

# Promising new target for treatment of psoriasis is safe, study shows

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A protein known to play a significant role in the development of psoriasis can be prevented from functioning without posing a risk to patients, scientists at King's College London have found.

The study, which was supported by the National Institute for Health Research Biomedical Research Centre at Guy's and St Thomas' NHS Foundation Trust and King's College London, confirmed that a group of inflammatory proteins called 'IL-36' play a significant role in the development of psoriasis and can, in theory, be blocked without posing a risk to [patients](#).

Psoriasis, which causes red, flaky, crusty patches of skin covered with silvery scales, affects more than 1.8 million in the UK alone. The findings of this study, although still at an early stage, open up the possibility for the development of new drugs to tackle this often debilitating condition.

Dr. Francesca Capon, who led the study at King's College London said: "There was already some evidence to suggest that IL-36 played a significant role in psoriasis. Having confirmed this was the case, the question for us was whether we could block this molecule without posing a risk to patients."

To tackle this problem, Dr. Capon and her team contacted the Born in Bradford (BiB) project, a large study led by Prof John Wright at Bradford Royal Infirmary which is tracking the health of over 13,500

local children and their parents.

"We know that genetic mutations are more common in communities where parental relatedness is widespread and we found 12 women in the BiB cohort who carried a defect that naturally blocked IL-36," said Dr. Capon. "After a series of tests carried out by Dr Satveer Mahil at St John's Institute of Dermatology, we determined that the lack of IL-36 activation had not had an adverse effect on their health which suggests it would be safe to block this molecule in patients with psoriasis."

Medical technology which would enable the blocking of IL-36 group of [inflammatory proteins](#) in patients with psoriasis is already widely available.

Helen McAteer, Chief Executive of the Psoriasis Association, which part-funded the study, said: "Research into psoriasis is enabling us to not only understand the condition better, but the treatments better".

"Current research is having a positive impact on clinical effectiveness, better understanding is providing better treatment outcomes, ultimately improving the lives of those affected by psoriasis."

The paper "An analysis of IL-36 signature genes and individuals with IL1RL2 knockout mutations validates IL-36 as a [psoriasis](#) therapeutic target", was published today (11 October) in the journal *Science Translational Medicine*.

**More information:** S.K. Mahil et al., "An analysis of IL-36 signature genes and individuals with IL1RL2 knockout mutations validates IL-36 as a psoriasis therapeutic target," *Science Translational Medicine* (2017). [stm.sciencemag.org/lookup/doi/.../scitranslmed.aan2514](http://stm.sciencemag.org/lookup/doi/.../scitranslmed.aan2514)

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