

IPK  
LEIBNIZ  
INSTITUTE  
DATA  
PUBLICATIONS

**2022/2023**



# IPK Leibniz Institute Data Publications 2022 & 2023

## Research data are the foundation of scientific output.

It can take many forms, such as measurement, survey or observational data, audiovisual material or software developments. Research data can be published alongside scientific articles or as a stand-alone publication. Critical issues include its curation and standards and the assessment of good scientific practice in its collection or production. Research data are used for the verification and reproducibility of research results. The need to publish research data is increasingly recognised by scientific institutions and funding agencies to enable global collaboration and more efficient use of valuable data resources. In addition, meta-analyses made possible by the open availability of data promote the identification of analytical errors, thereby contributing to more accurate research results or opening up new research areas by combining data. Online repositories have been established for archiving and publishing research data, the quality of which is assured by certificates that guarantee the data's long-term availability, usability and citation. Alternatively, data journals or supplements to scientific publications provide further opportunities for data publication.

In recognition of the growing importance of research data, we are publishing selected data publications alongside our 2022 / 2023 Research Report for the first time. This is in line with the internationally recognised FAIR and CARE principles. The FAIR principles provide an important foundation for managing research data by ensuring its discoverability, accessibility, interoperability and reusability. They aim to make scientific data easily discoverable and accessible by humans and machines, promote its use across system boundaries, and support its sustainable use. In addition, the CARE Principles provide ethical guidelines for using data from indigenous peoples. They emphasise the importance of collective benefit, Indigenous communities' control over their data, the responsibility of data stewards, and the need for ethical principles in data management. Together, the FAIR and CARE Principles ensure that research data are handled in a technically sound manner and that the rights and interests of those affected by the use of the data are respected. Both principles provide a comprehensive framework for responsible data management at IPK, covering both the technical aspects of data access and use and the ethical aspects of data handling.



---

**Berkner, M.O., A.W. Schulthess, Y. Zhao, Y. Jiang, M. Oppermann & J. Reif:** Comparison of ten genomic prediction approaches in a diverse collection of plant genetic resources in wheat. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/11>.

---

**Gippert\*, A.-L., H.-P. Mock\*, S. Madritsch, P. Woryna, S. Otte, M. Mayrhofer, H. Eigner, A. Garibay-Hernández, E.M. Molin & J. D'Auria:** Unraveling metabolic patterns and molecular mechanisms underlying storability in sugar beet. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/14>.

---

**Gogna, A., A.W. Schulthess Börgel, M. Röder, M. Ganai & J. Reif:** The phenotypic data of elite European cultivar panel comprising 358 winter and 14 summer wheat varieties released from 1975 to 2007. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/18>.

---

**Guo, Y. & M. Mascher:** Variant matrices for six-rowed wild-growing barleys (*Hordeum agriocrithon*). e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/10>.

---

**Heuermann, D., S. Döll, N. Gentsch, D. Schweneker, U. Feuerstein & N. von Wirén:** Metabolite profile in root exudates of catch crops under different cultivation conditions. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/19>.

---

**Lueck, S.:** Training course material for the course "de.NBI Biology meets Programming – Introduction to Bioinformatics using Python". e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/17>.

---

**Lueck, S. & D. Douchkov:** Classified microscopy image data set of powdery mildew-infected barley leaves at 48hai, containing positive images with fungal microcolonies and negative examples. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/1>.

---

**Mascher, M.:** Filtration script for genetic variant matrices in Variant Call Format (VCF). e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/15>.

---

**Mascher, M. & M. Marone:** TRITEX pipeline source code and documentation. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/28>.

---

**Oppermann, M.:** IPK genebank accessions passport data snapshot 2022-04-27. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/7>.

---

**Oppermann, M.:** IPK genebank accessions passport data snapshot 2022-05-22. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/8>.

---

**Oppermann, M.:** IPK genebank accessions passport data snapshot 2022-08-17. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/16>.

---

**Oppermann, M.:** IPK genebank accessions passport data snapshot 2022-11-16. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/30>.

---

**Püpkke Marone, M. & M. Mascher:** Example files generated in the TRITEX long-read assembly pipeline. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/20>.

