



# IUFoST

## News Brief

IUFoST News Brief  
March 2022

***IUFoST and IAFoST acknowledge our ongoing support for scientists, unrestrained global research and our awareness of scientists presently at risk in areas of conflict, and in need of our help, including our Ukraine Adhering Body.***

### **In this issue:**

- Summary and first outcomes of Intersections between SARS-Cov-2 and Food Science from IAFoST Scientific Roundtable Discussion
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### **APPLYING FOOD SCIENCE TO AN UNDERSTANDING OF COVID-19 HUMAN DEFENSE FUNCTIONS – SCIENTIFIC ROUNDTABLE DISCUSSION (SRD) SUMMARY**

A dynamic discussion regarding the intersection of SARS-CoV-2 and food science was a feature of the latest IUFoST/IAFoST Scientific Roundtable held on March 16. The panel from an international amalgam of experts in food science, nutrition, microbiology and medicine advanced critical clinical hypotheses and scientific themes associated with the current pandemic.

Dr. Narain Naidu, from the USA, emphasized that COVID-19 is a virus-induced 'host metabolic reprogram' (HMR) with clinical onset of iron (Fe)-redox dysregulation (FeRD). He noted that the severe imbalance in iron metabolism among SARS-CoV-2 infected individuals is prominent during all three symptomatic (mild, moderate to severe) clinical phases of COVID-19

19. Accordingly, the Fe-redox restoration is a host biomarker-driven potential combat strategy for an effective clinical and post-recovery management of COVID-19.

Dr. Chin-Kun Wang, from Taiwan, outlined the role of various “functional foods/nutraceuticals” and a balanced diet rich in various nutrients (i.e., vitamin C, vitamin D, omega 3 polyunsaturated fatty acids, probiotics, and zinc) in restoring and reducing the risk of COVID-19-related health problems. He also presented the results of his ongoing clinical research on electrolyzed (redox) water as an effective antimicrobial intervention to reduce the risks and comorbidities associated with COVID-19.

Dr. Fereidoon Shahidi, from Canada, suggested that phenolic and polyphenolic compounds have the potential to strengthen antioxidant defenses, decrease viral entry, inhibit the binding of virus to its angiotensin converting enzyme 2 (ACE2) receptor, upregulate the immune system, and reduce COVID-19 cytokine storm. Dietary compounds/mixtures/extracts that are able to offer this inhibition may serve as interventions targets for COVID-19. These interactions need validation and quantification through clinical research before specific recommendations can be advanced.

Dr. Kenji Sato, from Japan, explained the potential of specific bioactive peptides to decrease risk factors for COVID-19. He explained the ability of specific bioactive peptides to decrease angiotensin II, the host inflammatory peptide. Also, he suggested that oral administration of glutathione (GSH) and its precursor N-acetyl-cysteine (NAC) may, depending on one’s genetics, ameliorate hypo-glutathione in COVID-10 positive individuals and possibly decrease disease severity.

This Scientific Roundtable Discussion (SRD), one of an ongoing series initiated by IUFOST, was organised and hosted by IAFoST, the International Academy of Food Science and Technology. Outcomes include publication of findings by speakers and panelists and further inter-disciplinary work between medical sciences, nutritional sciences, and food science and technology.

## **REVIEWING FOOD CONTACT MATERIALS and FUTURE OF FOOD LABORATORY TESTING IN THE ARAB REGION**

*Food Contact Materials – International Regulatory Framework*, and *Food Contact Materials Recycling – Regulations and Guidance* formed part of the food safety capacity building events launched by the Global Food Regulatory Science Society (GFoRSS), a disciplinary organization of IUFOST for Food Regulatory Science, organised in collaboration with the Dubai Municipality and the Food Risk Analysis and Regulatory Excellence Platform (PARERA), IUFOST adhering Body for Canada.

Food Contact Materials (FCMs) cover the broad and complex range of articles intended to come into contact with food during its production, processing, storage, preparation or serving prior to consumption. This includes packaging but also other articles such as cutlery, kitchen utensils and processing equipment. FCMs are not inert and may transfer – either intentionally or unintentionally – added chemicals to foods. This “migration” could induce undesirable changes in food quality – for example off-flavors – but may also endanger human health through exposure to chemical hazards. Therefore, FCMs are subject to legally binding rules at the international level; some of which are explicit and detailed, while others are in early development or even nonexistent.

The first event tackled the international regulatory framework of FCMs, where key international speakers presented the different regulatory measures implemented by the USA, EU, Canada and Australia and New-Zealand. On the second day, the use of recycled plastics for food contact applications was discussed, covering areas related to risk assessment and regulatory management. These webinars highlighted the rising importance of this topic and the need to organize more discussions targeting all aspects of FCMs management. All material (presentations and recordings) related to these webinars can be accessed via the [GFORSS website](#).

Technical Dialogue 2022, *The Future of Food Laboratory Testing in the Arab Region*, another initiative by GFORSS, was held on 23 February. Discussions covered urgent needs and challenges faced by food laboratory testing professionals in the Arab region. Participants expressed their support, subsequently approved, for the creation of the Arab Section of AOAC International, which will be a key player in structuring and leveraging the infrastructure, knowledge and competencies of food control laboratories and competent authorities in the Arab region.

