

Curriculum Vitae

ABBU ZAID



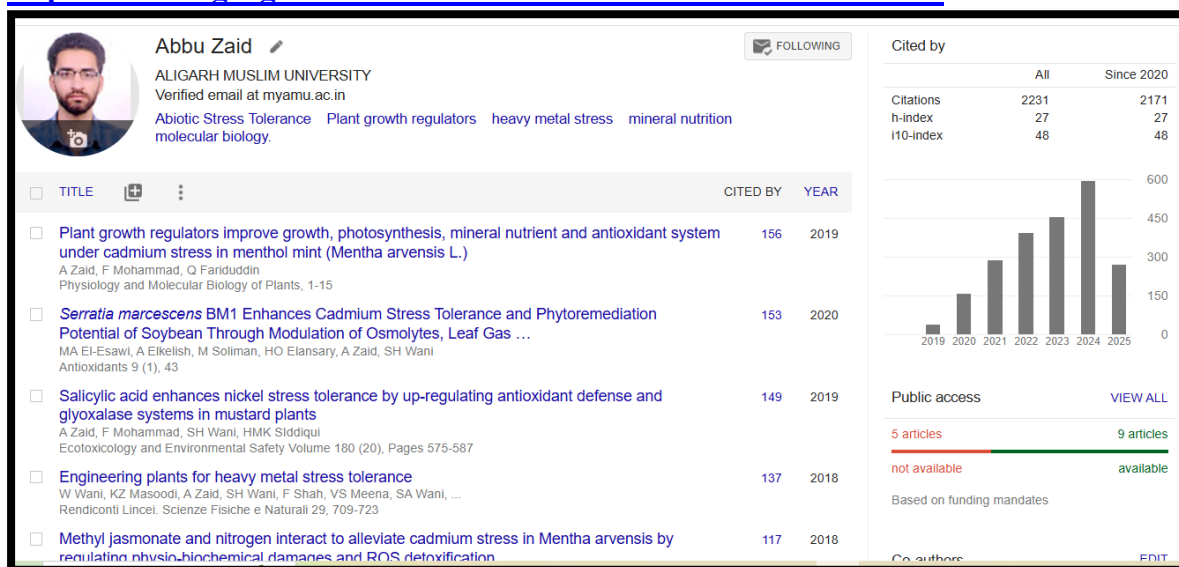
Assistant Professor
Department of Botany
Government Degree College Kathua,
Kathua-184104, Jammu and Kashmir, India

Phone: + 91-7051000367

E- MAIL: zaidabbu19@gmail.com

<https://orcid.org/0000-0002-2090-0212>

<https://scholar.google.com/citations?user=DoLvKHwAAAAJ&hl=en>



Objectives

To give my honest and best part to the science worldwide, growing with the scientific era in the discipline of plant sciences contributing to the knowledge of physiological and molecular plant growth responses for the global venture food security

Strengths

- Good analytical skill, aptitude for problem -solving and making critical decisions.
- Good logic and reasoning ability to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Trustworthy and hard-working.

Academic Record

CLASS	Year of passing	Percentage of marks
SSC [10 th Class]	2008 (Jammu and Kashmir, BOSE, India)	84.6%
SENIOR SECONDARY SCHOOL (12 th class)	2010 (Jammu and Kashmir, BOSE, India)	73.3%
BACHELOR OF SCIENCE (B.Sc.)	2013 (Jammu University, Jammu and Kashmir, India)	71.3%
M. Sc. SEMESTER 1	2013 (Aligarh Muslim University)	74%
SEMESTER II	2014 (Aligarh Muslim University)	72%
SEMESTER III	2014 (Aligarh Muslim University)	75%
SEMESTER IV	2015 (Aligarh Muslim University)	78%
Master of Science M.Sc (Overall)	2015 (Aligarh Muslim University, India)	75% (Second Position)
ASRB National Eligibility Test (2017)	2017 ASRB	Qualified
Gate Life Sciences (2019)	2019	Qualified
Jammu and Kashmir State Eligibility Test (2022)	2022	Qualified
Doctor of Philosophy (Ph.D in Botany)	2020 (Aligarh Muslim University, India)	Awarded
Lecturer, Govt Degree College Doda, J&K India	September 29, 2021	May 31, 2022
Lecturer, Govt. GGM Science College Jammu, Cluster University, J&K India	July 01, 2022	March 11, 2024
Assistant Professor, Department of Botany, Higher Education Department Government of Jammu and Kashmir, India	August 17, 2024	Till date

