



20th ICC Conference 2022

University of Natural Resources and Life Sciences | Vienna, Austria | 5 - 7 July

*Future Challenges for
Cereal Science and Technology*



20th ICC Conference

“FUTURE CHALLENGES FOR CEREAL SCIENCE AND TECHNOLOGY”

University of Natural Resources and Life Sciences, Vienna, Ilse-Wallentin-Haus,
Peter-Jordan-Straße 82, 1190 Vienna, Austria

DRAFT PROGRAMME

(Subject to modifications – status 2022-06-07)

Tuesday, 5 July 2022

08:30 – 11:00 REGISTRATION FOR THE CONFERENCE

09:00 – 11:00 PRE-CONFERENCE MEETING - (by separate invitation only)

09:00 – 10:45 ICC MEETING

**I-W-Haus
ROOM 28**

ICC Executive Meeting
Chaired by: Gerhard Schleining, ICC

11:00 – 12:55 WELCOME AND OPENING SESSION

**I-W-Haus
ROOM 29**

Chairs:	Gerhard Schleining – ICC, AT Regine Schönlechner – BOKU, AT	
11:00-11:15	WELCOME WORDS FROM THE ORGANIZERS	Gerhard Schleining ICC, AT Regine Schönlechner BOKU, AT Veronika Haslinger ICC, AT
11:15-11:30	WELCOME WORDS FROM THE RECTOR OF THE UNIVERSITY OF NATURAL RESOURCES AND LIFE SCIENCES, VIENNA	Eva Schulev-Steindl BOKU, AT
11:30-11:45	WELCOME WORDS FROM THE AUSTRIAN FEDERAL MINISTER FOR AGRICULTURE, REGIONS AND TOURISM	Norbert Totschnig BMLRT, AT
11:45-12:25	FUTURE FRAMEWORK CONDITIONS OF CEREALS SECTOR IN EUROPE	Martin Schönhart BOKU, AT
12:25-12:55	GLOBAL GRAIN MARKETS IN TURMOIL	Franz Sinabell WIFO, AT

12:55 – 13:40 LUNCH BREAK with exhibition and poster viewing

13:40 – 14:50 **Session 1 – CROP PRODUCTION AND AGRICULTURAL CHALLENGES**

I-W-Haus ROOM 29	Chairs:	Fred Brouns - Maastricht University, NL Peter Shewry - Rothamsted Research, UK	
	13:40-14:00	INTEGRATING CROP MODELLING, PHYSIOLOGY, GENETICS AND BREEDING TO AID CROP IMPROVEMENT FOR CHANGING ENVIRONMENTS	Karine Chenu University of Queensland, AU
	14:00-14:20	EFFECTS OF ENVIRONMENTAL CHANGES ON PROTEIN COMPOSITION AND FRUCTAN CONTENT OF WHEAT GRAIN	Stefano D'Amico AGES, AT
	14:20-14:30	GENOME-WIDE ASSOCIATION MAPPING IDENTIFIES COMMON BUNT RESISTANCE LOCI IN A WHEAT DIVERSITY PANEL	Magdalena Ehn BOKU, AT
	14:30-14:40	BARLEY SELECTIVE BREEDING TO PRODUCE HIGH FRUCTAN LINES WITH ALTERED β-GLUCAN AND STARCH MOLECULAR STRUCTURES	Shishanthi Jayarathna SLU, SE
	14:40-14:50	BETA-GLUCAN AND ARABINOXYLAN IN BARLEY AND WHEAT GRAINS DEPENDING ON NITROGEN RATE AND CROPPING SYSTEM	Evelin Loit EMU, EE

14:50 – 15:55 **Session 2a – GRAIN NUTRITION AND HEALTH**

I-W-Haus ROOM 29	Chairs:	Fred Brouns - Maastricht University, NL Peter Shewry - Rothamsted Research, UK	
	14:50-15:20	CONSUMER TRENDS AND THEIR IMPACT ON THE FOOD AND CEREAL MARKET	Rainer Haas BOKU, AT
	15:20-15:35	THE “WELLONWHEAT?” PROJECT: NEED FOR HIGHLY CONTROLLED MATERIALS AS STARTING BASE	Fred Brouns Maastricht University, NL
	15:35-15:55	THE “WELLONWHEAT?” PROJECT: COMPARISON OF “ANCIENT” AND MODERN WHEATS PROCESSED USING YEAST AND SOURDOUGH SYSTEMS	Peter Shewry Rothamsted Research, UK

