
UZ Researcher Makes Sunscreen Breakthrough

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A University of Zimbabwe (UZ) chartered industrial chemist and pharmaceutical nanotechnology expert has developed a low-cost sun cream that harnesses zinc and titanium from natural sources and indigenous trees to reduce exposure from the sun's radiation for people living with albinism.

The new innovative products not only seek to protect the skin of people with albinism from the sun's radiation, but also slow down damages and infections to their skin.

Dr Joey Chifamba, who won a prize for his innovations at the just -ended the [UZ](#) Research Innovation and Industrialisation Week, told The Herald that his ground-breaking product sought to help people living with albinism who suffer from actinic (solar induced) skin damage — freckles and sunburn to various skin cancers which shorten their life spans considerably.

“No product has ever been developed to protect albinistic persons from actinic damage. The sunscreens that are given to them are designed for white-skinned people and do not take into consideration specific conditions and differences found on albinistic skins,” he said.

“This makes them not very effective and not very suitable especially for all day everyday wear since albinism is a lifelong condition.”

Dr Chifamba developed a product range with about 10 different products including lotions, creams, wound healing washes, lip balms and hair protective products.

All the products were made using 5th generation emerging technologies including nanotechnology and biotechnology. The products incorporated zinc and titanium from natural

sources and indigenous trees, which made them crucial and suitable for people with albinism in tropical areas.

“We employ nanosized metallic oxides sunblock’s conjugated together with nano-optimised indigenous herbs with antibacterial, antifungal and wound healing effects to create aesthetically pleasing cosmeceutical products for everyday all day use by albinistic persons,” the industrial chemist and pharmaceutical nanotechnology expert.

“In our innovation we have developed ground-breaking cosmeceuticals which are not only sunscreens but complete actinic damage retarding treatments that consider albinistic skin differences and deal with various symptoms of actinic damage including wrinkles, premature aging, inflammation, bacterial and fungal infections.”

The products, he said, were much more affordable and safer.

Dr Chifamba said the products which were developed in consultation with the Albino charity organisation of [Zimbabwe](#) and other albino welfare groups were already available to people living with albinism who are registered with the trust.

The UZ Innovation Hub was now supporting Dr Chifamba to further develop his research and innovations. People with albinism have pale skin due to a pigment disorder that barely protects the skin from the sun’s radiation.

When exposed to sunlight, the skin of an albino does not acquire a tan. Instead, it remains light and there is a greater risk of skin cancer.

In [Zimbabwe](#) and most other African countries, this is an acute problem. Most sunscreen products that are available in [Zimbabwe](#) are imported from [South Africa](#) and are expensive.

Retailers sell the lotion at high prices that range from US\$22 and \$35 for a 250 millilitre

bottle of sunscreen lotion.

This is much too expensive for most albinos who use a tube that only lasts a few weeks with intensive usage.

Even with donations for albino welfare organisations, the lotions are still not widely accessible for many Zimbabweans living with albinism, who number an estimated 70 000.

Read the [original article](#) on The Herald.