

RESUME

Dr. ABDULLAH JALAL S/O
Muhammad Jalal-ud-Din Khan

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Mob. # 0092-3005924170 or 03009003877



PERSONAL

Born on 10th October 1979 in Peshawar, KPK, Pakistan. I am conscientious in my work, perceptive, adventurous, innovative, and have good communication/writing skills, possessing a strong sense of independent judgment, am eager to learn and develop myself in demanding tasks, can easily work on the computer, fluent in English, Urdu, and Pashto. Also, I can understand, speak, and write German at the basic level.

QUALIFICATIONS/EDUCATION

Post-Doctorate (2018)	Key Laboratory of Economic Plants and Biotechnology, Kunming Institute of Botany (KIB), Chinese Academy of Sciences (CAS), Kunming, China
Ph.D. in Molecular Plant Science (2012)	Ludwig Maximilians University (LMU) Munich, Germany
M.Sc. (Hons) in Agriculture (2003)	The University of Agriculture, Peshawar KPK. CGPA 3.75/4 (2 nd position in the department)
B.Sc. (Hons) in Agriculture (2001)	The University of Agriculture, Peshawar, KPK. CGPA 3.24/4
F.Sc. (Pre-Medical – 1996)	Board of Intermediate & Secondary Education Peshawar (BISEP) (Grade “B”/1 st Division)
Matriculation (Science – 1994)	Federal Board, Islamabad (Grade “A”/1 st Division)

PROFESSIONAL AND RESEARCH EXPERIENCE

July 2020 – To date	Associate Professor (Tenured) at The Institute of Biotechnology and Genetic Engineering, The University of Agriculture, Peshawar, Pakistan
April 2017 – April 2018	Post Doctorate at Key Laboratory of Economic Plants and Biotechnology, Kunming Institute of Botany (KIB), Chinese Academy of Sciences (CAS), Kunming, China
June 2014- July 2020	Assistant Professor (BPS-19/TTS) at The Institute of Biotechnology and Genetic Engineering, The University of Agriculture, Peshawar, Pakistan

Oct 2013- June 2014	Assistant Professor (BPS-19/contract) at The Institute of Biotechnology and Genetic Engineering, University of Agriculture, Peshawar, Pakistan
Oct 2012-Oct 2013	Assistant Professor (IPFP) at The Institute of Biotechnology and Genetic Engineering, University of Agriculture, Peshawar, Pakistan
July 2007 - Oct 2012	Research Officer (RO, BPS-17) at Cereal Crops Research Institute (CCRI), Pir Sabak Nowshehra, KP, Pakistan.
Dec 2003 - July 2007	Leaf Officer at Lakson Tobacco Company/Phillip Morris International Pakistan

SCHOLARSHIPS/AWARDS

April 2017-April 2018	Post-Doctoral fellowship award for young talented scientists, Kunming Institute of Botany, CAS, Yunnan, China
Oct 2007 - Sep 2011	HEC-DAAD scholarship award for PhD studies in Germany
Mar 2002 - Mar 2003	Merit scholarship award for Master's at The University of Agriculture, Peshawar, KPK.

RESEARCH PROJECTS

June 2013 to February 2014	HEC startup research project awarded for research studies at The University of Agriculture, Peshawar, Pakistan
Title	Establishment of Efficient and Reproducible Protocol for Callus Induction and Regeneration of Promising <i>Brassica napus</i> Genotypes
Role	Principal Investigator (Completed)
April 2017 to April 2018	National Natural Science Foundation of China.
Title	Metabolic Engineering via Seed-Specific Promoters for Keto-carotenoids Production in <i>Brassica napus</i>
Role	Principal Investigator (Completed)

Research Projects under Review:

- 1) Project Title: Biosafety Risk Assessment of Glutathione Overproducer Transgenic *Brassica juncea* Lines on Surrounding Vegetation and Microbial Community
Funding Agency: National Research Program for Universities (NRPU), HEC
Year: 2025, Amount of funding requested: 4.5 mio. PKR
- 2) Project Title: Harnessing Metallic Nanoparticles as Next-Generation Nanopesticides for Plant Pathogens
Funding Agency: Endowment Fund for Transfer of Technology, The University of Agriculture, Peshawar, Amount of funding requested: 4.08 mio. PKR
- 3) Project Title: Production of Biofortified Canola Oil with Keto-Carotenoids encompassing strong Anti-oxidant and Pro-vitamin A Activity.
Funding Agency: Agricultural Linkages Program, PARC. Year: 2023, Amount of funding requested: 6.6 mio. PKR

Research Projects Submitted:

- 1) Project Title: "Metabolic Engineering for the Production of Biofortified Canola oil Enriched in Pro-

vitamin A and with Strong Antioxidant Activity” Funding Agency: NRPU, HEC Year: 2021, Amount of funding requested: 6.7 mio. PKR.