---

**Schulthess, A.W., S.M. Kale, F. Liu, Y. Zhao, N. Philipp, M. Rembe, Y. Jiang, U. Beukert, A. Serfling, A. Himmelbach, J. Fuchs, M. Oppermann, S. Weise, P.H.G. Boeven, J. Schacht, C.F.H. Longin, S. Kollers, N. Pfeiffer, V. Korzun, M. Lange, U. Scholz, N. Stein, M. Mascher & J.C. Reif:** Genome-wide association mapping for yellow rust resistance in a population of 454 whole-genome sequenced diverse wheat genotypes. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/ipk/2022/5>.

---

**Schulthess, A.W., S.M. Kale, F. Liu, Y. Zhao, N. Philipp, M. Rembe, Y. Jiang, U. Beukert, A. Serfling, A. Himmelbach, J. Fuchs, M. Oppermann, S. Weise, P.H.G. Boeven, J. Schacht, C.F.H. Longin, S. Kollers, N. Pfeiffer, V. Korzun, M. Lange, U. Scholz, N. Stein, M. Mascher & J.C. Reif:** Genomic prediction of yield breeding values for 10,353 winter wheat genebank samples. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/ipk/2022/6>.

---

**Schulthess, A.W., S.M. Kale, Y. Zhao, A. Gogna, M. Rembe, N. Philipp, F. Liu, U. Beukert, A. Serfling, A. Himmelbach, M. Oppermann, S. Weise, P.H.G. Boeven, J. Schacht, C.F.H. Longin, S. Kollers, N. Pfeiffer, V. Korzun, A. Fiebig, D. Schüler, M. Lange, U. Scholz, N. Stein, M. Mascher & J.C. Reif:** Genomic-phenotypic data interoperability between 8,838 genotyped wheat samples, grain yield breeding value estimates and yellow rust infection scores from multiple-environment field trials. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/21>.

---

**Schulthess, A.W., S.M. Kale, Y. Zhao, A. Gogna, M. Rembe, N. Philipp, F. Liu, U. Beukert, A. Serfling, A. Himmelbach, M. Oppermann, S. Weise, P.H.G. Boeven, J. Schacht, C.F.H. Longin, S. Kollers, N. Pfeiffer, V. Korzun, A. Fiebig, D. Schüler, M. Lange, U. Scholz, N. Stein, M. Mascher & J.C. Reif:** Evaluating the yellow rust resistance of 7,682 winter wheat IPK genebank accessions and 80 modern European cultivars based on natural infections in multiple-environments. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/22>.

---

**Schulthess, A.W., S.M. Kale, Y. Zhao, A. Gogna, M. Rembe, N. Philipp, F. Liu, U. Beukert, A. Serfling, A. Himmelbach, M. Oppermann, S. Weise, P.H.G. Boeven, J. Schacht, C.F.H. Longin, S. Kollers, N. Pfeiffer, V. Korzun, A. Fiebig, D. Schüler, M. Lange, U. Scholz, N. Stein, M. Mascher & J.C. Reif:** Evaluating the yellow rust resistance of 600 winter wheat IPK genebank accession samples and 199 modern European cultivars based on natural and artificial inoculations in multiple-environments. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/23>.

---

**Schulthess, A.W., S.M. Kale, Y. Zhao, A. Gogna, M. Rembe, N. Philipp, F. Liu, U. Beukert, A. Serfling, A. Himmelbach, M. Oppermann, S. Weise, P.H.G. Boeven, J. Schacht, C.F.H. Longin, S. Kollers, N. Pfeiffer, V. Korzun, A. Fiebig, D. Schüler, M. Lange, U. Scholz, N. Stein, M. Mascher & J.C. Reif:** Multiple-environment yield evaluation of 173 advanced wheat pre-breeding lines from crosses involving IPK genebank accessions with high yield breeding values. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/24>.

---

**Schulthess, A.W., S.M. Kale, Y. Zhao, A. Gogna, M. Rembe, N. Philipp, F. Liu, U. Beukert, A. Serfling, A. Himmelbach, M. Oppermann, S. Weise, P.H.G. Boeven, J. Schacht, C.F.H. Longin, S. Kollers, N. Pfeiffer, V. Korzun, A. Fiebig, D. Schüler, M. Lange, U. Scholz, N. Stein, M. Mascher & J.C. Reif:** Passport information for 8,838 genotyped wheat samples. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/ipk/2022/31>.

