

Halitosis: The genetic basis of bad breath

Most people would tell you that bad breath is brought on by a combination of bad luck and garlic. According to a new [study](#) in Nature Genetics, genes may play a direct role as well. Researchers at U.C. Davis have found that a the gene for a protein known as a SELENBP1 may be implicated in bad (specifically cabbage-scented) breath, Gizmodo [reports](#). The protein may also play a rule in a few kinds of cancers, so the stakes may be a little higher down the line.

The researchers looked at five human patients from three different families who had “cabbage-like breath odor.” Turns out, they all had mutations in the gene that codes for SELENBP1.

After eliminating other possible causes of bad breath, the researchers had each participant breathe through a machine that was able to separate out the source of the smell: the culprits were methanethiol and dimethylsulfide, two compounds that contain sulfur.

...

With that evidence, the researchers make the case that lack of SELENBP1 can cause bad breath. But other than providing fodder for a fun science experiment, why would the human body have a gene whose absence makes people’s breath smell?

“The function of SELENBP1 might possibly be keeping the breath methanethiol concentration low, thus enabling the human nose to detect foul smells from environmental volatile sulfur compounds,” the researchers write.

Read full, original post: [Does your breath smell? It may be genetic](#)