

## Novel DNA analysis technique helps spot mislabeled foods, inaccurate ingredient lists

Estonian scientists are developing a DNA-based method of analysis that enables them to identify food components and specify the origin of a foodstuff.

Bioinformatics specialists at the University of Tartu, in cooperation with the Competence Centre on Health Technologies, have published a research paper in the journal [Frontiers in Plant Science](#) in which they indicated the possibility to identify components in thermally processed food using DNA analysis even if the quantities were very small. The scientists analyzed thermally processed cookies that contained a small amount of lupin flour. The DNA analysis provided reliable identification of lupin even when the lupin flour content in the dough was just 0.02%.

Food always contains the DNA traces of the plants, animals and microorganisms that have been used or that the food or its raw materials have come into contact with in the production process. DNA analysis can provide valuable information on the content, origin, safety and health benefits of food and will make the identification of counterfeit foods and non-compliances in the ingredients specified on the packaging more reliable in the future.

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