INTRODUCTION
Cosmeceuticals are cosmetic products with biologically active ingredients purporting to have medical or drug-like benefits. Cosmeceuticals are an ingredient with medicinal properties that manifests beneficial topical actions and provides protection against degenerative skin conditions. The word “Cosmeceuticals” was popularized by Albert M. Kligman in the late 1970s. It encompasses cosmetic actives with therapeutic, disease fighting, or healing properties, serving as a bridge between personal care products and pharmaceuticals. Like cosmetics, Cosmeceuticals are topically applied, but they contain ingredients that influence the biological function of the skin. Cosmeceuticals improve appearance by delivering nutrients necessary for healthy skin.

ABSTRACT
The term Cosmeceuticals was introduced by Albert Kligman in 1984 to refer to substances that exerted both cosmetic and therapeutic benefits. Cosmeceuticals represent one of the most promising, yet challenging treatment options available to physicians. They are the fastest growth segment in the skin-care market, and a number of topical Cosmeceuticals treatments for conditions such as photoaging, hyperpigmentation, and wrinkles have Cosmeceuticals refer to the combination of cosmetics and pharmaceuticals. Cosmeceuticals are cosmetic products with biologically active ingredients purporting to have medical or drug-like benefits. Cosmeceuticals are used for nourishing as well as improving the appearance of the skin, and are also documented as effective agents for treating various dermatologic conditions. Cosmeceuticals improve appearance by delivering nutrients necessary for healthy skin.

Keywords: Cosmeceuticals, sunscreen agents, moisturizing agent, Anti aging.
perfumes, lipsticks, fingernail polishes, eye, and facial makeup preparations, shampoos, permanent waves, hair colors, toothpastes, and deodorants, as well as any material intended for use as a component of a cosmetic product.\textsuperscript{3} These Cosmeceuticals, serving as a bridge between personal care products and pharmaceuticals, have been developed specifically for their medicinal and cosmetic benefits.

Tracing the origin of cosmetics, the first recorded use of cosmetics is attributed to Egyptians, circa 4000 BC. The ancient Sumerians, Babylonians, and Hebrews also applied cosmetics. In other cases, such as European cosmetic known as Ceruse was used from the second century to the 19th century. Cosmeceuticals active ingredients are constantly being developed by big and small corporations engaged in pharmaceuticals, biotechnology, natural products, and cosmetics, while advances in the field and knowledge of skin biology and pharmacology have facilitated the cosmetic industry’s development of novel active compounds more rapidly. Desirable features of Cosmeceuticals agents are efficacy, safety, formulation stability, novelty, and patent protection, metabolism within skin and inexpensive manufacture.\textsuperscript{4} Cosmeceuticals represent the fastest growth segment in the skin-care market, and a number of topical Cosmeceuticals treatments for conditions such as photo aging, hyper pigmentation and wrinkles have come into widespread use.\textsuperscript{5,6} In 2005, the U.S. Cosmeceuticals market was estimated to be $12.5 billion and projected to grow to over $16 billion by 2010.\textsuperscript{7} While Cosmeceuticals have become established tools in the treatment of photoaging in dermatologic practices, their general application to wound healing has yet to be fully explored. Wound healing is a complex process that, when impaired, results in many untoward effects such as ulcers, dehiscence, hypertrophic scars and keloids.\textsuperscript{8} Cosmeceutically active ingredients are constantly being developed by big and small corporations engaged in pharmaceuticals, biotechnology, natural products, and cosmetics, while advances in the field and knowledge of skincream containing a hormone such as estrogen results in a fresh appearance with a rejuvenating effect.\textsuperscript{9} Kuno and Matsumoto had patented an extract prepared from olive plants as a skin beautifying component, in particular, as an anti-aging component for the skin and/or a whitening component.\textsuperscript{10} Novel cosmetic creams or gels with active ingredients and water-soluble barrier disruption agents such as vitamin A palmitate have been developed to improve the deteriorated or aged skin.\textsuperscript{11}

**SKIN CARE COSMECEUTICALS**\textsuperscript{12-17}

Cosmetics and skin care products are the part of everyday grooming. Protecting and preserving the skin is essential to good health. Our skin, the largest organ in the body, separates, and protects the internal environment from the external one. Environmental elements, air pollution, exposure to solar radiation as well as normal aging process cause cumulative damage to building blocks of skin – DNA, collagen, and cell membranes. Use of cosmetics or beauty products will not cause the skin to change or heal; these products are just meant to cover and beautify.

