



As you cuddle up with hot cocoa next to the fire, it's the perfect time to get the amazing skin you've always desired. With the winter season comes not only magical snowy nights and holiday cheer, but it also brings the perfect storm for our skin. At GlyMed Plus we want to make sure you have all the information you need to survive the winter with healthy, younger looking skin. Stem cells play a key role when it comes to our skin and its youthful appearance.

The skin is the largest organ of the body and is composed of differentiated cells that are constantly being sloughed off. It is important that there is a continuous renewal of these differentiated cells, to replace the cells that are being removed. Since stem cells are the source of continuous regeneration of the skin, it makes them the most important cells in the skin. Studies have shown that stem cells may comprise only 2-7% of the cells in the epidermis of the skin. These epidermal stem cells renew at a slower rate which is important since they can only divide a limited amount of times before they die off causing reduced viability or premature aging of the skin.

## So what are Stem Cells?

Stem cells are undifferentiated or unspecialized cells in the body that have the capability to self-renew and can be programmed into cells with specific functions that our bodies may need or are lacking. There are two types of stem cells; embryonic cells which can differentiate into any type of cell in the body. While adult stem cells that are more restricted and can only differentiate (become) into cells within the tissue in which they are found and help to maintain and repair that tissue.

## How can these stem cells help our skin?

It all started with an apple. The Uttwiller Spatlauber apple tree was cultivated in Switzerland in the 1800s and did not get much recognition due to its sour taste and dull appearance. Now we know never to judge an apple by its taste. These apples sparked interest due to their longevity and wound healing properties; they didn't show signs of spoiling for up to 4 months. Curiosity got the best of us and researchers decided to extract the stem cells from these Swiss apples through breaking down the cell membrane of the plant cells using high pressure homogenization and put them to the test.

Researchers decided to grow human stem cells in two separate liquid cultures. One culture was combined with those Swiss apple plant stem cells while the other culture was left with just human stem cells. The culture that combined plant stem cells and human stem cells showed a boost in human stem cell production. When both cultures were exposed to UV light, 50% of the culture of just human stem cells died off while hardly any of the culture containing both human and plant stem cells were damaged. These results showed the protection benefits these plant stems cells provide for our stem cells.

Since these studies, professional skin care lines started to incorporate plant stem cells into their products. *Implementing professional skin care products at home or during treatments that include plant stem cells can influence the resistance of aging in our cells and promote skin regeneration.*

Here at GlyMed Plus you will find these plant stem cells in our **DNA Reset Face & Neck Cream** and our **Stem Cell Power Serum**. These are both pharmaceutical grade, professional skin care products that help to combat aging, protect skin stem cells, and have an anti-wrinkle effect on the skin. When using these products as part of a home care regimen, you will want to apply them both morning and night to cleansed skin. Remember to always apply your products from lighter to heavier consistency and in an upward motion on the skin.

In treatment you can apply the Stem **Cell Power Serum** after peels or masques are completed, and after any lighter consistency products have been applied. You can also utilize the sonophoresis modality on the DermaSound Ultra to help penetrate the serum 4,000-10,000 times deeper into the skin, enhancing the effects of the product. When applying the **DNA Reset Face & Neck Cream**, massage it into the skin until fully absorbed. You may also use the Micro AMP setting on the DermaSound Ultra to enhance the tightening, lifting, and firming effects of this product.

Now that you are aware of the amazing age delaying benefits of incorporating plant stem cells into your home care regimen and treatments make sure you are utilizing this amazing ingredient and getting the anti-aging results we are all looking for this holiday season.

If you have any questions and would like to speak to one of our friendly Master Aestheticians in your area please email [support@glymedplusaustralia.com.au](mailto:support@glymedplusaustralia.com.au)

**Written by The Institute of Skin Science**