

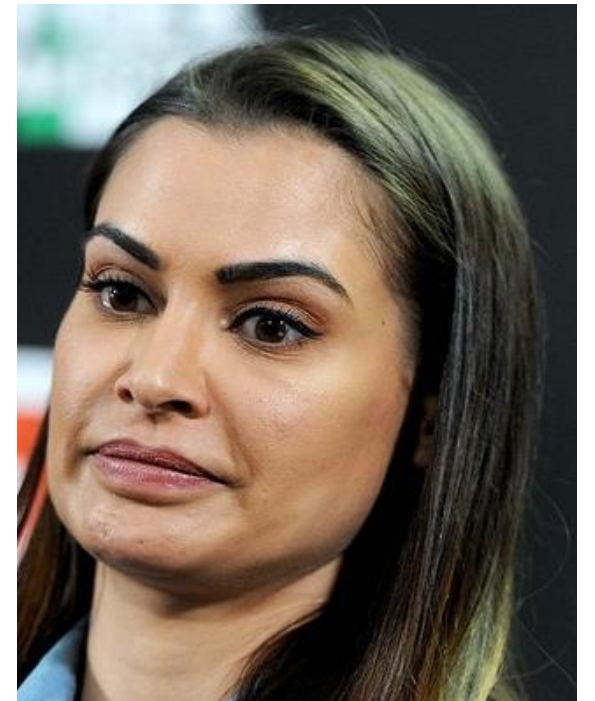
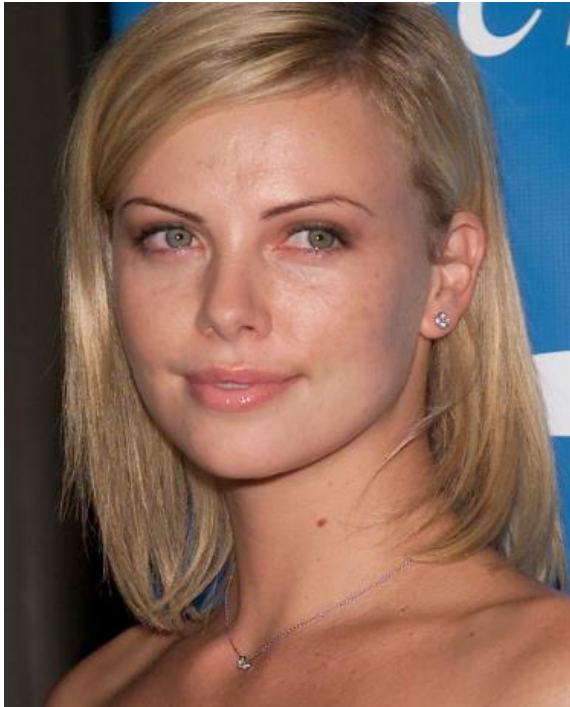
SHADES OF PIGMENTATION

DR AYESHA OMAR

Eucerin[®]



SOUTH AFRICA - THE RAINBOW NATION



WHERE DOES PIGMENTATION ORIGINATE ?

Human skin comes in a very wide range of colours....



...from all different parts of the world

There are two types of melanin

Pheomelanin – Yellow to Red in Colour



Eumelanin – Dark Brown to Black



THE PIGMENT SPECTRUM

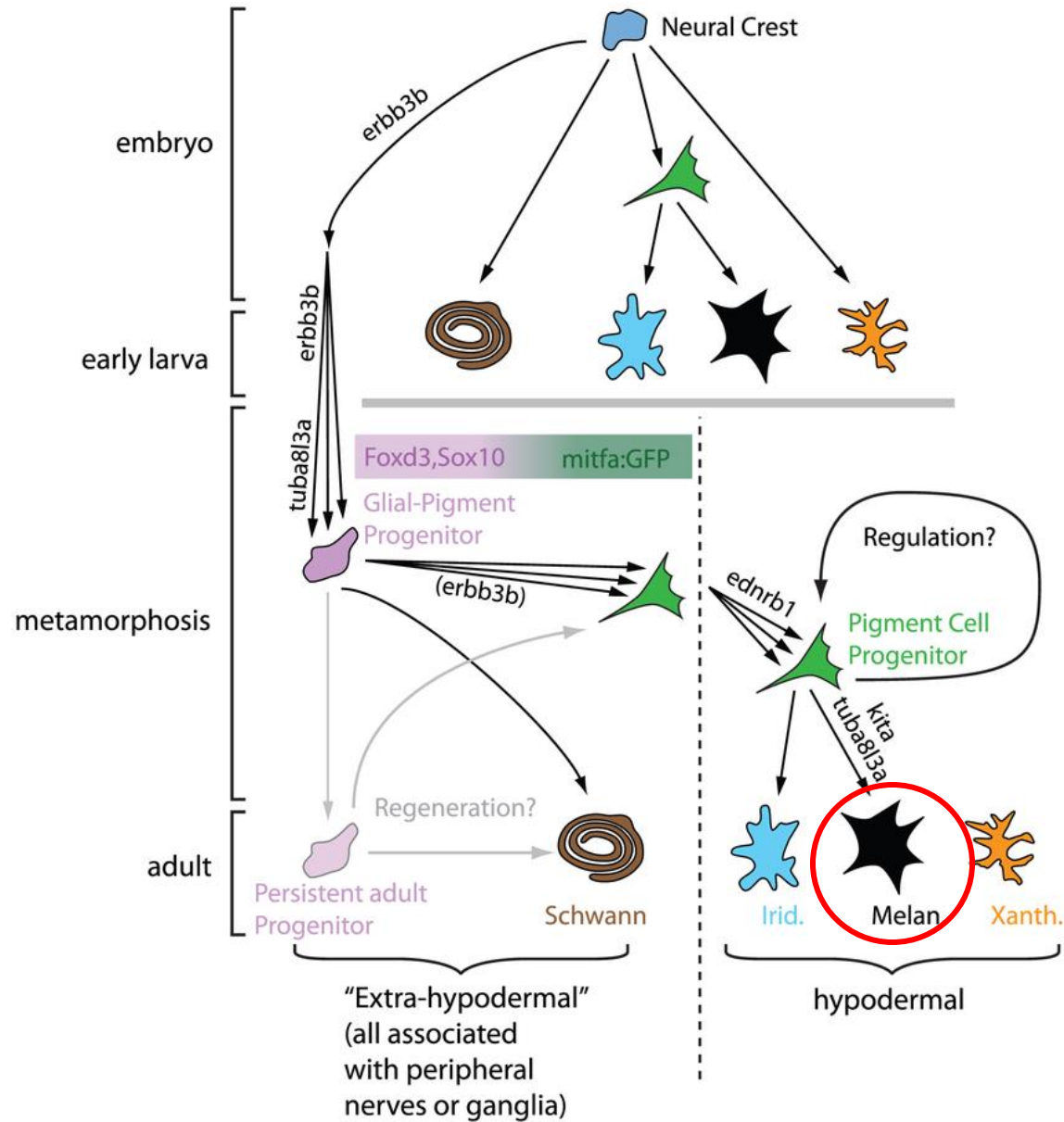
						
	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V	TYPE VI
BEFORE SUN	Ivory	Fair or pale	Fair to beige, with golden undertones	Olive or light brown	Dark brown	Deeply pigmented dark brown to darkest brown
AFTER SUN	Always freckles, always burns/peels, never tans	Usually freckles, often burns/peels, rarely tans	Might freckle, burns on occasion, sometimes tans	Doesn't really freckle, rarely burns, often tans	Rarely freckles, almost never burns, always tans	Never freckles, never burns, always tans

