of the proteasome reduces the oxidative stress due to aerial pollutants and prevents the formation of additional cellular waste



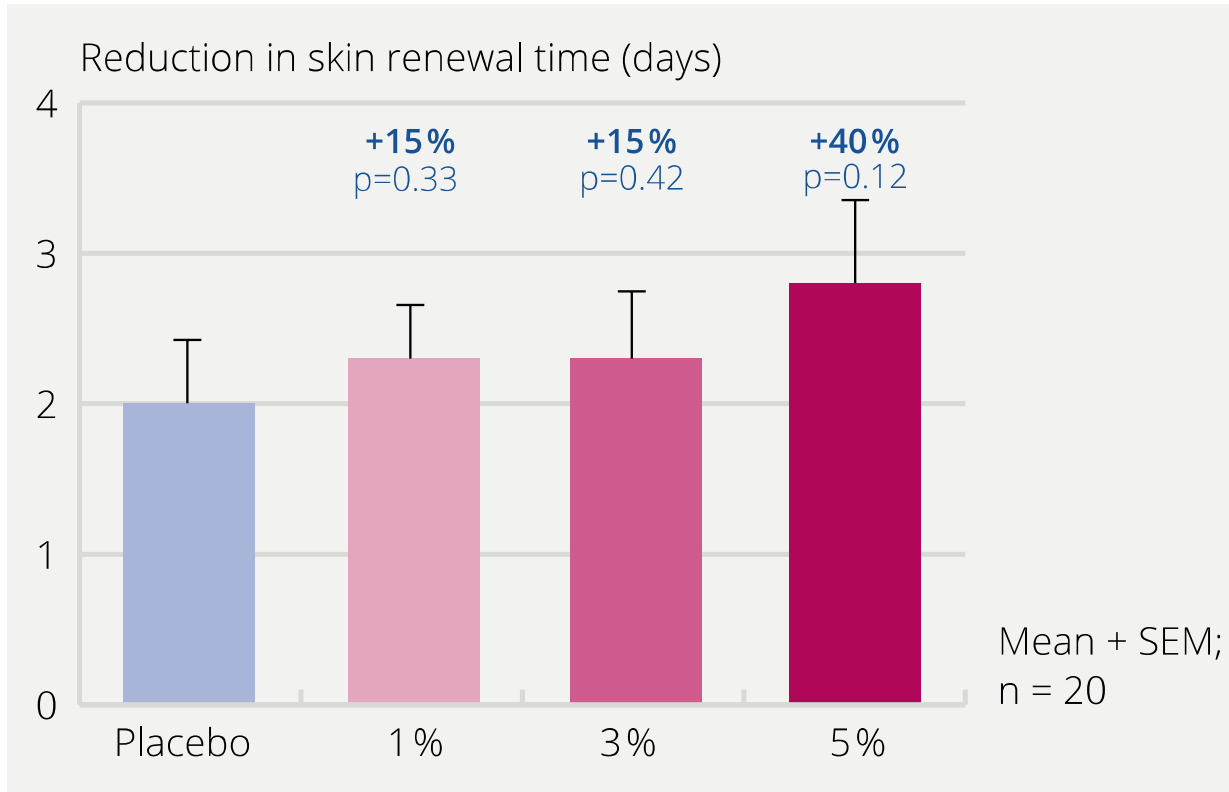
# PROTEOLEA® improves stress resistance

to real-life stress (*in-vitro* study)



# PROTEOLEA® accelerates the skin renewal time

At 5 % the skin needs 2.8 days less than untreated skin!



Comparison to placebo

# Anti-pollution

Underlying mega-trend: Urbanisation

- In 2050, 70 % of global population will live in cities
- Growth and efficiency vs. quality of life
- Urban farming / mining / manufacturing
- Urban landscapes
- Urban technologies
- Urban society:
  - digital, single, community-seeking
  - silver society
  - exposed to social stress

