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# Biomimetic Endorphin for wrinkle lifting in a daily cosmetic remedy



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## Abstract

Vitamin D deficiency is a great problem worldwide. Vitamin D plays essential role in calcium and bone metabolism. The vitamin D receptors presented in all cell types. In vitro and in vivo studies show their role in transcription of multiple genes.

Diabetic nephropathy (DN) is a dangerous kidney-related complication of type 1 diabetes. DN characterizes by presence of albuminuria, which in turn causes renal disease progression and cardiovascular complications.

Aim of the study was to evaluate levels of Vitamin D3 in patients with T1D and Diabetic nephropathy; to study the dependence between the Vitamin D level and main clinical and laboratory parameters of the disease (duration, complications episodes, albuminuria levels, blood pressure, GFR).

We conclude that Vitamin D has direct relationship with functional disorders with DN, i.e. albuminuria, GFR, kidney function. Further investigations of Vitamin D supplementation on different stages of the ND development and progression needed.

## Biography

Dr. Ritamaria Di Lorenzo is a Ph.D. at the R&D Cosmetics Laboratory of the Pharmacy Department at the University of Naples Federico II. Here she develops and conducts efficacy and activity tests for cosmetic products, researches aimed at identifying new APIs to be conveyed in skincare and haircare products. She authors several divulgation articles in Italian technical journals for cosmetic companies. In Spain, she is currently engaged at the DermoCosmetic center of the Institute of Advanced Chemistry of Catalonia, carrying out research projects in hair aging and interracial differences that regulate the different hair permeation of cosmetic treatments.

## Importance of Research and Development

As cosmetic users are becoming increasingly concerned about their appearance, they are looking for more and improved alternatives to traditional products available in the market. Scientists are delving deeper into the research of skin-friendly cosmetic products for hair and skin to overtake the global cosmetics business. There are many findings that help skin scientific researchers to create products which are a breakthrough in the world of cosmetics. Discovery of Nanotechnology, a scientific methodology conducted at nano-scale to let the tiny particles penetrate deep into the skin has allowed the researchers to create products which are more effective in fighting the skin-ageing fine lines. Importance of research and development cannot be subdued considering such

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innovative advancement in the cosmetics industry.

Not every skin is oily or dry. Not every hair has the same texture or size. Requirements of consumers for personal care products vary according to location, temperature, type of skin and hair, preference of fragrance and many other aspects. To cater to all the needs of different consumers and to make sure that a particular product suits the skin well without major reactions, research and development is a must.

The cosmetics industry is in boom today. According to a report, the market of global cosmetics products was valued at around USD 532 billion in 2017 and is expected to reach USD 863 billion approximately in 2024. Personal care and beauty product sales are on the hike and the projection is estimated to register a growth from 3.5 to 4.5% between 2015 and 2020. It is expected to reach USD 500 billion by 2020. This data shows the chances of cosmetic companies to flourish with their thoroughly-researched and enhanced product range.

## About University

University of Naples Federico II offers 157 courses in 13 teaching areas (Agriculture, Architecture, Economics, Pharmacy, Law, Engineering, Medicine and Surgery, Veterinary Medicine, Biotechnological Sciences, Mathematics, Physics and Natural Sciences, Political Sciences, Sociology, Humanities). So, it offers courses in every existing academic discipline, which lead to 157 graduate level degrees. Research facilities provide support for all these courses. Students have the chance both to pursue intellectual development and to acquire professional skills. The call for applications will allocate up to 24 two-year scholarships (or annual scholarships for students enrolled in partner universities who do not have any other form of financial support and for the period of stay at Federico II only), each one corresponding to an annual amount of € 5,529.96 gross.

## Recent Publications

(Minimum 5) Di Lorenzo R, Bernardi A, Grumetto L, Sacchi A, Avagliano C, Coppola S, de Giovanni di Santa Severina AF, Bruno C, Paparo L, Laneri S, Dini I. Phenylalanine Butyramide Is a New Cosmetic Ingredient with Soothing and Anti-Reddening Potential. Molecules. 2021; 26(21):6611 Dini I, Falanga D, Di Lorenzo R, Tito A, Carotenuto G, Zappelli C, Grumetto L, Sacchi A, Laneri S, Apone F. An Extract from Ficus carica Cell Cultures Works as an Anti-Stress Ingredient for the Skin. Antioxidants (Basel). 2021 Mar 25;10(4):515 Laneri S, Dini I, Tito A, Di Lorenzo R, Bimonte M, Tortora A, Zappelli C, Angelillo M, Bernardi A, Sacchi A, Colucci M G, Apone F. Plant cell culture extract of Cirsium eriophorum with skin pore refiner activity by modulating sebum production and inflammatory response. Phytotherapy Research. 2020;1–11 Laneri S, Di Lorenzo R, Sacchi A, Dini I. A New Protocol to Evaluate Waterproof Effect of Lip Gloss Biomed J Sci & Tech Res 19(5)-2019. Laneri S, Di Lorenzo R, Sacchi A, Dini I. Dosage of Bioactive Molecules in the Nutricosmeceutical Helix aspersa Muller Mucus and Formulation of New Cosmetic Cream with Moisturizing Effect. Natural Product Communications August 2019: 1–7

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