Biology of eye color illuminates progress in combating eye disease

A commonly held belief among Europeans is that all babies are born with blue eyes, which can then change colour. However if one spends some time in a maternity ward meeting babies from other cultures it becomes evident that not all eyes start off blue. So what is the biology behind eye colour? For the past 15 years Professor David Mackey, an Associate Professor with the Centre for Eye Research Australia at the University of Melbourne, has been interested in the genetics of eye colour as a model for researching the genetics of eye disease.

"The iris is the aperture that controls the level of light entering the eye," Professor Mackey explains.

"Interestingly eye colour correlates with the geographic latitude of where one's ancestors lived. One theory suggests that eye colour in humans evolved in a similar way to skin and hair colour and is related to ultra violet (UV) radiation absorption and vitamin D production.

"The lower level of UV light in Northern Europe meant individuals with less melanin pigment production in their hair, skin, and eyes had better absorption of vitamin D, which provided a survival advantage.

"Early humans living in lower latitudes where UV light intensity is high benefited from the protective barrier darker hair, skin and eyes provided."

So can eye colour change without the use of spooky cosmetic contact lenses?

Read full, original article: Can your eye color change?