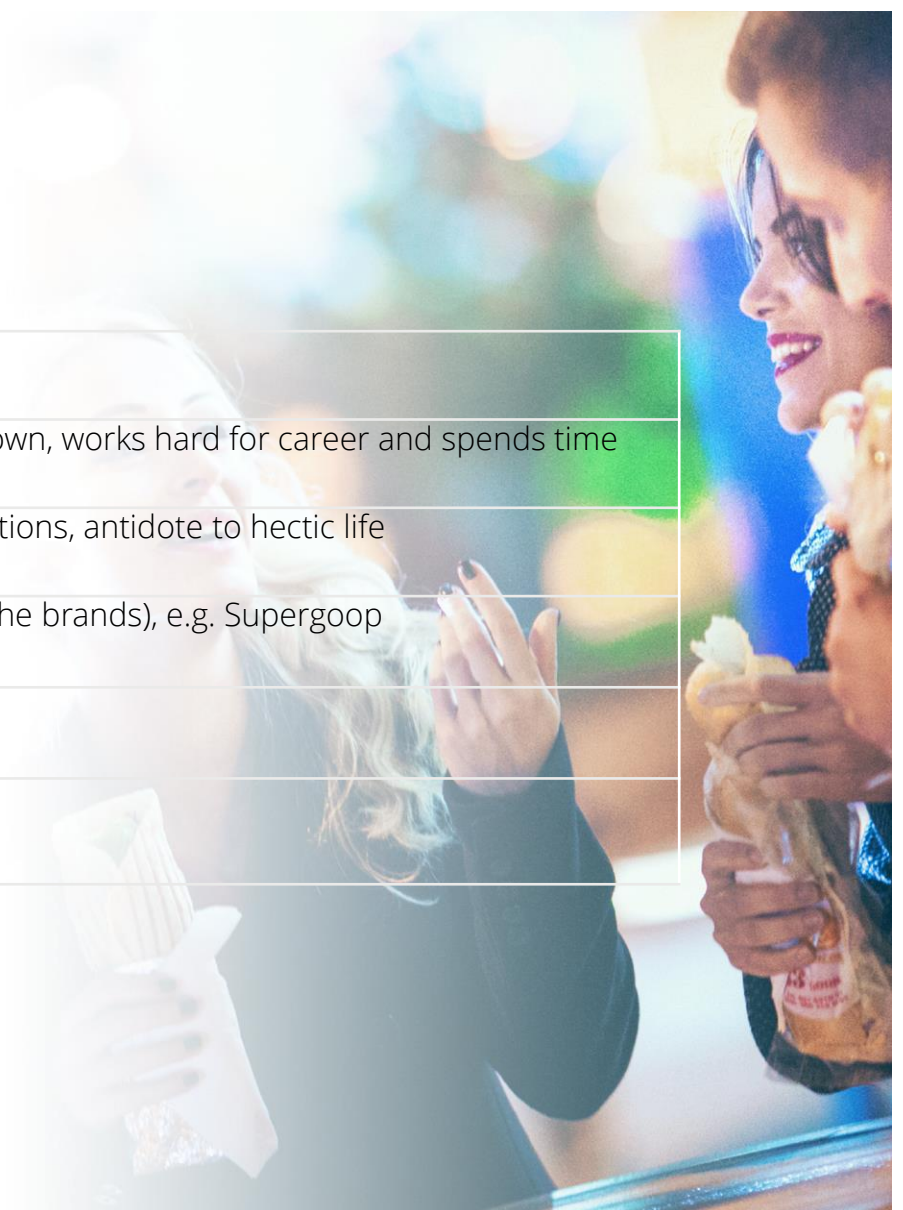




# Anti-pollution

## Target group

Lifestyle	Urban, fast-paced, self-reliant
Situation / story	Rather young, single / living on her own, works hard for career and spends time with friends
Beauty attitude	Looking for quick and effective solutions, antidote to hectic life
Brands	Brands that are new and trendy (niche brands), e.g. Supergoop
Retail	Online, local trendy shops
Mood / values	Curious, active, open, individuality



# Anti-pollution

Target group



# Anti-pollution

## Concept

Inspiration, action and constant change: I love living in a big, vibrant city. My skin doesn't: stress, pollution, UV rays etc. are real challenges with regard to first signs of ageing. That's why I feel responsible to protect my skin from harming environmental influences to preserve its youthful appearance.

