

Researchers one step closer to developing non-allergenic 'super' peanuts

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Credit: Daniele Pellati/public domain

Scientists from The University of Western Australia have joined a global research team that have identified genes in peanuts that when altered will be able to prevent an allergic response in humans.

The world-first finding was carried out by scientists from UWA and several global research organisations including the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

The scientists identified the genes by decoding the DNA of peanuts. The discovery will also lead to increased crop productivity and nutritional value.

Peanuts are an important global food source and one the most economically important crops. They are grown in more than 100 countries, with approximately 42 million tonnes produced every year.

Peanut allergies have a high prevalence in Australia, affecting approximately 3 per cent of the population and can cause a severe [allergic](#)

[response](#) if not treated quickly.

Professor Rajeev Varshney, Research Program Director- Genetic Gains from ICRISAT and also Winthrop Research Professor with UWA's Institute of Agriculture and School of Plant Biology played a lead role in the study.

Professor Varshney said the findings were an important achievement for the agricultural industry and farming community.

"This discovery brings us that one step closer to creating peanuts that will have significant benefits globally," Professor Varshney said.

"We will also be able to produce peanuts that have more health benefits with improved [nutritional value](#)."

Professor Varshney said the next step would be to alter the genes the researchers had identified in the study and test the results in geocarp (the productive process in the [peanut](#)), to develop new varieties of peanuts.

The findings have been published in the journal *Proceedings of the National Academy of Sciences (PNAS)*.

More information: Xiaoping Chen et al. Draft genome of the peanut A-genome progenitor () provides insights into geocarp, oil biosynthesis, and allergens, *Proceedings of the National Academy of Sciences* (2016). [DOI: 10.1073/pnas.1600899113](#)

Provided by University of Western Australia

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