---

**Zhao, Y., A.W. Schulthess, S.M. Kale, A. Gogna, M. Rembe, N. Philipp, F. Liu, U. Beukert, A. Serfling, A. Himmelbach, M. Oppermann, S. Weise, P.H.G. Boeven, J. Schacht, C.F.H. Longin, S. Kollers, N. Pfeiffer, V. Korzun, A. Fiebig, D. Schüler, M. Lange, U. Scholz, N. Stein, M. Mascher & J.C. Reif:** Estimating the breeding values of 707 winter wheat IPK genebank accessions using yields of 'ElitexPGR' F1 hybrids tested across multiple-environment experiments. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/25>.

---

Zheng, S., I. Rogachev, **J. Szymanski**, N. Shahaf, S. Malitsky, S. Meir, X. Wang & A. Aharoni: Metabolic diversity in a collection of wild and cultivated *Brassica rapa* subspecies. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2022) <https://dx.doi.org/10.5447/IPK/2022/27>.

---

## e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP)

2023

---

**Câmara\*, A. & V. Schubert\*:** Helical organization of barley metaphase chromatids. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/2>.

---

**El Hanafi\*, S., Y. Jiang\*, J. Reif\*, Z. Kehel, A.W. Schulthess Börgel, Y. Zhao, M. Mascher, M. Haupt, A. Himmelbach, N. Stein & A. Amri:** Genome-wide prediction of thousand kernel weight for 234 winter barley accessions from the ICARDA genebank using 1,910 IPK genebank accessions as training set. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023-05-16) <https://dx.doi.org/10.5447/IPK/2023/8>.

---

**Harpke, D., I. Raca, F. Blattner, N. Waminal, H. Kerndorff & V. Randjelovic:** De-novo assembled genotyping-by-sequencing (GBS) datasets for Crocus series Verni species. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/5>.

---

**Hinterberger, V., D. Douchkov, S. Lueck, J. Reif & A.W. Schulthess Börgel:** Powdery mildew resistance phenotyping of the winter wheat collection of the German Federal ex situ Genebank for Agricultural and Horticultural Crops at IPK Gatersleben. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/0>.

---

**Hinterberger, V., D. Douchkov, S. Lueck, J. Reif & A.W. Schulthess Börgel:** Powdery mildew resistance phenotyping of the Winter Wheat collection of the German Federal ex situ Genebank for Agricultural and Horticultural Crops at IPK Gatersleben. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/1>.

---

**Hinterberger, V., D. Douchkov, S. Lueck, J. Reif & A.W. Schulthess Börgel:** High throughput phenotyping of seedling quantitative resistance against powdery mildew of the Winter Wheat collection of the German Federal ex situ Genebank for Agricultural and Horticultural Crops at IPK Gatersleben. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/3>.

---

**Jozefowicz, A.M.,** K. Wellpott, C. Bündig, T. Winkelmann & **H.-P. Mock:** Identification of proteins taking part in N and water deficiency response in potato. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/4>.

---

**Knoch, D., R.C. Meyer, M.C. Heuermann, D. Arend & T. Altmann:** Phenotyping dataset of the PREDICT canola population. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/ipk/2023/19>.

---

**Narisetti, N., M. Awais, M. Khan,** F. Stolzenburg, **N. Stein & E. Gladilin:** AWN phenotyping tool- v0.1. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/ipk/2023/13>.

---

**Oppermann, M.:** IPK genebank accessions passport data snapshot 2023-02-17. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/6>.

---

**Oppermann, M.:** IPK genebank accessions passport data snapshot 2023-05-15. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/10>.

---

**Oppermann, M.:** IPK genebank accessions passport data snapshot 2023-08-22. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/16>.

---

**Oppermann, M.:** IPK genebank accessions passport data snapshot 2023-11-20. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/IPK/2023/21>.

---

Schreiber, M., **R. Wonneberger,** A. Haaning, J. Russell, **A. Himmelbach, A. Fiebig,** G.J. Muehlbauer, R. Waugh & **N. Stein:** Data record for the genomic resources of cultivated European two-rowed spring barley genotypes. e!DAL – Plant Genomics and Phenomics Research Data Repository (PGP), IPK Gatersleben (2023) <https://dx.doi.org/10.5447/ipk/2023/15>.

---

**Avni, R. & M. Mascher:** Chromosome-scale sequence assembly of the genome of bread wheat (*Triticum aestivum*) cultivar Attraktion. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB48529 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB48529>.

---

**Avni, R. & M. Mascher:** 10X Genomics Chromium reads for *Aegilops speltoides* var. *speltoides* accession Tivon. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB48314 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB48314>.

---

**Demidov, D.:** CENH3 degradation based haploidization in *Arabidopsis thaliana*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51342 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51342>.

