PERSONAL INFORMATION

Mr. ABDUL SABOOR KHAN

https://www.linkedin.com/in/abdul363
https://github.com/Abdubidopsis/

WORK EXPERIENCE

DAAD research fellow and DFG funded TRR341 associated (PhD Candidate) at University of Cologne.
(**Oct 2021-present**):

- Physiological and genetic response to abiotic stresses (drought and submergence) by *Arabis* floodplain species from extreme environments, (Phenotypic data collection, mRNA-seq analysis, small RNA-seq and conserved miRNA identification)
- Make annotation of newly assembled genomes of two of Arabis species
- Identification of orthologues of the annotations of the new genomes.
- Drought population of 400 heterozygous lines and Restricted enzyme Assisted DNA-seq (RAD-seq) analysis of the pools.

Teaching (Every year April-July):

- Took part in the teaching of summer course "BioIV" and supervise the group of bachelor students in designing their experiments, reviewing their data measurements and analysis, and guiding them in presentations, (Communication mode was mostly English and little German).

Master research scholar at National Key Laboratory of Crop Genetic Improvement, Huazhong Agricultural University
(**September 2017- June 2020**):

- Expression QTL identification in small RNA population of maize to identify the genes code for sRNA synthesis".

Post-Master Research assistant
(**August 2020 – March 2021**):

- Assisting the members in the lab experiment where mostly I would perform DNA/RNA extraction, enzymatic reactions, and field data collection.

Bachelor internship at NARC, Islamabad Pakistan.
(**July 2016 – Nov 2016**):

- Evaluation of Maize for Agro-Morphological Characters and Seed Storage Proteins (learned basic laboratory techniques such as DNA and protein extraction, as well as field data collection on twenty-eight traits).

ACADEMIC RECORD

(Sept 2021-Dec 2024) PhD. Biological Sciences

Institute for Plant Sciences, Biozentrum, University of Cologne, Cologne, Germany

(Sept 2017- June 2020) Masters (Crop Genetics and Breeding)
(Percentage in course work = 79.27%)
Huazhong Agricultural University, Wuhan China

(Sept 2013-Aug 2017) B. Sc (Hons) Agriculture (Plant Breeding and Genetics)
(cGPA =3.74/4.0)
University of Swabi, Anbar, Khyber Pakhtunkhwa Pakistan

Conferences & Workshops

- Presented my PhD research at Student Conference of Plant Biology, Prague, CZ (19-22 Sept 2022)
- Poster presentation at international conference of plant anaerobiosis (society ISPLORE), Bamberg, DE (26-29 Sept 2022)
- Talk and Poster at Internal PhD Colloquium of TRR341 every six months (June 2023, Dec 2023, Mar 2024) in Cologne, DE.
- EMBL-CSAMA summer school on Integrative biology, Sud Tyrol, Italy (June 2022).
- LabEx-TULIP summer school on biodiversity, Toulouse France (July 2023)
- IceLab Camp on Mathematical Modelling in Biology, Umea Sweden (Sept 2023).
- Presented a poster of my Master's research work at "The 4th Maize Biology Conference of China", in Zhengzhou, Henan, China. (April-2019)
- Participated in the 5th International Symposium on Genomics and Crop Genetic Improvement-Heterosis at HZAU, Wuhan China (Oct-2018)
- Participated in the 6th International Symposium on Genomics and Crop Genetic Improvement-Heterosis at HZAU, Wuhan China (Oct-2019)
- First International Forum of Crop Science – Green Crops for Sustainable Agriculture, HZAU, Wuhan China (June-2019)

TOP Skills

- RNA/DNA extraction
- Library preparation for sequencing
- Transcriptomic analysis
- MicroRNA/small RNA analysis
- R/Rstudio (scripting, visualisation, statistical analysis, modelling)
- Python (Jupyter)
- HPC **(**Bash, for loops, population data SNPs calling like VCF and GATK / Picard, RNA-seq, RADseq, denovo/new Annotations, new orthologues identification**)**
- Excel (data scratching and manipulation)

SELECTED PUBLICATIONS

First authored PhD research articles:

- **Khan, AS. et al,…..coming soon in 2024**).
- **Khan, AS. et al….**(**Draft, 2024**)
- **Khan, A. S.,** Ullah, H., Shahwar, D., Fahad, S., Khan, N., Yasir, M., ... & Noor, M. (2018). Heritability and correlation analysis of morphological and yield traits in Maize. *Journal of Plant Biology and Crop Research*, *2*, 1-8.

First authored book chapter:

- **Abdul Saboor Khan**, Muhammad Adnan, Aamir Hamid, Adnan Akbar. (2021). Molecular mechanisms of stress tolerance in Plants **(*CRS Press, Taylor & Francis***).

Co-authored research articles:

- Adnan Akbar, Aamir Hamid, Chen Lin, **Abdul Saboor Khan**, Muhammad Kamran, and Yan xi yan. (2022). A transcriptomic study reveals salt stress alleviation in cotton plants upon salt tolerant PGPR inoculation. ***Environmental and Experimental Botany***, *200*, 104928. (**Contribution: help in bacterial treatment & revising the MS, we were mastered from the same building**)
- Khan, A. H., Ma, Y., Wu, Y., Akbar, A., Shaban, M., Ullah., A, **Abdul Saboor Khan**, ... & Min, L. (2023). High-temperature stress suppresses allene oxide cyclase 2 and causes male sterility in cotton by disrupting jasmonic acid signaling. ***The Crop Journal***, 11(1), 33-45. (**Contribution: help in reviewing the MS**)

Educational Awards

- DAAD Doctoral Research Grant Scholarship for PhD studies at University of Cologne, 2021-2025.
- Awarded with Chinese Government Scholarship by Chinese Scholarship Council for Master studies, 2017-2020.
- Merit-based scholarships in my undergraduate studies, 2016-17.

PERSONAL SKILLS

Organisational / managerial / Leadership skills

- Organizer in the Cologne Spring Meeting (**March 2025, upcoming**)
- Volunteer member of the Scientific society at HZAU during Master for arranging events
- Group Leader in the volunteer community, organized - arranged events at the campus. (2015-2017) during Bachelors
- Leader of the team for fund raising campaign, (2016) during bachelors.