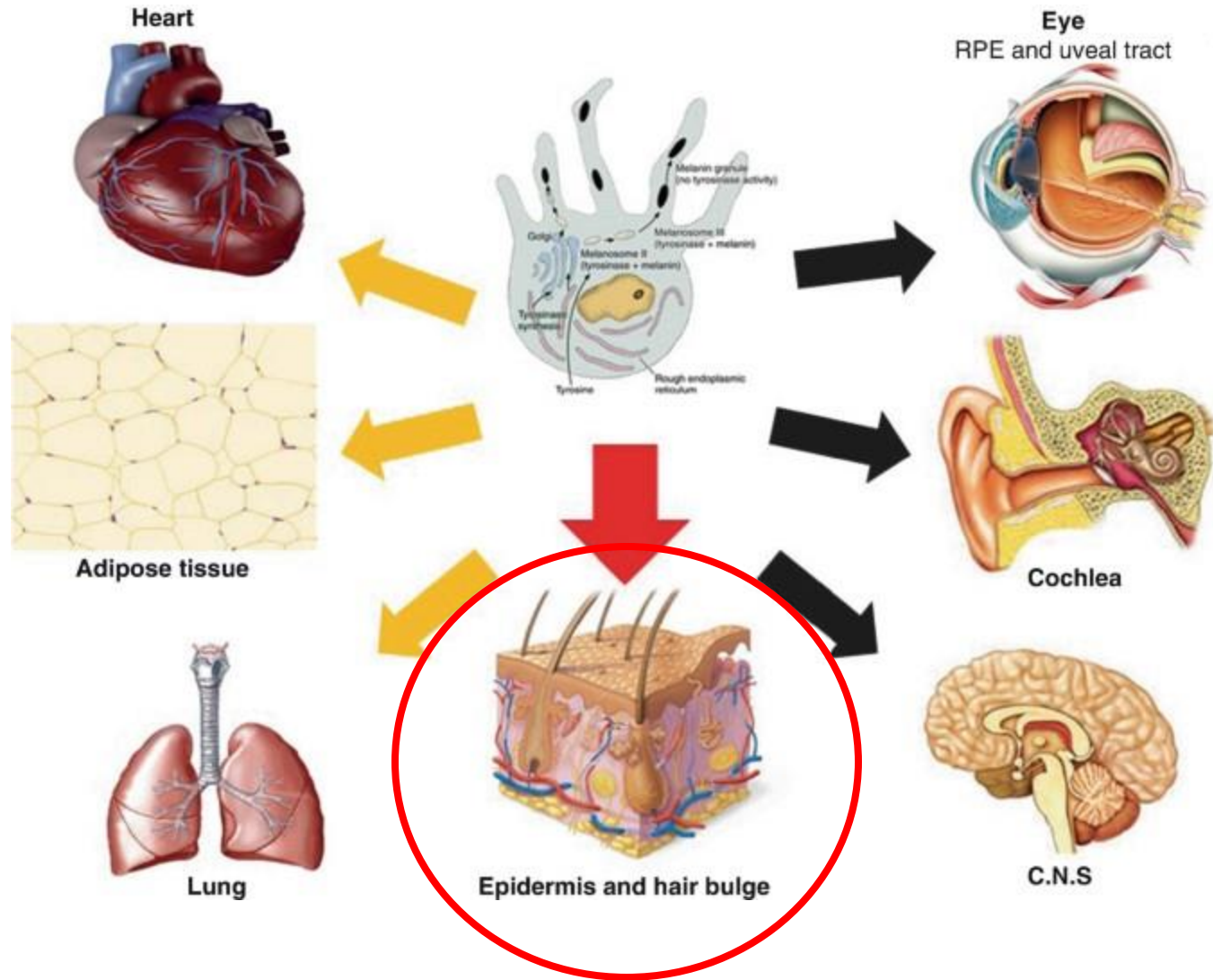
THE DARKER THE SKIN, THE MORE AT RISK



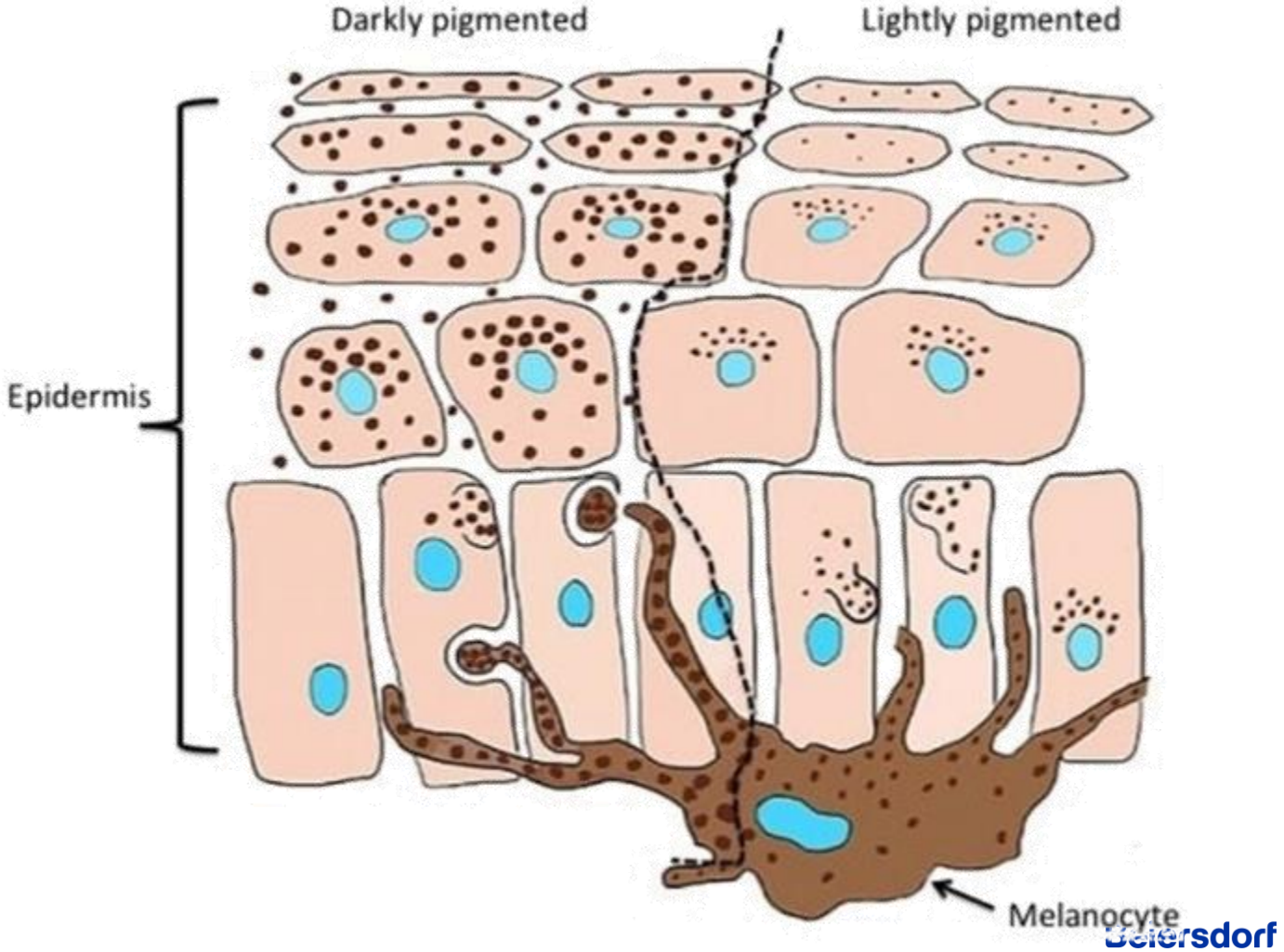
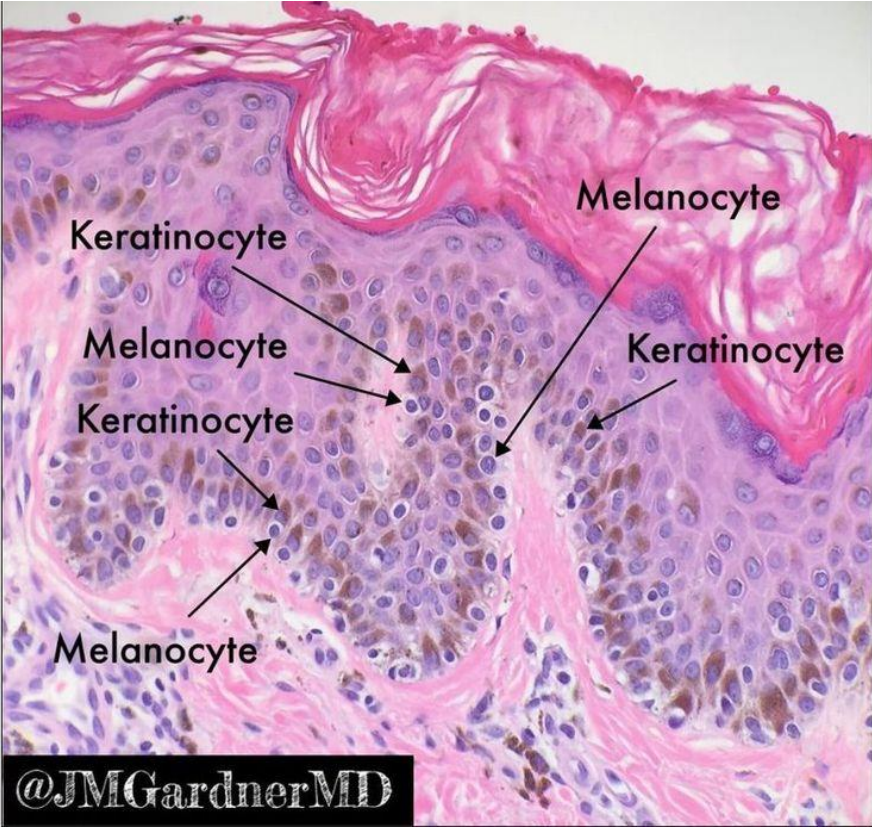
LIFE-CHANGING POWER OF
DERMATOLOGICAL SKINCARE