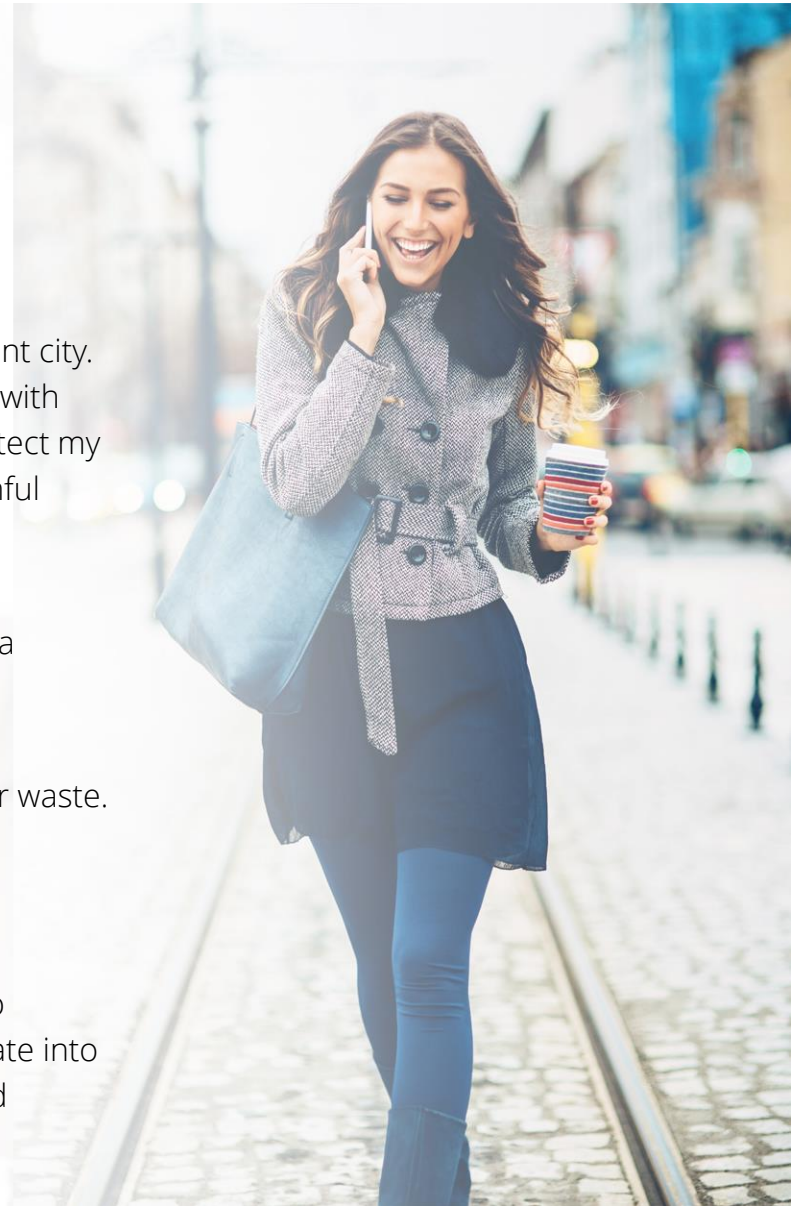
PROTEOLEA® is an unique ingredient in facial care products with a two-fold protective effect:

As an effective barrier it protects skin against air pollutants.

At the same time it ensures the elimination of detrimental cellular waste.

The result is radiant, even and smooth skin warding off all urban challenges.

Due to its powerful antioxidant properties PROTEOLEA® is able to eliminate most atmospheric free radicals before they can penetrate into deeper skin layers. By activating a particular cell compound called proteasome, cell waste is removed and cell renewal is stimulated.

