The human gut archaeome: identification of diverse haloarchaea in Korean subjects

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Video Byte

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Abstract

Archaea are single-celled organisms typically associated with extreme living environments. But many types make their home in the human body, including the gut. Unfortunately, what archaea are common and how they contribute to human health remain largely unknown. To gain a better idea, scientists used 16S rRNA gene deep sequencing to analyze fecal samples gathered from 897 East Asian people living in South Korea. Archaea made up nearly 10% of all microbes detected and displayed a surprisingly diverse membership. Most members were methane-producing archaea (green). But salt-loving “haloarchaea” (red) dominated several samples. Based on these variations in microbial community structure, samples could be classified into one of four types – or “enterotypes”. Future studies could help scientists refine these archaea enterotypes and understand their relationship to human health.