

Inheritance of epigenetic modifications observed through 14 generations in roundworms

To a degree, our lineage dictates how our genes are expressed, how we look, age, and live. However, a recent study from researchers at the European Molecular Biology Organisation (EMBO) in Spain has shown that [epigenetic memory](#) can be passed down through an incredible 14 generations. A gene that allowed a certain species of genetically modified roundworms to glow was passed down through 14 generations.

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These researchers [genetically modified nematode worms](#) to carry a transgene that would allow them to glow under ultraviolet light. By changing temperatures, they found that these fluorescent capabilities were much more active when the worms were warm...Incredibly — despite fluctuating temperatures through 14 generations of offspring — the worms seem to have retained this ability.

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As our understanding of [epigenetic memory](#) advances and we come to better understand how traits are passed on, it could have major implications for human and animal health. Genetically-linked diseases continue to take countless lives each year, and the more that we understand how we pass such diseases to the next generation, the better we can prevent and treat them.

[Read the original source [here](#)]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Glowing Worms Prove Environmental Changes Can Affect Genes for 14 Generations](#)

For more background on the Genetic Literacy Project, read [GLP on Wikipedia](#)