- 2) Project Title: “Biofortification of Canola oil with Pro-vitamin A and a Strong Anti-oxidant "Astaxanthin" via Metabolic Engineering” Funding Agency: Grand Challenge Fund (GCF), HEC Year: 2021, Amount of funding requested: 6.8 mio. PKR.
- 3) Project Title: “Metabolic Engineering of *Brassica napus* to Produce a Powerful Anti-oxidant (Astaxanthin) in the Oil that Enhances Human Health” Funding Agency: NRPU, HEC Year: 2020, Amount of funding requested: 7.1 mio. PKR.
- 4) Project Title: “Production of Genetically Modified Disease Resistant Potato using an Antifungal Gene” Funding Agency: NRPU, HEC, Year: 2017, Amount of funding requested: 4.11 mio. PKR.

PUBLICATIONS:

- 1) Muhammad Asim Khan, **Abdullah Jalal***, Muhammad Sayyar Khan, Dawood Ahmad, Zia Ur Rehman, Izhar Hussain, and Abu Nasar Siddique (2024) “Impact of Endophytic Bacteria on Physiological and Biochemical Traits in Transgenic *Brassica napus*” *Sustainable Agriculture and Genetic Resources* 001.01.31-43
- 2) Muhammad Asim Khan, **Abdullah Jalal***, Muhammad Sayyar Khan, Dawood Ahmad, Zia Ur Rehman, Sajjad Khan, and Abu Nasar Siddique (2024) “Improving the Morpho-yield Performance of *B. napus* through the Application of Endophytic Bacteria to Reduce the Adverse Pleiotropic Effects in Transgenic Plants” *Sustainable Agriculture and Genetic Resources* 001.01.45-57
- 3) Mehboob Alam, Anwarzeb Khan, Rasheeqa Zaman, Shah Nawaz Khan, Muhammad Amjad Khan, Imran Ahmad, **Abdullah Jalal**, Ki In Kim (2024) “Vermi-remediation impacts on growth and metals bioaccumulation in tomato irrigated with wastewater” *Chemosphere* 362, 142848. <https://doi.org/10.1016/j.chemosphere.2024.142848>

Journal Impact Factor: 8 . 1

- 4) Iffat Nawaz, Tehseen Zeb, Ghulam Muhammad Ali, Bibi Saima Zeb, **Abdullah Jalal**, Monsif Ur Rehman, Tamana Bakht, and Sajid Ali (2023) " High genetic diversity in the Himalayan common bean (*Phaseolus vulgaris*) germplasm with divergence from its center of origin in the Mesoamerica and Andes" *ACS Omega* 8, 48787–48797. <https://doi.org/10.1021/acsomega.3c05150>

Journal Impact Factor: 4 . 1 3

- 5) Reema Iqbal, Tariq Khan, Tauqir A. Sherazi, **Abdullah Jalal** and Gul Shad Ali (2024) “Wavelength-dependent Variation in Bio-reduction Potential of *Fagonia indica* Callus Extract to Synthesize Antibacterial Silver Nanoparticles” *Photochemistry and Photobiology*, 100 (3) 656–673. <https://doi.org/10.1111/php.13853>, ISSN: 1751-1097, 0031-8655.

Journal Impact Factor: 3 . 5 2

- 6) Lisheng Qian, Khadim Dawar, Israr Ullah, Muhammad Irfan, Zhiheng Zhang, Ishaq Ahmad Mian, Bushra Khan, Nida Gul, Shah Fahad, **Abdullah Jalal**, Subhan Danish, Rana Khalid Iqbal, and Abdullah A. Alarfaj (2023) “Zinc Foliar Application Mitigates Cadmium-Induced Growth Inhibition and Enhances Wheat Growth, Chlorophyll Contents, and Yield” *ACS Omega*, 8, 32372–32381. <https://doi.org/10.1021/acsomega.3c01511>. ISSN: 2470-1343.

