



International Conference
“Breads of the future: genomics, genetics, breeding”
(devoted to 125 years of Federal research center
“Vavilov all-Russian Institute of Plant Genetic Resources” – VIR)

(St. Petersburg, June 20-21, 2019)

Associated conference within Vavilov Society of Genetists and Breeders (VSGB) International congress (St. Petersburg, June 18-22, 2019)

<https://events.spbu.ru/events/genetic-selection-2019?lang=Eng>

Dear colleagues!

We are happy to invite you to participate in the international conference **“Breads of the future: genomics, genetics, breeding”** devoted to 125 years of VIR and aimed at integration of Russian and international studies in investigation, mobilization and use of genetic resources of the key cereal crops (wheat, triticale, ray, barley, oat) to solve the issue of global food security.

The Conference is co-organised by the Federal research center “All-Russian institute of plant genetic resources, named after N.I.Vavilov” (VIR) and Vavilov Society of Genetists and Breeders (VSGB) with support from the Wheat Initiative (<https://wheatinitiative.org>) and will be held in **St.Petersburg on June 20-21, 2019** in association with Vavilov Society of Genetists and Breeders (VSGB) International congress (St. Petersburg, June 18-22, 2019)

Working language: English with simultaneous translation of the sessions into Russian

International organizing committee:

1. **Prof. Peter Langridge, University Adelaide, Australia, Speaker the Wheat Initiative (co-chair)**
2. **Prof. Igor Loskutov, VIR, Russia (co-chair)**
3. Dr. Aleksei Zavarzin, VIR, Russia (secretary)
4. Prof. Frank Ordon, JKI, Germany
5. Prof., Acad. Lyudmila Beshpalova, National grain centre, Russia
6. Prof., Acad. Olga Afanasenko, VIZR, Russia
7. Prof. Elena Khlestkina, VIR director, Russia
8. Dr. Viktor Korzun, KWS SAAT SE, Germany
9. Dr. Andreas Börner, IPK, Germany, Vice President EUCARPIA
10. Dr. Hans Braun, Global Wheat Programm, CIMMYT Mexico
11. Prof. Thomas Miedaner, University of Hohenheim, Germany
12. Dr. Erlan Turuspekov, Kazakhstan
13. Prof. Mark Sorrells, Cornell University, USA
14. Dr. Etienne Paux, Genetics, INRA, Clermont-Ferrand, France
15. Prof. Luigi Cativelli, CREA, Italy

16. Prof. Conxita Royo – Lleida, Spain
 17. Prof. Xueyong Zhang, Chinese Academy of Agricultural Science, China
 18. Dr. Eugeny Zuev, VIR, Russia

Agenda of the Conference

20.06.2019

Welcome

Prof. Peter Langridge (Australia) – welcome from International organizing committee
Prof. Elena Khlestkina (VIR, Russia) - introduction “125 years of VIR fostering grain research”

Congress plenary talks

Prof. Peter Langridge (Australia) - *Global vision for bread wheat research*
Dr. Andreas Börner (Germany) - *Genebank collections - the genetic basis for plant breeding and research*

Conference plenary talk

Prof., Acad. Lyudmila Beshpalova (National grain centre, Russia) - *Industrial wheat breeding: results and prospects*

Session I. Evaluation and use of genetic resources

Keynote speaker: **Prof. Andreas Graner** (IPK, Germany): *Plant Genomic Resources: from Conservation to Innovation*

Prof. Igor Loskutov (VIR, Russia) – *New approach to assessment of genetic resources of small grains*

Prof. Conxita Royo (IRTA, Spain) – *New insights on the adaptation of old durum wheat resulting from its migration across the Mediterranean Basin*

Prof. Avraham Levy (Weizman Inst., Israel) – *Spatial and temporal adaptation of a wild emmer wheat population under climate change—a case study for in situ conservation*

Session II. Genomics in the post sequence era

Keynote speaker: **Prof. Nils Stein** (IPK, Germany) - *In the spirit of Vavilov – providing the genomic context of global diversity collections of wheat and barley*

Prof. Luigi Cattivelli (CREA - Italy) - *Durum wheat genome reveals the signature of 10,000 years of selection.*

Session III. Yield potential and efficient use of genetic resources

Keynote speaker: **Prof. Simon Griffiths** (John Innes Centre - JIC, UK) - *A wheat allele pipeline from genebank to breeder*

Dr. Kerstin Neumann (IPK - Germany): *Non-invasive phenotyping reveals stress-adaptive and constitutive biomass QTL in cereals*

Session IV. Improving of resistance to biotic and abiotic stress

Keynote speaker: **Prof. Frank Ordon** (JKI, Germany) - *Breeding for resistance - cornerstone of future cereal production*

