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## LETTER TO THE EDITOR

### [Translated article] Ötzi, the Iceman: Lyme Disease, Androgenetic Alopecia, and Dark Skin

#### Ötzi, «el hombre de hielo»: enfermedad de Lyme, alopecia androgénica y piel oscura

To the Editor,

The iceman Similaun man better known as Ötzi, is the oldest European mummy discovered to this date. His corpse—naturally mummified by the extreme and perpetual cold of the place where he died—was found by 2 mountaineers from Nuremberg, Germany on September 19, 1991, in the Ötztal Alps, Austria specifically in the Ötz valley (hence his nickname), next to Hauslabjoch, on the border between Austria and Italy, some 3200 meters above sea level.

It is estimated that Ötzi died in 3350-3120 BC at around 46 years of age, due to traumatic causes. Radiological tests revealed the presence of a triangular object (possibly an arrowhead) lodged in his left lung, along with cuts and bruises on his chest, right hand, and wrist.

The exceptional state of preservation of the corpse, currently exhibited in the South Tyrol Archaeology Museum in the city of Bolzano, Italy, has allowed numerous mysteries surrounding the Europeans who lived during the Copper Age to be solved thanks to hundreds of research studies conducted. Ötzi was 159 cm in height, and around 50 kg in weight, had dozens of tattoos, and had possibly suffered from arthritis, cardiovascular disease, and Lyme disease.<sup>1</sup>

The results of a comprehensive genomic analysis recently published by Wang et al., from the Department of Evolu-



tionary Anthropology at the Max Planck Institute in Leipzig, Germany<sup>2</sup> confirm that Ötzi likely suffered from androgenetic alopecia, had dark eyes, and a higher phototype than present-day southern Europeans.

These findings, available in the European Nucleotide Archive (ENA), corroborate previous phenotypic studies,<sup>3</sup> and will surely precede others to better understand the genotypic and phenotypic evolution of our not-so-distant European ancestors.

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### References

1. Kean WF, Tocchio S, Kean M, Rainsford KD. The musculoskeletal abnormalities of the Similaun Iceman («Ötzi»): clues to chronic pain and possible treatments. *Inflammopharmacology*. 2013;21:11–20 <https://doi.org/10.1007/s10787-012-0153-5>
2. Wang K, Prüfer K, Krause-Kyora B, Childebayeva A, Schuenemann VJ, Coia V, et al. High-coverage genome of the Tyrolean Iceman reveals unusually high Anatolian farmer ancestry. *Cell Genom*. 2023;3:100377 <https://doi.org/10.1016/j.xgen.2023.100377>
3. Keller A, Graefen A, Ball M, Matzas M, Boisguerin V, Zink A, et al. New insights into the Tyrolean Iceman's origin and phenotype as inferred by whole-genome sequencing. *Nat Commun*. 2012;3:698 <https://doi.org/10.1038/ncomms1701>

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