### **WINNING VIDEOS REPRESENTING YOUNG FOOD SCIENTISTS FOR GLOBAL FOOD SECURITY**

Enter the Congress Video Competition and follow in the footsteps of the latest winners from the University of Costa Rica with their Sustainable Food System video “*Vitazul: A sustainable food for Costa Rica Senior Citizens*”, which won the 2021 competition organised with NZIFST, IUFOST Adhering Body in New Zealand.

Around the globe Food Science Students are concerned about the large number of people who do not have sufficient food in a world where large amounts of food are being spoiled, in a world where the environment is suffering because of monocultures and biodiversity is gradually shrinking. The videos present answers of students from North and South, East and West submitted to this competition devised and first presented by IUFOST in 2016, now including hosts the Department of Food Safety and Biotechnology, Federal University of Agriculture, Abeokuta, Nigeria, and New Zealand Institute of Food Science and Technology (NZIFST). These competitions are sponsored by the Rose Spiess Foundation and the winning entries receive international recognition and a financial prize. All these videos will be featured on YouTube soon. Next chance

is the IUFOST Singapore congress. [Here is the link](#) and entries are accepted for this competition until 15 May 2022.

### **MORE ON CONGRESS SESSIONS, PUBLICATIONS ARISING**

More IUFOST partners have joined The International Society of Food Engineering (ISFE) and European Academy of Food Engineering (EAFE) who are collaborating to bring key scientific sessions to the Congress. These organizations include Society of Nutraceuticals and Functional Foods (ISNFF), ISFANS – the International Society of Food Application Nanoscale Sciences, and proposed sessions on Food Safety Culture, Early Career Scientist and Young Scientist forums, Education sessions and many others. Support has been offered by numerous governmental and industry partners including Waters, Unilever, Biomerieux, Shimadzu and others. Stay tuned and in the meantime, your abstracts are welcome, and we encourage you to enter the competitions that are all now open. Numerous IUFOST related publications will be involved in special issues around the congress papers. All accepted abstracts will be assigned ISBN and DOI numbers. Congress site <https://www.iufostworldcongress-singapore.com>

### **MESSAGES TO MEMBERS AND COLLEAGUES OF IUFOST and IAFOST**

- The next Members' Forum for IUFOST Members and invited colleagues is set for Thursday, April 14 to build on the SDG planning and actions of global food science and technology arising from the October 2021 Forum. Members and Fellows will be discussing national actions and demonstrating individual innovations and progress towards achieving the goals of SDGs.
- Fellows inducted in the virtual ceremonies in August 2020 will be honoured in person together with the 2022 Class of Fellows during the Singapore congress. All Fellows of the Academy are welcome to attend this special induction ceremony and the Fellows Dinner, amongst the many other events of the congress. We hope to see you all there to honour these inductees and to lend your leadership and scientific expertise for the benefit of all those attending this 21<sup>st</sup> World Congress.
- Outstanding Young Scientists put forward by IUFOST members may win the opportunity to address the world congress in Singapore on their research. Nominations are open here for the Young Scientist Competition until April 10. Look at the IUFOST website to find some photos of past winners of this competition begun by IUFOST in 2006 at the World Congress held in Nantes, France.
- Adhering Bodies, colleagues and associates are encouraged to provide nominations for the Global Food Industry Award, recognising innovation and achievement in local, regional, and international industry in line with the Congress themes of Innovation, Sustainability and Health. This award showcases the creative work of food innovators in the areas of packaging design, nutrition, enterprise, food safety and products. Awards are made in four categories to food products that best display 1) Product and/or process innovation including industrialization of traditional foods; 2) Package innovation, with

specifics on the innovative part of the packaging and why it is important; 3) Product / Packaging / Process support global effort in food and process sustainability and 4) Communicating science-related knowledge to consumers aimed at improving their lifestyle & health (e.g. children, teens, adults, seniors). Marketing campaigns may be nominated in this category.

## **FAO VACANCY: FOOD SAFETY SPECIALIST**

FAO is looking for a food safety specialist to work with the organization on risk / safety assessment of food derived from various technologies including cell-based food. The application closing date is set to be 1 September 2022, however, it is highly encouraged to apply by the end of April, as the applications submitted by 30 April 2022 will be considered for the first phase screening.

More information available

at: [https://jobs.fao.org/careersection/fao\\_external/jobdetail.ftl?job=2200714](https://jobs.fao.org/careersection/fao_external/jobdetail.ftl?job=2200714)

## **EVENTS**

### **Food Innovation Asia Conference 2022**

16 - 18 June 2022

**Theme:** *Innovative and Sustainable Development of Functional Ingredients and Materials: Benefits, Concerns and Challenges in Human Health and Well-Being.*

For more information: <https://www.fiac-thailand.com>

### **20<sup>th</sup> ICC (International Association for Cereal Science and Technology) Conference 2022**

*Future Challenges for Cereal Science and Technology*

*New dates:* 5 - 7 July 2022

Website: <https://www.icc-conference.com>

### **21<sup>st</sup> World Congress of Food Science and Technology, Singapore**

31 October - 3 November 2022

For abstracts, competitions and to register: <https://www.iufostworldcongress-singapore.com>

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