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Common pigmentation **disorders**

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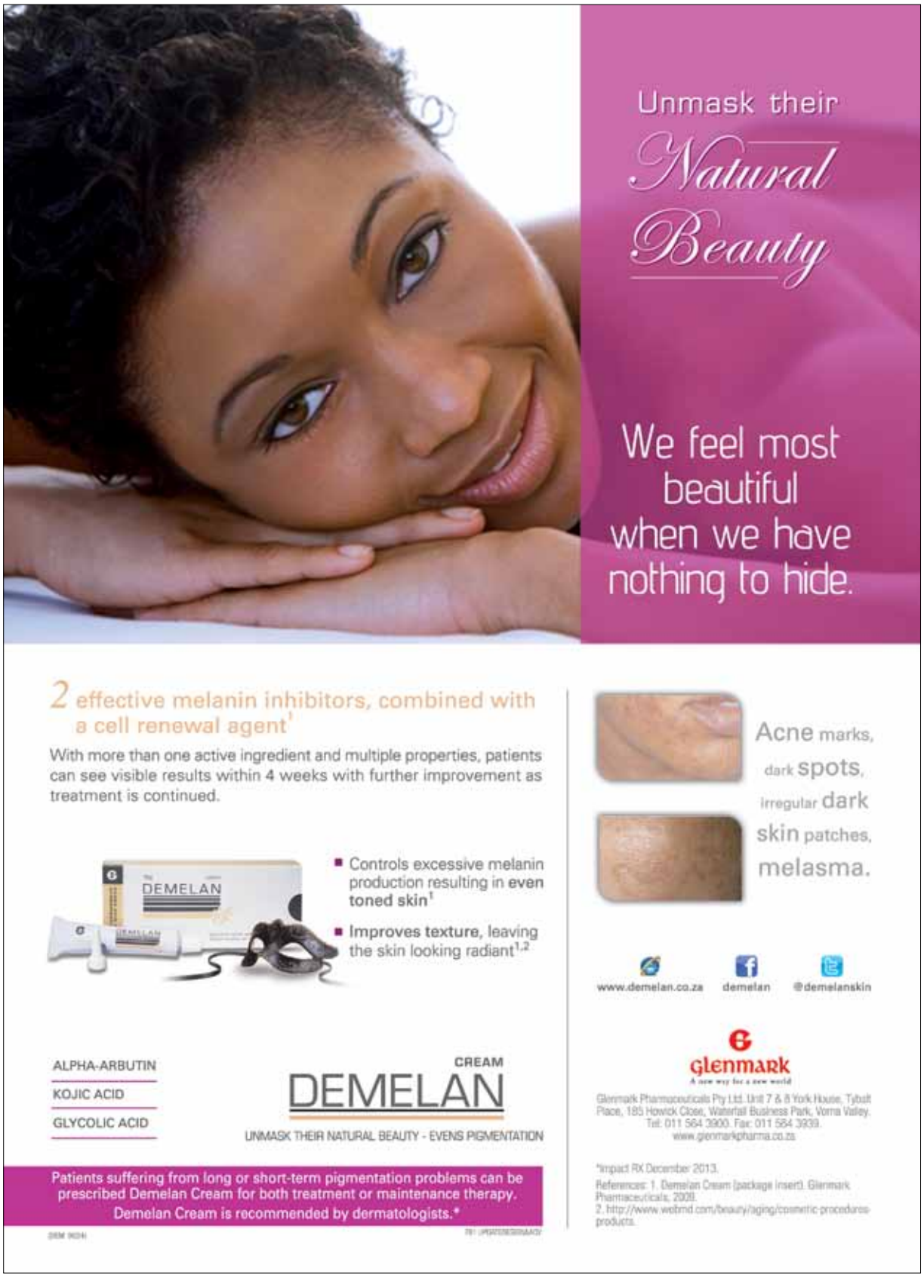
Part 1

The colour of the skin defines our race and is a result of our geographic origin and ancestry. This colour is produced by the interaction of four pigments: haemoglobin, oxyhaemoglobin, carotene and more importantly, melanin. The pink skin of some Caucasians results from the visibility of the red pigment, oxyhaemoglobin, in the superficial blood vessels. The pallor of anaemia and the blue or purple tint of cyanosis are functions of diminished amounts of haemoglobin in the first instance, and of reduced (deoxygenated) haemoglobin in the second. Carotene is a yellow substance found in the subcutaneous fat and melanin is the main pigment, produced by melanocytes in the skin. The production of melanin is tightly regulated by several genes and the interaction with UV rays. There are several reasons for skin dyspigmentation, including hormonal, genetic, infectious, inflammatory, excessive UV exposure as well as dietary causes. Some of these disorders will be discussed below while others will be summarised in *Part 2.*



Albinism is a genetic disease where there is absence of melanin in the skin, hair and eyes. There are several different variants, with nine of them inherited as autosomal recessive and one of them as dominant. Thus it is more commonly seen in communities that intermarry. The main defect is in the enzyme called tyrosinase, which leads to the partial or complete failure of melanin production from the melanocytes in the skin and the eyes. People with albinism have photophobia, poor vision, squinting and nystagmus. Skin cancers, particularly actinic keratosis, squamous cell carcinomas and occasionally melanomas are common. As far as management is concerned, there is no specific therapy, apart from early and rigid photoprotection, regular surveillance of the skin for malignant changes and ophthalmic care.

Vitiligo is a disease that occurs as a result of an acquired destruction of the melanocytes in the skin. This results in white patches which may coalesce and affect the whole skin surface. It is much more distressful to darker people as the colour contrast is much more visible. The exact cause of the disease is unknown, however, several theories link it to an autoimmune origin. If caught early, the disease can usually be stopped from progressing and most of the depigmentation can be reversed. However, treatment is slow and patients need to be properly counselled. A combination of corticosteroids, khellin and narrowband UVB therapy has shown very good results in my clinic for patients who are committed.

Piebaldism presents at birth with white patches that look very similar to vitiligo. It is inherited in some same cases and results due to an abnormal melanoblast migration or differentiation. The usual distribution is very characteristic and involves the middle of the upper arms down to the wrists, mid-thighs to the mid-calves or the shins. There is usually a white forelock of hair, which is known as poliosis. This disease does not progress and there is no treatment.

Postinflammatory hypopigmentation is more commonly seen in darker people. It occurs as a result of temporary failure of pigmentation following an inflammatory disease. Common causes are eczema, pityriasis alba, pityriasis versicolor, psoriasis and impetigo in children. MC

Part 2 will continue in the June edition.