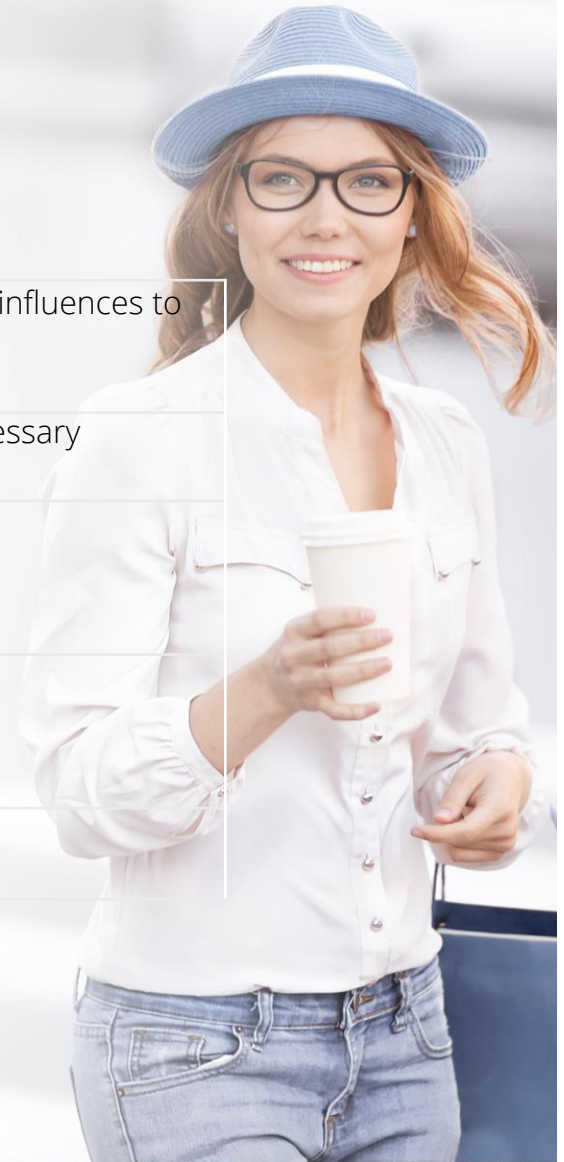




# Anti-pollution

## Concept

Insight	I want to protect my skin from harmful environmental influences to prevent early ageing.
Role of PROTEOLEA®	Knight in shining armor: Protects you and fights if necessary
Benefit of PROTEOLEA®	Protection barrier against air pollutants Elimination of detrimental cellular waste Skin is radiant and smooth
Reason to believe / substantiation	Powerful antioxidant (protection, resistance) Stimulates cells to regenerate more quickly (resilience) Gives skin the power to fight against stressors
Product title	Urban Pollution, <b>Better Beware</b>



# 3 concept routes – one product

Enjoy the formulation

**Be detoxed, Be healthy**

sample not for sale

**Bye Bye AGE**

Urban Pollution, **Better Beware**

BB Cream with 3 % PROTEOLEA®

[www.rahn-group.com](http://www.rahn-group.com)



SWISS EXPERTISE 

**RAHN**

# 3 concept routes – one product

BB cream with 3 % PROTEOLEA®

St	Substance	INCI Name USA	% w/w	Manufacturer
1	Water demin.	Water	60.98	several
	Disodium EDTA	Disodium EDTA	0.20	several
	Dermosoft OMP	Methylpropanediol, Caprylyl Glycol, Phenylpropanol	3.50	Dr. Straetmans, DE
2	Colorona Oriental Beige	Mica, Titanium Dioxide, Iron Oxides	1.00	Merck KGaA, DE
3	Tego Carbomer 340 FD	Carbomer	0.35	Evonik Industries AG, DE
4	Tegosoft CT	Caprylic/Capric Triglyceride	12.00	Evonik Industries AG, DE
	Neo Heliopan HMS	Homosalate	2.00	Symrise, DE
	Neo Heliopan 303	Octocrylene	2.00	Symrise, DE
	Parsol 1789	Butyl Methoxydibenzoylmethane	1.50	DSM, NL
	Eldew SL-205	Isopropyl Lauroyl Sarcosinate	2.00	Ajinomoto, JP
	DC 345 Fluid	Cyclopentasiloxane	0.50	Dow Corning, US
	Dermofeel GSC	Glyceryl Stearate Citrate	3.00	Dr. Straetmans, DE
	Tego Alkanol 6855	Cetearyl Alcohol	1.00	Evonik Industries AG, DE
	Keltrol CG-SFT	Xanthan Gum	0.40	CP Kelco, US
	Snowtitan-LL	Titanium Dioxide, Silica, Lauroyl Lysine	2.00	BASF, DE
	Amisoft HS-11P(F)	Sodium Stearoyl Glutamate	0.50	Ajinomoto, JP
	Unipure White LC 981	Titanium Dioxide	2.50	Sensient Cosmetic Technologies, FR
	Unipure Yellow LC 182	Iron Oxides	0.30	Sensient Cosmetic Technologies, FR
	Unipure Red LC 381	Iron Oxides	0.10	Sensient Cosmetic Technologies, FR
	Unipure Black LC 989	Iron Oxides	0.02	Sensient Cosmetic Technologies, FR
	Dermofeel Toco 70 non-GMO	Tocopherol, Helianthus Annuus (Sunflower) Seed Oil	0.20	Dr. Straetmans, DE
5	NaOH solution 10%	Sodium Hydroxide, Water	0.80	several
6	PROTEOLEA®	Glycerin, Water, Levan, Decyl Glucoside, Olea Europaea (Olive) Leaf Extract, Phenethyl Alcohol, Zizyphus Jujuba Seed Extract, Citric Acid, Ascorbic Acid	3.00	RAHN AG, CH
7	Beautiful	Fragrance	0.15	Aromatic Flavours & Fragrances Europe Ltd., GB



# Information

## Presentation PROTEOLEA® Concept Routes 06/16

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