

Summary report of the webinar
Whole Genome Sequencing: a global perspective
5 October 2016

The Food and Agriculture Organization of the United Nations (FAO) contributed its technical inputs to the webinar series organized by the American Frozen Foods Institute (AFFI) in collaboration with the Alliance for Listeriosis Prevention. Dr Masami Takeuchi, Food Safety Officer of FAO, delivered an online presentation titled “Whole Genome Sequencing (WGS): A global perspective” from 17.00 to 18.00 (Rome time) on 5 November 2016. The Webinar was targeted towards the Food Industry and was attended by 75 participants. The objectives of the webinar were: to provide information on the initiatives of FAO on WGS; to discuss the relevance of WGS to the work of the food industry; to provide analysis on global trends and perspectives on the topic; and to discuss the importance of inter-sectoral collaborations for future schemes on the use of WGS for food safety.

Dr Takeuchi began her presentation by stressing that FAO is a Member-driven organization, thus, its perspective equals the perspective of its Members. She explained to the audience about FAO’s mandate: “Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food” (FAO World Food Summit, 1996) and stressed the significance of food safety in the context of food security. She then explained the relevance of new technologies that can be applied for food safety management, and discussed various initiatives of FAO on WGS including technical guidance, technical meetings, publications, collaborations, capacity development projects, and policy support both inside and outside the field of food safety.

She introduced the Technical paper developed by FAO on the Applications on WGS for food safety management (2016) including how the paper reflects the use of WGS by public and regulatory agencies; and the importance of having various perspectives from the industries, who are among the key players in national food control systems. She emphasized the importance of creating an enabling environment by the government for food industries to generate, use and share relevant WGS data to tackle the concerns of the industries regarding legal/ liability issues.

Dr Takeuchi conducted polls to obtain real-time information on the situation of WGS in the food industry. Through the polls, it was evident that the use of WGS for food safety and quality assurance was not the mainstream for most food companies that the participants were from. However, many of them were looking into the possibility of adopting the technology. Most participants were excited by the evolution of the new technology while some of them had a neutral reaction towards it. Dr Takeuchi presented analytical results on various advantages and drawbacks that the technology has to offer, and discussed at length why the cost of adopting this technology by the food industry might be a reason of concern. A poll on the cost was conducted, and while half of the participants were of the opinion that the technology would be costly for the company in the long run, the other half believed that costs overtime may be reduced, depending on the situation.

To conclude, Dr Takeuchi expounded the reality that in some countries, the technology has already been embedded in the regulatory systems, as well as, in the public health systems. While many developing countries are unable to even consider adopting the technology immediately, it is important to understand the impact and the implications of the technology, which would ultimately affect global food trade and global health. It is here forth important for all of the stakeholders, including the food industry, Small and Medium sized enterprises and relevant associations, to be vocal about needs and concerns. Dr Takeuchi urged the industry players to analyze their current capacity situations, cost-benefit issues and compliance issues, and inform their nearest government officials who can then convey their messages to international organizations for future global actions.