Journal Impact Factor: 4 . 1 3

- 7) Sulha Syed, Muhammad Sayyar Khan, **Abdullah Jalal**, Zafar Iqbal (2023) "Inoculation of *Serratia* sp. under cadmium stress significantly affected *Brassica juncea* growth attributes and glutathione levels" *Pakistan Journal of Agricultural Sciences*, 60 (1), 75-81. DOI:10.21162/PAKJAS/23.150. ISSN: 0552-9034, 2076-0906.

Journal Impact Factor: 0 . 8 5

- 8) Khadim Dawar, Muhammad Asif, Muhammad Irfan, Ishaq Ahmad Mian, Bushra Khan, Nida Gul, Shah Fahad, **Abdullah Jalal**, Subhan Danish, Asad Syed, Abdallah M. Elgorban, Rajalakshmanan Eswaramoorthy, and Muhammad Iftikhar Hussain (2023) "Evaluating the Efficacy of Activated Carbon in Minimizing the Risk of Heavy Metals Contamination in Spinach for Safe Consumption" *ACS Omega*, 8, 24323–24331. <https://doi.org/10.1021/acsomega.3c01573>. ISSN: 2470-1343.

Journal Impact Factor: 4 . 1 3

- 9) Muhammad Bilal Munawar, Saima Naveed, Shafqat Nawaz Qaisrani, Jibran Hussain, Shahzad Munir, Ayesha Ahmed, Mubashir Hussain, Ahmad Kamran Khan, **Abdullah Jalal** and Irfan Ahmed (2022) " Phytase in Feed Positively Affected the Phosphorus Digestibility and Growth Performance in Broilers" *Sarhad Journal of Agriculture*, 38(5): 121-129. <https://dx.doi.org/10.17582/journal.sja/2022/38.5.121.129>. ISSN: 1016-4383,2224-5383.
- 10) Dawood Ahmad, Afsheen Zehra, **Abdullah Jalal**, Waqar Ali and Muhammad Sayyar Khan (2022) "Determination of the genetic diversity in populations of halophytic grass *S. ioclados* using PBA markers" *Kuwait Journal of Science*, 49 (2), 1-11. <https://doi.org/10.48129/kjs.12893>. ISSN: 2307-4108,2307-4116.

Journal Impact Factor: 0 . 4 8

- 11) I. Hussain, T. Farooq, S. A. Khan, N. Ali, M. Waris, **A. Jalal**, S. L. Nielsen and S. Ali (2021) "Variability in indigenous Pakistani tomato lines and worldwide reference collection for Tomato Mosaic Virus (ToMV) and Tomato Yellow Leaf Curl Virus (TYLCV) infection" *Brazilian Journal of Biology*, vol. 84, e253605 | <https://doi.org/10.1590/1519-6984.253605>. ISSN: 1519-6984,1678-4375.

Journal Impact Factor: 1 . 7 1

- 12) Allah Dad Khan, Muhammad Sayyar Khan, Sajid Ali Khan Bangash, Kashif Naeem, **Abdullah Jalal**, and Muhammad Tayyab (2021) "Cadmium and Arsenic Provoke Mostly Distinct but Partly Overlapping Responses in *Brassica juncea*" *Crop & Pasture Science*, 73, 160–169. <https://doi.org/10.1071/CP21157>.

Journal Impact Factor: 2 . 24

- 13) Muhammad Ismail, Muhammad Rameez Khan, Aamir Iqbal, Zakir Hussain Facho, **Abdullah Jalal**, Iqbal Munir, Farhatullah And Sajid Ali (2021) " Molecular Markers and Field Based Screening of Wheat Germplasm for Leaf Rust Resistance" *Pakistan Journal of Botany*, 53(5): 1909-1920: DOI: [http://dx.doi.org/10.30848/PJB2021-5\(33\)](http://dx.doi.org/10.30848/PJB2021-5(33)).

Journal Impact Factor: 0 . 8

- 14) Hazratullah, A. Muhammad, M. Alam, I. Ahmad and **A. Jalal** (2021) "Role of beneficial microbes with nitrogen and phosphorous levels on canola productivity" *Brazilian Journal of Biology*, 82, e227703 | <https://doi.org/10.1590/1519-6984.227703>.

