

# 11th International Oat Conference - PROGRAM



Field Day and Welcome Drinks - Monday, 10th October 2022 – York Trial Sites / Crown Perth

Day 1 - Tuesday, 11th October 2022

| Time | Activity  |
|------|---|
| 0745 | <b>Registration and coffee</b>  |
| 0830 | <b>Plenary 1: Health trends in oats / Oat quality, products and innovation</b>  |
| 0830 | <b>Welcome &amp; Conference opening</b><br>Dr. Pamela Zwer, OAT2022 Program Convenor, Australia<br>The Hon. Alannah MacTiernan MLC, Minister for Regional Development; Agriculture and Food; Hydrogen Industry, Western Australia |
| 0900 | <b>Getting oats on the menu for people with Coeliac disease</b><br>Assoc. Prof. Jason Tye-Din, Walter and Eliza Hall Institute, Royal Melbourne Hospital, Australia   |
| 0930 | <b>Processing effects on functional nutrients and digestion characteristics of Chinese oat products</b><br>Dr. Xin-zhong Hu, Shaanxi Normal University, China   |
| 1000 | <b>Synergistic effect of oat polar lipids and oat beta-glucans on postprandial blood glucose</b><br>Assoc. Prof. Lieselotte Cloetens, Lund University, Sweden   |
| 1030 | <b>Morning tea</b>  |
| 1100 | <b>Plenary 2: Health trends in oats / Oat quality, products and innovation</b>  |
| 1100 | <b>Inhibition of the intestinal glucose transporter GLUT2 and SGLT 1 by oat derived avenanthramides</b><br>Dr. Sijo Joseph (Thandapilly), Agriculture and Agri-Food Canada  |
| 1120 | <b>The genetic basis for the healthfulness of oats revealed through multi-omic analysis</b><br>Angéla Juhász, Edith Cowan University, Australia   |
| 1140 | <b>Novel indicators of oat quality</b><br>Dr. Ulla Holopainen-Mantila, VTT Technical Research Centre of Finland   |
| 1200 | <b>Towards low lipase oat</b><br>Dr. Sofia Marmon, Lund University, Sweden  |
| 1220 | <b>Innovative oat foods: using Australian oats for noodles, rice and other products</b><br>Dr. Sabori Mitra, Australian Export Grains Innovation Centre (AEGIC), Australia  |
| 1240 | <b>Lunch</b>  |

#OAT2022

Ph: +61 8 6262 2128

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

[admin@qiwa.org.au](mailto:admin@qiwa.org.au)

*This Program may be subject to change*

# 11th International Oat Conference - PROGRAM



Day 1 - Tuesday, 11th October 2022 (continued)

| Time | Activity   |   |
|------|--|---|
| 1330 | <b>Plenary 3: Crop physiology and stress tolerance - pushing the boundaries of oats for yield and quality</b>  |   |
| 1330 | <b>Paving the way for a sustainable oat production under Mediterranean environments</b><br>Dr. Elena Prats, Spanish Council for Scientific Research, Spain                                       |   |
| 1400 | <b>Improved oat yield under heat stress: a promising role for canopy cooling traits as breeding targets</b><br>Assoc. Prof. Walid Sadok, University of Minnesota, USA                            |   |
| 1420 | <b>A fast and automatic phenotyping and variety identification method for improving oat yield</b><br>Dr. Penghao Wang, Murdoch University, Australia   |   |
| 1440 | <b>X-ray computed tomography imaging for rapid and automated phenotyping of oat panicle and spikelet architecture and grain traits</b><br>Dr. Haoyu (Mia) Lou, University of Adelaide, Australia |   |
| 1500 | <b>Afternoon Tea</b>   |   |
| 1530 | <b>Concurrent A1: Oat Health Trends and Oat Products</b>   | <b>Concurrent A2: Applied Crop and Grain Physiology</b>   |
| 1530 | <b>Comparison of Canadian naked oat cultivars: Nutritional, phenolic compounds and antioxidant activity</b><br>Dr. Isabelle Germain, Agriculture and Agri-Food Canada                            | <b>Comparison of grain from two oat cultivars with variable levels of the soluble dietary fibre (1,3;1,4)-<math>\beta</math>-D-glucan</b><br>Assoc. Prof. Monika Doblin, La Trobe University, Australia |
| 1550 | 5 minutes moving   |   |
| 1555 | <b>Characterization of a novel GH5_34 arabinoxylanase for the production of prebiotics from oat fibres</b><br>Siri Norlander, Lund University, Sweden  | <b>Grain staining in oats: heritability and associations with phenotypic traits important to the industry</b><br>Mónica Mathias, Agricultural Research Institute (INIA), Chile                          |
| 1615 | 5 minutes moving   |   |
| 1620 | <b>Antioxidative potential of natural oat extracts</b><br>Dr. Cecilia Tullberg, Lund University, Sweden  | <b>High-throughput method for screening fibre content in oat and other cereal crops</b><br>Dr. Hao Luo, Murdoch University, Australia   |
| 1640 | <b>CLOSE</b>   |   |

