

# FROM SEED TO PASTA 5

## A SUSTAINABLE DURUM WHEAT CHAIN FOR FOOD SECURITY AND HEALTHY LIVES

BARI - ITALY, 24-27 SEPTEMBER 2025



### Chairs

**AGATA GADALETA**  
*University of Bari, Italy*

**ROBERTO TUBEROSA**  
*University of Bologna, Italy*

## PROGRAM

[www.fromseedtopasta.com](http://www.fromseedtopasta.com)





**International Conference**  
**FROM SEED TO PASTA 5**  
Bari - Italy, 24-27 September 2025

---

**ORGANIZING COMMITTEE**

**Chairs**

**Agata Gadaleta**

University of Bari - Italy

**Roberto Tuberosa**

University of Bologna - Italy

**Members**

**Maria De Angelis**

University of Bari - Italy

**Barbara De Ruggeri**

University of Bari, Italy

**Tzion Fahima**

University of Haifa, Israel

**Silvia Giuliani**

Assosementi, Italy

**Peter Langridge**

Wheat Initiative, Germany

**Ilaria Marcotuli**

University of Bari, Italy

**Nicola Pecchioni**

CREA, Italy

**Stefano Ravaglia**

Società Italiana Sementi, Italy

**Yehoshua Saranga**

Hebrew University, Israel

**Daria Scarano**

Società Produttori Sementi, Italy

**Marco Silvestri**

Barilla G. and R. F.lli, Italy

**Paola Viola**

APSOV Sementi, Italy



# International Conference **FROM SEED TO PASTA 5** Bari - Italy, 24-27 September 2025

## SCIENTIFIC COMMITTEE

### Chairs

**Luigi Cattivelli**

CREA - Italy

**Curtis Pozniak**

University of Saskatchewan - Canada

### Members

**Jason Able**

Univ. of Adelaide - Australia

**Brian Beres**

Agrifood - Canada

**Assaf Distelfeld**

University of Haifa - Israel

**Viviana Echenique**

CONICET - Argentina

**Patricia Giraldo**

Un. Polit. Madrid - Spain

**Barbara Laddomanda**

CNR - Italy

**Anna Maria Mastrangelo**

CREA - Italy

**Safa Ofensou**

University of Sassari - Italy

**Roberto Ranieri**

Open Fields - Italy

**Gabriella Sonnante**

CNR - Italy

**Ines Yacoubi**

Biotec. Centre - Sfax - Tunisia

**Filippo Bassi**

ICARDA - Morocco

**Marina Carcea**

CREA - Italy

**Fiona Doohan**

Univ. of Dublin - Ireland

**Cristian Forestan**

Univ. of Bologna - Italy

**Carlos Guzman**

Univ. of Cordoba - Spain

**Marco Maccaferri**

Univ. of Bologna - Italy

**Elisabetta Mazzucotelli**

CREA - Italy

**Hakan Ozkan**

Univ. of Cukurova - Turkey

**Andrés Schwember**

Pontif. Univ. Catolica - Chile

**José Miguel Soriano**

IRTA- Spain

**Cristobal Uauy**

John Innes Centre - UK

**Sarrah Ben M'Barek**

Res. Center Beja - Tunisia

**Pasquale De Vita**

CREA - Italy

**Susanne Dreisigacker**

CIMMIYT - Mexico

**Patrizia Galeffi**

ENEA - Italy

**Tamar Krugman**

University Haifa - Israel

**Stefania Masci**

University of Tuscia - Italy

**Zvi Peleg**

Hebrew University - Israel

**Francesco Sestili**

University of Tuscia - Italy

**Marcel Thierry**

INRAE - France

**Steven Xu**

USDA - USA



# International Conference **FROM SEED TO PASTA 5** Bari - Italy, 24-27 September 2025

## PROGRAM

### WEDNESDAY, 24 SEPTEMBER 2025

#### ROOM 1

08:00-08:30 Registration of participants

#### 08:30-09:10

##### **WELCOME ADDRESSES**

Chairs: Agata Gadaleta - *University of Bari, Italy*;  
Roberto Tuberosa - *University of Bologna, Italy*