15:55 – 16:25 **COFFEE BREAK with exhibition and poster viewing**

16:25 – 18:05 **Session 2b – GRAIN NUTRITION AND HEALTH**

I-W-Haus ROOM 29	Chairs:	Valentina Narducci - CREA, IT Jan de Vries - Nutrition Solutions, NL	
	16:25-16:45	WHOLE GRAINS – NEW DEFINITIONS AND THE ROLE OF FIBRES AND OTHER BIOACTIVE COMPOUNDS	Jan Willem van der Kamp TNO, NL
	16:45-17:05	COMMUNICATING WHOLE GRAIN CONTENT TO CONSUMERS: WHAT THE LATEST RESEARCH TELLS US	Caroline Sluyter Wholegrains Council, US
	17:05-17:25	HEALTHCARE COST SAVINGS ASSOCIATED WITH INCREASED WHOLE GRAIN CONSUMPTION	Kevin Miller General Mills, US
	17:25-17:45	WHICH FOOD POLICIES TO PROMOTE WHOLE GRAIN CONSUMPTION?	Gabriel Masset Nestlé, CH
	17:45-18:05	DEVELOPMENT OF RESISTANT STARCH FROM RICE AND EVALUATION OF ITS BIOACTIVE PROPERTIES	Anil Kumar Anal Asian Institute of Technology, TH

20:00 **WELCOME RECEPTION at the RATHAUS**

Wednesday, 6 July 2022

08:25 – 09:45		Session 2c – GRAIN NUTRITION AND HEALTH	
I-W-Haus ROOM 29	Chairs:	Regine Schönlechner - BOKU, AT Denisse Bender – BOKU, AT	
	08:25-08:45	DOES GLUTEN STIMULATE WEIGHT GAIN?	Fred Brouns Maastricht University, NL
	08:45-09:05	MEASUREMENT OF STARCH IN CEREAL AND FOOD PRODUCTS	Barry McCleary FiberCarb Consultants, IE
	09:05-09:25	IDENTIFICATION OF REDUCTION STRATEGIES FOR AMYLASE/TRYPsin-INHIBITORS (AITS) IN FOODS: DEVELOPMENT OF A LC-MS/MS METHOD	Sarah Joestl KIT, DE
	09:25-09:45	HEALTH BENEFITS OF PLANT FIBRES TO MEET THE DIETARY GUIDELINES	Jürgen Siegl JRS, DE
09:45 – 10:15		COFFEE BREAK SPONSORED BY JRS	
10:15 – 12:45		Session 3 – PROCESSING AND CEREAL PRODUCTS, part I	
I-W-Haus ROOM 29	Chairs:	Alessandra Marti - University of Milan, IT Mario Jekle - University of Hohenheim, DE	
	10:15-10:45	TEXTURE DESIGN OF CEREAL FOAMS BY 3D FOOD PRINTING	Mario Jekle University of Hohenheim, DE
	10:45-11:05	FERMENTATION DYNAMICS OF NON-CONVENTIONAL YEAST STRAINS IN SWEET DOUGH AND FERMENTED PASTRY	Evelyne Timmermans KU Leuven, BE
	11:05-11:25	IMPORTANCE OF THE THERMOSET GLUTEN NETWORK FOR BREAD MACROSCOPIC PROPERTIES	Annelien Verbauwheide Dossche Mills, BE
	11:25-11:45	LINKING WATER MOBILITY DURING DOUGH MIXING WITH GLUTEN NETWORK FORMATION USING NMR	Maude Dufour INRAE / La Boulangerie & Co, FR
	11:45-12:05	YEAST (SACCHAROMYCES CEREVISIAE) FUNCTIONALITY DURING THE BAKING PHASE AND OVEN SPRING	Mohammad Rezaei Lesaffre International, FR
	12:05-12:25	PROTEIN DISTRIBUTION ANALYSIS OF THE WHEAT ENDOSPERM REVEALS POTENTIAL OF BRAN SELECTION FOR BREAD MAKING	Wisse Hermans KU Leuven, BE
	12:25-12:45	CORRELATIONS BETWEEN HMF AND EASILY DETECTABLE BROWNING INDICES IN BREAD	Carola Cappa University of Milan, IT
12:45 – 13:30		LUNCH BREAK with exhibition and poster viewing	
13:30 – 14:10		Poster session	



14:10 – 16:00 Session 4 – GRAIN BIODIVERSITY AND FOOD SECURITY

I-W-Haus ROOM 29	Chairs:	Maria Papageorgiou - IHU, GR Alessandra Fratianni - University of Molise, IT	
	14:10-14:30	BREADS FROM AFRICAN CLIMATE-RESILIENT CROPS FOR IMPROVING DIETS AND FOOD SECURITY	Martijn Noort WUR, NL
	14:30-14:50	EFFECT OF SORGHUM VARIETIES ON WESTERN STYLE BREAD	Rubina Rumler BOKU, AT
	14:50-15:10	RESEARCH SUPPORTING THE HUMAN UTILISATION OF RYE AND OAT	Renáta Németh Budapest University of Technology and Economics, HU
	15:10-15:30	PROCESSING OF QUINOA FOR GERM EXTRACTION AND ITS APPLICATION IN DEVELOPMENT OF GERM ENRICHED PASTA	Amrita Ray CSIR-CFTRI, IN
	15:30-15:40	EVALUATION OF THE SHELF LIFE OF GLUTEN-FREE COUSCOUS FROM GERMINATED QUINOA	Pedro Maldonado Escuela Politécnica Nacional, EC
	15:40-15:50	BAKING QUALITY OF ORGANIC HETEROGENEOUS MATERIAL AND VARIETY MIXTURES: MUCH MORE THAN FLOUR BLENDS	Amaury Beaugendre Université Libre de Bruxelles, BE
	15:50-16:00	INFLUENCE OF AGRONOMIC PRACTICES ON ANTIOXIDANT COMPOUNDS OF PIGMENTED WHEAT AND TRITORDEUM CULTIVARS	Claudia Sardella University of Turin, IT

