

Professor Veronica Kinsler and her researchers at the Francis Crick Institute and Great Ormond Street Institute of Child Health have published an article in the [Investigate Dermatology Medical Journal](#) detailing a huge breakthrough in their CMN research work.

WHO: Nevus Outreach
WHAT: Research Development in Congenital Melanocytic Nevus (CMN)
WHEN: June 17, 2024

PEOPLE WHO CAN BE INTERVIEWED

- **Lauren Isbell** – Executive Director of Nevus Outreach – for US Inquires
- **Jodi Whitehouse** – Chief Executive Officer of Caring Matters Now – for UK Inquires

(London, UK) – Professor Veronica Kinsler and her CMN research team have designed a new genetic therapy that has silenced the NRAS gene in cells in a dish and in mice. NRAS is one of several genetic mutations causing Congenital Melanocytic Naevus (CMN). The research team used a genetic therapy called silencing RNA, which silences the mutated NRAS in CMN skin cells. The therapy was delivered through special particles directly to CMN cells. The team gave injections containing the therapy to mice with CMN; silencing the NRAS gene after just 48 hours. They also tested it in cells and whole skin sections from children with CMN. Importantly, silencing the gene triggered the CMN cells to self-destruct.

It is hoped this approach will form the basis for clinical trials within the next 24 months, subject to raising enough funds. This means that in the future the treatment could potentially be used to reverse CMN, and therefore reduce the risk of affected children and adults from developing melanoma. It could also potentially reverse other commoner types of at-risk moles as an alternative to surgery.

Prof Kinser said “These results are very exciting, as not only does the genetic therapy trigger self-destruction of the CMN cells in the lab, but we have managed to deliver it into the skin in mice. These results suggest that the treatment in future could potentially reverse CMN in people, however more testing will be needed before we can give it to patients.

“We are very grateful to our patients at Great Ormond Street Hospital, who have been actively participating over many years to help us produce this new potential therapy. After more studies, we hope the therapy can soon enter clinical trials in people.”

This research was funded by the National Institute for Health and Care Research (NIHR), Caring Matters Now UK charity, LifeArc and the NIHR Great Ormond Street Hospital Biomedical Research Centre.



Jodi Whitehouse, CEO of Caring Matters Now, which has helped to fund the research, said: "This breakthrough in finding a treatment for CMN could transform the lives of the families we support living with CMN. As someone who was born with CMN covering 70% of my body and having undergone 30+ operations in my childhood to try and remove the CMN because of the fear of melanoma, with no success, this news is awe-inspiring and exciting. It brings real hope to the lives of those living with CMN.

It is important to remember there are many different [expressions of CMN](#), including neurological complexities and the risk of melanoma. The vision of Caring Matters Now is to live in a world where no one suffers because of CMN and so for some this newly developed treatment could prove to be life transforming."

To read a layman's term translation of the research, [click here](#).

To read the FAQs surrounding the research, [click here](#).