

EUCARPIA

European Association for Research on Plant Breeding
Cereals Section



International Symposium on Rye Breeding & Genetics
Online Meeting
21-22 June 2021

Program

Sponsors



June 21, 2021

09:00-09:20	Andreas Börner, Andreas Graner Germany	Opening Remarks
	Session I	Rye Genetic Resources and Diversity
	Chair: Andreas Börner	
09:20-09:50	Plenary Talk	
	Jochen Reif Germany	Genebank2.0: Activation of the IPK winter wheat collection for breeding purposes - lessons learned and significance for pre-breeding in rye
09:50-10:10	Mona Schreiber Germany	Not all bread is baked in one oven & not all rye is of simple descent
10:10-10:30	Mira Ponomareva Russia	Application of genetic resources for rye breeding in Volga Region of Russian Federation
10:30-10:50	Steven Dreissig Germany	Using a 140-year-old rye monoculture field trial to investigate how genetic and environmental factors affect genetic recombination
10:50-11:10	Jianyong Chen Germany	Identification of factors that make the B chromosome of rye deviate from the Mendelian law of equal segregation
11:10-11:30		Coffee Break
	Session II	Breeding Methods and Molecular Tools
	Chair: Viktor Korzun	
11:30-12:00	Plenary Talk	
	Nils Stein Germany	Rye genome sequenced - what's next?
12:00-12:20	Bernd Hackauf Germany	Bridging the genotype-phenotype gap for SMART breeding in rye
12:20-12:40	Andres Gordillo Germany	Genomic selection in rye hybrid breeding: from theory to practice
12:40-13:45		Lunch Break

13:45-14:05	Xiangyu Guo Germany	Genomic prediction of yield in hybrid rye
14:05-14:25	Anatolii Goncharenko Russia	Breeding of winter rye hybrids at Federal Research Center "Nemchinovka"
14:25-14:45	Stanislau Hardzei Belarus	Hybrid rye in Belarus: breeding results, cultivation
14:45-16:15	Chair: Andreas Börner	Meet the Sponsors/Elevator Pitch I
16:15-16:30		Coffee Break
	Chair: Bernd Hackauf	
16:30-17:00	Plenary Talk	
	Jochen Kumlehn Germany	Site-directed genetic engineering in cereals - Principles and applications
17:00-17:20	Diaa Eldin S. Daghma Germany	Establishment of adventitious shoot formation in vitro and a genetic engineering platform for rye
17:20-17:40	Khalid Mahmood Denmark	Genomic scan of male fertility restoration in Gülzow' (G) type hybrid breeding system of rye (<i>Secale cereale</i> L.)
17:40-18:00	Viktor Korzun Germany	Rye genomics and breeding: bridging the gap

June 22, 2021

Session III

Chair: Andres Gordillo

09:00-09:30	Plenary Talk	
	Thomas Miedaner Germany	Breeding for fungal disease resistances in small-grain cereals
09:30-09:50	Nikolaj Vendelbo Denmark	Discovery of a novel powdery mildew resistance gene on rye (<i>Secale cereale</i> L.) 7RL in a germplasm for hybrid breeding
09:50-10:10	Marvin Rose Germany	Correlation between inbred lines and testcrosses for resistance to <i>Fusarium</i> head blight in hybrid rye
10:10-10:30	Paul Gruner Germany	Mapping stem rust resistances in self-fertile and self-incompatible winter rye populations

Disease Resistance and Stress Tolerance

10:30-10:50	Pawel Dopierala Poland	Artificial inoculation of <i>Claviceps purpurea</i> as an important tool for testing rye varieties for ergot resistance
10:50-11:10		Coffee Break
11:10-11:30	Anna Kodisch Germany	Reducing ergot susceptibility in rye for minimizing alkaloid contamination
11:30-11:50	Lev Tyryshkin Russia	Rye inbred lines susceptible to wheat leaf rust and genetic control of the trait
11:50-12:10	Vladimir Gorshkov Russia	Risk hidden under the snow: Psychrotolerant phytopathogenic fungi in Volga region of Russia
12:10-13:00		Lunch Break
13:00-14:30	Chair: Andreas Börner	Meet the Sponsors/Elevator Pitch II
	Session IV	Rye for Food, Feed & Fuel
	Chair: Thomas Miedaner	
14:30-15:00	Plenary Talk	
	Josef Kamphues Germany	Rye – great perspectives by its prudent use as feed and food
15:00-15:20	Tatiana Semilet Russia	Prospects for the creation of rye cultivars of universal usage
15:20-15:40	Ashifur Rahman Shawon Germany	Developing a crop model for simulating rye growth, development, and yield
15:40-16:00	Ludwig Riedesel Germany	Rye breeding promotes climate change mitigation
16:00-16:20	Rodrigo José Galán Germany	Integration of genotypic, hyperspectral, and phenotypic data to improve biomass yield prediction in hybrid rye
16:20-17:15	Andreas Börner/ Viktor Korzun	Discussion Round/Competition on location of next EUCARPIA RYE Symposium
17:15-17:30	Andreas Börner/ Viktor Korzun	Closing Remarks

Program Meet the Sponsors / Elevator Pitch I (June 21)

14:45-14:55	KWS	
14:55-15:05	Hybro	
15:05-15:15	Gergana Desheva Bulgaria	Morpho-agronomic assessment of genetic diversity among rye accessions using multivariate analysis
15:15-15:25	Vladimir Vasilievich Chaikin Russia	Change in winter rye yield and production process features during breeding
15:25-15:45	Elena Andreeva Russia	Transcriptomic analysis of violet colored and uncolored rye seeds
15:45-15:55	Maria Chiara Piro Belgium	Dissecting the genetic basis of arabinoxylan content in rye to provide new genetic resources for wheat breeding
15:55-16:05	Sabina Mehdiyeva Azerbaijan	Spike enlargement in <i>Triticale</i> through hybridization of branched and monostrom ear donors

Program Meet the Sponsors / Elevator Pitch II (June 22)

13:00-13:10	KWS	
13:10-13:20	Hybro	
13:20-13:30	Hanna Bolibok-Bragoszewska Poland	Structural characterization and expression profiling of rye phosphate transporters
13:30-13:40	Elena Evtushenko Russia	Expression of <i>CENH3</i> genes in rye and <i>Secalotriticum</i> hybrid genomes
13:40-13:50	Liliya Gilmullina Russia	Genetic and selection approaches to assessing the content and structure of winter rye arabinoxylans
13:50-14:00	Tomasz Krepski Poland	Identification and characterization of putative brown rust resistance genes in rye (<i>Secale cereale</i> L.)
14:00-14:10	Mateusz Olechowski Poland	Does the gene <i>ScLr1</i> confer the resistance to brown rust?
14:10-14:20	Laura Valli USA	Ways of using rye to increase resilience and bring diversity to the field and the table