Publications

1. U.N. Shah, J.I. Mir, N. Ahmed, **A. Zaid**, S. Jan, K.M. Fazili, S.H. Wani. (2018). **Bio-techniques for improvement of qualitative and quantitative traits in walnut (*Juglans regia*)**. Advances in Horticultural Sciences 32(1): 113-135.
2. **Zaid, A.,** & Mohammad, F. (2018). **Methyl Jasmonate and Nitrogen Interact to Alleviate Cadmium Stress in *Mentha arvensis* by Regulating Physio-Biochemical Damages and ROS Detoxification**. Journal of Plant Growth Regulation, 37(4), 1331-1348 (Impact Factor-**2.179**)
3. Ali, S., Rizwan, M., **Zaid, A.,** Arif, M. S., Yasmeen, T., Hussain, A., & Abbasi, G. H. (2018). **5-Aminolevulinic Acid-Induced Heavy Metal Stress Tolerance and Underlying Mechanisms in Plants**. Journal of Plant Growth Regulation, 37(4), 1423-1436 (Impact Factor-**2.179**)
4. Meena, V. S., **Zaid, A.,** Maurya, B. R., Meena, S. K., Bahadur, I., Saha, M., & Wani, S. H. (2018). **Evaluation of potassium solubilizing rhizobacteria (KSR): enhancing K-bioavailability and optimizing K-fertilization of maize plants under Indo-Gangetic Plains of India**. Environmental Science and Pollution Research, 25(36), 36412-36424 (Impact Factor-**3.05**)

5. Wani, W., Masoodi, K. Z., **Zaid, A.**, Wani, S. H., Shah, F., Meena, V. S., & Mosa, K. A. (2018). **Engineering plants for heavy metal stress tolerance**. *Rendiconti Lincei. Scienze Fisiche e Naturali*, 29, 709-723 (Impact Factor-**1.087**)
6. Wani, S. H., Tripathi, P., **Zaid, A.**, Challa, G. S., Kumar, A., Kumar, V., & Bhatt, M. (2018). **Transcriptional regulation of osmotic stress tolerance in wheat (*Triticum aestivum* L.)**. *Plant molecular biology*, 1-19 (Impact Factor-**3.928**)
7. **Zaid, A.**, Gul, F., Ahanger, M. A., & Ahmad, P. (2018). **Silicon-Mediated Alleviation of Stresses in Plants**. In *Plant Metabolites and Regulation Under Environmental Stress* Elsevier (pp. 377-387).
8. **Ahmad, B.**, Zaid, A., Yawar, S., Bashir, S., Wani, H.S. (2019). **Role of Selective Exogenous Elicitors in Plant Responses to Abiotic Stress Tolerance**. In *Plant Abiotic Stress Tolerance Agronomic, Molecular and Biotechnological Approaches* Editors: Hasanuzzaman, M., Hakeem, K.R., Nahar, K., Alharby, H. Springer (pp. 273-290).
9. Ahmad, B., **Zaid, A.**, Jaleel, H., Khan, M. M. A., Ghorbanpour, M. (2019). **Nanotechnology for Phytoremediation of Heavy Metals: Mechanisms of Nanomaterial-Mediated Alleviation of Toxic Metals**. In *Advances in Phytonanotechnology* Editors: Ghorbanpour, M., Wani, S. H., Paperback ISBN: 9780128153222 Imprint: Academic press Elsevier
10. Balilashaki, K., Vahedi, M., **Zaid A.**, Wani, S.H. (2019). **Unraveling Omics Based Technologies in Enhancing Abiotic Stress in Genus *Rosa*: Progress and Prospects**. *Journal of Plant Science Research* 35 (1) 25-38.
11. **Zaid, A.**, Bhat A.J., Wani S. H., Masoodi K. Z. (2019). **Role of Nitrogen and Sulfur in Mitigating Cadmium induced Metabolism Alterations in Plants**. *Journal of Plant Science Research* 35 (1) 121-141.
12. Mushtaq, M., Sakina, A., Wani, S. H., Shikari, A. B., Tripathi, P., **Zaid, A.**, & Salgotra, R. K. (2019). **Harnessing genome editing techniques to engineer disease resistance in plants**. *Frontiers in Plant Science*, 10, 550. (Impact Factor-**4.106**)
13. **Zaid, A.**, Mohammad, F., Wani, S. H., & Siddique, K. M. (2019). **Salicylic acid enhances nickel stress tolerance by up-regulating antioxidant defense and glyoxalase systems in mustard plants**. *Ecotoxicology and environmental safety*, 180, 575-587. (Impact Factor- **4.527**).
14. **Zaid, A.**, Mohammad, F., & Fariduddin, Q. (2020). **Plant growth regulators improve growth, photosynthesis, mineral nutrient and antioxidant system under cadmium stress in menthol mint (*Mentha arvensis* L.)**. *Physiology and Molecular Biology of Plants*, (January 2020) 26 (1):25–391-15. (Impact Factor-**2.00**).
15. Fariduddin, Q., **Zaid, A.**, & Mohammad, F. (2019). **Plant Growth Regulators and Salt Stress: Mechanism of Tolerance Trade-Off**. In *Salt Stress, Microbes, and Plant Interactions: Causes and Solution* (pp. 91-111). Springer, Singapore.
16. **Zaid, A.**, & Wani, S. H. (2019). **Reactive Oxygen Species Generation, Scavenging and Signaling in Plant Defense Responses**. In *Bioactive Molecules in Plant Defense* (pp. 111-132). Springer, Cham.