---

**Hartmann, A.:** Transcriptome changes in barley plants in response to potassium deficiency and silicon supply. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51840 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51840>.

---

**Houben, A.:** ChIP-seq data for centromeric histone variant CENH3 in *Hordeum vulgare* cv. Morex. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB48698 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB48698>.

---

**Huang, Y.:** BW-NIL-tst2.b and Donaria WGS raw data. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51368 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51368>.

---

**Huang, Y.:** Barley spikelet abortion transcriptome. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51366 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51366>.

---

**Kale, S.M.:** Genebank 2.0 – Resistance gene capture in winter wheat diversity panel. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB48219 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB48219>.

---

**Mascher, M.:** Genotyping-by-sequencing data of the Wild Barley Diversity Collection. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51697 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51697>.

---

**Mascher, M.:** Whole-genome re-sequencing of barley cultivar *Chikurin Ibaraki 1*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB50079 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB50079>.

---

**Mascher, M.:** Six-rowed wild-growing barley GBS. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51488 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51488>.

---

**Mascher, M.:** Six-rowed wild-growing barley WGS. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51487 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51487>.

---

**Mascher, M.:** Genotyping-by-sequencing data of a rye (*Secale* spp.) diversity panel. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB50548 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB50548>.

---



**Reif, J.:** Genebank 2.0 – WGS. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB48738 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB48738>.

---

**Schulthess, A.W. & M. Mascher:** Genebank 2.0 – GENDIV. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB48988 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB48988>.

---

**Shanmugaraj, N.:** Barley apical spikelet abortion transcriptome. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51523 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51523>.

---

**Stein, N.:** SHAPE Isoseq. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB55218 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB55218>.

---

Tremetsberger, K., **S. Pfanzelt & F. Blattner:** Phylogenetic and biogeographic analysis of the steppe plant *Adonis vernalis*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB51092 (2022) <https://www.ebi.ac.uk/ena/browser/view/PRJEB51092>.

---

## European Nucleotide Archive (ENA) at EMBL-EBI

2023

---

**Bienert, P.:** Identification of boron deficiency responsive genes in *Brassica napus* inflorescences. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB48627 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB48627>.

---

Böhnert, T. & **D. Harpke:** Historical biogeography of the Atacama plant genus *Cristaria*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB48173 (2023) <https://www.ebi.ac.uk/ena/browser/view/PRJEB48173>.

---

**El Hanafi, S. & J. Reif:** Genotyping-by-sequencing data of 2299 barley accessions of the ICARDA genebank. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB60449 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB60449>.

---

**Harpke, D.:** Disentangling a polyploid complex within *Crocus* series *Verni*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB57934 (2023) <https://www.ebi.ac.uk/ena/browser/view/PRJEB57934>.

---

**Hartmann, A.:** HYP1-dependent changes in the root transcriptome of *Arabidopsis thaliana* in response to phosphorus deficiency. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB65916 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB65916>.

---

**Jayakodi, M.:** *Vicia faba* cv. Hedin3 enzymatic methylation sequencing. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB55371 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB55371>.

---

**Kale, S.M. & M. Mascher:** Raw sequence data of 47 diverse barley (*Hordeum vulgare* L.) genotypes. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB45512 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB45512>.

---

**Knoch, D.:** PREDICT: Omics-based models for prediction of hybrid performance in oilseed rape. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB63226 (2023) <https://www.ebi.ac.uk/ena/browser/view/PRJEB63226>.

---



**Kuo, Y.-T. & A. Houben:** RNA-Seq Analyses of *Chionographis japonica*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58123 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB58123>.

---

**Kuo, Y.-T. & A. Houben:** Genome sequencing of *Chionographis japonica*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58129 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB58129>.

---

**Kuo, Y.-T. & A. Houben:** Whole genome shotgun sequences of *Chionographis japonica*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58128 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB58128>.

---

**Kuo, Y.-T. & A. Houben:** Enzymatic Methyl-Seq of *Chionographis japonica*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58127 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB58127>.

---

**Kuo, Y.-T. & A. Houben:** Long-read PacBio Sequencing of *Chionographis japonica*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58125 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB58125>.

---

**Kuo, Y.-T. & A. Houben:** Chromosome Conformation Capture (Hi-C) sequencing of *Chionographis japonica*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58124 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB58124>.

---

**Kuo, Y.-T. & A. Houben:** Large-scale genome architecture and chromatin composition of holocentromeric plant *Chionographis japonica*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58432 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB58432>.

