Neanderthals, COVID-19 and you: Exploring how our inherited genes are harming us and could have decimated our hominid ancestors

[Researchers Svante] Pääbo and colleague Hugo Zeberg <u>announced</u> that the major genetic risk factor for severe COVID-19 is inherited from Neanderthals... By any measure, this is a bold statement. The team found that severe COVID-19 disease is associated with specific genetic variants in six genes within a 50K-base-pair-long region of chromosome 3 that derived directly from a Neanderthal heritage. Similar investigations have also identified a protective Neanderthal haplotype on chromosome (chr) 12 that reduces the risk of severe COVID-19, and a protective region on chromosome 9 that is associated with the ABO blood groups.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter. SIGN UP

Not content to rest on their laurels, Pääbo and Zeberg have just kicked things up a notch. The pair recently reported on the bioRxiv preprint server that another exclusively Neandertal variant, this time in the promoter region of the DPP4 gene at chr2q24.2, is really pulling the strings on COVID susceptibility. DPP4 is a widely expressed extracellular dipeptidyl peptidase involved in immune function and glucose metabolism. As it happens, DPP4 is also the receptor gene for the MERS coronavirus. Now we are getting somewhere.

Although other researchers have insisted DPP4 is not a SARS-CoV-2 receptor, it can be tough to ignore coincidental findings like this when therapeutic options are sorely needed.

Read the original post