

Fish oils to boost skin health

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(PhysOrg.com) -- Scientists have launched a pioneering study to discover whether fatty acids found in oily fish could improve skin immunity, so reducing the risk of skin cancer.

The University of Manchester research, funded by leading cancer charity AICR (Association for International Cancer Research), will test whether dietary omega-3 can protect against the disease by boosting the body's immune system.

More than 60 healthy women with nickel allergy - skin reactions to metal - will be sought to work with Professor Lesley Rhodes and her team in the Photobiology Unit at the University's School of Medicine and Salford Royal NHS Foundation Hospital to see whether successful lab test results can be replicated in people.

Official figures record more than 67,000 cases of non-melanoma skin cancer diagnosed in the UK every year, making it the most common type of cancer, with over-exposure to sunlight being the principal cause.

Professor Rhodes, an internationally-recognised expert on skin cancer research, said: “The ultraviolet radiation present in sunlight is a complete carcinogen, both initiating and promoting cancer development.

“The UV radiation promotes cancer development through its ability to suppress the immune system in the skin. The immune system protects against skin cancer, probably by killing off cancerous cells before they can develop into a tumour.

“This research will explore whether dietary omega-3 fatty acids, as found in oily fish, can protect human skin from the immune suppression caused by UV light and hence reduce the risk of skin cancer.

“In animal studies, nutritional supplementation with omega-3 fatty acids protects against both UVR-induced immune suppression and skin cancer. This study will determine whether the same effect occurs in humans.”

Dr Mark Matfield, AICR’s scientific adviser believes this safe, dietary intervention could have considerable clinical benefit. He said: “Skin cancer is one of the fastest growing types of cancer, and the number of people diagnosed with the disease is expected to rise for at least the next 15 years. Even a modest degree of protection could have a substantial influence in reducing its impact at a population level.”

Norman Barrett, AICR's Chief Executive, says the grant, worth almost £175,000, is given in line with the charity's policy of funding the most exciting and novel approaches to research worldwide. He said: "It is important to fund work that pushes the boundaries and Professor Rhodes

and her team are pursuing research which could in future change the lives of thousands of people in the UK and many more across the world.”

Provided by University of Manchester

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