EMBRYOLOGY



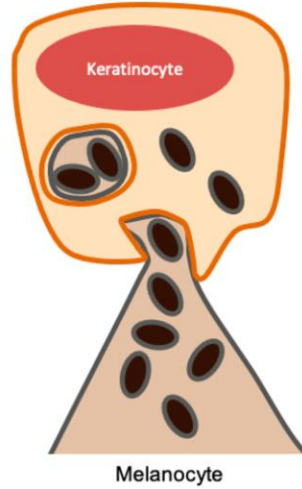


PHYSIOLOGY

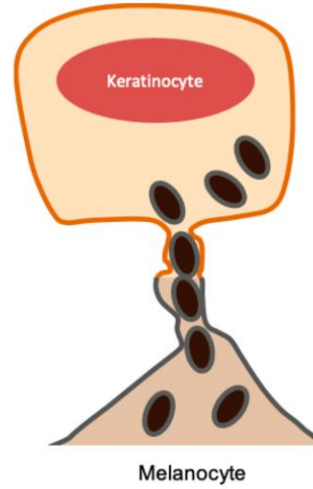


MELANOSOME TRANSFER

a) Cytophagocytosis



b) Membrane fusion



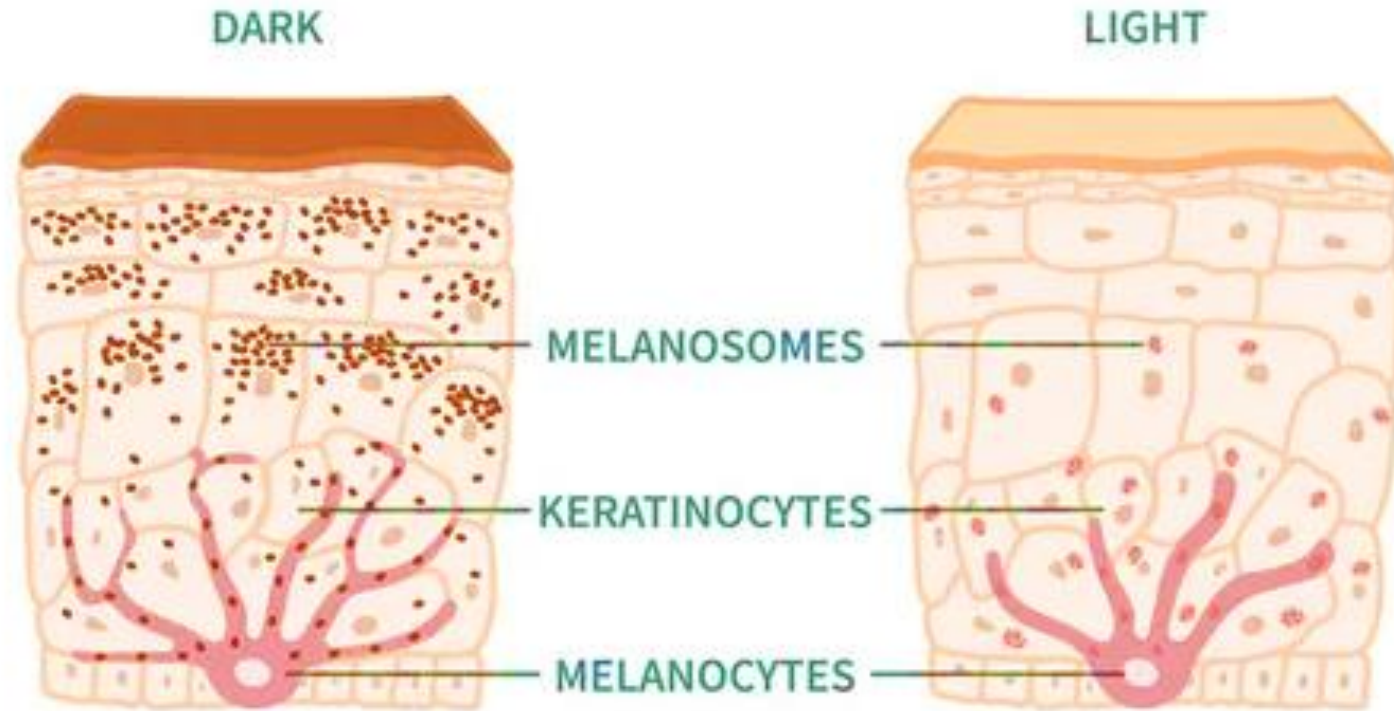
c) Shed vesicles



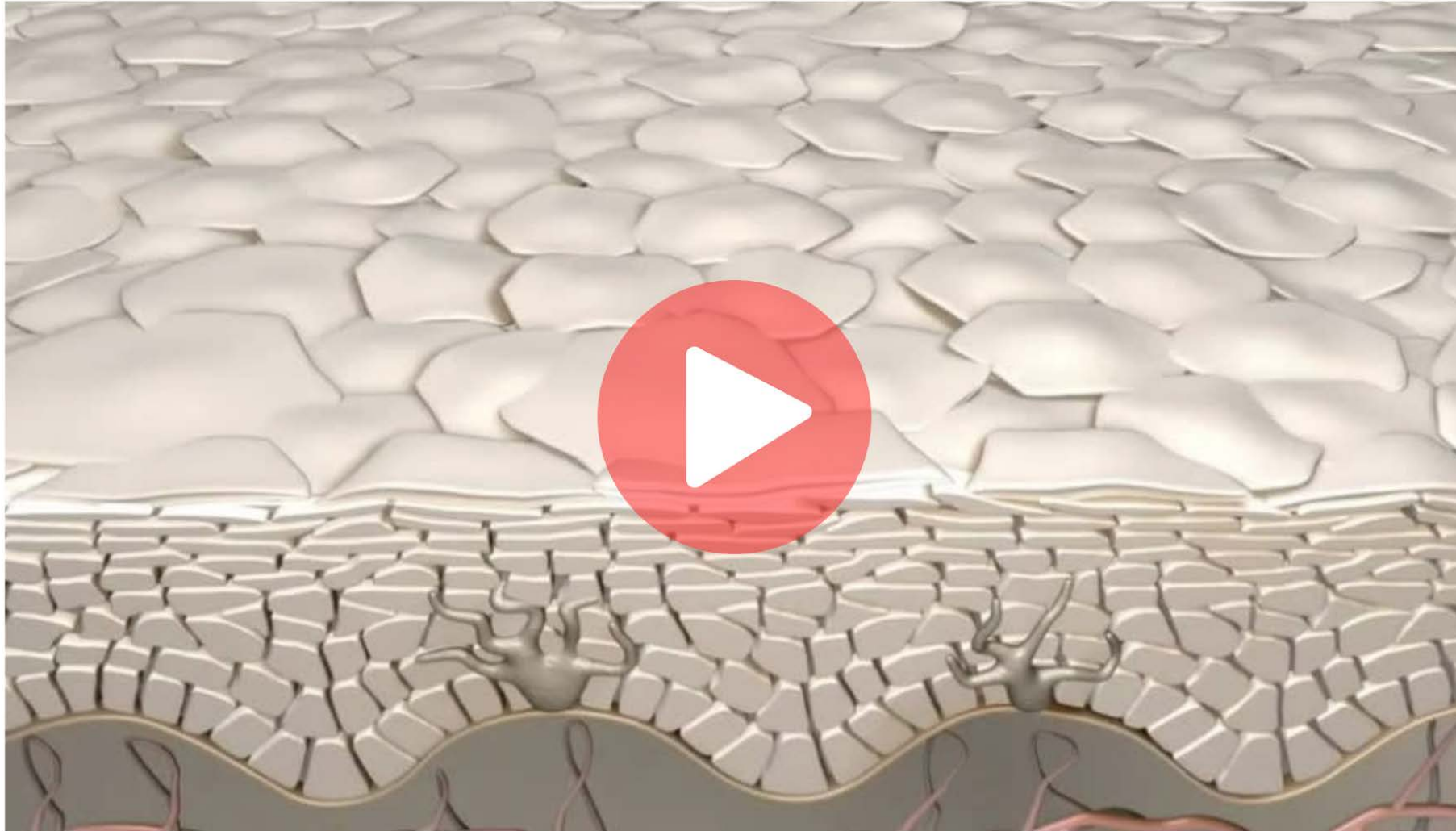
d) Exo/phagocytosis



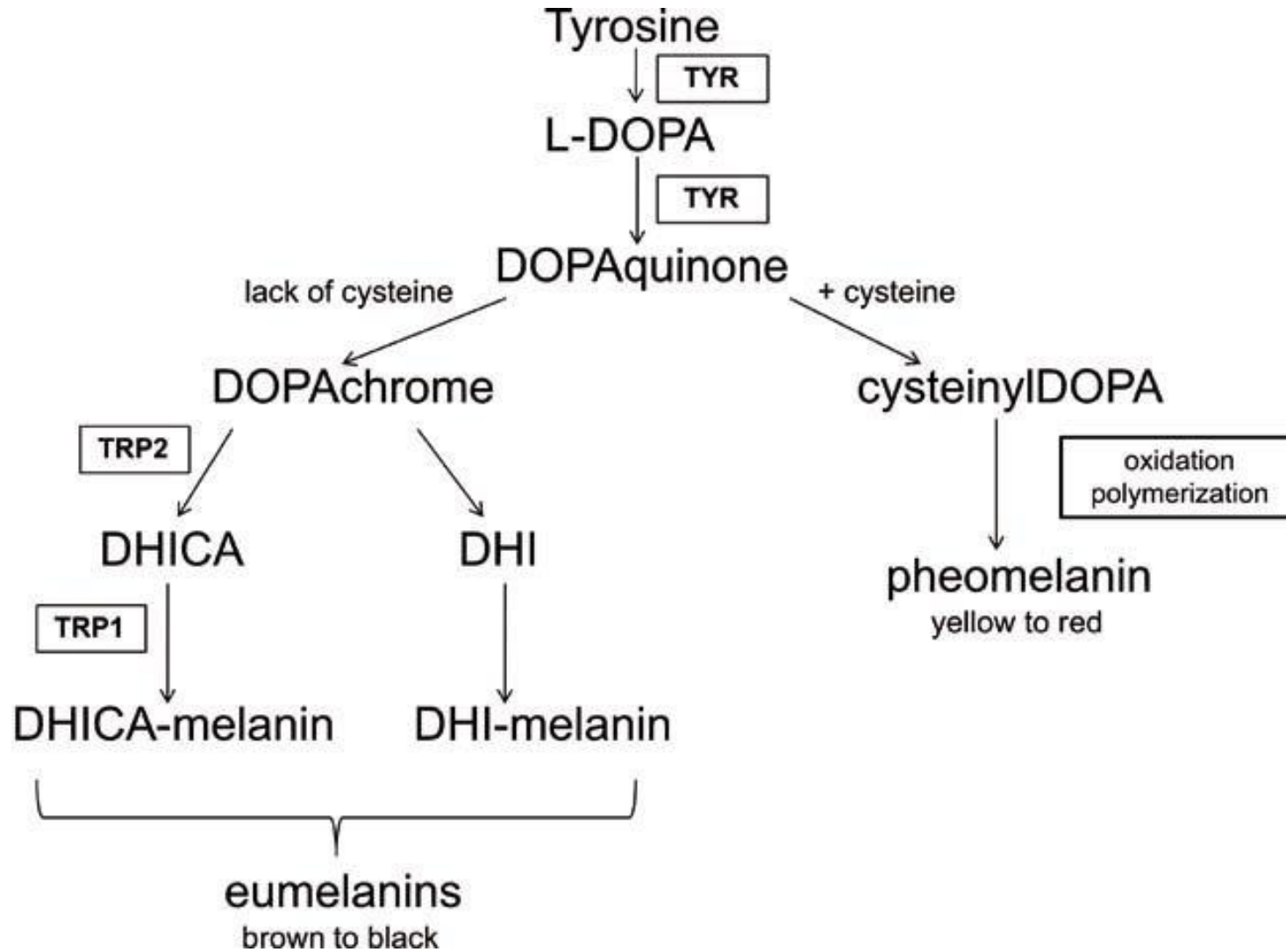
SKIN PIGMENTATION



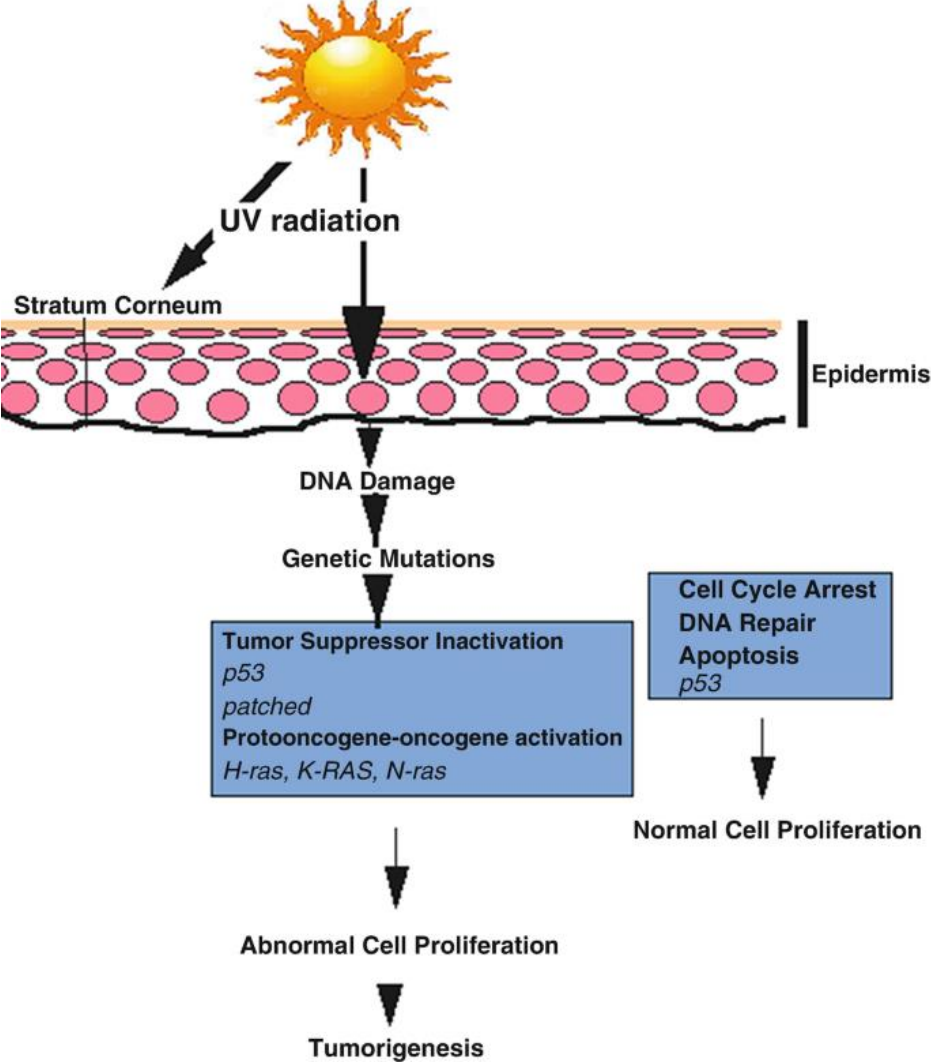
PIGMENT FORMATION IN THE SKIN - MOA



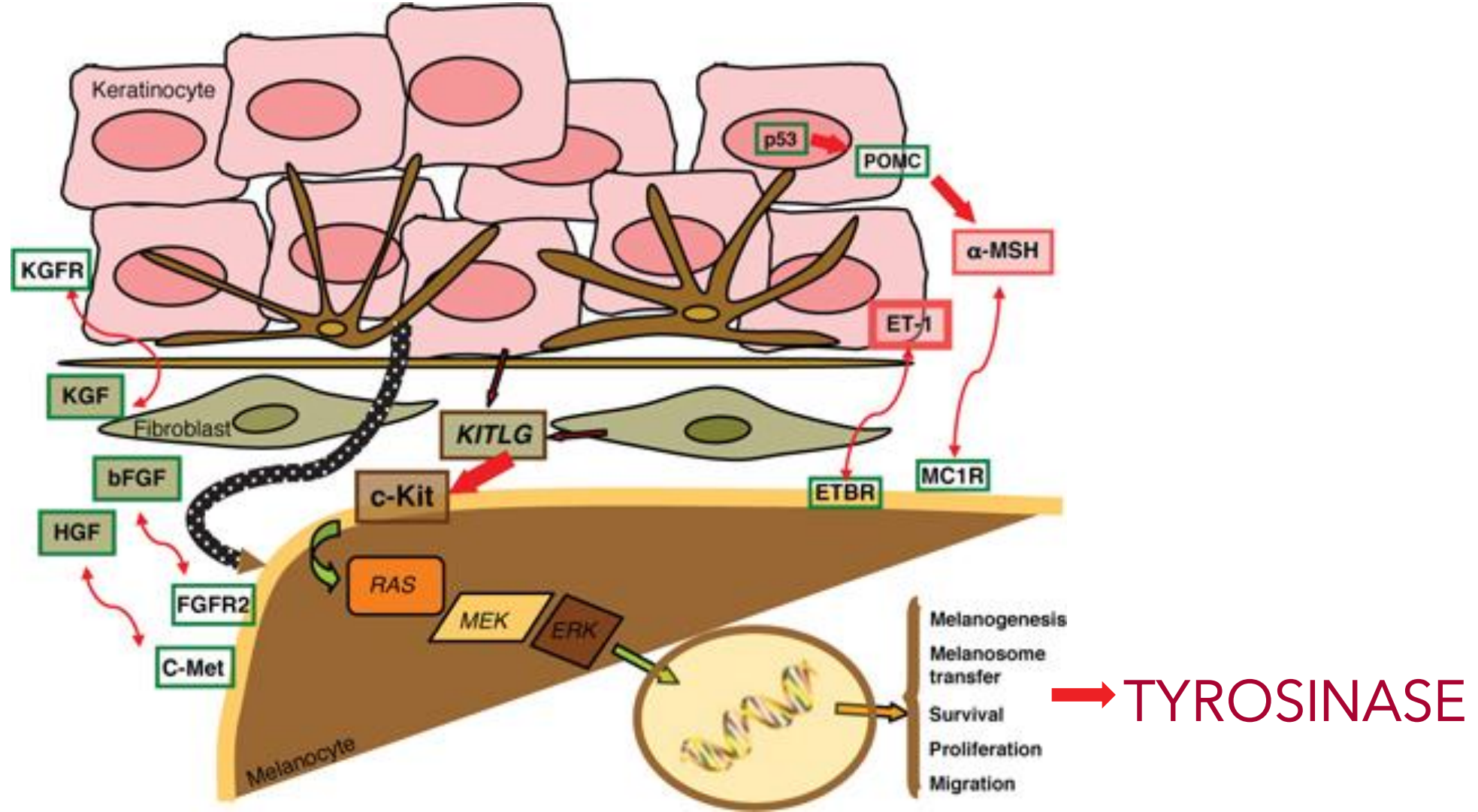
MELANOGENESIS



UV LIGHT AND ITS EFFECTS ON THE SKIN



KERATINOCYTES ROLE IN PIGMENTATION



HYPERPIGMENTATION

- **Epidermal:** Identified by the presence of excess melanin in the superficial layers of the skin.
- **Dermal:** Distinguished by the presence of melanophages (cells that ingest melanin) through the dermis.
- **Mixed:** Includes a combination of both the epidermal and dermal type.
- **Unnamed:** Excess melanocytes are present in the skin of dark-skinned individuals.

DERMAL VS EPIDERMAL MELASMA

DERMAL:

EPIDERMAL:

DEFINITION

- CAUSED BY INCREASED MELANIN PIGMENT IN THE DERMIS

