

Safer hair dyes and cosmetics to be made from Shetland seaweed

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Scientists have launched a project to make hair dye out of seaweed from around the Shetland Islands.

Scientists at the University of Leeds are planning to extract chemical compounds from different species of seaweed and use them to develop a new range of hair dyes. The naturally sourced compounds will be used by scientists as substitutes for synthetic ingredients that can be found in most hair dyes currently on the market.

Many compounds in existing products are allergens and certain chemicals, notably p-phenylenediamine (PPD), have been linked to more serious long-term health effects.

The project also hopes to develop other safer and more environmentally friendly cosmetics, including hair treatments and skin care, from the compounds extracted from the Shetland seaweed.

"We are hoping to be able to offer people a real alternative to current hair dyes that contain chemicals which are known to be very bad for you," explains project leader Dr Richard Blackburn, a natural products researcher at The University of Leeds.

The good news is that the new hair dyes won't be green - scientists are confident that a range of colours including blonde, brown and red, and even black, can be made using the seaweed extracts.

"We can make a range of colours using these natural compounds because the variety of British seaweed species is so diverse," explains Professor Christopher Rayner, also at the University of Leeds, who is working alongside Dr Blackburn on the project.

"Seaweed is especially suited to being used in cosmetics because it has evolved very clever techniques to protect itself from weathering. And cosmetics are all about protection from ageing and the elements," says Dr Blackburn.

Laboratory work at the University of Leeds will focus on developing ways of isolating and extracting individual compounds found in seaweed that have these special properties in order to understand them better and explore their potential uses in other products.

The 2-year project is worth just over £500,000, including an investment of nearly £300,000 from the Technology Strategy Board plus from projects partners, including The Body Shop and Böd Ayre, Shetland seaweed farmers and processors based in Lunnans.

"This could bring commercial and job opportunities to Shetland for a new high-value farming industry. It would be much better to extract the seaweed on Shetland rather than shipping elsewhere for processing," said Margaret Blance from Böd Ayre.

Source: University of Leeds ([news](#) : [web](#))

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