

## Gene causes nearsightedness in bookworm kids

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.**

Scientists at Columbia University Medical Center (CUMC) say they have discovered a gene that causes myopia, but only in people who spend a lot of time in childhood reading or doing other nearwork.

Using a database of approximately 14,000 people, the researchers found that those with a certain variant of the gene, i.e., APLP2, were five times more likely to develop myopia in their teens if they had read an hour or more each day in their childhood. Those who carried the APLP2 risk variant but spent less time reading had no additional risk of developing myopia.

“We have known for decades that myopia is caused by genes and their interactions with environmental factors like reading and nearwork, but we have not had hard proof. This is the first known evidence of gene-environment interaction in myopia,” said the study’s lead investigator, Andrei Tkatchenko, M.D., Ph.D., of CUMC.

Although it’s not yet known how genetic variation at the APLP2 gene causes myopia, Dr. Tkatchenko and his colleagues think the risk variant may increase the amount of APLP2 protein produced in the eye, which in turn may cause the eye to undergo excessive elongation. They found that mice exposed to a visual environment that mimics reading were less likely to develop myopia when little APLP2 protein was present in the eye.

**Read full, original post:** [Gene Causes Nearsightedness in Kids Who Read a Lot](#)