Scientists screening the natural world for bioactive compounds have discovered a secretion of snails that is a powerful antioxidant for the skin and has regenerative properties that help to diminish the signs of skin aging and also repair the damage caused by UV solar radiation, and relieve other common skin conditions.

(Newswire.net -- July 24, 2013) Carson City, NV -- Scientists have been busier than ever screening the colossal reservoir of bioactive compounds of the natural world for molecules that may reverse photo aging, nourish, and regenerate the skin. Among the natural compounds that diminish the effects of chronological aging or UV-induced photo aging scientists discovered a natural secretion from the mollusk Cryptomphalus Aspersa, also known as the brown garden snail, or escargot (a gourmet delicacy for French people).

The secretion has received lots of attention from journals and magazines that feature a bunch of snails crawling on someone’s face. “But, it is quite useless to have snails crawl on our skin because the molecules in the snail slime they use for locomotion are not the same as those in the secretions that nourish, regenerate or repair the skin. Also they must penetrate into the basal layer of the skin to harness the power of the complete and balanced nutrition for the skin cells that is used by snails to stimulate biochemical, structural, and functional processes that regenerate damaged structures of the animal’s skin in less than 48 hours (and even their tentacles and eyes when bitten by birds), and enable the natural ability of our human cells to regenerate themselves” says Marie Claude Niel, the dermatologist at the company that offers Biocutis, a line of natural skin care products based on snail secretions made in the USA.

Mario Reyes, a member of the New York Academy of Sciences told us “the secretions are useful only if the enzymes, soluble proteins, glycoproteins and trace elements that they contain are properly protected from denaturation by hydrolysis”. To achieve this he “developed a biotechnology to trigger the copious secretions of the mollusk, sterilize and stabilize their precious molecules as they are being collected”. He adds: “we embed them in microcapsules with phospholipids so that they are appetizing food for living cells and are readily absorbed into the skin”.

Scientists from the Memorial Sloan-Kettering Cancer Center in New York, published two papers in peer reviewed Dermatology Journals about the regenerative properties of the secretions. They say “they help to reverse the effects of environmental aggressions and genetic predisposition that accelerate the normal aging process”.

A study of 2008 shows “the secretion is endowed with regenerative properties in experimental acute radio dermatitis produced in a rat model. The mollusk’s secretion also exhibits anti-oxidant properties and promotes fibroblasts’ survival and proliferation and rearrangement of the actin cytoskeleton. Additional mechanisms involved in the regenerative effect [] include the stimulation of extracellular matrix assembly and the regulation of metalloproteinase (enzyme) activities”.

A study of 2012 found that “the mollusk’s secretions increase fibroblast and keratinocyte migration and the expression of cell–cell and cell–substrate adhesion molecules. Finally, it has been demonstrated that it plays a role in cell survival signaling pathways, because it induces the expression of molecules related with this process”.

Taken together, “these results support the use of the mollusk’s secretions as a cutaneous regenerative product”. Nevertheless they cannot be considered a medicine because such requires approval by the FDA, which entails costly clinical studies centered on something that cannot be patented, as it is a naturally occurring substance and thus
nobody can claim exclusive rights of use.

In the meantime Andes Natural Skin Care LLC uses its proprietary biotechnology to power a line of natural skin care products with the snail secretions. They are hypoallergenic and made with only natural ingredients. With regular use they help to promote cell renewal, facilitate new collagen development, increase skin hydration, improve softness, skin tone and elasticity, reduce the signs of premature aging, soften coarse lines and wrinkles, gradually lighten the appearance of pigmented lesions, soothe irritated skin, relieve the symptoms of rosacea, get rid of acne, contribute to shrink keloid and raised scars, and diminish the appearance of stretch marks. All without the risk of anti-natural stem cell therapies that can sometimes go awry, and potentially end with malignancies that threaten the health of the skin rather than support it.