

How long do you ‘naturally’ sleep? Scientists unwrap genetic factors

Alex Keene, Ph.D., professor and department head of biology at A&M, said part of the reason why knowledge of the genetics of sleep has been limited is due to the time-consuming nature of conducting sleep experiments.

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The recent popularity of genetic testing kits such as 23andMe and the success of the [UK Biobank](#), a database started in 2006 that collects information on human health and genetics, has provided researchers with an unprecedented volume of human genetic information from willing volunteers. This development enabled Struan Grant, professor of pediatrics at the University of Pennsylvania, to analyze the human genome and produce a list of one hundred genes that are potentially involved in sleep regulation.

“All the gene hunting that’s gone on for the last couple of decades ha[s] revealed very strong genetic signals in the genome,” Grant said. “We inferred the relationship between the [sleep trait] variants and a gene ... we then emailed those genes to Dr. Keene.”

Prior research has shown many sleep mechanisms are shared among all animals, suggesting the genes that play a role in their functions are also shared between species. With the Penn researchers having made a list of candidate genes, Keene said the A&M lab could now zero in on which gene played the biggest role in sleep regulation.

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