Journal Impact Factor: 1 . 2 6

- 15) Iqbal Nisa, Muhammad Qasim, Arnold Driessen, Jeroen Nijland, Rafiullah, Anwar Ali, Munazza Raza Mirza, Mirza Ali Khan, Taj Ali Khan, **Abdullah Jalal** and Hazir Rahman (2021) "Prevalence and associated risk factors of *Shigella flexneri* isolated from drinking water and retail raw foods in Peshawar, Pakistan" *Journal of Food Science*, 86: 2579–2589. <https://doi.org/10.1111/1750-3841.15777>

Journal Impact Factor: 2 . 4

- 16) Hossam S. El-Beltagi, Imran Ahmad, Abdul Basit, Wael F. Shehata, Umair Hassan, Syed Tanveer Shah, Bibi Haleema, **Abdullah Jalal**, Roohul Amin, Muhammad Areeb, Khalid, Fahad Noor, and Heba I. Mohamed (2022) " Ascorbic Acid Enhances Growth and Yield of Sweet Peppers (*Capsicum annum*) by Mitigating Salinity Stress" *Gesunde Pflanzen*, <https://doi.org/10.1007/s10343-021-00619-6>.

Journal Impact Factor: 0 . 7 3

- 17) Fahad Noor, Imran Ahmad, Mehboob Alam, Abdullah Jan, Khalid Nawab, **Abdullah Jalal** Akhtar Zaman, Asim Muhammad, Shahryar Javed and Haider Mukhtar (2021) " Ascorbic Acid Prolongs the Post Harvest Life of Persimmon" *Fresenius Environmental Bulletin*, 30 (06A), 6615-6622.

Journal Impact Factor: 0 . 5 5

- 18) Iqbal Nisa, Mohammad Haroon, Muhammad Qasim, Arnold Driessen, Jeroen Nijland, Nusrat Yasin, **Abdullah Jalal**, Nawab Ali, Waheed Ullah, Asia Begum, and Hazir Rahman. (2020) " Association of Serotype with Antimicrobial Resistance Patterns Among *Shigella flexneri* Isolates from Pakistan: The Importance of Serotype 2b" *The Pediatric Infectious Disease Journal*. 39 (11) 352-358.

Journal Impact Factor: 2 . 3

- 19) Atta Ullah Shah, Hala Rajab, **Abdullah Jalal**, Sajid Ali Khan Bangash, Dawood Ahmad and Muhammad Sayyar Khan (2020) "Inoculation of *Brassica napus* L. genotypes with endophytic bacteria promotes growth and alleviate cadmium toxicity" *The Journal of Animal & Plant Sciences*. 30 (5) 1187-1193.

Journal Impact Factor: 0.481

- 20) Shakil Ahmed, Maryam Karamat, Azeem Haider, Fareeha Jabeen, M Nauman Ahmad, Madeeha Ansari, Asma Zulfiqar, **Abdullah Jalal** and Aleena Nizam (2020) "Ameliorative Effects of Salicylic Acid on Dry Biomass and Growth of *Pisum sativum* L. Under Sodium Fluoride Stress" *Fluoride*, 53 (2) 335 - 355.

Journal Impact Factor: 01

- 21) Aamir Iqbal, Muhammad Rameez Khan, Muhammad Ismail, Shernawab Khan, **Abdullah Jalal**, Muhammad Imtiaz and Sajid Ali (2020). "Molecular and Field-Based Characterization of Yellow Rust Resistance in Exotic Wheat Germplasm". *Pakistan Journal of Agricultural Sciences*. 57(6): 1457-1467.

Journal Impact Factor: 0.66

- 22) Masood Ahmad, Muhammad Ishtiaq, Izhar Ullah, Abdul Basit, Sultan Akbar Jadoon, Iftikhar Hussain Khalil, Asim Muhammad, Mehboob Alam, Imran Ahmad, Muhammad Sajid, Ghulam Nabi and **Abdullah Jalal** (2020) "Influence of Zinc on Seed Production and Fats Content of Black Seed (*Nigella sativa* L.)" *Fresenius Environmental Bulletin*. 29 (9A) 8094-8103.

