Green medicines and cosmeceuticals

South Africa has a wealthy supply of plants (about 23,500 species of higher plants). South African plants for various purposes such as infectious diseases, cancer, skin-hyperpigmentation problems, melasma, periodontal diseases, and for acne problem have been scientifically investigated. Steady progress in evaluating potential medicinal plants for product development with dermatological importance has been made. A significant number of plants with potential inhibitory activity against *Propionibacterium* acnes are undergoing clinical studies. Colonization of this bacteria contribute to the etiology of the disease; ‘acne vulgaris’ which is a most common skin disorder. Several agents which have been found to interfere with the transcription of genes encoding tyrosinase- protein, have been identified which are being considered to result in marketed product with application for skin-disorders such as melasma, skin-hyperpigmentation etc. There has not been any product for combating these problems thus far from South African plants. The sample formulated into a cream was applied on 25 healthy volunteers for skin-irritacy testing at an industry, "Future Cosmetics" in Pretoria. The sample did not show any irritacy effect, rather soothing effect was observed. The samples were further subjected to clinical studies and have been recommended for their use for melasma and skin-toning purposes. The research results have attracted a number of national and international cosmeceutical companies who are willing to commercialise selected South African plant extracts and purified compounds emanated from our research. This is of important economic value because at present South African companies import cosmetic actives from overseas. The impact of research and development into local plants will therefore have huge spin-offs for both communities and cosmetic companies.

Biography

Namrita Lall has completed her PhD from the University of Pretoria and was a visiting scientist at the University of Illinois, Chicago and Kings College London. She has published more than 100 papers in reputed journals. She is also the co-inventor of 12 national and international patents. At only 45, this medicinal plant scientist at the University of Pretoria is ranked in the top 1% of the global Essential Science Indicators list of influential academics who write about Clinical & Experimental Dermatology and toxicology. Earlier this year, she received the Order of Mapungubwe, South Africa’s highest honour - from President Jacob Zuma, in recognition of her research. She is a finalist in the 2014 National Science and Technology Forum Award in the category that recognizes the outstanding contributions of researchers over the past 10 years.

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