J Clin Exp Dermatol Res 2016, 7:3 (Suppl)
http://dx.doi.org/10.4172/2155-9554.C1.033

7th European Dermatology Congress

Exome sequencing reveals the contribution of coding variants for psoriasis

Yujun Sheng
Anhui Medical University, China

Psoriasis is a chronic and multifactorial skin disease characterized by sharply demarcated erythematous plaques with adherent silvery scales. Currently, more than 40 susceptibility genes/loci have been identified through large-scale association studies, particularly genome-wide association studies (GWAS); however, most of the identified risk variants are expected to be tagging SNPs and the functional coding variants of these susceptibility genes, particularly those that are of low frequency and rare, are largely refractory to the interrogation by GWAS and have therefore not been systematically investigated. To investigate the contribution of functional coding variants and non-coding variants to the genetic susceptibility of psoriasis and identify additional association with the disease, we carried out a large-scale sequencing analysis in three independent samples comprising 32,310 individuals of Chinese Han. We discovered two independent missense SNVs in IL23R and GJB2 of low frequency and five common missense SNVs in LCE3D, ERAP1, CARD14 and ZNF816A associated with psoriasis and identified 3 new susceptibility loci exceeded the genome-wide significance threshold. The results of this study indicated that coding variants, at least non-synonymous ones with low and rare frequency might have limited contribution to the overall genetic risk of psoriasis and increase the number of confirmed psoriasis risk loci.

ahmusyj@163.com

In vitro antityrosinase activity of cosmetic creams

Evgeniya Ranneva, Rodrigo Arroyo, Pierre-Antoine Deglesne and **Philippe Deprez**
Skin Tech Pharma Group, Spain

Tyrosinase is a well known key enzyme in melanin biosynthesis. Indeed, it catalyzes two distinct sequential reactions in melanin biosynthesis: The hydroxylation of tyrosine to DOPA followed by the oxidation of DOPA to dopaquinone. Researchers have been looking for new tyrosinase inhibitors as potential depigmenting agent and Kojic acid is well known as one of the safest and most efficient tyrosinase inhibitors. In the present study, we evaluate the results of two cosmetic products in comparison with Kojic acid 1%. One of them contains Kojic acid (1%) associated with Arbutin (0.1%), *Glycyrrhiza glabra* extract, *Morus alba* extract, Aspergillus ferment (Blending Bleaching Cream, Skin Tech) and the other does not contain Kojic acid but Arbutin (1%), Nicotinamide Adenine Dinucleotide, Vit C, *Glycyrrhiza glabra* extract, *Morus alba* extract, Aspergillus ferment (Aclaranse®, Aesthetic Dermal). Both products showed inhibitory effects against mushroom tyrosinase with Aclaranse® and Blending Bleaching Cream exhibiting an IC50 values of 3.36 µg per ml and 5.68 µg per mL respectively, compared to Kojic acid (IC50 value of 12.04 µg per ml). The result of inhibition of tyrosinase activity was measured. These results present the high potential of cosmetic products which combine Kojic/Arbutin acid with other active depigmenting ingredients and demonstrate the efficiency of cosmetic products in the inhibition on the activity of the enzyme tyrosinase *in vitro*, which confirms skin whitening effect already observed clinically through topical application.

drranneva@clinicahera.es