Journal Impact Factor: 0.55

- 23) Asim Muhammad, Ishaq Ahmad Mian, Dost Muhammad, Haroon Khan, Imtiaz Khan, Muhammad Ishfaq Khan and **Abdullah Jalal** (2020) "Management of weeds through planting dates alteration and using selected maize cultivars under changing climate" *MITTEILUNGEN KLOSTERNEUBURG*. 70 (2): 108-121.

Journal Impact Factor: 0.545

- 24) Adnan Ayan, Irfan Ahmed, Jamal Muhammad Khan, Shahzad Munir, Mubashir Hussain, Ahmad Kamran Khan, **Abdullah Jalal**, Muhammad Abdul Qudus, Muhammad Irfan Saleem, Ahmad Sheraz, Sajjad Hussain, Mir Zulqarnain Talpur, Kashif Rahim, and Zulqarnain Baloch (2020) "Hematological Changes and Comparative Efficacy of Allopathic and Herbal Drugs on Coccidiosis in Rabbits" *Baltica*. 33 (2) 78-99.

Journal Impact Factor: 1.03

- 25) M. Younis, A. Muhammad, S. Alam, and **A. Jalal**. (2020) " Sulfur Doses and its Application Timing on Yield and Oil Quality of Canola Under Calcareous Soil" *GRASAS Y ACEITES*. 71 (1): /doi.org/10.3989/gya.1176182.

Journal Impact Factor: 1.14

- 26) Farmanullah, Jabbar Khan, Muhammad Ismail, Muhammad Rafi, Ehsanullah and **Abdullah Jalal** (2019) "Linkage Analysis of Hearing Impairment in Families of Bannu District" *J. Pak. Med. Assoc.* 69 (11) 1632 - 1636.

Journal Impact Factor: 0.573

- 27) Fazli Aziz, Islamud Din, Sardar Khan, Ghulam Mustafa, Mumtaz Khan, Juma Muhammad, **Abdullah Jalal** (2019) "Defluoridation of water using dodonaea leaf powder: a study of adsorption isotherms" *Fluoride*, 53 (1) 90-96.

Journal Impact Factor: 01

- 28) Usman Ahmed, Dawood Ahmed, **Abdullah Jalal**, Hala Rajab and Muhammad Sayyar Khan (2019) "Genetic structure of Pakistani tomato accessions based on morphological traits and RAPD markers" *Songklanakarin J. Sci. Technol.* 41 (6) 1348-1355.

Scopus Impact Factor: 0.47

- 29) Munir Hussain, Muhammad Saeed Imran, Asim Aslam, Nafeesa Yasmeen, Sajjad Hussain, Shahzad Munir, Mubashir Hussain, Ahmad Kamran Khan, Muhammad Usman, **Abdullah Jalal**, Muhammad Ameen Jamal, Mir Zulqarnain Talpur, Irfan Ahmed, Zulqarnain Baloch (2019) " Detection of Influenza A virus contamination in Newcastle Disease live virus vaccines and their pathological effects on visceral organs" *Biointerface Research in Applied Chemistry*. 9(1): 3812-3816.
- 30) Mubashir Hussain, Shahzad Munir, **Abdullah Jalal**, Taj Ali Khan, Niaz Muhammad, Maira Riaz and NohaWatany (2018) " Molecular detection of *Leishmania* species in human and animals from cutaneous leishmaniasis endemic areas of Waziristan, Khyber Pakhtunkhwa, Pakistan" *Asian Pacific J. Tropical Medicine*. 11(8): 495-500.

Journal Impact Factor: 1.94

- 31) Ilyas Khan, Hazir Rahman, Nasser M. Abd El-Salam, Abdul Tawab, Anwar Hussain, Taj Ali Khan, Usman Ali Khan, Muhammad Qasim, Abdullah Jalal, Noor Muhammad and Riaz Ullah. (2017) "Punica granatum peel extracts: HPLC fractionation and LC MS analysis to quest compounds having activity against multidrug resistant bacteria" BMC Complementary and Alternative Medicine. BMC Complementary Medicine and Therapies, 17:247. DOI 10.1186/s12906-017-1766-4. ISSN: 2662-7671.

Journal Impact Factor: 2.833

- 32) Najam-us-Sahar Durrani, Dawood Ahmad, **Abdullah Jalal**, Hala Rajab and Muhammad Sayyar Khan. (2017) "The Effect of Explants Sources and Growth Regulators on Callus Induction and Regeneration in Tomato Cultivars" *The Journal of Animal & Plant Sciences*. 27(2):481-489.