Cosmeceuticals being cosmetic products having medicinal or drug-like benefits are able to affect the biological functioning of skin owing to type of functional ingredients they contain. There are skin-care products that go beyond coloring and adorning the skin. These products improve the functioning/texture of the skin by encouraging collagen growth by combating harmful effects of free radicals, thus maintaining keratin structure in good condition and making the skin healthier. Olay vitamin line, which includes vitamins A, C, D, E, selenium, and lycopene, pycnogenol plus zinc and copper, is a well-known skin care line.\textsuperscript{12} The treatment of aging skin with acream containing a hormone such as estrogen results in a fresh appearance with a rejuvenating effect.\textsuperscript{13} Kuno and Matsumoto had patented an external agent for the skin comprising an extract prepared from olive plants as a skin beautifying component, in particular, as an anti-aging component for the skin and/or a whitening component.\textsuperscript{14} Dry emollient preparation containing monounsaturated Jojoba esters was used for cosmeceutical purpose.\textsuperscript{15} Martin utilized plant extract of genus Chrysanthemum in a cosmetic composition for stimulating skin and/or hair pigmentation.\textsuperscript{16} Novel cosmetic creams or gels with active ingredients and water-soluble barrier disruption agents such as vitamin A palmitate have been developed to improve the deteriorated or aged skin.\textsuperscript{17}

**Sunscreen Agents**\textsuperscript{18}

Use of sunscreen agents and limiting the exposure to sun preventsearly wrinkling and skin cancer. Sunscreen agents are used to prevent sunburns. There are two kinds of sunscreen agents: chemical and physical.
Chemical sunscreen agents protect the skin from the sun by absorbing the ultraviolet (UV) and visible sun rays, while physical sunscreen agents reflect, scatter, absorb, or block their rays. Sunscreen agents often may comprise more than one ingredient. For example, products may contain an ingredient that provides protection against the ultraviolet A (UVA) sun rays and another ingredient that protects from the ultraviolet B (UVB) sun rays, which are more likely to cause sunburns than the UVA sun rays. Ideally, coverage should include protection against both UVA and UVB sun rays. The sun protection factor (SPF) that is present on the label of these products reflects the minimum amount of UVB sunlight that is needed with that product to produce redness on sunscreens-protected skin as compared with unprotected skin. Sunscreen products with high SPF provide more protection against the sun.

The following sunscreen agents have been recommended by the U.S. Department of Health:

- Cyclohexyl (isobutyl p-aminobenzoate)
- Propylene glycol p-aminobenzoate
- Monoglycerin p-aminobenzoate
- Digalloyl trioleate
- Benzyl salicylate and benzyl cinnamate (2% each)

Besides these, chemical sunscreens mainly based on para-aminobenzoic acid, its derivatives, cinnamates, various salicylates and benzophenones, dibenzoylethanes, anthraline derivatives, octocrylene and homosalate are frequently employed as sunblock agents. Direct physical blockers include metal containing compounds such as iron, zinc, titanium, and bismuth. Zinc oxide and titanium dioxide are highly reflective white powders, but submicron zinc oxide or titanium dioxide powder particles transmit visible light while retaining their UV blocking properties, thus rendering the sun blocked invisible on the skin. Oth err commercially available sunscreens are Benzophenone-8, NeoHeliopan MA and BB, Parsol MCX and HS, Escalol 557, 587, and 597.

Moisturizing Agents

Stratum corneum is the primary barrier of the skin whose one of main purpose is to keep inside in & outside out. This barrier is rich in cholesterol, free fatty acids, and ceramides. Many oily preparations have been used to maintain the fluidity of the skin (Mineral oil, Lanolin, cyclomethicone, etc.). Water from the stratum corneum gets evaporated very quickly leading to dehydration. This dehydration of skin can be averted by using moisturizers which provide flexibility to the skin. Humectants are cardinal ingredients of the moisturizing formulations. Humectants also help in preventing drying out of the formulations. When moisturizers are applied to the skin, a thin film of humectants is formed which retains moisture and imparts better appearance to the skin. Bio-mimetic lipid containing formulations facilitate in normalizing the damaged skin. Water can cause the excretion of cytokines when applied to the skin for a prolonged period of time. This may further lead to edema, vasodilatation, and inflammation gets induced. Moisturizers by hydrating the skin make the stratum corneum softer & can even alter physiology of skin. Ceramide containing moisturizers are very popular as these contain the same balance of lipids as our skin. There are nine different types of ceramides in the stratum corneum named as ceramide 1-9, they constitute 40-50% of the lipids in this outermost layer.

