

SONICS

FOOD TECH

2026

PROGRAM BY DAY

Sunday, June 7th

19:00	Welcome Drinks
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DAY 1 – Monday, June 8th – Lecture Theatre TEAGASC

9:30 – 10:00	Opening session	
	Chair: B. Tiwari	
10:00 – 10:20	Keynote 1.	Timothy J. Mason, Coventry University (UK)
	<i>Why use ultrasound for food processing</i>	
10:20 – 10:40	Keynote 2.	Malgorzata Nowacka, Warsaw University of Life Sciences (Poland)
	<i>Ultrasound as a Supporting Technology in Food Drying: A Multi- Aspect Approach</i>	
10:40 – 11:00	Keynote 3.	Fabiano A. N. Fernandes, Universidade Federal do Ceará (Brazil)
	<i>Beyond Fick's Law: Unlocking the Potential of Artificial Intelligence in Fruit Drying Modeling and Optimization</i>	
11:00 – 11:20	Keynote 4.	Alexey S. Peshkovsky, Industrial Sonomechanics (USA)
	<i>Industrial-Scale High-Amplitude Ultrasound for Food and Beverage Applications</i>	
11:20 – 12:00	Interactive Poster & Networking Session	
	Chair: Timothy Mason	
12:00 – 12:20	Keynote 5.	Mohsen Gavahian, National Pingtung University of Science and Technology (Taiwan)
	<i>Rethinking ultrasound: Integrated technologies for sustainable valorization of food waste</i>	
12:20 – 12:40	Keynote 6.	Marco Garcia-Vaquero, University College Dublin (Ireland)
	<i>Emerging Ultrasound Strategies for Food Bioactive Recovery: Dual-Solvent Systems and Hybrid Process Intensification</i>	
12:40 – 13:00	Keynote 7.	Nuntawat Khat-udomkiri, Mae Fah Luang University (Thailand)
	<i>Green Ultrasound-Assisted Polyol Extraction for Improved Recovery of Bioactive Phenolics from Rosa damascena Mill. Petals</i>	
13:00 – 13:20	Keynote 8.	Sunil Kumar Khatkar, Guru Angad Dev Veterinary & Animal Sciences University (India)
	<i>Unravelling the Potential of Buffalo Milk Protein Concentrate Employing Ultrasonication: Functional and Structural Characterization</i>	
13:30 – 14:30	Lunch	

DAY 1 – Monday, June 8th – Lecture Theatre TEAGASC

Chair: Mohsen Gavahian

14:30 – 14:45 **O.A1 | Marina Stramarkou, Teagasc Food Research Centre (Ireland)**

Development of omega-3 fatty acid emulsions through ultrasonication

14:45 – 14:55 **SG.01 | Wenrui Dong, Teagasc Food Research Centre (Ireland)**

A Comparative Study on Heterogeneous Deacetylation of Chitin to Chitosan under Various Ultrasound Irradiations and Characterization

14:55 – 15:05 **SG.02 | Mohammadhosein Rahimi, University College Dublin (Ireland)**

Biorefinery of Microalgae Cultivated on Brewery Wastewater: Impact of Ultrasonic and Enzymatic Pretreatments on Protein and Lipid Recovery

15:05 – 15:20 **O.A2 | Monjurul Hoque, Teagasc Food Research Centre (Ireland)**

Ultrasound-assisted extraction of carrageenan from chondrus crispus using different ultrasonic platforms: comparative evaluation of yield, functional properties, and structural characteristics

15:20 – 15:30 **SG.03 | Aimone Clelia, University of Turin (Italy)**

Semi-Industrial Flow Ultrasound-Assisted Extraction of Cistus incanus L. for Phytotherapeutic Applications

15:30 – 15:45 **O.A3 | Abdur Rehman, Jiangsu University (China)**

Localized Enzymolysis and Dual-Frequency Ultrasound Modification of Underutilized Fava Bean Protein: Techno-Functional and Structural Characteristics and Their Interrelationships

15:45 – 16:30 **Interactive Poster & Networking Session**

Chair: Marco Garcia-Vaquero

16:30 – 16:50 **Keynote 9. Giovanna Ferrari, University of Salerno (Italy)**

Sustainable recovery of lycopene and cutin from tomato by-products: a comparative study of cascade extraction approaches using non-conventional technologies

16:50 – 17:10 **Keynote 10. Parag Acharya, University of Greenwich (UK)**

Impact of ultrasound on extraction efficacy of under-utilized plant protein

17:10 – 17:25 **O.A4 | Christoforos Vasileiou, National Technical University of Athens (Greece)**

Synergistic Effects of Ultrasound and Microwave on Protein Recovery from Oilseed Press Cakes: A Comparative RSM Study

17:25 – 17:35 **SG.04 | Divya Aggarwal, Teagasc Food Research Centre (Ireland)**

Influence of ultrasonication on the modification of functional and physicochemical properties of oat flour

17:35 – 17:55 **Keynote 11. Serena Carpentieri, University of Salerno (Italy)**

Ultrasonication to enhance the performance of apple pomace and lemon albedo blends in 3D printed snacks

