

Getting this...



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With agri-food companies creating novel foods – such as local start-up Gaia Foods' structured meat product grown from beef cells around an edible scaffold (right) – scientists at a new research hub at Nanyang Technological University are developing protocols for such foods, ingredients and processing techniques, to evaluate their safety. PHOTOS: GAIA FOODS

New hub at NTU set up to study safety of novel foods

It will work with firms on research and help them prepare for regulatory assessments

Shabana Begum

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 that 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, the hub will conduct tests to figure out if it is safe to store alternative proteins in biodegradable packaging made from prawn shells.

Prof Chen said food-tech companies can reach out to the hub for consultancy work and research collaborations, and to prepare for regulatory assessments.

The hub was established in collaboration with NTU, the Singapore Food Agency (SFA) and the Agency for Science, Technology and Research (A*Star).

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.

Ms Fu said: "When it became clear to us that novel foods such as cultured meat could be an emerg-



Minister for Sustainability and the Environment Grace Fu (third from right) at the launch of the Future Ready Food Safety Hub yesterday, with (from left) Singapore Food Agency (SFA) chairman Lim Chuan Poh, SFA chief executive Lim Kok Thai, A*Star chairman Chan Lai Fung, A*Star chief executive Frederick Chew, Nanyang Technological University (NTU) senior vice-president of research Lam Khin Yong and NTU president Subra Suresh. ST PHOTO: NG SOR LUAN

ing growth area, SFA started engaging the scientific community and industry on the possible approaches to regulate the safety of novel foods and ingredients."

In 2019, SFA introduced a novel food regulatory framework, which requires companies to go through pre-market safety assessment for food products that did not have a history of being eaten as food.

The agri-food sector burgeoned in 2019, as Singapore set out its "30 by 30" goal to produce 30 per cent of its nutritional needs by 2030. Enterprise Singapore said

that over the past two years, more than 15 alternative protein start-ups have set up base in Singapore.

The hub will also act as a bridge between firms and consumers to raise awareness about and increase receptiveness to novel foods by holding outreach programmes.

"This will help consumers better understand the safety and benefits of certain types of novel foods as well as emerging food safety risks. With this knowledge, consumers will be better equipped to make informed choices," said Ms Fu.

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.

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