- Paolo De Castro - *Economist, expert of European policies*
- *Rector of University of Bari*
- Maria De Angelis - *Director DISSPA, University of Bari*
- CREA Representative
- CNR Representative
- Stefania Masci - *University of Tuscia, President of SIGA*

#### 09:10-13:00

##### **Session 1**

##### **SETTING THE FSTP5 SCENE FOR WHEAT BREEDING 5.0**

09:10-09:20

*Title to be announced*  
Martina Maurizio - *FAO Deputy Director-General*

09:20-09:40

**Durum wheat role in the Global Drylands Strategy for ICARDA**  
Augusto Becerra, *Deputy Director General - Research of ICARDA, Rabat, Morocco*

09:40-09:50

**Advancing Mediterranean Agriculture: PRIMA's vision, projects, and opportunities**  
Ali Rhouma - *PRIMA Foundation, Tunisia Agriculture Ministry*

09:50-10:10

**The tetraploid wheat genetic resources for better bridging durum and bread wheat genomics and breeding**  
Marco Maccaferri - *University of Bologna, Italy*

10:10-10:30

**Svevo reference genome 2.0: a comprehensive tool for durum wheat genomics and breeding**  
Luigi Cattivelli - *CREA, Genomic and Bioinformatics, Italy*

10:30-10:50

**Multi-omic strategies for durum wheat improvement**  
Curtis Pozniak - *University of Saskatchewan, Canada*

10:50-11:20

*Coffee break*





**International Conference**  
**FROM SEED TO PASTA 5**  
Bari - Italy, 24-27 September 2025

---

**WEDNESDAY, 24 SEPTEMBER 2025**

---

11:20-11:40	<b>Artificial intelligence and machine learning method: enhance prediction accuracy of durum wheat traits</b> José Crossa - <i>CIMMYT, Mexico</i>
11:40-12:00	<i>Title and speaker to be defined</i>
12:00-13:00	Q&A and discussion with the speakers
13:00-14:00	<i>Lunch</i>
<b>14:00-17:00</b>	<b>Session 2</b> <b>AGRONOMY, PHYSIOLOGY AND MODELING OF YIELD POTENTIAL TO ENHANCE THE SUSTAINABILITY OF DURUM WHEAT</b> Chairs: Zina Flagella - <i>University of Foggia, Italy</i> ; Nicola Pecchioni - <i>CREA Foggia, Italy</i>
	<i>Invited presentations</i>
14.00-14.20	<b>The transition of durum wheat cultivation from conventional to conservation tillage in Mediterranean conditions</b> Michele Pisante – <i>University of Teramo, Italy</i>
14:20-14:40	<b>Durum wheat spike traits for improving yield potential</b> Nicola Pecchioni - <i>CREA - Cereal and Industrial Crops, Italy</i>
14:40-15:00	<b>Yield potential and adaptation to stress are not mutually exclusive</b> José Luis Araus - <i>University of Barcelona, Spain.</i>
15:00-15:20	<b>Lessons from global Genotype x Environment x Management (GxExM) systems research to enhance the durum wheat value chain</b> Brian Beres - <i>AgriFood, Alberta, Canada</i>
15:20-16:00	Q&A and discussion with the speakers
16:00-16:30	<i>Coffee break</i>
16:30-17:00	<b>Short Presentations selected from Abstracts</b>
<b>17:00-19:00</b>	<b>INNOVAR &amp; WHEAT SECURITY</b> Chairs: Fiona Doohan - <i>University of Dublin, Ireland</i> ; Filippo Bassi – <i>ICARDA, Morocco</i>
19:00 -20:00	<i>Welcome Cocktail</i>



**International Conference**  
**FROM SEED TO PASTA 5**  
Bari - Italy, 24-27 September 2025

**THURSDAY, 25 SEPTEMBER 2025**

**ROOM 1**

**08:30-11:00**

**Session 3**

**GENETIC RESOURCES IN TETRAPLOID WHEAT TO BETTER BRIDGE DURUM AND BREAD WHEAT**

Chairs: Carla Ceoloni, *University of Tuscia, Viterbo, Italy*; Marco Maccaferri, *University of Bologna, Italy*