---

**Kuo, Y.-T. & A. Houben:** CENH3-ChIPSeq, H3K4me2-ChIPSeq and H3K9me2-ChIPSeq of *Chionographis japonica*. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58126 (2023) <https://www.ebi.ac.uk/ena/data/view/PRJEB58126>.

---

**Lermontova, I.:** SHAPE High temperature increases haploid induction efficiency. European Nucleotide Archive (ENA) at EMBL-EBI under accession number PRJEB58839 (2023) <https://www.ebi.ac.uk/ena/browser/view/PRJEB58839>.

---

## European Variation Archive (EVA) at EMBL-EBI

2022

---

**Beier, S. & M. Mascher:** BRIDGE-MorexV3: SNP matrix of barley collection from german ex-situ genbank IPK. European Variation Archive (EVA) at EMBL-EBI under accession number PRJEB51851 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51851>.

---

**Guo, Y. & M. Mascher:** Wild Barley *H. agriocriticon* GBS, WGS3x, WGS10x. European Variation Archive (EVA) at EMBL-EBI under accession number PRJEB53985 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB53985>.

---

**Huang, Y., T. Schnurbusch & M. Mascher:** Diversity of panel of wild and domesticated barley (*Hordeum vulgare*) and crop-wild hybrids. European Variation Archive (EVA) at EMBL-EBI under accession number PRJEB62782 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB62782>.

---

**Kale, S.M. & M. Mascher:** Genebank 2.0: Resistance gene capture in winter wheat diversity panels. European Variation Archive (EVA) at EMBL-EBI under accession number PRJEB52597 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB52597>.

---

**Mascher, M.:** Recombination landscape divergence between populations is marked by larger low-recombining regions in domesticated rye. European Variation Archive (EVA) at EMBL-EBI under accession number PRJEB51528 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB51528>.

---

**Schulthess, A. & M. Mascher:** Single-nucleotide polymorphism matrices for a large diversity panel of wheat (*Triticum aestivum* L.). European Variation Archive (EVA) at EMBL-EBI under accession number PRJEB52759 (2022) <https://www.ebi.ac.uk/ena/data/view/PRJEB52759>.

---

## European Variation Archive (EVA) at EMBL-EBI

2023

---

**Khodaeiaminjan, M. & D. Knoch:** Identification of new QTLs for drought tolerance and root development in two-row spring barley landraces. European Variation Archive (EVA) at EMBL-EBI under accession number PRJEB59438 (2023) <https://www.ebi.ac.uk/eva/?eva-study=PRJEB59438>.

---

## ArrayExpress at EMBL-EBI

2023

---

**Knoch, D.:** Genotyping of the PREDICT canola population by the Brassica 60K Illumina Infinium™ SNP genotyping array. ArrayExpress at EMBL-EBI under accession number E-MTAB-13142 (2023) <https://www.ebi.ac.uk/biostudies/arrayexpress/studies/E-MTAB-13142?query=E-MTAB-13142>.

---

## MetaboLights at EMBL-EBI

2023

---

**Knoch, D., R.C. Meyer, M.C. Heuermann, D. Riewe, F.F. Peleke, J. Szymanski, A. Abbadi, R.J. Snowdon & T. Altmann:** PREDICT: untargeted metabolomic profiling in a *Brassica napus* (canola) breeding population by GC-MS. MetaboLights at EMBL-EBI under accession number MTBLS8056 (2023) <https://www.ebi.ac.uk/metabolights/editor/MTBLS8056/descriptors>

---

## GenBank at NCBI

2022

---

**D'Auria, J.:** cDNA sequences of *Erythroxylum coca* tropane alkaloid metabolism. NCBI Genbank under accession number OP382839-OP382848 (2022) <https://www.ncbi.nlm.nih.gov/nucore/OP382839>.

---

**Shaaf, S. & B. Kilian:** Hordeum blooming loci TSL. NCBI Genbank under accession number PRJNA957109 (2022-04) <https://www.ncbi.nlm.nih.gov/bioproject/PRJNA957109>.

---

## GenBank at NCBI

2023

**Langer, M., A. Hilo, J.-C. Guan, K.E. Koch, H. Xiao, P. Verboven, A. Gündel, S. Wagner, S. Ortleb, V. Radchuk, S. Mayer, B. Nicolai, L. Borisjuk & H. Rolletschek:** RNA-seq raw data sets of the developing maize kernel. NCBI Genbank under accession number PRJNA823922 (2023) <https://www.ncbi.nlm.nih.gov/bioproject/PRJNA823922>.