- CAUSED BY THE INCREASE OF MELANIN PIGMENT IN THE EPIDERMIS

SIGNS

- ILL-DEFINED LIGHT BROWN TO BLUE-GREY PATCHES ON THE FACE

- WELL-DEFINED DARK BROWN COLOUR PATCHES ON THE FACE

DIAGNOSIS

- WOOD'S LAMP- NO ENHANCEMENT SEEN AND DERMOSCOPY- IRREGULAR PIGMENT NETWORK WITH BLuish GREY PIGMENTATION IS NOTED

- WOOD'S LAMP- ENHANCEMENT . IN DERMOSCOPY- REGULAR PIGMENT NETWORK WITH A BROWNISH HOMOGENOUS PIGMENTATION

RESPONSE

- POOR RESPONSE

- GOOD RESPONSE

TREATMENT

- CHEMICAL PEELS, MICRODERMABRASION AND LASERS

- BLEACHING AGENTS, COMBINATION OF HYDROQUINONE, TRETINOIN, AND MODERATE POTENCY TOPICAL STEROIDS, COMBINATION OF CREAMS CHEMICAL PEELS AND LASER THERAPY



**DERMAL
MELASMA**



**EPIDERMAL
MELASMA**



NEVUS OF OTA



NEVUS OF HORI

COMMON PRESENTATIONS OF HYPERPIGMENTATION

- MELASMA
- SOLAR LENTIGINES
- POST INFLAMMATORY HYPERPIGMENTATION
- PERI-ORBITAL
- ACANTHOSIS NIGRICANS
- MISCELLANEOUS:
 - Drug induced
 - Lichen planus
 - Lichen planus pigmentosus
 - Lichenoid eczema
 - Addison's disease
 - Dermatitis artefacta