It has been proven that these substances help to treat eczema, and can even be used for dry skin. Fluocinolide containing ceramides formulation has been found to reduce eczema besides these, black cohosh, soy extract, and vitamins A and E also help in augmenting the skin's natural moisture balance. Complex mixture of hyaluronic acid and arvical complex containing green tea leaf extract, and glutathione are also promising moisturizing agents.

Skin Lightening Agents

Hyperpigmentation is the changing of color intensity of the skin to darker hue, which is due to an increased amount of melanin in the epidermis, the dermis, or both. This change can be due to 2 pathophysiologic processes: melanocytosis (increased number of melanocytes) and melanosis (increased amount of melanin). Skinlightening agents work best when melanosis or melanocytosis is confined to the epidermis. Patients with Fitzpatrick skin types III have advantage over type-IV such as type I-III benefit from localpigment lightening for the treatment of hormonally induced melasma and postinflammatory hyper pigmentation caused by acneand trauma, whereas those with Fitzpatrick skin types IV and darkermay also seek therapy for pigmentary changes that occur around the eyes, in the intertriginous areas, following dermatitis, or with acneand trauma. Standard dermatologic agent for skin lightening is hydroquinone but its safety is questionable, leading to the use of alternative agents such as retinoid, mequinol, azelaic...
acid, arbutin, kojic acid, aleosin, licorice extract, ascorbic acid, soy proteins, and N-acetyl glucosamine. The following ingredients are most commonly used in cosmeceuticals, some of them listed below:

**Boswellic acids**

It is obtained from *Boswellia serrata*. The main function is to inhibit the enzymes responsible for inflammation (5-lipoxygenase) and damage of the skin.²⁹

**Tetrahydrocurcuminoids**

It is obtained from white (colour free) curcuminoids of the turmeric (*Curcuma longa*) carnosic acid, cosmarinic acid, ursolic acid from rosemary extract *Rosmarinus officinalis* as anti oxidants are the other compounds which are used to facilitate the tissue damage and restoring the healthy status of skin.²⁹

**Retinoid**

A great amount of research has concentrated on its use as an antiaging compound as well as its use for other cutaneous disorders. Vitamin A and its derivatives have 2 main functions: they act as antioxidants, and they activate specific genes and proteins. Structural changes underlying the cosmetic benefits include correction of epidermal atrophy, deposition of new collagen, generation of new vessels, and enhancement of mitogenesis. This enhanced mitogenesis promotes the shedding of melanin-laden keratinocytes, resulting in bleaching and subsequent depigmentation. The ability of topical tretinoin to improve the appearance of aged and photo-damaged skin by reducing wrinkles, decreasing laxity, bleaching hyper pigmented spots, and bringing about a smoother surface have been well studied and documented.

**Hydroxy acids**

Hydroxy acids are organic carboxylic acids classified into alpha hydroxy acids (AHAs) and beta hydroxy acids (BHAs) according to their molecular structure. Many are derived from natural sources and are often referred to as fruit acids. The different AHAs include the following: glycolic acid, lactic acid, citric acid, mandelic acid, malic acid, and tartaric acid. AHAs have been shown to decrease the signs of aging. The skin appears smoother and more uniform. BHAs are aromatic compounds. Salicylic acid is the reference BHA; it has dermatologic properties and helps in various xerotic and ichthyotic disorders. Other BHAs include 2-hydroxy-5-octanoyl benzoic acid, also known as betahydroxyacid (B-LHA), and tropic acid. Studies show that AHAs may increase sensitivity to UV radiation and that sunscreen application may be advisable when these products are used.

**Antioxidants**

In addition to these external insults like UV radiation, drugs, air pollutants, and heat and/or cold, the skin also has to cope with endogenous mitogens, most importantly reactive oxygen species (ROS) and other free radicals. These species are continuously produced during physiological cellular metabolism. To counteract the harmful effects of ROS, the skin is equipped with an antioxidant system to maintain equilibrium between the pro-oxidants, or damaging agents, and the antioxidants, or protective agents; these antioxidants intervene at different levels in the protective process. Here some of the antioxidants are listed below.

