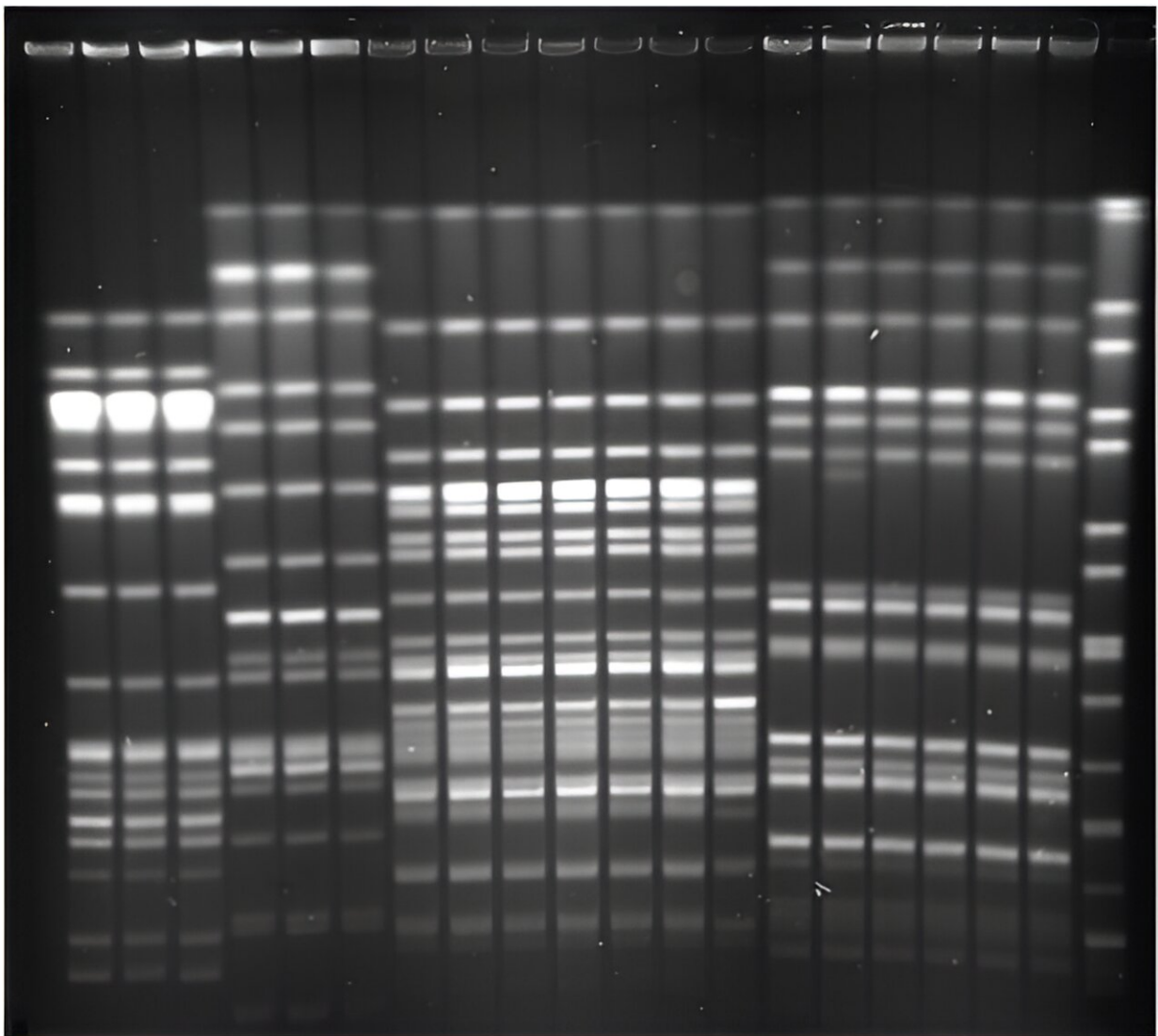


Researchers develop tool for detecting foodborne pathogen that causes severe symptoms in children

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PFGE profiles of XbaI-digested *E. albertii* isolates from diarrheal stool samples

of infected children. Credit: *Heliyon* (2024). DOI: 10.1016/j.heliyon.2024.e30042

The prevalence of pathogenic *E. coli* has meant the frequent misidentification of a similar bacterium of the *Escherichia* genus. *E. albertii* is an emerging zoonotic foodborne pathogen, first isolated in Bangladesh in 1991. Large-scale outbreaks of food poisoning caused by *E. albertii* have since been reported especially in Japan, causing severe symptoms in both children and adults.

In the hopes of establishing a [diagnostic method](#), a joint research group led by Professor Shinji Yamasaki and Dr. Sharda Prasad Awasthi, a specially appointed associate professor, from the Graduate School of Veterinary Science at Osaka Metropolitan University, has developed a way to detect *E. albertii* more accurately using a quantitative real-time PCR method.

The findings were published in [Heliyon](#).

Specimen examination using this technique showed that *E. albertii* survived in the human intestinal tract for approximately four weeks and continued to be found in feces. The identical genotype of the bacterial DNA of *E. albertii* that infected [siblings](#) also suggested that intrafamilial transmission may have occurred.

"These results and a novel real-time PCR developed in this study are expected to contribute not only to the selection of appropriate treatment for *E. albertii* gastroenteritis, but also to the elucidation of the source and route of infection," Professor Yamasaki said.

More information: Sharda Prasad Awasthi et al, Detection of prolong excretion of *Escherichia albertii* in stool specimens of a 7-year-old child by a newly developed Eacdt gene-based quantitative real-time PCR method and molecular characterization of the isolates, *Heliyon* (2024).
[DOI: 10.1016/j.heliyon.2024.e30042](https://doi.org/10.1016/j.heliyon.2024.e30042)

Provided by Osaka Metropolitan University

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