*Invited presentations*

- 08:30-08:50 **Transfer and characterization of wild relative introgressions into durum wheat**  
Julie King - *BBSRC Wheat Research Centre, Nottingham, United Kingdom*
- 08:50-09:20 **Wheat history revealed: insights from ancient grains of southern Israel**  
Assaf Distelfeld - *Institute of Evolution, Haifa, Israel*
- 09:20-09:35 **Gene bank genomics of *Aegilops* supports introgression breeding of wheat**  
István Molnár - *Hungarian Academy of Sciences, Budapest, Hungary*
- 09:35-09:50 **Unleashing the potential of tetraploid relatives: from core collections to QTL for introgression breeding**  
Elisabetta Mazzucotelli - *CREA, Genomics and Bioinformatics, Italy*
- 09:50-10:05 **Resistance to rust diseases in tetraploid wheats**  
Pablo Olivera - *USDA-ARS, St. Paul, USA*
- 10:05-10:20 **Genetic architecture of winter survival in the Global Durum Panel**  
Ahmad Sallam - *USDA-ARS, St. Paul, USA*
- 10:20-11:00 *Coffee break*
- Invited presentations*
- 11:00-11:15 **Priority actions for Fusarium head blight resistance in durum wheat: insights from the Wheat Initiative**  
Ambra Viviani - *DISTAL, University of Bologna, Italy*
- 11:15-11:30 **Genomic breeding for dryland durum at ICARDA**  
Filippo Bassi - *ICARDA, Rabat, Morocco*
- 11:30-11:45 **New soft spring durum variety release USDA 'Morris' brings novel milling and baking traits from farm to table**  
Jeffrey Boehm - *USDA, Lincoln NE, USA*



**International Conference**  
**FROM SEED TO PASTA 5**  
Bari - Italy, 24-27 September 2025

---

**THURSDAY, 25 SEPTEMBER 2025**

---

11:45-12:00	<b>Holistic approach to develop drought-tolerance of durum wheat</b> Andrés Schwember - <i>Pontificia Universidad Catolica, Santiago, Chile</i>
12:00-12:30	<b>Short presentations selected from Posters</b>
12:30-13:00	Q&A and discussion with the speakers
13:00-14:00	<i>Lunch</i>
<b>14:00-17:30</b>	<b>Session 4</b> <b>QTLOME, CANDIDATE GENES AND EDITING OF THE DURUM WHEAT GENOME</b> Chairs: Roberto Tuberosa - <i>University of Bologna, Italy</i> ; Anna Maria Mastrangelo - <i>CREA, Cereal and Industrial Crops, Italy</i>
14:00-14:15	<b>The durum wheat germplasm panels and genome as resources to unveil the genetic bases of agronomic traits under conservative agriculture</b> Anna Maria Mastrangelo - <i>CREA, Italy</i>
14:15-14:30	<b>Three candidate genes in 60 Kb: which one is responsible for leaf rust resistance in <i>T. dicoccum</i>?</b> Francesca Desiderio - <i>CREA, Fiorenzuola D'Arda, Italy</i>
14:30-14:45	<b>Characterization of the <i>Sbm2</i> QTL, a major QTL for resistance to soil borne cereal mosaic virus (SBCMV) in durum wheat</b> Matteo Bozzoli - <i>DISTAL, University of Bologna, Italy</i>
14:45-15:00	<b>Enhancing durum wheat seed quality and safety through CRISPR gene editing</b> Francesco Camerlengo - <i>DISTAL, University of Bologna, Italy</i>
15:00-15:40	Q&A and discussion with the speakers
15:40-16:00	<b>Short presentations selected from Abstracts</b>
16:00-16:30	<i>Coffee break</i>
16:30-16:50	<b>Presentation by FAO representative</b> <i>Title and speaker to be announced</i>
<b>16:50-19:00</b>	<b>CARLOTTA AWARD</b> Chairs: Patrizia Galeffi; Giuseppina del Signore - <i>ENEA, Roma, Italy</i>



# International Conference **FROM SEED TO PASTA 5** Bari - Italy, 24-27 September 2025

## FRIDAY 26 SEPTEMBER 2025

### ROOM 1

**08:30-10:20**

#### **Session 5**

#### **BREEDING DURUM WHEAT UNDER CLIMATE CHANGE: PROGRESS AND CHALLENGES**

*Session dedicated to the memory of Gian Tommaso Scarascia Mugnozza*

Chairs: Antonio Blanco - *University of Bari, Italy*;