**Vitamin C**

Vitamin C is necessary for the hydroxylation of procollagen, proline, and lysine. Vitamin C improves and normalizes the changes caused by photodamage. Vitamin C has been used effectively to stimulate collagen repair, thus diminishing some of the effects of photoaging on skin. However, vitamin C is easily degraded by heat and light, which along with its high acidity, presents certain challenges for use in a multipurpose skin care formulation. A recently introduced synthetic collagen fraction offers greater stability and compatibility, along with improved efficacy.

**Vitamin E**

Vitamin E (alpha tocopherol) is the major lipophilic antioxidant in plasma, membranes, and tissues. The term vitamin E collectively refers to 30 naturally occurring molecules (4 tocopherols and 4 tocotrienols), all of which exhibit vitamin E activity. Its major role is generally considered to be the arrest of chain propagation in lipid peroxidation by scavenging lipid peroxyl radicals, hence protecting the cell membrane from destruction. Vitamin E topically applied before UV irradiation has been shown to reduce erythema, edema, sunburn cells, immune suppression caused by sunlight, and DNA adducts formation.

**Panthenol**

Panthenol, the alcohol analog of vitamin B-5, is water-soluble humectants commonly found in various commercial skin creams, lipsticks,
lotions, and hair preparations. It is stable in the presence of oxygen and light but unstable in the presence of acids, bases, and high temperatures. Panthenol is converted in the skin topantothenic acid, which is an important component oncoenzyme A essential for normal cellular metabolism.

**Lipoic acid**
Lipoic acid is a unique free radical protector. It is fat and water soluble. Once lipoic acid crosses the cell membrane, it is broken down into dihydrofolic acid, which is also an antioxidant. Alpha lipoic acid also recycles other key antioxidants, such as vitamin C, Niacinamide

Niacinamide is stable in the presence of oxygen, acid, and high temperatures, and it is inexpensive to formulate. Most of its known effects are the result of increased epidermal turnover and exfoliation. Topical kinetin and niacinamide have been found to exert a synergistic antiaging cutaneous effect in people in the Republic of China.

**Dimethylaminoethanol**
Topical preparations containing dimethylaminoethanol (DMAE) have been touted for their ability to improve skin firmness and to lift sagging skin. DMAE is able to diminish the cross-linking of proteins that occurs during aging, probably acting as a free-radical scavenger. Spin traps: Free radical spin traps are species that react with reactive free radicals to produce fairly stable, unreactive free radicals, thus blocking the free radicals from damaging cellular components.

- DMPO (5,5-dimethyl-1-pyrroline-N-oxide)
- DEPMPO (5-diethoxyphosphoryl-5-methyl-1-pyrroline-N-oxide)
- TEMPONE-H (1-hydroxy-2,2,6,6-tetramethyl-4-oxo-piperidine).

**Melatonin**
Melatonin, a hormone secreted by the pineal gland. This beneficial action of melatonin has been explained in terms of its ability to scavenge free radicals and to augment the activities of antioxidant enzymes. It has been shown to suppress UV radiation–induced erythema.

**Catalase**
Catalase, an enzyme present in almost all cells of the human body, catalyzes the decomposition of hydrogen peroxide to water and oxygen. High amounts of this enzyme in the skin can impart antioxidative activity.

**Glutathione**
Glutathione is a tripeptide of glutamic acid, cysteine, and glycine. It is found in all active animal tissue. It is fundamental as an antioxidant, and significantly decreased amounts of glutathione are found after UV exposures.

**Superoxide dismutase**
Superoxide dismutase (SOD) is an enzyme that destroys superoxide (a highly ROS). SOD is a large molecule and has difficulty penetrating deep into the skin. In theory, once in the lower epidermis and dermis, SOD should decrease UV erythema and damage and act as an excellent antioxidant.

**Glucopyranosides**
Resveratrol and polydatins are glucopyranosides found in many fruits and vegetables, the highest concentrations being found in grape skins, which synthesize these compounds in response to exposure to UV-A and UV-B and fungal pathogens.

**Polyphenols**
Polyphenolic compounds (e.g., catechins, flavonols, thioflavins, thearubigins), also known as Epicatechins are antioxidant in nature. These compounds, tested against human keratinocyte cells stressed by UV-B irradiation, showed high antioxidative properties.

**Cysteine**
Several recent studies have shown that cysteine derivatives can protect against the negative effects of UV exposure. In particular, N-acetylcysteine (NAC) is shown to be an effective protector against UV-B–induced immunosuppression.

