NTU starts research hub to assess safety risks in novel foods

It will develop protocols to help agri-food firms get their products approved sooner

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From cell-based steaks to algae shakes, farms of the future are developing novel foods to replace meat. First, however, these sustainable proteins must be judged safe to eat.

This is the idea behind a research hub launched at Nanyang Technological University (NTU) yesterday.

"No food safety, no food security," said Professor William Chen, director of the university's Food Science and Technology programme.

The new Future Ready Food Safety Hub will support local and overseas agri-food firms by studying new ways to assess food safety risks in novel foods, while keeping abreast of newer forms of food.

To help the companies get their products approved and on grocery shelves and menus sooner, scientists at the hub are developing protocols for novel foods, ingredients and food processing techniques.

Prof Chen, who will be the principal investigator for NTU at the hub, said no risk assessment framework has been set up so far in Singapore to evaluate the safety of many novel foods that are emerging.

"In building our food security, more and more novel foods from the urban areas would emerge, from land-based aquaculture to cultivated meat. It is therefore important to establish a proper framework before the foods are on consumers' dining plates," he said.

For instance, turtle embryos are cultured in cultures before being placed on conventional chicken eggs and hatching. Scientists are testing them to figure out if it is safe to store alternative proteins in biodegradable packaging made from prawn shells.

The hub was established in collaboration with NTU, the Singapore Food Agency and the Agency for Science, Technology and Research.

It was launched by Minister for Sustainability and the Environment Grace Fu yesterday at the opening ceremony of NTU's inaugural Food Science and Technology Global 2021 conference.

TurtleTree Labs, a start-up that uses cells to make milk without the need for cows, will be entering into a research agreement with the hub.

"The cell-based food industry is in its infancy and the regulations around it are still evolving. "We have yet to understand the depth of safety assessment needed by the governing bodies for approval of our products, and we hope the hub would be able to help us in these areas," said TurtleTree co-founder Lin Fengru.