THE LOWDOWN ON THE LATEST ANTI-AGEING COSMECEUTICALS – direct from the formulator

TERRI VINSON BSC, DIP.ED, ASCC, OWNER OF SYNERGIE SKIN, SPILLS THE BEANS ON TWO NEW BREAKTHROUGH INGREDIENTS SHAPING THE FUTURE OF COSMECEUTICALS.

There are truly exciting times ahead in regard to new cosmeceuticals in the appearance-medicine industry. Formulators are now able to harness the power of peptides and marine biotechnology to create novel new anti-ageing products with clinical data to support results. Let’s take a look at the future of cosmeceuticals in terms of combining the best of new scientific breakthroughs and what is provided from natural sources. There are two new breakthrough ingredients that, as a cosmeceutical formulator, I consider to be breakthrough technology for combining the best of new scientific breakthroughs with peptides and marine biotechnology to create novel new anti-ageing products.

JUVEFOXO™

Skin aging is considered as a slowing or loss of the natural cell functions of skin. This results in the appearance of fine lines, uneven tone and texture, dryness and loss of elasticity. This ages skin primarily due to cellular senescence. This means that the cells no longer proliferate due to DNA damage and the inability of the DNA repair machinery to reverse errors in the genetic code.

So cosmeceuticals aimed at skin rejuvenation must target mechanisms to avoid cell damage and enhance the ability of the cells to repair, and this is the focus of current cosmetic science.

Scientists often look at nature to provide clues to longevity. The marine Hydra is also known as the ‘immortal jellyfish’ as it is able to replicate its cells with no genetic errors in its DNA. The cells essentially possess an unlimited lifespan. Scientists have discovered that specific peptides called Forkhead box transcription factors (FOX) in the nucleus of the cells, is able to control cell renewal. In human cells a natural peptide called FOXO3a protects DNA and stimulates DNA repair to reverse mutations and cell aging. This peptide is actually a marker is longevity, and humans who live to be over a hundred years old have higher levels of FOXO3a in their cells.

FOXO3a is activated in the presence of cell damage – from factors such as pollution, free radical damage, dietary deficiency, heat and UV exposure – and then sets out to repair the damage and prevent cell mutation. However, if the damage is irreversible, the cell is programmed to self-destruct. This is crucial as DNA mutation can be copied to all future cells unless the error can be repaired before being passed onto daughter cells.

Enter a breakthrough ingredient in the cosmetic medicine arena called Juvefoxo™, with clinical data to support results. In vivo tests show skin cells taken from a 55 year old woman treated with Juvefoxo™ had the structure and function of cells that are 10 years younger in cell morphology, compared to untreated cells from the same woman. Further tests on UV treated skin showed significantly reduced DNA damage when Juvefoxo™ solution was applied to the UV damaged epidermal skin cells.

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So how is this relevant to the cosmeceutical market? Scientists have been able to replicate this vital controller of cell repair with the new hexapeptide Juvefoxo™. Essentially, if we are able to mimic the activity of FOXO3a in the skin, the DNA will be protected which will prevent cell ‘shutdown’ and delay the visible signs of ageing.

The development of Juvefoxo™ a peptide that both guards and protects the human genome, is truly a game changer in our industry.

PHYCOSACCHARIDE AI™

This complex sugar has been trade named Phykosaccharide AI™ and is the product of microbial synergy between marine bacteria and a unique species of seaweed, unique to the Brittany coast. Scientists are able to mimic this symbiotic process in the lab so as not to adversely affect the delicate balance in the environment.

Phycosaccharide AI™ stimulates the activity of epidermal stem cells to rapidly restore and reconstruct the skin matrix. This results in repair and subsequent smoothing of fine lines. It is also capable of reducing inflammation and soothing irritated skin. The use of topical growth factors found in many cosmeceutical products is highly controversial and a recent article in Scientific American (‘In the Flesh: The Embedded Dangers of Untested Stem Cell Cosmetics: Unapproved procedures and skin care products endanger consumers and clinical research’ Dec 17, 2012) cautioned against the use of nonspecific growth factors directly on the skin. Phykosaccharide AI™ stimulates the skin’s own growth factors from within, which are highly specific and safe in their action on skin cells.

Our industry is evolving at an exponential rate and formulators are constantly introduced to raw ingredients designed to reduce the appearance of aging and rejuvenate skin. It is our responsibility as medical professionals, scientists and skin specialists, to ensure that all ingredients used have been clinically tested and passed the highest levels of efficacy and safety.

For more information or further studies, please visit www.synergieskin.com