MELASMA



PIGMENTATION DISORDERS



FRECKLES



AGE SPOTS



MELASMA



ACNE MARKS

50%

of pregnant women
affected by Melasma

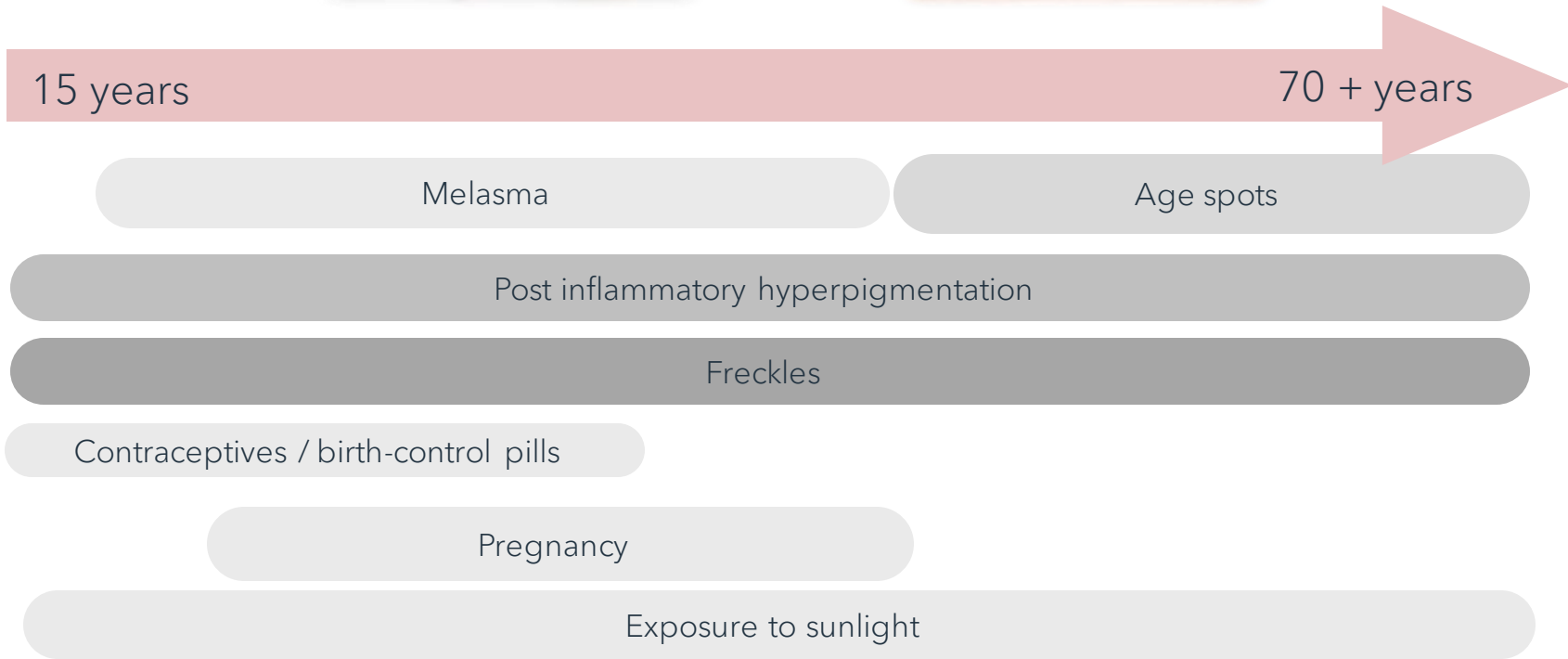
25%

of women taking oral
contraceptives affected by
hyperpigmentation

46%

of global consumers occasionally have uneven skin
tone, pigment spots or hyperpigmentation skin
concerns on their face.

APPEARANCE OF PIGMENTATION



SOLAR LENTIGINES



POST INFLAMMATORY HYPERPIGMENTATION



PERI-ORBITAL



ACANTHOSIS NIGRICANS



DRUG INDUCED



LICHEN PLANUS



LICHEN PLANUS PIGMENTOSUS



LICHENOID ECZEMA



ADDISON'S DISEASE



DERMATITIS ARTEFACTA



MANAGEMENT APPROACH

Depends on:

- Causes of hyperpigmentation - where possible, first TREAT the underlying cause
- Location of pigmentation - Epidermal? Dermal? Mixed?
- Co-morbidities - e.g. SLE (caution with light sources)
- Previous treatment history - previous therapies, skin sensitivity or allergies
- Skin type - Fitzpatrick type
- Patients Wish



INCREASED PIGMENTATION
 UV exposure
 Hormones
 Inflammation

Sunblock

Antioxidants/anti-inflammatory, Vit C, coffee, green tea, TA, topical steroids

Downregulate tyrosinase e.g. Retinoids, Retinol



Tyrosinase gene transcription

Tyrosinase

Glucosamine

Glycosylation

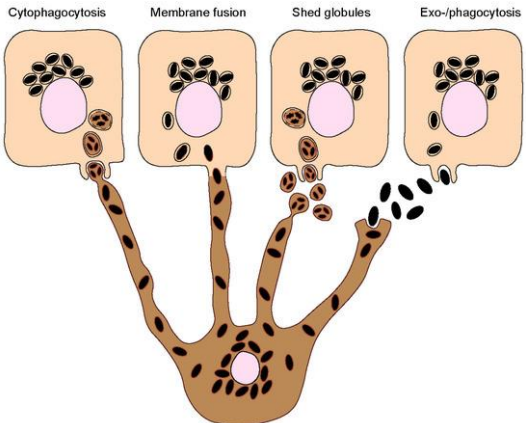
Increased MELANOGENESIS

Activated TYROSINASE

Tyrosinase Inhibitors e.g. HQ, **THIAMIDOL**, Arbutin, azelaic acid, liquorice

Niacinamide

Melanosome transfer



HYPERPIGMENTATION



Beiersdorf

Mechanistic approach to TOPICALS in hyperpigmentation

MANAGEMENT APPROACH

Topical Agents:

- Photoprotection
- Hydroquinone And Combinations
- Retinoids
- Ascorbic acid
- Azelaic Acid
- Kojic Acid
- Tranexamic Acid
- Cysteamine
- Thiamidol

Moolla S, Miller-Monthrope Y(2022)
Dermatology: How to manage facial
hyperpigmentation in skin colour

MANAGEMENT APPROACH

Chemical Peels:

- Glycolic Acid
- Salicylic Acid
- Jessner Solution
- Trichloroacetic Acid

Laser Therapies:

- Ablative Laser
- Non-ablative Fractioning Laser
- Picosecond Laser

ADDITIVE THERAPIES

AGENTS

Skin lightening & Brightening
Hydroquinone, Retinoids, Cysteamine, TXA, Thiamidol

Desloughing
Superficial and medium depth chemical peels

Photo thermolysis
Picosec, Q-switched, Nd:Yag

Systemic Therapies
e.g. pycnogenol, oral TXA

SIDE EFFECTS

'Halo' phenomenon
Contact dermatitis
Nail discoloration
Permanent leukoderma
Ochronosis
OTC products

Erythema
Burning
Desquamation
HSV re-activation
PIH
Hypertrophic scarring
Keloid formation

Dyschromia's e.g. confetti pigmentation
PIH
Blisters
Hypertrophic and keloid scarring

Dyschromia's e.g. confetti pigmentation
PIH
Blisters
Hypertrophic and keloid scarring

OTHER

CAMOUFLAGE, MICRONEEDLING, PRP

EMERGING TREATMENTS

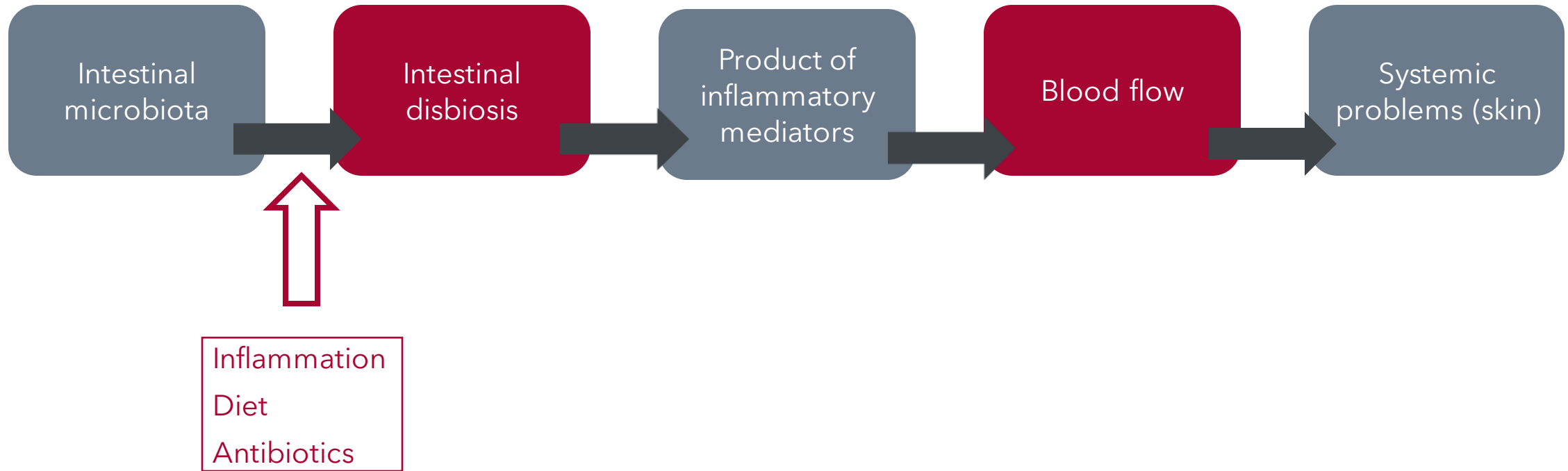
- Research - understanding the mechanisms surrounding PIH and melasma is still ongoing and as such, novel therapeutic options are continuing to be developed.
- Emerging pharmacological therapies include topical metformin, flutamide, thiamidol, and PRP
- Newer non-pharmacologic options include microneedling and picosecond laser.
- Skin-bleaching and glutathione

PICOSECOND LASER

The new trend in facial rejuvenation:

- Improves texture
- Closes pores
- Softens wrinkles and fine lines
- Increases tone
- Clean spots
- Very safe for **DARK** skin