Journal Impact Factor: 0.481

- 33) Asif ur Rehman, Amir Z. Khan, Asim Muhammad and **Abdullah Jalal**. (2017) "Performance of nitrogen fixing bacteria with increasing nitrogen ratios on growth, maturity and biomass of winter wheat varieties" *BIOSCIENCE RESEARCH*, 14(2):114-121.

Scopus Impact Factor: 0.737

- 34) Samran Durrani, Ahmad Nawaz Khan, Muhammad Daud Khan, **Abdullah Jalal** and Nisar Ahmad (2017) "Impact of drought stress on enzymatic based antioxidant mechanism in roots of *Zea mays*" *INT. J. BIOL. BIOTECH.*, 14 (2): 428-433

- 35) Khalil Ahmad, **Abdullah Jalal**, Hala Rajab, Mazhar Ullah, and Muhammad Sayyar Khan (2016) "Screening of promising *Brassica napus* genotypes for callus induction and regeneration" *INT. J. BIOL. BIOTECH.*, 13 (2): 203-215.

- 36) Ahmad Nawaz Khan, Samran Durrani, Muhammad Daud Khan, **Abdullah Jalal** and Nisar Ahmad (2016) "Evaluation of Maize Varieties Based on Antioxidant System in Response to Drought Stress" *INT. J. BIOL. BIOTECH.*, 13 (4): 561-570.

- 37) **Abdullah Jalal**, Christian Schwarz, Christian Schmitz Linneweber, Olivier Vallon, Joerg Nickelsen and Alexandra Viola-Bohne (2015) "A Small Multifunctional Pentatricopeptide Repeat Protein in the Chloroplast of *Chlamydomonas reinhardtii*" *Molecular Plant*. 8, 412–426.

Journal Impact Factor: 12.084

- 38) Imran khan, Muhammad Sayyar khan, Muhammad Ilyas, Hala Rajab, Safdar Hussain Shah and **Abdullah Jalal** (2013) "Genetic Transformation of *Brassica napus* with the Antifungal *chitinase* Gene" *International Journal of Agriculture and Biology*. 15:933-938.

Journal Impact Factor: 0.822

- 39) Alexandra Viola-Bohne, Christian Schwarz, **Abdullah Jalal**, Friedrich Ossenbühl, and Jörg Nickelsen. (2009) Control of organellar gene expression in *Chlamydomonas reinhardtii* – future perspectives. *Endocytobiosis Cell Res*. 19:70-80.

- 40) **Abdullah Jalal**, Hidayat-ur-Rahman, Muhammad Sayyar Khan, Khurram Maqbool and Sajid Khan (2006) "Inbreeding depression for reproductive and yield related traits in S₁ lines of maize

(*Zea mays* L.)” *Songklanakarin J. Sci. Technol.* 28(6), 1169-1173.

Scopus Impact Factor: 0.47

Articles submitted to Journals:

- 01) Kalim Ullah; Muhammad Sayyar Khan; **Abdullah Jalal**; Maria Amjad and Muhammad Tayyab (2025) “Biosafety Risk Assessment of Glutathione-Overproducing Transgenic Indian Mustard: Impacts on Surrounding Vegetation and Soil Microbial Communities” *Kuwait Journal of Science* (Submitted) Manuscript Number: KJS-D-25-00292
- 02) Mehboob Alam, Syed Qamar Abbas, Anwarzeb Khan* Asim Muhammad, Abdullah Jalal, Imran Ahmad, Hayssam M. Ali, Anna Lisek, Walid F. A. Mosa (2024) “Plants response to environmental stressors: a case study of industrial wastewater influence on plant growth attributes and metals bioaccumulation” *International Journal of Molecular Sciences* (Submitted)
- 03) Irfan Ullah; Muhammad Adnan; Javed Nawab; Sardar Khan; Muhammad Ishtiaq Jan; Abdullah Jalal (2024) “Occurrence, Distribution, and Risk Assessment of Potentially Hazardous Metals in Food Plants along the Mafic and Ultramafic Terrains, in Northwest Pakistan.” *Journal of Soil Science and Plant Nutrition* (Submitted)
- 04) Muhammad Asim Zahir, **Abdullah Jalal**, Muhammad Sayyar Khan, Muhammad Tayyab, Asim Muhammad and Khadim Dawar (2024) “Effect of High Salt Stress on Morphology and Growth of *Brassica napus* in Hydroponics System” *ACS Omega* (Submitted)
- 05) Fatima Noreen, Nabia Gul, Khan Alam, Mudassar Nawaz Khan, Abdullah Jalal, Safi Ullah, Muhammad Rameez Khan, and Sajid Ali (2024) " Variability in heavy metals concentration in Peshawar’s aerosol deposited on the leaves of *Ficus hawaii* used as bioindicator " *Pollution* (Submitted)
- 06) **Abdullah Jalal**, Wang Jie Lin, He Mingxia and Jun-Chao Huang (2024) “Metabolic Engineering of *Brassica napus* for High-yield Production of Astaxanthin” *Metabolic Engineering*. (Submitted)
- 07) Sundus Malik, Dawood Ahmad, Muhammad Sayyar Khan, **Abdullah Jalal**, Waqar Ali and Jehan Bakht (2024) "Assessment of antimicrobial potential of economically important persimmon and date-plum" *Pak. J. Bot.* (Submitted)