**Allantoin**
Allantoin promotes cell proliferation, aiding in the healing process. Allantoin has long been known to enhance the effectiveness and desirability of cosmetic creams and lotions by its action as a skin protectant. Allantoin has been incorporated into shampoos, lipsticks, shaving creams, suntanning products, bath foams, hair gels, baby powders, and various aerosol preparations. Allantoin has been called a cell proliferant, an epithelization stimulant, and a chemical debrider. It is said to clean away necrotic tissue, hastening the growth of new healthy tissue.
Furfuryladenine
Furfuryladenine (Kinerase) is a natural plant growth factor that retards the aging process in plants. Cut leaves dipped in a solution that contains furfuryladenin eremain green, while untreated leaves turn brown. It is marketed as the natural evolution of antiaging treatment with similar effects in vitro on human skin cells as that in plants, helping to slow and reverse alterations that naturally occur in the cell-aging process.

Uric acid
In the past, uric acid was generally looked upon as merely an end product of purine metabolism. More recently, uric acid has become increasingly recognized asan important biological antioxidant.

Carnosine
Carnosine (beta-alanyl-L-histidine) is an aphysiological dipeptide that can rejuvenate senescent Cultured human fibroblasts. Carnosine has been shown to contain antioxidant, free radical- and metal ion-scaping activities.

Depigmenting Agent
Hyperpigmentation is the result of an increased amount of melanin in the epidermis, the dermis, or both. This pigmented change can be divided into 2pathophysiologic processes: melanocytosis (increased number of melanocytes) and melanosis (increased amount of melanin). Depigmenting agents work best when melanosis or melanocytosis is restricted to the epidermis. Depigmenting agents can be divided into several groups:

Phenolic compounds include the following:
- Hydroquinone
- Monobenzylether of hydroquinone
- 4-Methoxyphenol
- 4-Isopropylcatechol
- 4-Hydroxyanisol
- N-acetyl-4-S-cysteaminylyphenol

Nonphenolic compounds include the following:
- Corticosteroids
- Tretinoin
- Azelai acid
- N-acetylcycteine
- L-ascorbyl-2-phosphate
- Kojic acid

Combination formulas include the following:
- Kligman's formula
- Pathak's formula
- Westerhof's formula

Hair Cosmeceuticals
The appearance of the hair is a feature of the body over which humans, unlike all other land mammals, has direct control. People can modify the length, color and style of hair according to how one wishes to appear. Hair care, color, and style play an important role in people's physical appearance and self-perception. Among the earliest forms of hair cosmetic procedures in ancient Egypt were hair setting by the use of mud and hair coloring with henna. In ancient Greece and Rome, countless ointments and tonics were recommended for the beautification of the hair, as well as remedies for the treatment of scalp diseases.

Henry de Mondeville was the first to make a distinction between medicinal therapies intended to treat diseases and cosmetic agents for the purpose of beautification. But today's delineation of cosmetics from pharmaceuticals has become more complex through the development of cosmetics with physiologically active ingredients, i.e. Cosmeceuticals. Shampooing is by far the most frequent form of cosmetic hair treatment. While shampoos have primarily been products aimed at cleaning the hair and scalp, current formulations are adapted to the variations associated with hair quality, hair care habit, and specific problems such as treatment of oily hairs, dandruff and for androgenic alopecia related to the superficial condition of the scalp.

Cosmetics for the treatment of hair are applied topically to the scalp and hair. While they can never be used for therapeutic purposes, they must be harmless to the skin and scalp, to the hair, and to the mucous membranes and should not have any toxic effect, general or local, in normal conditions of their use. Mausner has patented a shampoo composition, which cleans the hair and scalp without doing any damage to the fragile biological equilibrium of the scalp and hair. A hair-care cosmetic compositions comprising iodopropynyl butylcarbamate and/or a solution of zinc pyrithione in N-acetyl ethylenediamine triacetate has been patented, which includes an appropriate carrier and a nonallergenic dry extract of yarrow (Achillea millefolium L.), obtained by oxidation of a water-alcohol solution extract of flower tops of yarrow. The extract contains less than 0.5% by weight of polyphenolic derivatives, is used for the treatment of hair, in particular oily hair, based on extract of yarrow. Buck has patented a method for treatment for androgenic alopecia wherein Liquor Carbonic Detergents are topically administered. It is generally accepted.
that genetic hair loss arises from the activation of an inherited predisposition to circulating androgenic hormone.