CONNECTION BETWEEN SKIN AND INTESTINAL FLORA



ADVERSE REACTIONS OF TOPICAL STEROIDS



Steroid
Rosacea

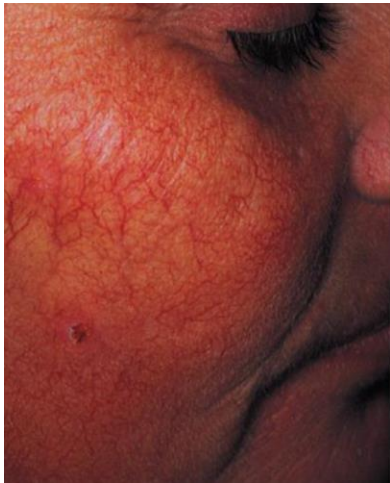


Perioral
Dermatitis

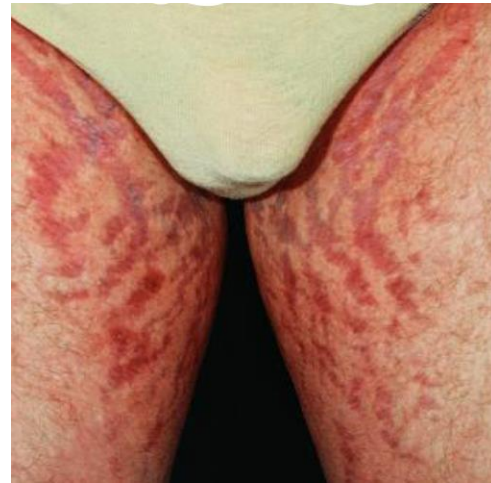


Atrophy

ADVERSE REACTIONS OF TOPICAL STEROIDS



Telangiectasia



Striae

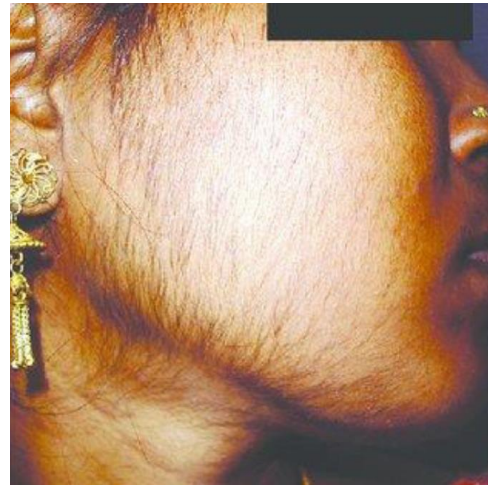


Tinea
incognito

ADVERSE REACTIONS OF TOPICAL STEROIDS



Folliculitis

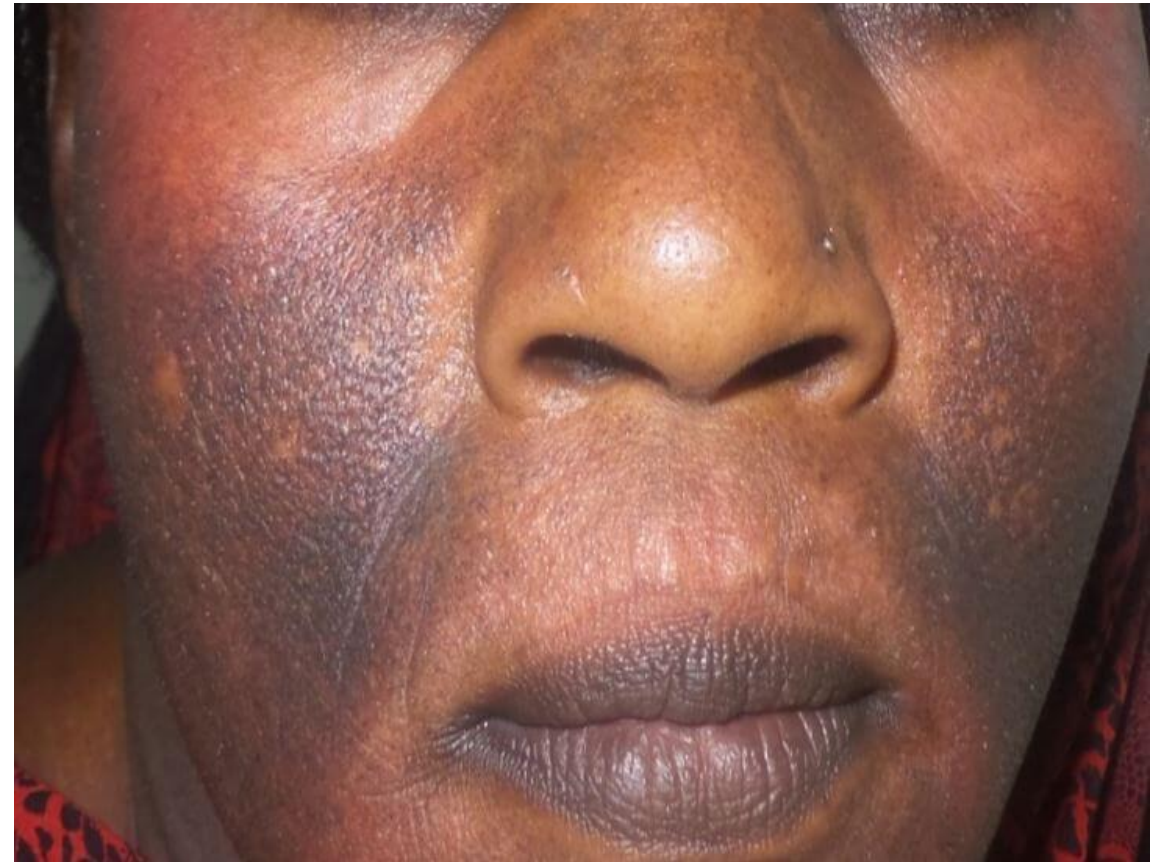


Steroid
hypertrichosis

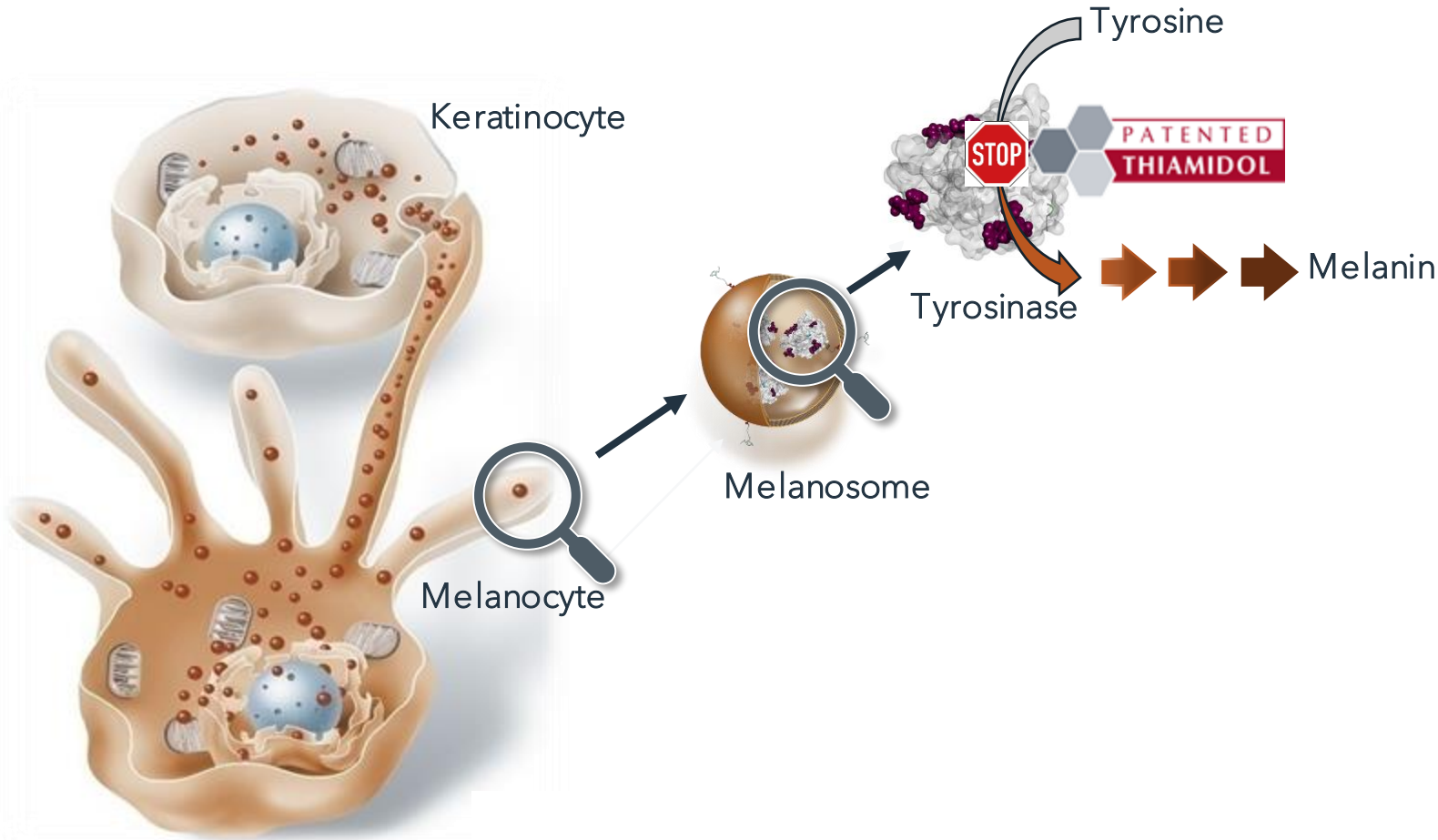


Steroid
acne

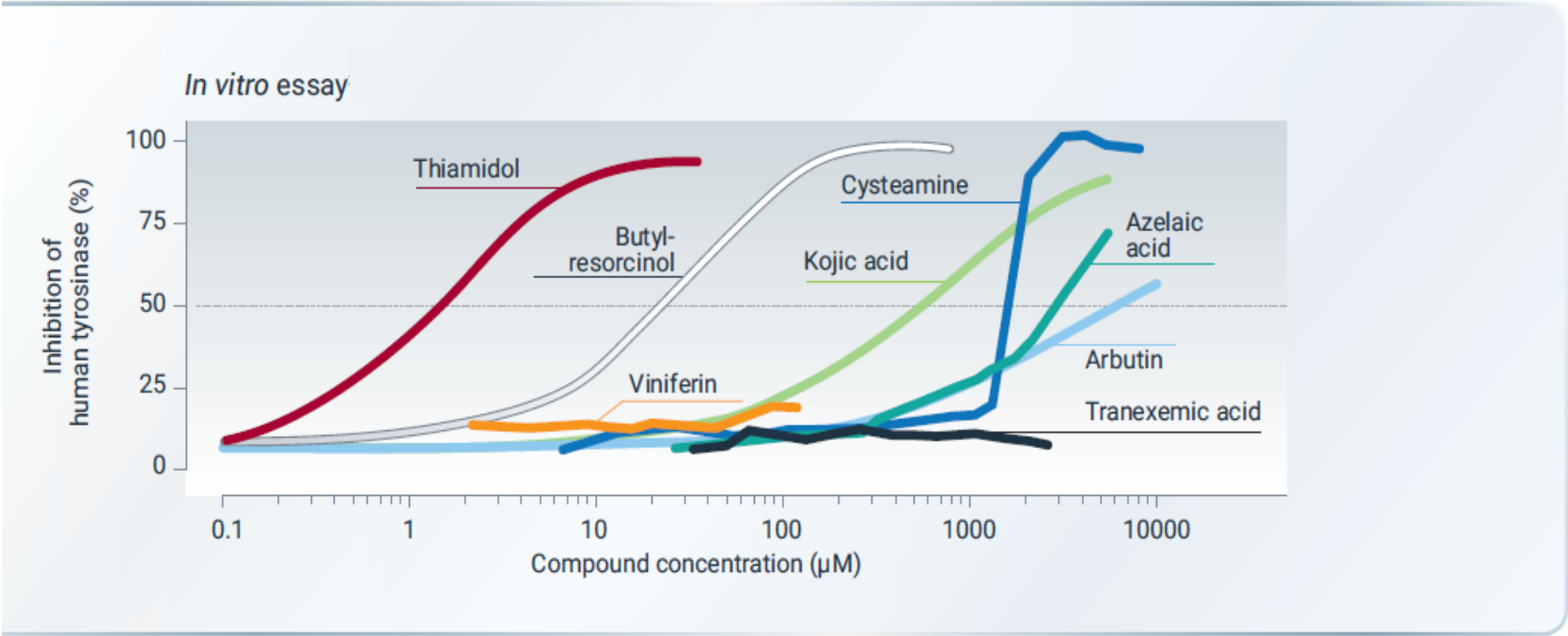
OCHRONOSIS



THIAMIDOL MODE OF ACTION



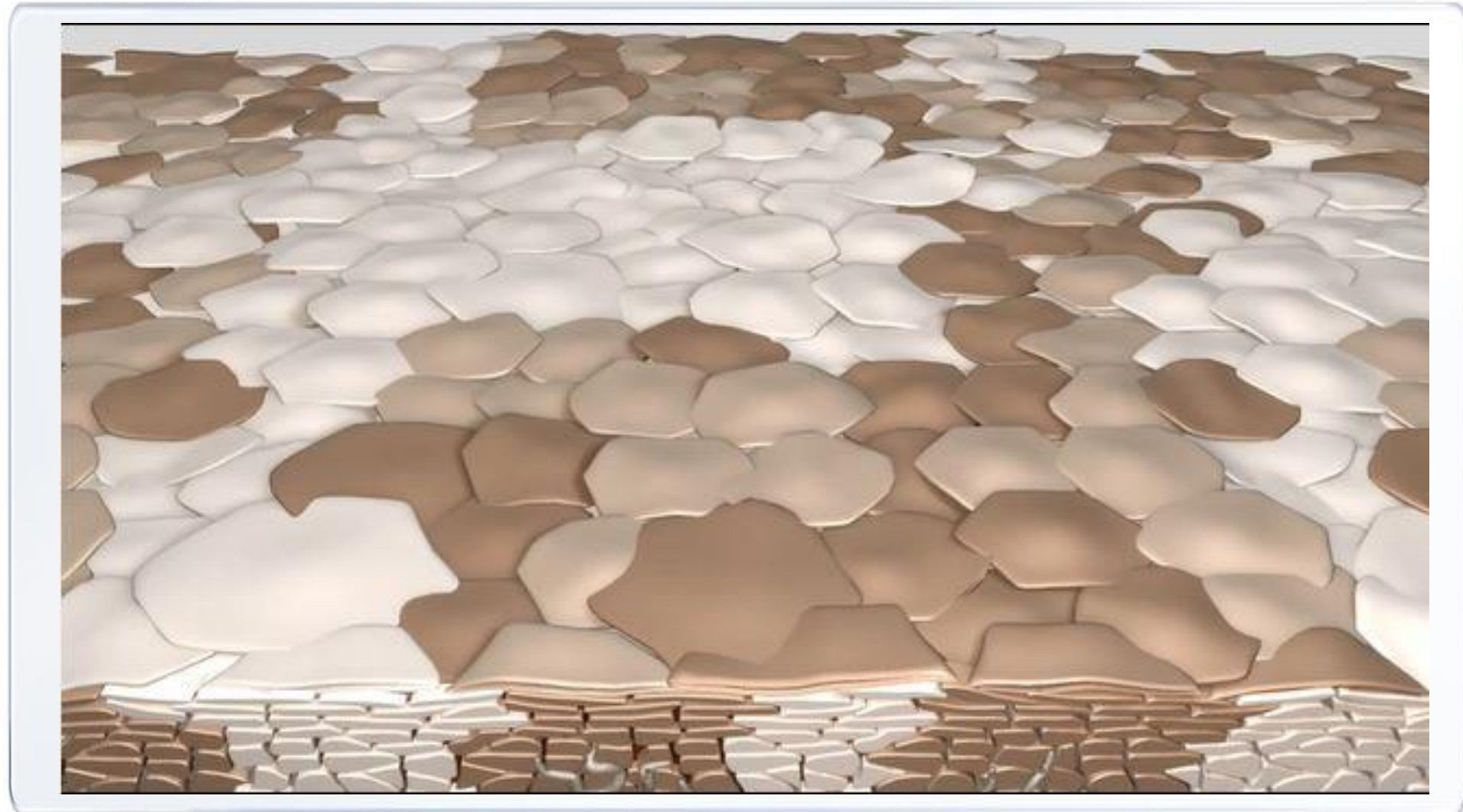
INHIBITION OF HUMAN TYROSINASE



Thiamidol is the most effective inhibitor of the human tyrosinase available on the market!

Sources: Mann et al., Efficacy of Thiamidol, Niacinamide, Tranexamic acid, Cysteamine, Azelaic acid on melanin production in vitro. EADV 2020, Poster No. 1240. | Mann et al., Inhibition of Human Tyrosinase Requires Molecular Motifs Distinctly Different from Mushroom Tyrosinase. Journal of Investigative Dermatology 2018

PIGMENT FORMATION IN THE SKIN

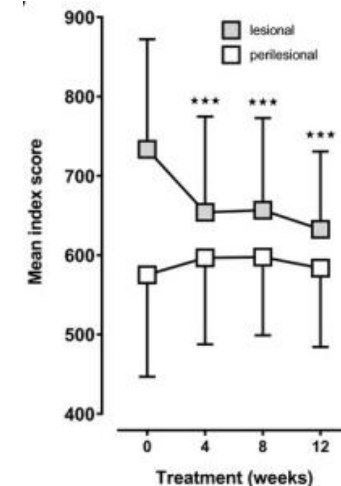


EFFECTIVE REDUCTION OF PIH WITH THIAMIDOL

Effective reduction of post-inflammatory hyperpigmentation with the tyrosinase inhibitor isobutylamido-thiazolyl-resorcinol (Thiamidol)

Dennis Roggenkamp¹, Ncoza Dlova², Tobias Mann³, Jan Batzer³, Julia Riedel³, Martina Kausch³, Ivica Zoric³, Ludger Kolbe³