Stefania Masci - *University of Tuscia, Viterbo, Italy*

08:30-08:50

#### **Commemoration of Gian Tommaso Scarascia Mugnozza and his research activities**

Antonio Blanco - *University of Bari, Italy*

08:50-09:10

#### **Feeding the World through Science: The life and work of Gian Tommaso Scarascia Mugnozza**

Antonio Bonatesta - *University of Bari, Italy*

09:10-09:20

#### **Gian Tommaso Scarascia Mugnozza and the SIGA**

Stefania Masci - *University of Tuscia, Viterbo, Italy*

09:20-09:30

#### **Gian Tommaso Scarascia Mugnozza and the Green Revolution**

Roberto Tuberosa - *University of Bologna, Italy*

09:30-09:50

#### **Mediterranean durum wheat in a warming climate: optimizing alleles, phenology, and sowing windows**

Pasquale De Vita - *CREA, Sezione Cerealicoltura, Foggia, Italy*

09:50-10:05

#### **Improving durum wheat's resilience to climate change: balancing between accelerating genetic gains and relevance to main production environments**

Karim Ammar - *CIMMYT, Mexico*

10:05-10:20

#### **Genomic breeding for heat tolerance at ICARDA**

Hafssa Kabbaj - *ICARDA, Rabat, Morocco*

10:20-10:30

#### **Conclusions**

Enrico Porceddu - *University of Tuscia, Viterbo, Italy*

#### **AWARD IN MEMORY OF GIAN TOMMASO SCARASCIA MUGNOZZA**

10:30-11:00

*Coffee break & Posters vision*

**11:00-13:00**

#### **Session 6**

#### **BREEDING FOR DISEASE RESISTANCE/TOLERANCE IN DURUM WHEAT**

Chairs: Valentina Klymiuk - *University of Saskatchewan, Canada*;

Fiona Doohan - *University of Dublin, Ireland*

11:00-11:20

#### **Pre-breeding for disease resistance in durum**

Valentina Klymiuk - *University of Saskatchewan, Canada*

11:20-11:40

#### **The long road to Fusarium Head Blight resistance in durum wheat**

Barbara Steiner - *BOKU University, Vienna, Austria*





# International Conference **FROM SEED TO PASTA 5** Bari - Italy, 24-27 September 2025

## FRIDAY, 26 SEPTEMBER 2025

11:40-12:00	<b>Utilizing resistance alleles from wheat relatives to build stripe rust resistance in Canadian hard red spring wheat Canada</b> Gurcharn Singh Brar - <i>University of Alberta, Canada</i>
12:00-12:20	<b>The evolutionary battle between <i>Stb</i> resistance genes and <i>Septoria tritici</i> blotch across bread and durum wheats</b> Marcel Thierry - <i>INRAE, France</i>
12:20-12:40	<b>Genetic dissection of resistance to major diseases and insects in cultivated emmer wheat</b> Steven Xu - <i>USDA, Albany, CA, USA</i>
12:40-13:00	<b>Short presentations selected from Abstracts</b>

### ROOM 2 – PARALLEL SECTION

#### 10.30 – 12.45 **INNOVATIVE APPROACHES FROM THE INDUSTRY\*** (\*Italian language)

*Moderator: Roberto Ranieri – Open Fields, Parma, Italy*

10:30-10:50	<b>Worldwide pasta business overview</b> Margherita Mastromauro – <i>President of the Italia Pasta Makers, Italy</i>
10:50-11:10	<b>AltoGrano: a breakthrough in the milling industry</b> Marcello Miani and Graziano Stasi - <i>Molino Casillo, Bari, Italy</i>
11:10-11:30	<b>Stra Pasta: durum wheat pasta with 19% of protein and 12% of fiber</b> Emidio Mansi – <i>Pastificio Lucio Garofalo, Gagnano, Italy</i>
11:30-11:50	<b>Innovative approaches to make pasta and filled pasta with durum wheat and other raw materials</b> Renato Dall'Agata and Alessio Marchesani - <i>Fava-Storci, Cento, Italy</i>
11:50-12:10	<b>End products from a new perennial grain Kernza developed from intermediate wheatgrass, and looking ahead to a perennial durum-wheatgrass hybrid</b> Timothy Crews - <i>The Land Institute, Salina, Kansas USA</i>
12:10-12:45	<b>Open Discussion</b>
13:00-14:00	<i>Lunch</i>
14:00-15:30	<b>Round Table - See the program in ROOM 1</b>