**Radchuk, V. & J. Szymanski:** The RNAseq data of the developing barley grains of HvSWEET11b repressed lines vs control. NCBI Genbank under accession number PRJNA852376 (2023) <https://www.ncbi.nlm.nih.gov/bioproject/PRJNA852376>.

**Stepanenko, A., G. Chen & N. Borisjuk:** *Spirodela polyrhiza* 5S ribosomal RNA gene region. NCBI Genbank under accession number OR841168-OR841270 (2023) <https://www.ncbi.nlm.nih.gov/nucleotide/OR841168.1>.

## Short Read Archive (SRA) at NCBI

2022

**Haghi, R. & S. Karami-Moalem:** RNA-Seq of spineless Iranian safflower. NCBI SRA under accession number PRJNA833048 (2022) <https://www.ncbi.nlm.nih.gov/bioproject/PRJNA833048>.

Leo, J. & **J. Brassac:** Diversity of *Elymus mutabilis*. NCBI SRA under accession number PRJNA770613 (2022) <https://www.ncbi.nlm.nih.gov/bioproject/PRJNA770613>.

**Nemati, Z., R. Haghi & F. Blattner:** Phylogenomic investigation of safflower (*Carthamus tinctorius*). NCBI SRA under accession number PRJNA865057 (2022) <https://www.ncbi.nlm.nih.gov/bioproject/PRJNA865057>.

## Short Read Archive (SRA) at NCBI

2023

**Schippers, J.H.M.:** Target gene identification of ANAC013 during hypoxia in Arabidopsis. NCBI SRA under accession number PRJEB52547 (2023) <https://www.ncbi.nlm.nih.gov/bioproject/PRJEB52547>.

## Gene Expression Omnibus (GEO) at NCBI

2022

**Kuo, Y.-T. & A. Houben:** ChIP-seq of holocentric *Chionographis japonica* to determine the centromere distribution and genome organization. NCBI GEO under accession number GSE228407 (2022) <https://www.ebi.ac.uk/ena/data/view/GSE228407>.

**Matthes, F., S. Worch, A. Meier, A. Hartmann & G. Kunze:** Influence of gallic acid on gene expression in *Blastobotrys raffinofermentans* LS3. NCBI GEO under accession number GSE195801 (2022) <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE195801>.

**Matthes, F., S. Worch, A. Meier, A. Hartmann & G. Kunze:** Influence of protocatechuic acid on gene expression in *Blastobotrys raffinofermentans* LS3. NCBI GEO under accession number GSE195808 (2022) <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE195808>.



## Gene Expression Omnibus (GEO) at NCBI

2023

---

**Giehl, R.F.H., A. Hartmann & N. von Wirén:** Expression signatures of *Arabidopsis thaliana* roots under low or high phosphate conditions. NCBI GEO under accession number GSE217790 (2023) <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE217790>.

---

**von Wirén, N., R.F.H. Giehl & A. Hartmann:** Gene expression signatures in *Arabidopsis thaliana* roots under sufficient nitrogen or mild nitrogen deficiency. NCBI GEO under accession number GSE216293 (2023) <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE216293>.

## ProteomeXchange Consortium via the PRIDE partner repository

2023

---

**Heckmann, S.:** LC-MSMS of *Arabidopsis thaliana* flower bud samples (TurboID-based proximity labeling of meiotic chromosome axes). ProteomeXchange Consortium via the PRIDE partner repository under accession number PXD034241 (2023) <https://proteomecentral.proteomexchange.org/cgi/GetDataset?ID=PXD034241>.

## Zenodo

2023

---

**Weise, S., R. Hoekstra, K.J. Kutschan, M. Oppermann, R. van Treuren & U. Lohwasser:** Analysis of gaps in rapeseed (*Brassica napus* L.) collections in European genebanks – supplementary data. Zenodo (2023) <https://zenodo.org/records/8081795>.

---

\* joint first authorship

**Publisher**

Leibniz Institute of Plant Genetics and Crop Plant Research (IPK)  
OT Gatersleben · Corrensstraße 3 · D-06466 Seeland  
Telephone: +49 (0)39482-50 · Telefax: +49 (0)39482-5500  
Internet: [www.leibniz-ipk.de](http://www.leibniz-ipk.de)

**Editorial management:** Dr. Jens Freitag

**As of:** April 2024

