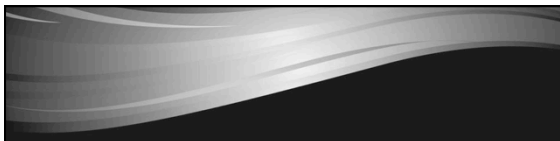


Skin Analysis and Treatment Assessment

It is most important to assess the client's aging skin concerns. Training your eye to recognize minor deficiencies in the skin can lead to more effective and customized treatments.



Stem Cell Technology



What are stem cells?

Stem cells are undifferentiated or 'blank' cells that occur in the human body and have the potential to develop into many different cell types performing various functions. All of the cells in our bodies have a unique purpose and function and are programmed as such (skin cells, muscle cells, blood cells, etc.) Each of these cells has the same DNA, but they all start as the same type of cell, a stem cell.

What Are Stem Cells? (continued)

A better way to explain may be to think of stem cells as a blank blueprint: these cells have not yet been assigned a specific role. By assigning different genetic specifications to each of these stem cells, our body can use them in specific ways.

Types of Stem Cells

- **Totipotent Cells:** Embryonic, or young, stem cells; these cells are able to produce an entire organism from a single cell. An example of this would be a fertilized human egg, with the potential to grow into a human baby
- **Multipotent Cells:** These cells are restricted to developing into a closely related family of cells. For example, a multipotent adult stem cell may have already been programmed to be a blood cell but could be assigned to become a red blood cell, a white blood cell, or even a platelet.

Mushroom Stem Cells

Mushrooms, like mammals, also have stem cells. There is one major difference, each adult stem cell from a mushroom is totipotent and able to generate and develop an entire new mushroom from just one cell! By obtaining these non-programmed, infinitely potential cells from mushrooms, the possibilities in applications to health care are endless!

**Mushroom Stem Cells
and Your Skin**

Adult, differentiated stem cells are contained in the epidermal layer of our skin. The responsibility of these stem cells is to help reproduce and replenish lost or dying skin cells. These cells, however, can only last and reproduce for so long. We must replenish the supply of new, mature stem cells that have the potential to reproduce and create beautiful looking skin.


**Mushroom Stem Cells
and Your Skin**

Mushrooms offer fully totipotent stem cells for use in beauty care products. These stem cells regenerate the dermal layers by surrounding the older or dying skin cells with new, healthy, undifferentiated cells. These cells then take on the characteristics of the surrounding cells and evolve into new, healthy skin cells!


**History of the
Use of Medicinal
Mushrooms**

Mushrooms and Ancient Traditions

- **2500 B.C.E (4600 years ago)** - Ancient Egyptian pharaohs decreed mushrooms a food of royalty and no commoner was allowed to consume them
- **1990 B.C.E. (4000 years ago)** - China, documented use of Reishi mushrooms for illness and health maintenance
- **Early 1500's (2000 years ago)** - Native American Indians are observed using mushrooms to treat small pox brought over by European settlers (most likely they had been using mushrooms for thousands of years prior to this account)




Types of Mushrooms



Some Beneficial Medicinal Mushrooms

- Reishi
- Turkey Tail
- Chaga
- Cordyceps



Reishi Mushroom

Description
A fungus having a large stalk and an orange to red fan-shaped fruit body that grows on deciduous trees. Active compounds from Reishi include glycoproteins, enzymes, polysaccharides, ganodermic acid and other metabolites which can stimulate an immune response

Benefits

- Anti-viral
- Anti-inflammatory
- Melanin suppressant

Turkey Tail

Description
A mushroom that grows on deciduous trees with a fruit body that is thin and fan-shaped with different colored stripes or striations; the colors vary widely including orange, brown, grey, white and even blue

Benefits

- Anti-viral
- Anti-microbial
- Protein binding

Chaga

Description
Unlike most mushrooms, chaga is a polypore, a fungus with pores instead of gills. It has the appearance of a black, irregular, cracked mass and is most often sterile. Chaga, also known as the "birch mushroom" is most often found on birch trees. Chaga is a fungal parasite meaning that it draws nutrients out of living trees, rather than from the ground.

Benefits

- Increases circulation
- Stimulates blood flow
- Fights "killer" cells

Cordyceps

Description
Cordyceps is a long, cylindrical fungus that only grows in a few isolated and harsh environments in China, Norway, Sweden and Finland. It is usually very expensive due to its small production and limited distribution.

Benefits

- Increases ATP in human cells
- Powerful antioxidant

**End of Part I
Thank You!**