Prof. Beat Keller (University of Zurich, Switzerland) - *Molecular analysis of function and diversity of wheat disease resistance in the age of (pan-) genomics*

Prof. Roberto Tuberosa (University of Bologna, Italy) - *Durum Wheat – genetics, gene cloning & breeding*
Prof, Acad. Olga Afanassenko (VIZR, Russia) - *Genetic resources of barley resistance to hemibiotrophic pathogens*
Prof. Tzion Fahima, (University of Haifa, Israel) - *The Discovery of the tandem kinase-pseudokinase (TKP) protein family involved in plant immunity*

Elevator Pitch for young scientist (tbd)
Posters

Evening lecture at VSGB Congress
Prof. V.D. Kobylainsky (VIR, Russia)

21.06.2019

Session V. Breeding of small grains, high quality and safe cereals for food, feed and processing use

Keynote speaker: **Prof. Mark Sorrells** (Cornell University, USA) – *Plant Breeding in the 21st Century: Molecular Breeding and High Throughput Phenotyping*
Dr. Olesya Shoeva (ICG, Novosibirsk, Russia) – *Studying of the molecular-genetic control of polyphenolic pigmentation in wheat and barley as a basis for breeding antioxidant-rich cereals*
Prof. Thomas Miedaner (University of Hohenheim, Germany) – *Genomics-based breeding in hybrid rye (Secale cereale L.)*
Dr. Viktor Korzun, (KWS SAAT SE) - *Genomics and molecular breeding in cereals*

Session VI. Future challenges and innovations

Keynote speaker: **Prof. Jochen Reif**, (IPK Gatersleben, Germany) – *The genetic architecture of grain-yield heterosis in wheat*
Prof. Lee Hickey (University of Queensland, Australia) – *Speed breeding: a powerful tool to accelerate wheat research and breeding*
Prof. Wendy Harwood (JIC, UK) – *Developing improved crop genetic modification and genome editing technologies with particular interest in wheat and barley*

Session VII. National and International large collaborative projects

Prof. Hans Braun (International Maize and Wheat Improvement Centre – CIMMYT, Mexico) – *Wheat Improvement through Global and Regional Programs and Initiatives*
Prof. Simon Griffiths *Design of Future Wheat (UK)*
Prof. Etienne Paux (INRA-CF, France) – *BreedWheat - Breeding for economically and environmentally sustainable wheat varieties*
Prof. Frank Ordon (JKI, Germany) – *proWeizen, Germany*
Prof. Yerlan Turuspekov (Kazakhstan) *Marker-trait associations in spring wheat genetic panels studied in Kazakhstan*
Prof. Xueyong Zhang (Academy of Agricultural Sciences, China) – *Footprints of Chinese Wheat Genome highlights the basis for successful varieties*
Prof. Rajeev Varshney (International Crops Research Institute for the Semi-Arid Tropics – ICRISAT, India) – *Translational Genomics for Crop Improvement: experiences of ICRISAT*

Registration for the Conference and abstract submission goes through registration to the Congress - <https://events.spbu.ru/events/anons/genetic-selection-2019/theses.html?lang=Eng> where you have to click "Submit abstract" button. In the registration form https://regforms.spbu.ru/ru/?option=com_rsform&view=rsform&formId=474 in the "Choose a Symposium", please, choose the option "International conference "Breads of the future ..."

If you need visa to travel to Russia please go to "Visa application" <https://events.spbu.ru/events/anons/genetic-selection-2019/visa.html>, download the form, fill it and submit the filled form together with a copy of the first page of your passport to the secretariat gen2019@spbu.ru

Recommendations regarding accommodation as well as brief information regarding the area of the venue are here - <https://events.spbu.ru/events/anons/genetic-selection-2019/accommodation.html>

Special note about Breads of the Future» Elevator Pitch Elevator pitch

It is opened for students, PhD students, postdocs and young scientists under 35 to present their research in a 3-5 minute elevator pitch talk. About 10 slots are available for oral presentations. The Organizing committee encourages the eligible conference participants to take the opportunity to present their work to the grain research science community. Some of the Elevator Pitch presenters selected by the Organizing committee will get participation support grant to cover major expenses of your participation in the Conference. This support will be granted by the Wheat Initiative, KWS and other donors of the Conference. Judgement will be democratically made by all members of the International Organizing Committee.

If you like to participate in the elevator pitch, please, indicate this by sending message to BoF2019@vir.nw.ru mentioning your name, position, address and attaching the abstract, submitted to the conference. The presenters may use any creative aid. If MS PowerPoint slides are used, please use a 4:3 and ppt / pptx format.

Looking forward to see you as participants of the Conference "Breads of the future"!

Local Organising Committee
Bof2019@vir.nw.ru