**IFT18 Session Proposals: Track Descriptions**

The following is the list of IFT18 track descriptions and subtopics to consider when submitting your session proposal.

**Food Safety & Defense Track Description**
The food safety and defense track will consider sessions addressing current or hot topics in a number of areas including microbial and chemical food safety and defense systems and their components (e.g., risk assessment, management, and communication, traceability, quality systems, product testing, auditing, crisis management, recalls, laws and regulations, and standards).

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| Allergens | Hazard Assessment (Chemical, Physical & Microbiological) |
| Food Fraud | Quality Assurance & Control |
| Food Safety Modernization Act | Shelf Life |
| Food Traceability | Spoilage Organisms |

**Teaching & Learning**
Sessions in the Teaching & Learning track are designed to model adult learning research and ultimately enhance the effective delivery of food science education. These sessions are geared for academicians or those outside of traditional academic settings with an interest in teaching, learning and extension/outreach.

| **Topics:** |
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| Publication of Teaching and Learning Outcomes |
| Tools for student centered food science education (problem-based learning; case studies) |
| How to conduct research on teaching and learning: e.g. Panel Discussion with JFS published authors; templates |
| Best practices addressing topics such as:<br>• general teaching and learning strategies<br>• teaching core sciences (we suggest focusing on 1-2 core sciences per year)<br>• Higher Education Review Board guidelines<br>• developing lesson plans<br>transforming your laboratory from "follow the steps" to a project based experience |
| Skill development addressing topics such as:<br>• Improving students' critical thinking<br>• Improving students' writing without burying you in paper<br>• Ethics<br>• Developing effective scoring rubrics for you, your TA and students<br>• Leveraging peer review<br>• Improving effective student writing to different audiences<br>• Presentation Skills; oral and poster |
| • Leveraging technology for learning (i.e. distance learning, social media); how to incorporate technology to enhance learning); rubrics for developing and delivering, online courses assessing online learning, participatory methods and techniques for successful online teaching |
| Critical Thinking: Differences between learning online and in classroom; case studies, e.g. food safety/outbreaks, students develop concepts; troubleshooting; application of concepts |

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| Learning assessment (i.e. designing tests to maximize learning); Outcome assessment; how students can apply their knowledge | |
| Grant writing relevant to teaching and learning / Securing outside funding resources | |
| Collaboration across industry-academia-government-NGOs in the era of 'open innovation' | |
| 75 years of Teaching & Learning Milestones (i.e. case studies on where the lab was, where it is now, where it is going) | |
| Using simulation to enhance education | |
| Helping students learn how to learn (study skills, study habits, time management, how to use the library, information literacy) | |
| Incorporating regulations into food science curriculum (regulations around food additives, innovative substances that cannot be added without being on a list, EU regulations, individual countries, WHO, Codex) | |
| Bringing faculty and students together to hear directly from students how they effectively learn; where their needs lie | |

## Food Health & Nutrition Track Description

This track will present emerging research in nutrition and health. Key issues include the science behind dietary guidance; relationships between food / ingredients and health throughout the lifespan; labeling initiatives; and technology for the food-based management of health conditions.

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| Diet & Health | Microbiome |
| Dietary Guidelines | Omics |
| Dietary Supplements | Personalized Nutrition |
| Food Myths & Fads to Address Misconceptions (GMOs, Sugar, etc.) | Prebiotics & Probiotics |
| Functional Foods | Sugars & Sweeteners |
| Medical Foods | Vitamins & Minerals |

## Food Processing & Packaging Track Description

This track will focus on food processing and packaging in order to improve quality, efficiency, sustainability or to lead to development of new products, processes, packaging materials or techniques. Sessions will seek to improve understanding and application of scientific principles of new and existing food processing and packaging technologies.

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| Chilling & Freezing | High Pressure Processing |
| Dehydration | Microencapsulation & Nanoencapsulation |
| Emulsion Technologies | Mixing & Blending |
| Extraction | Nonthermal Processing |
| Extrusion | Process Control & Instrumentation |
| Fermentation | Processing Equipment |
| Filtration & Separation | Thermal Processing |

| Food Packaging | |
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## Product Development & Ingredient Innovations Track Description
This track will focus on the primary aspects of the development and introduction of new food and beverage product innovation to the global marketplace. This category includes consumer research, product innovation procedures and related business information, as well as the technical and marketing aspects of product development.

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| 3D Printing | Fruits & Vegetables |
| Antioxidants & Preservatives | Global Markets & Trade |
| Aquatics or Aquaculture | Marketing |
| Baby Foods | Meat & Poultry |
| Bakery | Mergers & Acquisitions |
| Beverages | New Products & Culinary Trends |
| Botanicals or Bioactives | Other Technologies |
| Colors | People & Companies in the News |
| Confectionary | Pet Food |
| Consumer Trends | Proteins |
| Dairy Foods & Products | R&D |
| Enzymes | Refrigerated & Frozen Foods |
| Fats & Oils | Snacks |
| Fiber | Sodium & Salt Replacers |
| Fish & Seafood | Soups, Sauces & Dressings |
| Flavors | Spices & Seasonings |
| Food Retailing | Stabilizers & Emulsifiers |
| Foodservice | Starches |
| Formulation | Supply & Price Indexes |

## Sustainability Track Description
This track will showcase the efforts of food industry, academia and government to develop and ensure a sustainable food supply. Efforts include the science and technology behind food sufficiency, product development and packaging, ingredient sourcing water, energy, and waste management among others, as well as the business aspects of environmental.

| Biotechnology | Life Cycle Analysis |
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| Food Security | Water |
| Food Waste | Management & Energy Management |

## Public Policy, Food Laws & Regulations Track Description

This track will discuss the practical, real-world implications for the food and feed industry of legislative, regulatory, and judicial developments on a U.S. and global scale. It will include issues arising in such areas as food safety and food defense, food labeling and marketing, and import/export requirements for food and feed, and will address the implications of these issues for consumers, producers and marketers, and other members of the public.

| Non-GMO | Organic |
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## Food Microbiology Track Description

This track features sessions highlighting cutting edge research and developments in food microbiology, including detection and quantification methods, quality control, survival of microorganisms throughout the food continuum and processing environments, preventive controls of pathogens, characterization of emerging pathogens, and microbiology of health and wellness foods. Presentation of case studies, education, and sharing of best practices will be encouraged.

| Toxicology |
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## Food Chemistry Track Description

This track will showcase presentations of novel basic and applied research relating to chemistry and analysis of foods.

| Bulking Agents | Carbohydrates (cereals, grains, seeds, legumes, pulses) |
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## Food Engineering Track Description:

This track will present basic research pertaining to food engineering including measurement, modeling and control of food processing systems. The food engineering sessions will address categories such as transport processes; physical, chemical and microbiological properties; integration of transport processes and kinetics leading to quality, safety predictions, and connections between food and health.

| Nanotechnology |
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## Sensory Science Track Description

Sessions offered in this track will address the latest advancements in the science of sensory and consumer research, with applications to product development and marketing research.

| Sensory Science |
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