# 11th International Oat Conference - PROGRAM

Day 2 - Wednesday, 12th October 2022



| Time | Activity  |
|------|---|
| 0800 | <b>Registration and coffee</b>  |
| 0850 | Welcome   |
| 0900 | <b>Plenary 4: Oat genomics and bioinformatics</b>   |
| 0900 | <b>Towards a pan-genome for hexaploid oat</b><br>Dr. Martin Mascher, Leibniz Institute of Plant Genetics and Crop Research, Germany                             |
| 0930 | <b>The mosaic reference genome of hexaploid oat marks a turning point in oat research and breeding</b><br>Dr. Nadia Kamal, Helmholtz Centre, Germany            |
| 0950 | <b>A gene expression atlas for oat grain – from initiation to germination</b><br>Dr. Changyu Yi, La Trobe University, Australia                                 |
| 1010 | <b>Whole-genome analysis of the AABB tetraploid <i>Avena</i> species</b><br>Prof. Eric (Rick) Jellen, Brigham Young University, USA                             |
| 1030 | <b>Morning tea</b>  |
| 1100 | <b>Plenary 5: Oat breeding and genetics</b>   |
| 1100 | <b>Genomic selection in oats and lessons from other crops</b><br>Dr. Lucia Gutierrez, University of Wisconsin – Madison, USA                                    |
| 1130 | <b>How to combine genomic prediction and speed breeding to build a two-part breeding program in spring oats</b><br>Alf Ceplitis, Lantmannen Agriculture, Sweden |
| 1150 | <b>Development of high yield potential dwarf milling oat varieties in Australia</b><br>Dr. Pamela Zwer, Australia   |
| 1210 | <b>High-throughput field phenotyping of grain crops</b><br>Dr. Andrew Hennessy, University of Adelaide, Australia   |
| 1230 | <b>Lunch</b>  |

# 11th International Oat Conference - PROGRAM

Day 2 - Wednesday, 12th October 2022 (continued)



| Time | Activity   |
|------|--|
| 1330 | <b>Plenary 6: Global oat markets - production, trade and consumption</b>   |
| 1330 | <b>Global oat market outlook</b><br>Randy Strychar, Oatinformation, Canada   |
| 1400 | <b>Australasian oat markets; current and future trends</b><br>Jason Craig, CBH Group, Australia  |
| 1420 | <b>Chilean oat industry - outlook</b><br>Alex Strodthoff, Empresas Agrotop, Chile  |
| 1440 | <b>The PepsiCo Positive Approach - What it means for Australian oats: Working with farmers for shared value</b><br>Chris Maughan, Quaker Oats, Australia |
| 1500 | <b>Afternoon Tea</b>   |
| 1530 | <b>Focus Session: Oat agronomy and global farming systems</b>  |
| 1530 | Bill May, Agriculture and Agri-Food Canada   |
| 1550 | Dr. Catherine Howarth, Aberystwyth University, Wales   |
| 1605 | Garren Knell, ConsultAg, Australia   |
| 1620 | Discussion facilitated by Ashley Wiese, oat grower, Australia  |
| 1700 | <b>CLOSE</b>   |

|      |                          |
|------|--------------------------|
|      | <b>Conference Dinner</b> |
| 1830 | Pre-dinner drinks        |
| 1900 | <b>Conference Dinner</b> |
| 2200 | Evening ends             |