# International Conference **FROM SEED TO PASTA 5** Bari - Italy, 24-27 September 2025

## FRIDAY, 26 SEPTEMBER 2025

### ROOM 1

**14:00-15:30**

#### **ROUND TABLE WITH STAKEHOLDERS**

Moderators: *Silvia Giuliani - Assosementi, Bologna, Italy;*

*Roberto Ranieri - Open Fields, Parma, Italy*

Stakeholders:

- Maria Caboni - *University of Bologna, Italy*
- Stefano Ravaglia - *Società Italiana Sementi, Italy*
- Andrea Massi - *Produttori Sementi Bologna, Italy*
- Oriana Porfiri - *CGS Sementi, Italy*
- Pierre Devaux - *Florimond Desprez, France*
- Casillo Company, Italy (*TBD*)
- Divella Pasta Company, Italy (*TBD*)
- USA, Canada Pasta producer Representative (*TBD*)

**15:30-17:00**

#### **Session 7**

#### **QUALITY AND FUNCTIONAL FOODS TRACEABILITY IN THE DURUM WHEAT CHAIN**

Chairs: *Agata Gadaleta - University of Bari, Italy;*

*Stefania Masci - University of Tuscia, Viterbo, Italy*

#### *Invited presentations*

15:30-15:45

#### **Development of new wheat-derived foods of the Mediterranean diet with improved nutritional and health value**

*Francesco Sestili - University of Tuscia, Viterbo, Italy*

15:45-16:00

#### **The expression of the *CsIF6* gene in wheat: a beta-glucan biosynthesis prospective**

*Ilaria Marcotuli - University of Bari, Italy*

16:00-16:15

#### **Genetic variation in semolina yellow colour-associated genes within the Global Durum Panel**

*Carlos Guzman - University of Cordoba, Spain*

16:15-16:30

#### **Short presentations selected from Abstracts of Sessions 6 & 7**

16.30-17:00

*Coffee break & Posters vision*



# International Conference **FROM SEED TO PASTA 5** Bari - Italy, 24-27 September 2025

## FRIDAY, 26 SEPTEMBER 2025

**17:00-19:45**

### **Session 8**

#### **DECODING AND LEVERAGING THE DURUM WHEAT PANGENOME**

Chairs: Marco Maccaferri, *University of Bologna, Italy*; Curtis Pozniak - *University of Saskatchewan, Canada*

17:00-17:20

#### **Landscape of structural variation in the wheat genome: functional and phenotypic consequences**

Eduard Akhunov - *Department of Agronomy, Kansas State University, USA*

17:20-17:40

#### **Uncovering hidden diversity in wheat genomes through k-mer-based analyses**

Simon Krattinger - *KAUST, Thuwal, Saudi Arabia*

17:40-18:00

#### **Inflorescence architecture and its relevance for sink capacity**

Thorsten Schnurbush - *IPK, Gatersleben, Germany*

18:00-18:20

#### **Exploiting the Tetraploid Wheat pangenome: a functional resource for the whole wheat community**

Cristian Forestan - *University of Bologna, Italy*

18:20-18:50

#### **Improving wheat productivity: stories from the source and the sink sides**

Jorge Dubcovsky - *University of California, Davis, USA*

18:50-19:10

#### **Closing remarks**

Agata Gadaleta - *University of Bari, Italy*; Roberto Tuberosa - *University of Bologna, Italy*

20.00-23:00

#### **Social Dinner**

## SATURDAY, 27 SEPTEMBER 2025

### ROOM 1

**09:00-11:30**

#### **EWG durum wheat**

11:30-12:00

*Coffee break and Posters vision*

*For Further Information*

**WWW.FROMSEEDTOPASTA.COM**