

**Dermatopoietin is a vital
player in skin renewal**

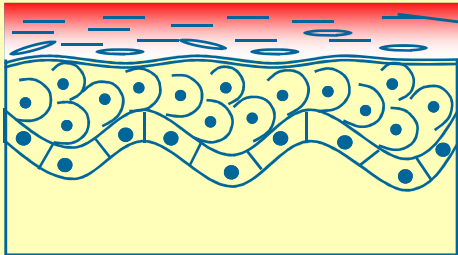
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Introduction

Dermatopoietin is a water soluble 159 amino acid sequence polypeptide:

1	SAPFSFLSNV	KYNFMRIIKY	EFILNDALNQ	SIIRANDQYL
41	TAAALHNLDE	AVKFDMGAYK	SSKDDAKITV	ILRISKTQLY
81	VTAQDEDQPV	LLKEMPEIPK	TITGSETNLL	FFWETHGTKN
121	YFTSVAHPNL	FIATKQDYWV	CLAGGPPSIT	DFQILENQA

Dermatopoietin



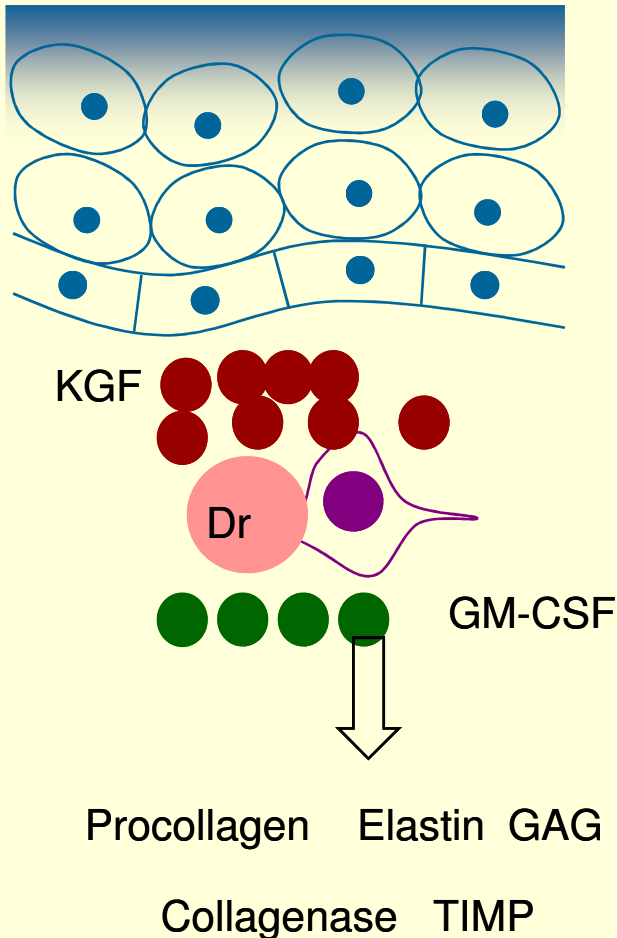
On a whole body production basis, 99.98% of Dermatopoietin is produced in skin

Outermost layer is a major site of Dermatopoietin production

With age, skin decreases production of Dermatopoietin. It results in:

1. Weakening a skin barrier function;
2. Slowing skin renewal;
3. Decreasing production of collagen, elastin, glycosaminoglycans, and other components of dermis;
4. Decreasing production and maturation of new cells in epidermis.

Dermatopoietin is a primary inductor of skin renewal



Dermal fibroblasts are principal component of skin. Dermatopoietin (Dr) instructs dermal fibroblasts to produce KGF and GM-CSF, growth factors vital for production and maturation of new cells in skin epidermis.

Dermatopoietin instructs dermal fibroblasts to produce procollagen, elastin, and glycosaminoglycans (GAG), major constituents of dermis.

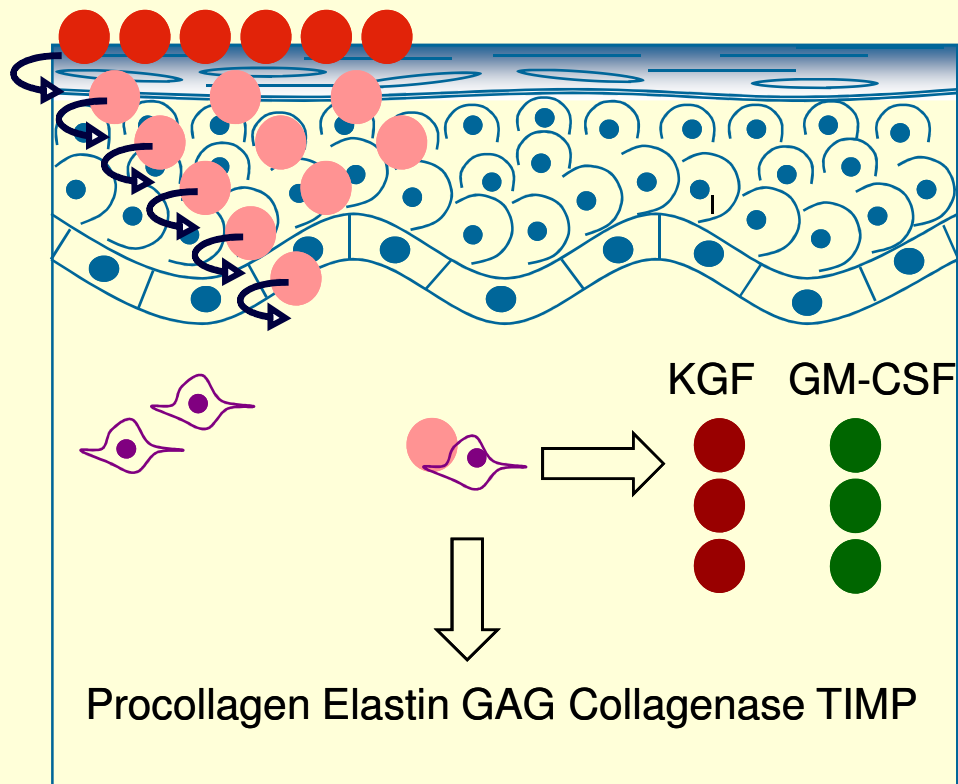
Dermatopoietin instructs dermal fibroblasts to produce collagenase and its inhibitor TIMP, needed for tight regulation of collagen turnover in dermis.

So, Dermatopoietin wakes up fibroblasts and starts skin renewal program

Dermatopietin in skin renewal products

Recombinant human Dermatopietin is a full equivalent of skin-derived Dermatopietin.

Dermatopietin



When is applied onto skin surface, Dermatopietin uses the natural skin machinery to initiate production of new copies of Dermatopietin in deeper layers of skin.

So, the key feature of Dermatopietin action is initiation of production of its own copies in a human skin.

The newly produced Dermatopietin copies reach dermal fibroblasts and start the skin renewal program.

Conclusions

1. Dermatopoietin is produced at upper layers of human skin on a constitutive basis;
2. Dermatopoietin instructs dermal fibroblasts to initiate a program of skin renewal;
3. With age, skin decreases production of Dermatopoietin;
4. Human recombinant Dermatopoietin is the full equivalent of skin-derived Dermatopoietin;
5. Dermatopoietin can be used as an active ingredient in skin renewal products with focus on anti-aging products.