The power of colostrum

Colostrum bovinum, or bovine colostrum, also known as foremilk, is excreted by a cow's mammary glands for the first dozen or so hours after calving. Foremilk is obtained from the first three milk yields as excess food for the newborn calf. The main purpose of colostrum, designed by Mother Nature, is to immediately provide the suckling with immunity against its environment, in particular against viruses, fungi and bacteria. The calf's survival depends on this immunity.

The composition of bovine colostrum is similar to that of the human colostrum. It is not resistant to high temperatures, so the raw material is lyophilized. The process is expensive and far more complex than traditional pasteurization or drying. It involves freezing the liquid at approximately -40°C, followed by freeze-drying under vacuum at no more than +40°C.

This ensures preservation of all the valuable colostrum components. These procedures yield a yellowish powder with a structure similar to that of powdered milk. Two types of lyophilized bovine colostrum are currently marketed, with a fat content of 30% and 40%. These may be utilized in two ways: firstly, as a dietary supplement – ingesting an appropriate dose for e.g. three months is recommended. This will result in enhanced immunity and fitness. Its second use is as an active ingredient in cosmetic emulsions intended for external use.

Why colostrum? What is so special about the foremilk that it has become a widely sought raw material in the beauty industry?
High concentrations of over 250 bioactive compounds that are not found in any other naturally-sourced products, including: hormones, oxidizing enzymes, bacteria, polyamides, nucleic acid derivatives, amino acid derivatives, minerals, as well as B vitamins and vitamins A, C, D and E that represent a rich source of antioxidants.
These scavenge free oxygen radicals, preventing cell damage, and thus delay skin aging.
Proteins, such as immunoglobulins, lactoferrin, lysozyme, lactoperoxidase, which have strong antibacterial, antiviral and antifungal properties.

Growth factors: An important role is attributed to growth factors – IGF, EGF, VEGF – present in the foremilk at the highest possible concentrations observed in nature. These are responsible for epidermal regeneration in the event of severe dermal lesions and are useful, for example, in the treatment of diabetic foot signs and symptoms or following invasive cosmetic procedures.
Cosmetic emulsions containing bovine colostrum include various types of creams, sera, lotions and skin tonics, which makes them exclusive and effective face and body skin care products with rejuvenating effects.

The use of lyophilized colostrum with a 40% fat content in the formulation of a multicomponent product administered to treat onycholysis, or the detachment of fingernail and toenail plates from the nail bed, was an innovative solution in terms of both the formulation and manufacturing technology, and is patented.

Inimitable nature When summarizing the relevance of using bovine colostrum in modern cosmetology, it becomes clear that only Mother Nature was capable of combining such a variety and plentifulness of active ingredients in one “product” – and thus far, this remains impossible to be chemically reproduced.