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SKINCARE FUNCTIONS OF EDIBLE BIRD'S NEST (EBN) AND ITS APPLICATION IN COSMETIC INDUSTRY

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Edible bird's nest (EBN; 燕窩, Yan Wo) is an ancient Chinese delicacy which is still a popular luxurious food supplement for women in oriental regions. According to the traditional Chinese medicinal descriptions, EBN can promote the "Qi", which is corresponding to the lung/respiratory functions; and hence improves the healthiness of skin. However, the underlying mechanism of this medicinal theory is still largely unknown. This paper reports the potential bioactive ingredients of EBN responsible for the skincare functions such as skin whitening and anti-aging. The application of this scientific finding into cosmetics industry is also introduced. Tyrosinase inhibition assay was applied to determine the skin whitening function of different EBN. Skin whitening assay using NANA showed that NANA was able to inhibit tyrosinase activity in a dose-dependent manner. The protein of EBN was found to be responsible for the anti-oxidation function, leading to anti-aging function. A collaboration project between the university and a cosmetics company for the optimization of EBN extract on skin whitening function, was able to increase the anti-oxidation capacity of the optimized EBN extract by 5 folds.