A hair cosmeceutical product includes - conditioning agents, special care ingredients, and hair growth stimulants. Conditioning agents are intended to impart softness and gloss, to reduce flyaway and to enhance disentangling facility. A number of ingredients may be used, mostly fatty ingredients, hydrolyzed proteins, quaternized cationic derivatives, cationic polymers, and silicones. Special care ingredients are aimed at modifying specific problems relating to the superficial scalp. These shampoos are formulated around one or more specific ingredients selected for their clinical effectiveness in these conditions. Accordingly, current antilandruff ingredients are virtually all-effective antifungal agents - zinc pyrithione, octopirox, and ketoconazole.

Hair growth stimulants cannot be expected to have any impact on hair growth due to short-contact time and water dilution. A minoxidil-related compound (2,4-diamino-pyrimidine-3-oxide) is a cosmetic agent with claim of acting as a topical hair growth stimulant. Its target action has been proposed to be the prevention of inflammation and perifollicular fibrosis. Some degree of efficacy of 2,4-diamino-pyrimidine-3-oxide has been claimed in the prevention of seasonal alopecia. Recent approval in the United States of two new products, Propecia and Rogaine Extra Strength (Minoxidil) 5%, indicated in men to promote scalp hair growth, have added a new dimension to treatment options offered by physicians in treating androgenetic alopecia.

**Other Cosmeceuticals**

The skin beneath the eye lacks subcutaneous fat and has virtually no oil glands. This delicate skin needs protection and plenty of moisture to replenish and repair, which helps to reduce the signs of premature aging. As the skin ages, it becomes thinner, drier, and rougher. Over-exposure to the elements and to environmental pollution aggravates this condition. Many topical skin-soothing products intervene in this process, but products for this area need to be particularly gentle and specially formulated with ingredients that work from the inside out by interacting with the cells under the skin's surface - without irritating the eyes. There are numerous cosmeceutical eye creams that nourish the skin with natural emollients and beneficial nutrients. The other functional ingredients include butcher's broom, chamomile, and vitamin E, antioxidants - vitamins A, C and E, green tea and tiare flower, Ginkgo biloba and also cucumber, calendula and a-bisabolol, an active constituent of chamomile, to calm irritated skin. A key ingredient in the eye lifting moisture cream - that treats puffiness, irritation, and also protects against future skin damage is yeast which helps to plump up the wrinkles. The eye wrinkle cream helps forestall the signs of aging and generally contains wheat germ and corn oil, squalene and carrot extract. Eye firming fluid has aospain, an algae extract from seaweed that helps the skin to maintain elasticity.

Lawlor had developed dental care compositions, which are useful for providing a substantive composition on the surfaces of oral cavity, which can provide prophylactic, therapeutic, and cosmetic benefit.

**Regulatory Aspects**

The claims made about drugs are subject to high scrutiny by the Food and Drug Administration (FDA) review and approval process, but cosmetics are not subject to mandatory FDA review. Much confusion exists regarding the status of Cosmeceuticals. Although there is no legal class called Cosmeceuticals, this term has found application and recognition to designate the products at the borderline between cosmetics and pharmaceuticals. Cosmeceuticals are not subject to FDA review and the Federal Food, Drug and Cosmetic Act do not recognize the term itself. It is also often difficult for consumers to determine whether ‘claims’ about the actions or efficacies of Cosmeceuticals are in fact valid unless the product has been approved by the FDA or equivalent agency. Some experts are calling for increased regulation of Cosmeceuticals that would require only proof of safety, which is not mandatory for cosmetics. Some countries have the classes of products that fall between the two categories of cosmetics and drugs: for example, Japan has ‘Quasi-drugs’; Thailand has ‘controlled cosmetics’ and Hong Kong has ‘cosmetic-type drugs’. The regulations of Cosmeceuticals have not been harmonized between the USA, European, Asian and other countries.

**Future prospects**

By the addition of small amount of Cosmeceuticals agents to the cosmetic formulations which do not require medical regulations and it would improve the production of Cosmeceuticals that could help to improve the skin, nail, and body mass growth. New challenges will also be presented to government regulatory agencies as more
chemicals with true biological activity are invented and tested. In conclusion, Cosmeceuticals are not only the external beautification but also it improves the internal beauty through the health related function.

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