- Observational study in South Africa with 29 individuals with skin type V and VI
- 3x Thiamidol daily for 12 weeks
- Assessment of lightening of lesional and non-lesional skin using a mexameter



Efficacy and safety of a novel triple combination cream compared to Kligman's trio for melasma: A 24-week double-blind prospective randomized controlled trial

Clémence Bertold ¹, Eric Fontas ², Tanya Singh ¹, Nadia Gastaut ³, Sandra Ruitort ³,
Sylvia Wehrlen Pugliese ³, Thierry Passeron ^{1 4}

- Prospective randomized double-blind study
 - Monocentric: Department of Dermatology, CHU Nice France
 - 40 patients with melasma
 - New Trio (NT) with cosmetic tyrosinase inhibitor: thiamidol 0.1% retinoic acid 0.1%, dexamethasone 0.1%
 - Kligman's Trio (KT): hydroquinone 5% retinoic acid 0.1% dexamethasone 0.1%
 - Photoprotection
 - 3 months of active treatment followed by months of photoprotection alone
- Kligman's Trio vs New Trio (thiamidol replaces the hydroquinone)
- As effective
 - Well tolerated
 - Better quality of life

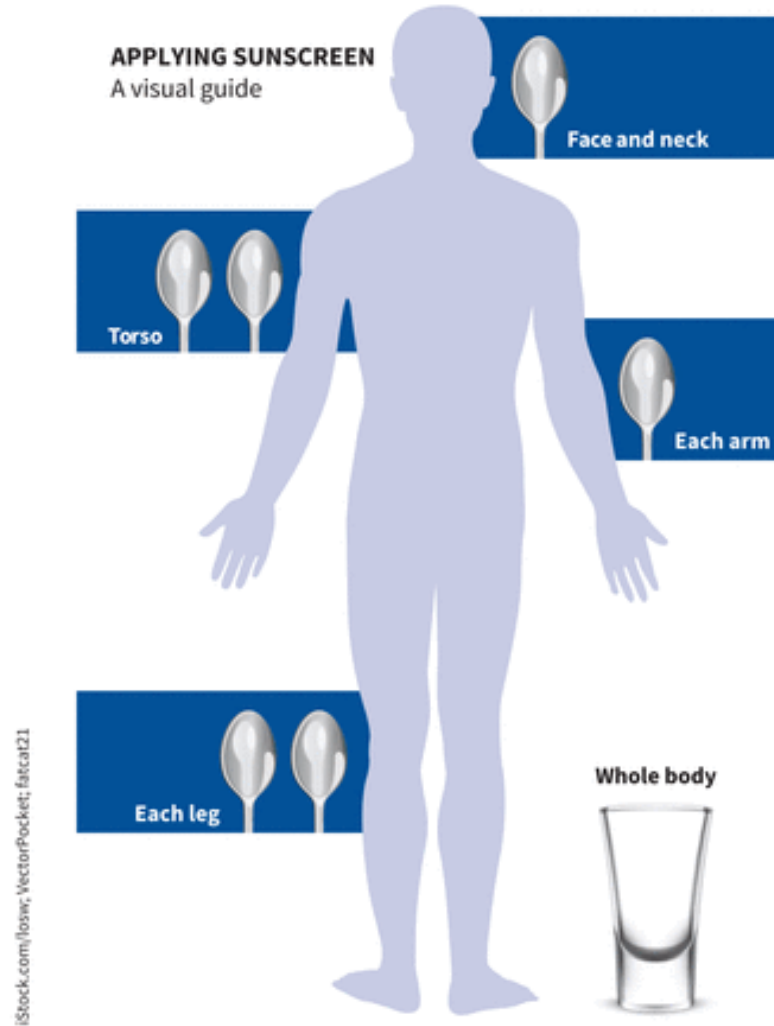
THERAPEUTIC APPROACH

- Diagnosis is key!
- Epidermal hyperpigmentation better prognosis.
- Dermal pigmentation, prognosis is guarded and potential complications of scarring.
- Broad spectrum **sunscreens**.
- Medical therapy includes: oral antibiotics, retinoids, topical steroids and calcineurin inhibitors.
- Skin brightening agents.
- Combination therapies are most effective.

