

CRISPR, yogurt bacteria reveal how microbe genomes evolve

Are there genome editing tools running around in that yogurt you're eating? Don't drop your spoon and start scraping your tongue in a panic just yet, these proteins are a natural part of the bacteria that ferment milk into that creamy product so many of us enjoy on a daily basis. But can these editing proteins be utilized to identify core and essential genomic regions or even eliminate nonessential regions guiding us to greater understanding of bacterial evolution? Results from a newly published study hope to shed light on the diverse functions of the bacterial genome.

A research team from North Carolina State University has harnessed the precision scalpel-like power of the CRISPR-Cas system to determine if four predicted genomic island sequences could be deleted from the yogurt starter culture bacterium, *Streptococcus thermophilus*. In particular, one of the regions included the milk-adaptation area that is essential for yogurt production.

"We wanted to screen, using the CRISPR scalpel, areas naturally prone to extinction in *S. thermophilus*," explained Rodolphe Barrangou, Ph.D., associate professor of food science at NC State, and senior author on the current study. "This is a win-win process because the screening can be harnessed to target any region of the genome and the experiment will tell you whether the region is expendable or not."

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [CRISPR Directs Genome Evolution of Probiotic Bacteria](#)