16:00 – 16:30 COFFEE BREAK with exhibition and poster viewing

16:30 – 18:10 Session 5 – PROCESSING AND CEREAL PRODUCTS, part II

I-W-Haus ROOM 29	Chairs:	Sarah Joestl - KIT, DE Luc Saulnier - INRAE, FR	
	16:30-16:50	PLANT-BASED MEAT ALTERNATIVES AND ULTRASONICS AS AN ONLINE TOOL TO CONTROL THEIR PHYSICAL QUALITY	Filiz Köksel University of Manitoba, CA
	16:50-17:10	HIGH MOISTURE EXTRUSION OF PULSES FOR THE PRODUCTION OF MEAT ANALOGUES	Andrea Bresciani University of Milan, IT
	17:10-17:30	APPLICATION OF HIGH-PRESSURE AND ULTRASOUND TECHNOLOGIES FOR LEGUME PROTEINS AS WALL MATERIAL IN MICROENCAPSULATION	Kandi Sridhar INRAE, FR
	17:30-17:50	EFFECT OF SELECTED PHENOLIC ACIDS ON THE BEHAVIOUR OF MODEL DOUGH AND GLUTEN STRUCTURE	Agnieszka Nawrocka Polish Academy of Sciences, PL
	17:50-18:10	DRY HEAT TREATED FLOUR, CONCEPT AND APPLICATION IN A SPONGE CAKE	Alejandra Velasquez Barillas Oniris, FR

19:30 NETWORKING DINNER on the Danube cruise



Thursday, 7 July 2022

09:00 – 11:05 Session 6a- GRAIN QUALITY, SAFETY & ANALYTICAL TOOLS

I-W-Haus ROOM 29	Chairs:	Hamit Köksel - Istinye University, TR Alfred Mar - ICC Austria, AT	
	09:00-09:15	HARALD PERTEN PRIZE 2022 AWARDING	Meinolf G. Lindhauer Harald Perten Foundation, DE
	09:15-09:45	ANALYTICAL TOOLBOX TO ASSESS THE SAFETY OF GLUTEN-FREE PRODUCTS	Katharina Scherf KIT, DE
	09:45-10:05	HIGH-RESOLUTION SOLID-STATE NMR FOR UNRAVELING THE STRUCTURE OF WATER-UNEXTRACTABLE ARABINOXYLAN IN WHEAT FLOUR	Wannes De Man KU Leuven, BE
	10:05-10:25	THE NEXT CHAPTER OF THE REFERENCE MATERIAL JOURNEY-RYE AND BARLEY IN GLUTEN QUANTIFICATION	Zsuzsanna Bugyi Budapest University of Technology and Economics, HU
	10:25-10:45	COLLABORATIVE STUDY USING AN UNPRECEDENTED WIDE RANGE OF MATRICES FOR GLUTEN ANALYSIS	Stefan Schmidt R-Biopharm AG, DE
	10:45-11:05	MYCOTOXINS REDUCTION STRATEGIES TO REINTRODUCE GRAIN SIDE PRODUCT STREAMS INTO THE FOOD VALUE CHAIN	Amandine André ZHAW, CH

11:05 – 11:35 COFFEE BREAK with exhibition and poster viewing

11:35 – 13:10 Session 6b- GRAIN QUALITY, SAFETY & ANALYTICAL TOOLS

I-W-Haus ROOM 29	Chairs:	Meinolf G. Lindhauer - Harald Perten Foundation, DE Katharina Scherf - KIT, DE	
	11:35-11:55	CHEMOMETRIC MODELS BASED ON 2D-FLUORESCENCE SPECTROSCOPY FOR RICE SOURDOUGH FERMENTATIONS	Viktoria Zettel University of Hohenheim, DE
	11:55-12:15	PULSES PASTA: INNOVATION FROM THE PAST	Alessandra Marti University of Milan, IT
	12:15-12:35	INCREASING RESISTANT STARCH CONTENT OF TRADITIONAL TURKISH PASTA (ERISTE) BY USING HIGH AMYLOSE DURUM WHEAT	Hamit Köksel Istinye University, TR

12:35 – 13:10 Closing & Awarding Ceremony

13:10 END OF THE 20TH ICC Conference 2022

13:10 – 14:00 CLOSING LUNCH

14:15 – 16:00 ICC MEETING

I-W-Haus ROOM 29
ICC General Assembly Meeting
Chaired by: Gerhard Schleining, ICC President
(by invitation only)