

New database to help identify, track and treat food poisoning

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Just like the genetic databases used by police to nab offenders who leave their DNA at the crime scene, experts in food-borne diseases are setting up a global data bank to help them identify, track and treat outbreaks fast.

The effort will see laboratories and clinics around the world sharing the DNA of various strains of diseases (including food-borne diseases), and it promises to transform the way food poisoning cases are contained.

The process hinges on whole genome sequencing, the process of determining the DNA sequence of an organism's genome at one time.

This would allow every microorganism in a patient, food or an animal to be identified and typed within hours, by checking it against the global database.

It would enable an almost perfect global surveillance of all diseases caused by microorganisms, say the advocates of such a database.

"This sequencing is going to revolutionise the way we investigate outbreaks and the way we do disease surveillance," said Dr Peter Ben Embarek, a scientist in the Department of Food Safety and Zoonoses (diseases spread between animals and humans) under the World Health Organisation (WHO).

The project was announced at the 12th meeting of the Global Microbial Identifier conference.

More than 250 scientists and experts from all around the world, including WHO and Food and Agriculture Organisation representatives, met in



Professor Joergen Schlundt of the NTU Food Technology Centre spoke at the GMI conference. PHOTO: NTU

Singapore yesterday to discuss new ways to combat food poisoning.

The ambitious plan comes at a time when cases of food-borne diseases, such as salmonella, are increasing.

In March's gastroenteritis outbreak, 13 PCF Sparkletots pre-schools and Plan Student Care Centres were hit with salmonella.

The DNA database would help hospitals, clinics and animal laboratories detect, track and monitor human, animal and food-related communicable diseases.

Although consumers can take steps to avoid getting sick from food, it is sometimes beyond their control, said Professor Joergen Schlundt, of the NTU Food Technology Centre, who spoke at the conference.

"We often say food safety is the responsibility of the consumer, but food safety is mostly the responsibility of the food industry and the authorities in the country. If the meat is already contaminated, no amount of precaution can keep consumers safe from diseases," he said.

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