

View this article online at: patient.info/news-and-features/gene-discovery-may-explain-why-some-people-function-on-little-sleep

Gene discovery may explain why some people cope on little sleep

A gene which is linked to feeling fully rested after just a few hours of sleep has been identified by researchers.

High-profile figures such as Donald Trump and Angela Merkel claim they require just four hours of [sleep](#) a day. Scientists may now have discovered why.

Experts at the University of California San Francisco had previously discovered a rare gene which promotes 'natural sleep', allowing individuals who sleep four hours a night to feel fully rested when waking up. A decade later, they have found a second gene which supports this evidence.

By observing a family with several members who need less sleep than average, the researchers identified another gene that they believe has a direct impact on how much someone sleeps.

People with the mutated *ADRB1* gene, which has so far been found in more than 50 families, sleep for two hours less than the average person.

In 2009, Fu's team discovered that people who had inherited a particular mutation in a gene called *DEC2* averaged only six and a half hours of sleep per night. Study participants lacking the mutation averaged eight hours. [This finding](#) was the first conclusive evidence that natural short sleep is, at least in some cases, genetic. Because this mutation is rare, however, it couldn't account for all of them.

"Before we identified the first short-sleep gene, people weren't thinking about sleep duration in genetic terms," said author [Ying-Hui Fu](#). "Sleep can be difficult to study using the tools of human genetics because people use alarms, coffee and pills to alter their natural sleep cycles."

Fu led the research teams that discovered both short sleep genes, the newest of which is described in a paper published in the journal [Neuron](#).

When scientists altered the ADRB1 gene in mice, they slept for 55 fewer minutes than regular mice – which suggests that this gene is related to not needing as much sleep.

Despite sleeping less, natural short sleepers don't suffer any of the adverse health effects associated with sleep deprivation.

"Today, most people are chronically sleep-deprived. If you need eight to nine hours, but only sleep seven, you're sleep-deprived," Fu said. "This has well-known, long-term health consequences. You're more likely to suffer from cardiovascular disease, cancer, dementia, metabolic problems and a weakened immune system."

[This study was published in Neuron](#)

Disclaimer: This article is for information only and should not be used for the diagnosis or treatment of medical conditions. Egton Medical Information Systems Limited has used all reasonable care in compiling the information but makes no warranty as to its accuracy. Consult a doctor or other healthcare professional for diagnosis and treatment of medical conditions. For details see our [conditions](#).

Last updated by: Ashwin Bhandari 30/08/2019	
Peer reviewed by: Natalie Healey 30/08/2019	

View this article online at: patient.info/news-and-features/gene-discovery-may-explain-why-some-people-function-on-little-sleep

Discuss Gene discovery may explain why some people cope on little sleep and find more trusted resources at [Patient](#).



To find out more visit www.patientaccess.com
or download the app



Follow us

