

Characterizing two sisters, examples of exceptional longevity

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A new study provides a detailed characterization of two sisters—one a supercentenarian and one a semi-supercentenarian—aimed at providing new insights into what allowed them to live such long lives. The authors conclude that supercentenarians 10.1089/rej.2019.2299 have a relatively increased resistance to agerelated diseases and can approach the limits of the functional human reserve to avoid the acute causes of death. The article is published in Rejuvenation Research.

The article is entitled "The Phenotypic Characterization of the Cammalleri Sisters, an Example of Exceptional Longevity" and is coauthored by Calogero Caruso, MD, University of Palermo, Italy, and a large team of researchers. The researchers collected data via a detailed questionnaire that assessed factors such as main illnesses, drugs taken, cognitive status, rating on a geriatric depression scale, activities of daily living, and sleep and eating habits. They also investigated the family history. Blood sample testing allowed for genomic analysis and the study of chromosomal and genetic characteristics associated with aging.

The sisters never smoked and slept 5-6 hours per night. They did not show a close adherence to the Mediterranean Diet. Based on the phenotypic and genotypic characterization, the researchers believe that inflammation and oxidative stress predict centenarian mortality.

"The study of those who attain exceptional longevity is among the most impactful areas of biomedical gerontology, especially because it generally arises from staying healthy until an exceptional age. This unique case of two sisters reaching such extreme ages offers a remarkable chance to unearth secrets to maintaining health, and Dr. Caruso's team have done the field a great service with this study," says Editor-in-Chief Aubrey D.N.J. de Grey, SENS Research Foundation, Mountain View, CA.

More information: Giulia Accardi et al, The Phenotypic Characterization of the Cammalleri Sisters, an Example of Exceptional Longevity. Rejuvenation Research (2020). DOI:

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