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MapmyGenome unveils groundbreaking study on genetic variants linked to longevity

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The study analysed data from GenomegaDB, the most extensive genetic database of Indians



Hyderabad-based MapmyGenome, a leader in genetic testing and personalised health solutions, has announced the publication of its latest research in NPJ Aging (Nature.com). The study, titled 'Genetic Variants Associated with Longevity in Long-Living Indians,' explores the genetic factors contributing to healthy ageing and long life spans in the Indian population.

In a pioneering effort, the study analysed data from GenomegaDB, the most extensive genetic database of Indians, focusing on individuals aged 85 years and older, referred to as Long Living Individuals (LLIs). By comparing LLIs with younger controls (18-49 years), researchers uncovered key genetic variants contributing to ageing and longevity, and resistance to various diseases.

The study confirmed the significance of the FOXO3A gene, a well-known marker for longevity in Japanese, German, and French centenarians, in the Indian population as well.

Variants linked to slower heart rate (MYH6), reduced risk of osteoporosis and shorter body height (ESR1), and decreased risks of schizophrenia (RIMS1-KCNQ5) and anxiety (HSPA5) were notably more frequent in LLIs. Conversely, variants associated with increased risk of atrial fibrillation (GORAB-PRRX1) and biliary disorders (ABCC2) were less frequent in this group.

By identifying genetic variants unique to Indian LLIs, the study adds a critical dimension to global aging research. It emphasizes the diversity in genetic factors influencing longevity and underscores the importance of population-specific studies in understanding the broader genetic landscape.