Food Authenticity

For years, experts have been sounding the alarm on mislabeling and food fraud. Now, scientists at U of G are using DNA barcoding to determine whether your food is really, what you think it is.

By raising $4M the College of Biological Science (CBS) can invest into progressive research, training and educational opportunities around food authenticity.

Impact Statement:

There are a variety of consumer and industrial applications for technology that could be developed from this initiative, to do with food authenticity, food sales and marketing. Consumers need to be able to trust the food that they are buying. Research at the University of Guelph can help protect consumers and the industry, ensuring healthy ingredients and products are available and sustainable for all stakeholders.

By investing today, Guelph can expand its toolbox, for ensuring food security, food safety and food sustainability.

Goals:

Food fraud has negative impacts on both consumers and industry. New DNA-based approaches have proven useful in detecting ingredient substitution, where a species of a lower market value is substituted for a more expensive one, but more work needs to be done to extend the suite of molecular methods available to detect various instances of fraud.

The U of G has the expertise to authenticate food using DNA techniques for species identification and to further research in unique bacterial microbiomes as a means of identifying geographical origin of food and food ingredients.

Increased focus on research and education in food authenticity through a variety of initiatives at the University of Guelph can help. Investment in this area will:

- Establish a Chair in “Food Authenticity” (Potentially a Canada Excellence Research Chair in food security and microbial identification)
- Create a Professorship in “Food Authenticity”
- Launch undergraduate scholarships and summer research positions
- Establish graduate scholarships
- Create a named centre

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