# 11th International Oat Conference - PROGRAM

Day 3 - Thursday, 13th October 2022



| Time | Activity  |   |
|------|---|---|
| 0800 | Registration and coffee   |   |
| 0850 | Welcome   |   |
| 0900 | <b>Plenary 7: Crop protection in oats - meeting weed, disease and pest challenges head on</b>   |   |
| 0900 | <b>Approaches to durable disease resistance – oat crown rust</b><br>Prof. Robert Park, University of Sydney, Australia  |   |
| 0930 | <b>Genome-wide association mapping of <i>Fusarium langsethiae</i> infection and mycotoxin accumulation in oat</b><br>Assist. Prof. Julio Isidro y Sánchez, Technical University of Madrid, Spain              |   |
| 0950 | <b>Identification of a major <i>Parastagnospora avenae</i> necrotrophic effector and its implication in the improvement of septoria leaf blotch of oats</b><br>Dr. Kar-Chun Tan, Curtin University, Australia |   |
| 1010 | <b>Races of the oat stem rust pathogen identified from the alternate and accessory hosts in Spain</b><br>Dr. Yue Jin, US Department of Agriculture, USA   |   |
| 1030 | Morning tea   |   |
| 1100 | <b>Concurrent B1: Advances in breeding technologies</b>   | <b>Concurrent B2: Oat agronomy and global farming systems</b>   |
| 1100 | <i>Late withdrawal</i>  | <b>Developing UK winter and spring oats growth &amp; development benchmarks and formulating the first UK Oats Growth Guide to help growers optimise yield and milling quality</b><br>Dr. Sarah Clarke, RSK ADAS Ltd, United Kingdom         |
| 1120 | 5 minutes moving  |   |
| 1125 | <b>Mega-environment delineation and genomic selection in oat multi-year and multi-location unbalanced historical variety trials</b><br>Pablo Sandro, University of Wisconsin, Madison, USA                    | <b>Managing oats for both grain and hay</b><br>Dr. Courtney Peirce, South Australian Research and Development Institute, Australia  |
| 1145 | 5 minutes moving  |   |
| 1150 | <b>Genomic prediction and training set optimization in a structured Mediterranean oat population</b><br>Assist. Prof. Julio Isidro y Sánchez, Technical University of Madrid, Spain                           | <b>Assessing the impact of nitrogen supplementation in oats across multiple growth locations and years with targeted phenotyping and high-resolution metabolite profiling approaches</b><br>Dr. Will Allwood, Aberystwyth University, Wales |
| 1210 | 5 minutes moving  |   |
| 1215 | <b>Generation of functional genomics resources in oat using transposon mutagenesis and gene editing</b><br>Assoc. Prof. Jaswinder Singh, McGill University, Canada  | <b>Can grain yield and quality in oats be predicted from UAV analysis?</b><br>Sara Tudor, Aberystwyth University, Wales   |
| 1235 | Lunch   |   |

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Day 3 - Thursday, 13th October 2022 (continued)



| Time | Activity  |
|------|---|
| 1330 | <b>Concurrent C1: Oat breeding and genetics</b>   |
| 1330 | <b>New oat cultivars in Argentina</b><br>Liliana Wehrhahne, National Institute of Agricultural Technology, Argentina  |
| 1350 | 5 minutes moving  |
| 1355 | <b>Global network for fodder and forage oat improvement: Breeding oats for environmental and social change</b><br>Dr. John Stevens, Flexiseeder Ltd., New Zealand                         |
| 1415 | 5 minutes moving  |
| 1420 | <b>OatToxLess: Oats tolerant to Fusarium</b><br>Elisabeth Zechner, Saatzucht Edelfhof, Austria  |
| 1440 | 5 minutes moving  |
| 1445 | <b>May you live with interesting genomes - multiple domestication origins and other sources of diversity in cultivated oat</b><br>Tim Langdon, Aberystwyth University, Wales              |
| 1505 | <b>Afternoon Tea</b>  |
| 1530 | <b>Closing Plenary</b>  |
| 1530 | <b>CROPDIVA: A collaborative project between 27 European partner organisations to enhance crop diversity and support local value chains</b><br>Susanne Vogelgsang, Agroscope, Switzerland |
| 1550 | <b>Fostering an international oat community - a multichannel approach</b><br>Charlene Wight, Agriculture and Agri-Food Canada   |
| 1610 | <b>Closing review</b><br>Dr. Catherine Howarth, Aberystwyth University, Wales and Dr. Nick Tinker, Agriculture and Agri-Food Canada, International Organising Committee Co-Chairs         |
| 1630 | <b>International Organising Committee Meeting and Closing Drinks (all welcome)</b>  |
| 1630 | <b>IOC Meeting</b>  |
| 1730 | <b>Conference Close</b>   |