PRODUCT DEVELOPMENT:

- 1) Breeder in the development of a *Brassica* variety – “**Rokhana**” approved by Provincial Seed Council, dated 24.07.2020.
- 2) Principal Scientist for the development of Pro-Vitamin A Biofortified *Brassica napus* Transgenic line overexpressing Carotenogenic genes.

Conference Presentations:

- 1) Conference: International Conference on Emerging Trends in Bio-Informatics and Biosciences. 14-16 September, 2023, at Hazara University, Mansehra. (Session Chair and Presenter).
- 2) National Conference: National Conference on Olives Production in Pakistan. A Holistic Approach. 14-15 June, 2023 at Hazara University, Mansehra and Promotion of Olive Cultivation on Commercial Scale in Pakistan-II, PSDP, POD Pakistan.

- 3) Conference: International Conference on Emerging Trends in Bio-Informatics and Biosciences. 15-17 September, 2022, at Hazara University, Mansehra. (Session Chair and Presenter).
- 4) Conference: Ist International Conference on Recent Approaches in Plant Sciences (RAPS-2022). University of Education Lahore.
- 5) Abdullah Jalal. (August, 24, 2021) "Development and Prospects of Agri-Biotechnology in Pakistan" arranged by Strategic Vision Institute, Islamabad, Pakistan.
- 6) Abdullah Jalal. (August, 26, 2020). Webinar on Biotechnology and Prevailing Pandemic. Department of Biotechnology, Virtual University of Pakistan.
- 7) Abdullah Jalal (September 24th-26th, 2018). Metabolic Engineering of *Brassica napus* for High-yield Production of Astaxanthin. International conference on "Biofortification of Staple Food Crops" The University of Agriculture, Peshawar, Pakistan. (Presenter).
- 8) Abdullah Jalal, Alexandra Viola-Bohne, Christian Schmitz Linneweber, Olivier Vallon and Joerg Nickelsen. (July 21st – 24th, 2014). A small multifunctional pentatricopeptide repeat protein in the chloroplast of *Chlamydomonas reinhardtii*. XVI Annual Meeting of the International Society of Endocytobiology German Section (ISE-G), Herzogenhorn.

Participation in Workshops:

- 1) Workshop: Genetic and Genomic Approaches for Wheat Production Enhancement 02 - 03 March 2022. Co-Organizer.
- 2) Workshop: One-Day poster competition on Cancer Genetics, Institute of Biotechnology and Genetic Engineering. March 01, 2022. Participant
- 3) Training Session: OVID (Wolters Kluwer) database training session: November 17, 2022. Participant
- 4) Participated in **COMSTECH-ICGEB-NIBGE International Workshop** on "Use of Genome Editing and Other New Breeding Technologies for Global Food Security " from 8 - 10th April 2019. COMSTECH Secretariat, 33-Constitution Avenue, G-5/2, Islamabad.
- 5) Organizer in Workshop on "Training Course on Classical and Molecular Approaches in Wheat Breeding" from 29- 30th January, 2019. Institute of Biotechnology and Genetic Engineering (IBGE), The University of Agriculture, Peshawar, KPK.
- 6) Participated in Workshop on "Next Generation Sequencing (NGS) Data Analysis Workshop" from 28- 29th October 2016. Comsats Institute of Information Technology (CIIT), Park Road, Islamabad.
- 7) Organizer in Workshop on "Molecular Cloning and Real Time PCR Workshop" from 08- 10th January, 2016. Institute of Biotechnology and Genetic Engineering (IBGE), The University of Agriculture, Peshawar, KPK.

