

German Plant Breeding Conference

12. - 14. 09. 2022



Program "Breeding plants for tomorrow's world – challenges and solutions"

Monday, September 12, 2022

11:30 Registration,
Poster set up, Lunch

13:00 Opening

Transfer of new traits into crops

Chair: Maria von Korff

13:10 **Gregor Mendel Presentation**

Pamela Ronald

UC Davis, California, US
Crops for Resilience to a Changing Climate

13:40 **Robert Hoffie**

IPK, Gatersleben, GE
Targeted mutagenesis for virus resistance in barley

14:05 **Götz Hensel**

HHU, Düsseldorf, GE
Accelerated breeding by de novo domestication of crop plants

14:30 **Gwendolin Wehner**

JKI, Quedlinburg, GE
QTL for priming efficiency regarding fungal plant diseases in barley

14:55 **Coffee Break**

Chair: Frank Ordon

15:25 **Vivianne Vlesshouwers**

Wageningen University, NL
Exploiting effectors to achieve resistance to late blight disease in potato

15:55 **Vanessa Wahl**

MPI, Potsdam, GE
New kids on the block: the regulation of potato tuber induction

16:20 **Amrit Nanda**

Plants for Future, Brussels, BE
Enabling the contribution of new genomic techniques to more sustainable agri-food systems

16:45 **Gesa Helmsorig**

HHU, Düsseldorf, GE
The effect of FLOWERING LOCUS T1 (FT1) on barley development

17:05 **Wolf Frommer**

HHU, Düsseldorf, GE
Bacterial Blight Resistance – from discovery to the farm

Evening Program

17:45 Wricke Award Ceremony

18:45 Poster session

Tuesday, September 13, 2022

New crops – new breeding goals (orphan crops)

Chair: Henryk Flachowsky

08:30 **Dirk Prüfer**

University of Münster, GE
Russian dandelion (*Taraxacum koksaghyz*) – development of a new rubber crop

09:00 **Andreas Weber**

HHU, Düsseldorf, GE
Designing Crops for Carbon Sequestration

09:25 **Christian Wever**

HHU, Düsseldorf, GE
Creating a new crop – starting the domestication of *Silphium perfoliatum* L.

09:50 **Daniel von Maydell**

JKI, Quedlinburg, GE
Improving annual caraway (*Carum carvi*) under challenging climatic conditions

10:15 **Coffee Break**

Chair: Agatha Walla

10:45 **Zerihun Tadele**

University of Bern, CHE
Promoting productivity of tef through tackling key constraints

11:15 **Markus Stetter**

University of Cologne, GE
Elucidating the domestication history of an ancient grain to accelerate crop improvement

11:40 **Karl Schmid**

University of Hohenheim, GE
Towards efficient breeding of the underutilized grain crop quinoa for cultivation in native and new production environments

12:05 **Hélène Pidon**

JKI, Quedlinburg, GE
Ryd4Hb: a major resistance locus to BYDV from the barley wild relative *Hordeum bulbosum* with a very large diversity in barley germplasm

12:30 **Tsu-Wei Chen**

Humboldt University, Berlin, GE
Breeding progress of German winter wheat is advanced by reducing plant-plant competition

12:55 **Lunch**

New crops – new breeding goals (orphan crops)

Chair: Rod Snowden

14:00 **Annaliese Mason**

University of Bonn, GE
Making new crop species – new hybrid Brassica types

14:30 **Ulduz Vafadarshamasbi**

University of Queensland, Brisbane, AUS
Epigenetic perspectives for sorghum breeding

14:55 **Janne Lempe**

JKI, Dresden-Pillnitz, GE
Elucidating the genetic control of winter dormancy and bud break in apple for breeding climate-adapted cultivars

15:20 **Nazgol Emrani**

CAU, Kiel, GE
Unravelling genetic mechanisms of agro-nomically important traits in quinoa (*Cheno-podium quinoa* Willd.)

15:45 **Seth Davis**

University of York, UK
Adaptation to climate change in Northern Vietnam by developing rapid-maturation rice varieties

16:10 **Coffee Break**

Chair: Kumsal Colpan, Ilyse Putz

16:30 **Kerstin Neumann**

IPK, Gatersleben, GE
The INCREASE European Citizen Science Experiment with plant genetic resources of common bean

16:55 **Pitch session**

Evening Program

17:30 **Poster session**

18:30 **GPZ Membership assembly**

19:30 **Conference Dinner**



Wednesday, September 14, 2022

New approaches to access complex genomes of crops, crop wild relatives

Chair: Markus Stetter

08:30 **Martin Mascher**

IPK, Gatersleben, GE
Pan-genomics for crop improvement

09:00 **Sariel Hübner**

MIGAL, Kiryat Shmona, ISR
Genomic landscapes of adaptation to climate change in wild barley

09:25 **Federico Casale**

HHU, Düsseldorf, GE
Genomic prediction of the recombination rate variation in barley – A route to highly recombinogenic genotypes

09:50 **Magdalena Ehn**

BOKU, Tulln, AUT
Development of bunt resistant and adapted winter wheat lines by combining marker-assisted and genomic selection

10:15 **Manfred Mayer**

TUM, Freising, GE
Theoretical and experimental assessment of genome-based prediction in landraces

10:40 **Coffee Break**

Chair: Annaliese Mason

11:10 **Korbinian Schneeberger**

LMU, München, GE
The hapotype-resolved assembly of a tetraploid potato genome

11:40 **Steven Dreissig**

MLU, Halle, GE
Genetic architecture of recombination rate variation in barley and rye

12:05 **Murukarthick Jayakodi**

IPK, Gatersleben, GE
Genome assembly of the largest diploid field crop faba bean (*Vicia faba*)

12:30 **Kai Voss-Fels**

HS Geisenheim University, GE
Artificial intelligence guided allele stacking to develop high yielding, highly resistant varieties

12:55 **Willem van Rengs**

MPI, Cologne, GE
Exploring the effect of sequence divergence and sex on meiotic recombination patterning in tomato hybrids

13:20 **Farewell**