DAY 2 – Tuesday, June 9th – Lecture Theatre TEAGASC

Chair: José L. Capelo

9:30 - 9:50	Keynote 12.	Joanna Harasym, Wrocław University of Economics and Business (Poland)
		<i>Sonication as a Tool for Cereal Rheology Modification: Implications for Gluten-Free Breadmaking</i>
9:50 - 10:10	Keynote 13.	Kwanggeun Lee, Dongguk University (Rep. of Korea)
		<i>Fusion of Physical Processing Technologies and Maillard Reaction: A New Paradigm in Food Science</i>
10:10 - 10:30	Keynote 14.	Shivani Pathania, Teagasc Food Research Centre (Ireland)
		<i>Ultrasonication-Enhanced Protein Extraction from sustainable Bioresources</i>
10:30 - 10:50	Keynote 15.	Akalya Shanmugam, National Institute of Food Technology (India)
		<i>Effect of ultrasonication on physical stability of chickpea-based milk analogue</i>
10:50 - 11:10	Keynote 16.	Anju Boora Khatkar, Guru Angad Dev Veterinary & Animal Sciences University (India)
		<i>Ultrasonication-Driven Modification of Whey and Soy Proteins: Structural Insights and Functional Transformation from Lab to Field</i>
11:10 - 12:00	Conference Picture Interactive Poster & Networking Session	
		Chair: Kwanggeun Lee
12:00 - 12:20	Keynote 17.	Silvia Tappi, University of Bologna (Italy)
		<i>Valorisation of crustacean by-products: ultrasound as a strategy for increasing extraction efficiency and functionalisation of bioactive compounds</i>
12:20 - 12:40	Keynote 18.	Jinfeng Pan, Dalian Polytechnic University (China)
		<i>Ultrasound improved the gelling properties of gallic acid-induced fish protein, phosphorylation of fish gelatin and interfacial properties of cellulose nanocrystals with casein</i>
12:40 - 12:50	SG.05	Nan Lin, Teagasc Food Research Centre (Ireland)
		<i>Effects of Different Ultrasonic Conditions on the Physicochemical Properties of Oat β-Glucan</i>

12:50 – 13:00	SG.06 Yuchen Ban, Teagasc Food Research Centre (Ireland)
	<i>Enzyme-Ultrasound Sequence Effects on Sunflower Oilseed Meal Protein Valorisation</i>
13:00 – 13:10	SG.07 Harikrishnan Manikyaparambil, Teagasc Food Research Centre (Ireland)
	<i>Response Surface Optimisation of Microwave-Ultrasound Hybrid Aqueous Extraction of Native Carrageenan from Irish-Grown Chondrus crispus for biodegradable food packaging</i>
13:10 – 13:25	O.A5 Joncer Naibaho, Teagasc Food Research Centre (Ireland)
	<i>Extraction of protein-lipid fractions from bluewhiting fish by ultrasound-assisted extraction</i>
13:25 – 13:35	SG.08 Dahyun Ko, Dongguk University (Rep. of Korea)
	<i>Effects of ultrasound treatment on the interaction between soy protein isolate and volatile flavor compounds</i>
13:35 – 14:35	Lunch
19:30	Conference Dinner

DAY 3 – Wednesday, June 10th – Lecture Theatre TEAGASC

Chair: B. Tiwari

9:30 – 9:50 Keynote 19. Filipa V.M. Silva, University of Lisbon (Portugal)

Ultrasound assisted beverage and food pasteurization

9:50 – 10:10 Keynote 20. Andrés Córdova, Pontificia Universidad Católica de Valparaíso (Chile)

Beyond Cavitation: Ultrasound as an Enabling Platform for Integrated and Sustainable Food Processing

10:10 – 10:30 Keynote 21. Jeongmi Lee, Sungkyunkwan University School of Pharmacy (Rep. of Korea)

Synergizing ultrasonics and deep eutectic solvents: A powerful toolkit for sustainable extraction and bioprocessing of natural resources

10:30 – 10:40 SG.09 | Busra Oktar, University of Bologna (Italy)

Effect of Combined Ultrasound and Plasma-Activated Water Treatments on the Structural and Functional Properties of Chickpea Protein

10:40 – 10:55 O.A6 | Alexander Leo Bardenstein, Danish Technological Institute (Denmark)

High-Power Airborne Ultrasound Assisted Drying of Reusable Plastic Packaging for Food in Commercial Dishwashers

10:55 – 11:05 SG.10 | K.L. Baltrusch, Universidade de Vigo (Spain)

Efficient production of low-molecular-weight marine sulfated polysaccharides via ultrasound and redox-assisted processes

11:05 – 12:00 Interactive Poster & Networking Session

Chair: José L. Capelo

12:00 – 12:20 Keynote 22. Harsh B. Jadhav, Amity University (India)

Understanding the role of sonication in formulating lipid gel system

12:20 – 12:40 Keynote 23. Sueli Rodrigues, Federal University of Ceará (Brazil)

The Reactor Effect on Microbial Inactivation Kinetics in Thermosonication of Lactocaseibacillus casei

12:40 – 13:00 Keynote 24. Teresa De Pilli, University of Foggia (Italy)

Effect of ultrasound technology on emulsion stability produced by extra virgin olive oil

13:00 – 13:20	Closing Session & Award Ceremony
13:20 – 14:30	Lunch