ACADEMIC AWARDS/NATIONAL INTERNATIONAL RECOGNITION:

- i) Post-Doctoral fellowship award for young talented scientists from Kunming Institute of Botany, Yunnan, China from April 2017 to August 2018.
- ii) HEC-DAAD scholarship award for PhD studies abroad at Germany from October 2007 to September 2011
- iii) Merit scholarship award for Master's at The University of Agriculture, Peshawar from March 2002 to March 2003.
- iv) Awarded status of Interdisciplinary Research Training Centre (IRTC) Approved

Supervisor.

- v) Awarded status of approved supervisor for PhDs under Indigenous Fellowship Program, Higher Education Commission (HEC), Islamabad, Pakistan.

Additional Duties:

1. Course Coordinator of BSc. Biotechnology since 2022
2. Convener “Equipment’s Repair Committee” IBGE since 2023
3. Responsibilities as a lab Co-incharge of the Recombinant DNA Technology Lab.

University Services:

1. Member of Board of Studies at Institute of Biotechnology and Genetic Engineering.
2. Performs regular duties in examinations held for IBGE and IBMS.
3. Executive member of Purchase Committee, The University of Agriculture Since, September 2014.
4. Served as examiner for Oral Comprehensive Examination of PhD students.
5. Participation in Board of Studies of the Department of Plant Breeding and Genetics and Department of Plant Pathology, as assigned by the DASAR office.

Services to other National Scientific Community(s):

1. Reviewed Projects for Higher Education Commission, Pakistan and Pakistan Science Foundation.
2. Coordinated with Agriculture Research and Extension to develop collaboration.
3. Strengthened collaboration with other universities, particularly, Abdul Wali Khan University, Bache Khan University, and Kohat University of Science and Technology.

Personnel Characteristics:

“A+” and “A” grade in Quality Evaluation Reports in all the mentioned courses

Other Achievements:

1. Interdisciplinary Research Training Centre (IRTC) Approved Supervisor.
2. HEC Approved Supervisor for PhD students since 2013.

Membership of Associations/Organizations:

1. Member of “International Society of Endocytobiology” (ISEG) since 2009 onward
2. European Federation of Biotechnology since 2011-onward
3. German Society for Molecular Biology and Biochemistry since 2009 onward

PERSONAL SKILLS AND COMPETENCES

Biotechnology and Genetic Engineering Skills

Tissue culture, PCR, Protein over-expression, Recombinant DNA technology, Sub fractionation of cell organelles through differential centrifugation, Size Exclusion Chromatography, RNA and protein Co-immunoprecipitations, Chip analysis, ami RNA, RNAi and Gels Blot Analysis.

Social skills

Coordinator of BS Biotechnology Program at IBGE, The University of Agriculture, Peshawar.
Seminar Series at Ludwig Maximilians University Munich, Germany.

Organisational skills

Social activities organizer for PhD Students at Ludwig Maximilians University Munich, Germany.

Computer skills

Microsoft Windows, Microsoft Office, LATEX, MSTATC, Clone Manager and Image Studio.

Hobbies

Reading books, Journals and World News.

Sports (Swimming, Badminton, Cricket, Table tennis).

Active player in University Badminton team. (Runner up, inter University Badminton tournament (singles)).

REFERENCES

- Prof. Dr. Jörg Nickelsen, Group of Molecular Plant Science, Ludwig Maximilians University Munich, Germany.
- Prof. Dr. Huang Junchao, Key Laboratory of Economic Plants and Biotechnology, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming Yunnan China.
- Prof. Dr. Asad Jan, Director, Institute of Biotechnology and Genetic Engineering (IBGE), The University of Agriculture, Peshawar, Pakistan.
- Dr. Muhammad Sayyar Khan, Associate Professor, Institute of Biotechnology and Genetic Engineering (IBGE), The University of Agriculture, Peshawar, Pakistan.