THOCLOR LABS

AGEING OF THE SKIN

Summary of a Stanford Study

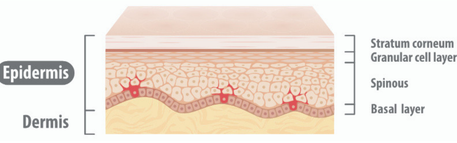
Intrinsic (chronological) ageing (20%) and extrinsic (environmental) ageing (80%) in the skin consists of:

1. Epidermis:

Thickened stratum corneum dead cell layer, thinner living epidermal layer (higher cell turn-over rate causes cells to shed off before maturation)

2. Dermis:

Reduced collagen formation, increased collagen break-down, loss of dermal hydration, loss of elasticity, uneven distribution of melanocyte cells, small broken veins due to chronic inflammation, reduced oil secretion.



Young Skin

- Thin Stratum Corneum
- Thick epidermal layer
- Well defined epidermal-dermal junction
- Normal Collagen & Elastin

Old Skin

- Thick Stratum Corneum
- Thin epidermal layer
- Poorly defined epidermal-dermal junction
- Broken down Collagen & Elastin

The NF-kB family of messenger proteins control the genes associated with inflammation, ageing and disease. Activation of the NF-kB proteins happens through UV-radiation, pollution and chemical contact to the skin and old age. Previously there was no way of controlling the activation of the genes.

Thoclor Labs GF2 HOCl Skin Rejuvenation

- NF-kB activated genes are blocked
- Effects of genes associated with inflammation, ageing and disease are cancelled
- No inflammation
- No disease activation
- Reversal of ageing = old skin reverts to young skin (the effect is reversible)
- Smoother skin, more tolerant skin, less wrinkles, better hydration, more even skin tone.
- No more DNA repair-protein present (thus no more DNA-faults that happen during cell-division)
- All skin cells start to function normally (collagen-formation, melanin formation, elasticity)

no HOCl

- NF-kB not blocked
- Effects of activated genes not cancelled
- Inflammation
- Disease present (sun damage keratosis, slow healing of wounds, skin cancer)
- Continuous ageing = rough dry skin, wrinkling, uneven tone, intolerant to irritation, chronic inflammation, sunspots
- Continuous presence of DNA repair-protein means that there are continuous faults developing in the replication of DNA
- No change in skin architecture, other than continued ageing

Other conditions that GF2 can impact

- Acne: reduces dead cell layer blocking the oil glands, regulates oil secretion, reduces inflammation, kills acne-forming bacteria
- Pigmentation disorders: normalises melanocyte function, allows for wash-out of excess pigment
- Rosacea: strong infection and inflammation control
- Eczema: positive control of inflammation and itchiness in a large percentage of cases
- Keratosis or sun spots
- Skin redness

References:

1. Role of the NF-kB Pathway in the Pathogenesis of Human Disease States. Yamamoto, Y. Current Molecular Medicine, Volume 1, Number 3, 1 July 2001, pp. 287-296(10)
2. Research article: Leung H. et al. Topical hypochlorite ameliorates NF-kB mediated skin disease in mice. Department of Developmental Biology, Dept. of Dermatology and Radiation Oncology. Stanford University School of Medicine. Journal of Clinical Investigation. Vol. 123, No.12 Dec 2013.