PEARLS FOR AVOIDING SIDE EFFECTS

- An accurate diagnosis avoids the side effects that could result from prolonged treatment using wrong and ineffective products.
- Products like hydroquinone should not be used for long periods and high percentage
- Before treatment, sunscreen compliance should be established
- Patient should not supplement treatment with home products such as soaps, oils, toners, etc. as unprescribed home products might contain mercury, steroids, hydroquinone, retinoids, etc.
- Patient should be aware of selling points such as “Organic”, “Natural”, and “Dermatologically tested”.

SUNSCREEN APPLICATION



CASE STUDY



SUMMARY

- Plan
- Prevent
- Prepare
- Persevere
- Patient



CONTAINING ASSORTMENT

SOLUTIONS TO TARGET VARIOUS PIGMENTATION NEEDS



HYPERPIGMENTATION



POST-ACNE MARKS

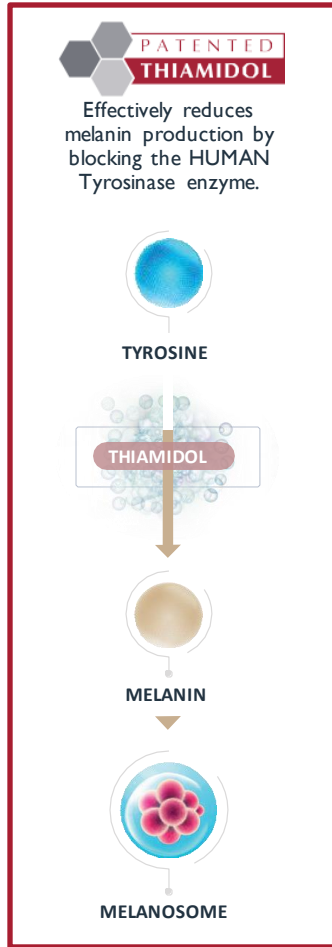


SUN PROTECTION



AGEING SKIN

THIAMIDOL: THE PATENTED MOLECULE TO FIGHT DARK MARKS WITH MULTIPLE INDICATIONS



FOR ALL SKIN CONCERNS RELATING TO HYPERPIGMENTATION

DARK MARKS

MELASMA



Dark patches on the skin triggered by changes in hormone levels (melasma).

- ✓ **PATENTED THIAMIDOL**
- ✓ LICHOCHALCONE A



EVEN PIGMENT PERFECTOR RANGE



EUCERIN SUN FLUID EVEN PIGMENT PERFECTOR SPF 50+

POST ACNE MARKS

POST ACNE MARKS



Skin hyper pigmentation caused by inflammation (PIH).

- ✓ **PATENTED THIAMIDOL**
- ✓ LICHOCHALCONE A
- ✓ SALICYLIC ACID
- ✓ OIL CONTROL TECHNOLOGY



DERMOPURIFYER TRIPLE EFFECT SERUM



EUCERIN SUN GEL-CREAM OIL CONTROL SPF 50+

SUN INDUCED DARK MARKS IN AGEING SKIN

SUN SPOTS

AGE-SPOTS



Age-spots as the result of chronic sun exposure during lifetime.

- ✓ **PATENTED THIAMIDOL**
- ✓ HYALURONIC ACID
- ✓ COLLAGEN-ELASTIN COMPLEX



HYALURON-FILLER + ELASTICITY RANGE



EUCERIN SUN FLUID PHOTO-AGEING CONTROL SPF 50+

Even Pigment Perfector Dual Serum

ANTI MARKS

PATENTED THIAMIDOL

Effectively reduces dark marks and prevent reappearance



PATIENT BENEFITS

- Act at the root cause of dark marks - reducing and preventing the re appearance
- Light Texture
- Absorbs quickly
- Non-Greasy
- Lightly fragranced



MOISTURISATION

HYALURONIC ACID

Most effective moisturising substance that helps the skin to attract and retain moisture

ANTI-INFLAMMATORY

LICOCHALOCNE A

Reduction in inflammation markers to protect against pigmentation caused by inflammation

Even Pigment Perfector Skin Perfecting Serum

ANTI MARKS

PATENTED THIAMIDOL

Effectively reduces dark marks and prevent reappearance



MOISTURISATION

HYALURONIC ACID*

Most effective moisturising substance that helps the skin to attract and retain moisture

MOISTURISATION

Glycerine*

Humectant - helps the skin to attract and retain moisture

*Together: ensure your skin can have the hydration and moisture it needs to achieve a beautiful glow.



PATIENT BENEFITS

- Crystal Technology - Ultra Light Texture
- For all skin types
- Can be added to any skincare routine
- Use alone, or before moisturising as part of skincare routine

Even Pigment Perfector - Important to Remember

First visible results in **2 weeks**

In 12 weeks: Pigment spots are reduced by up to **75%***

“Dermatologically tested” & “**Clinically tested**”

Product Regimen: **2.5x** more powerful

Anti-inflammatory and anti-oxidative **Licochalcone A**
to protect from additional hyperpigmentation trigger-factors

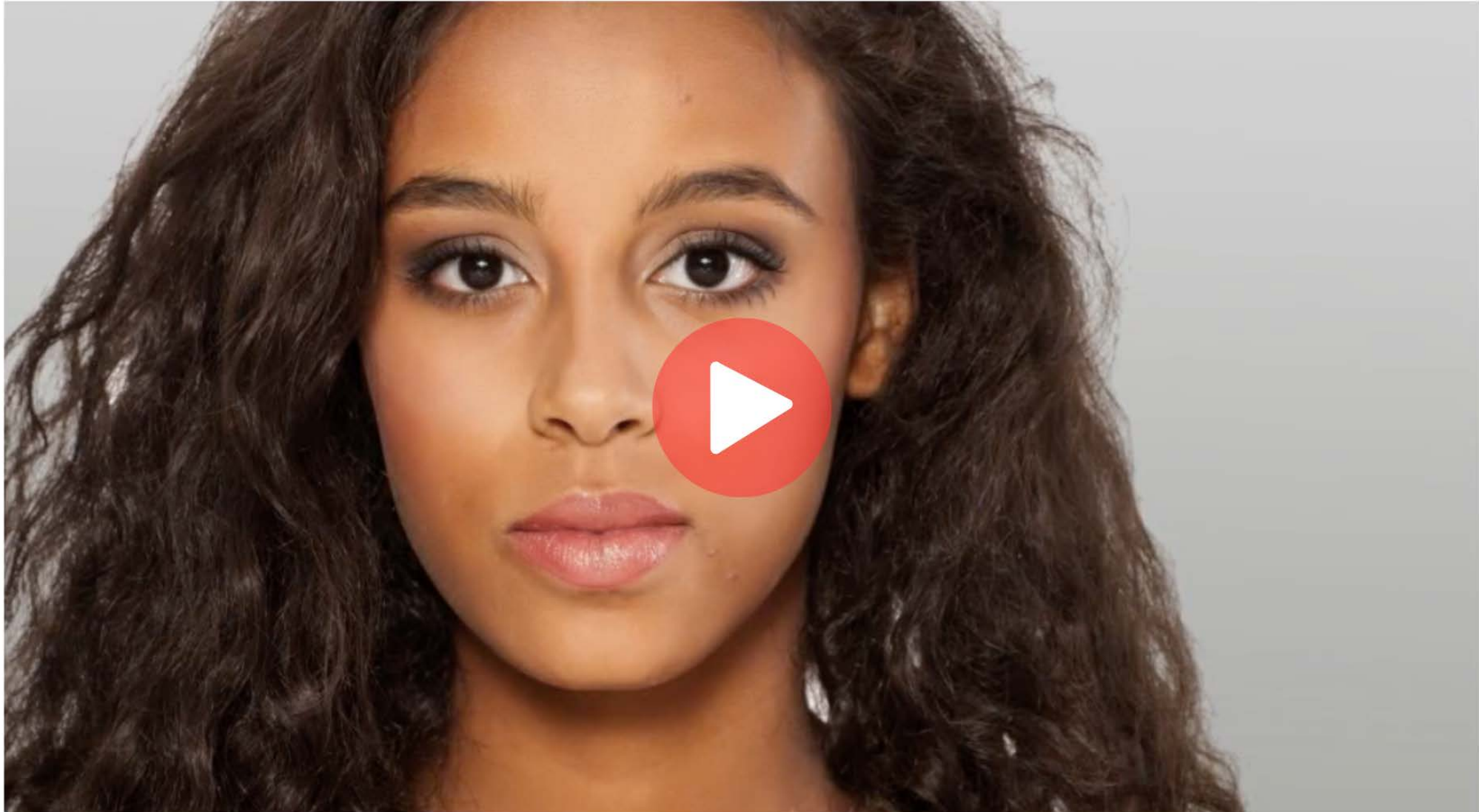
Recommended by **Derms**

Positive impact on **quality of life** clinically proven

Oily / Acne Prone Skin



Post Inflammatory Hyperpigmentation



Hyaluron Filler + Elasticity Range Assortment

ENRICHED FORMULA FOR VISIBLY YOUNGER LOOKING, SMOOTHER & RADIANT SKIN



3D SERUM



DAY CREAM



NIGHT CREAM



HAND CREAM

**WE BELIEVE IN THE LIFE-CHANGING
POWER OF DERMATOLOGICAL SKINCARE**



THANK YOU