17. **Zaid, A** and Mohammad, F. (2019). **Growth, Physio-biochemical and Yield Responses of two Menthol Mint Cultivars to Eight Leaf-applied Plant Growth Regulators.** *Journal of Biological and Chemical Research* (An International Peer Reviewed / Refereed Journal of Life Sciences and Chemistry).Vol. 36, No. 1: 168-176, 2019
18. El-Esawi, M. A., Elkelish, A., Soliman, M., Elansary, H. O., **Zaid, A.**, & Wani, S. H. (2020). **Serratia marcescens BM1 Enhances Cadmium Stress Tolerance and Phytoremediation Potential of Soybean Through Modulation of Osmolytes, Leaf Gas Exchange, Antioxidant Machinery, and Stress-Responsive Genes Expression.** *Antioxidants*, 9(1), 43. (Impact Factor-4.52)
19. Islam, S., **Zaid, A.** & Mohammad, F. (2020). **Role of Triaccontanol in Counteracting the Ill Effects of Salinity in Plants: A Review.** *J. Plant Growth Regul.* <https://doi.org/10.1007/s00344-020-10064-w> (Impact Factor-2.179)
20. **Zaid, A.**, & Wani, S. H. (2020). **Importance of small RNA in plant metabolism.** In *Plant Small RNA Biogenesis, Regulation and Application* (pp. 125-153). Academic Press.
21. Latef, A. A. H. A., **Zaid, A.**, Alhmad, M. F. A., & Abdelfattah, K. E. (2020). **The Impact of Priming with Al₂O₃ Nanoparticles on Growth, Pigments, Osmolytes, and Antioxidant Enzymes of Egyptian Roselle (*Hibiscus sabdariffa* L.) Cultivar.** *Agronomy*, 10(5), 681. (Impact Factor-2.60)
22. Sadiq, Y., **Zaid, A.**, & Khan, M. M. A. (2020). **Adaptive Physiological Responses of Plants under Abiotic Stresses: Role of Phytohormones.** In *Plant Ecophysiology and Adaptation under Climate Change: Mechanisms and Perspectives I* (pp. 797-824). Springer, Singapore. eBook ISBN-978-981-15-2156-0
23. Dutta, S., Datta, A., **Zaid, A.**, & Bhat, J. A. (2020). **Metalloids and Their Impact on the Environment.** *Metalloids in Plants: Advances and Future Prospects*, 19-26. 9781119487197
24. **Zaid, A.**, Bhat, J. A., & Wani, S. H. (2020). **Influence of Metalloids and Their Toxicity Impact on Photosynthetic Parameters of Plants.** *Metalloids in Plants: Advances and Future Prospects*, 113-124. 9781119487197
25. **Zaid, A.**, Asgher, M., Wani, I. A., & Wani, S. H. (2020). **Role of Triaccontanol in Overcoming Environmental Stresses.** *Protective Chemical Agents in the Amelioration of Plant Abiotic Stress: Biochemical and Molecular Perspectives*, 491-509. 9781119551638 |
26. Amna, Qamar S., Tantray A.Y., Bashir S.S., **Zaid A.**, Wani S.H. (2020) **Golden Rice: Genetic Engineering, Promises, Present Status and Future Prospects.** In: Roychoudhury A. (eds) *Rice Research for Quality Improvement: Genomics and Genetic Engineering*. Springer, Singapore. https://doi.org/10.1007/978-981-15-5337-0_25. 978-981-15-5337-0
27. **Zaid A.**, Ahmad B., Jaleel H., Wani S.H., Hasanuzzaman M. (2020) **A Critical Review on Iron Toxicity and Tolerance in Plants: Role of Exogenous Phytoprotectants.** pp 83-99. In: Aftab T., Hakeem K. (eds) *Plant Micronutrients*. Springer, Cham. 978-3-030-49856-6

28. Abdel Latef, A. A. H., **Zaid, A.**, Abo-Baker, A. B. A. E., Salem, W., & Abu Alhmad, M. F. (2020). **Mitigation of Copper Stress in Maize by Inoculation with *Paenibacillus polymyxa* and *Bacillus circulans*.** *Plants*, 9(11), 1513. (Impact Factor-**2.76**)

29. Khan, M. R., Parveen, G., **Zaid, A.**, Wani, S. H., & Jogaiah, S. (2020). **Potential of *Trichoderma* species in alleviating the adverse effects of biotic and abiotic stresses in plants.** In *Biocontrol Agents and Secondary Metabolites: Applications and Immunization for Plant Growth and Protection*, P-85-112. ISBN: 978-0-12-822919-4

30. Mushtaq, M., Pir, H.A., **Zaid, A.**, Wani, S. H. (2020). **CRISPR/Cas system: A powerful approach for enhanced resistance against rice blast.** In *Biocontrol Agents and Secondary Metabolites: Applications and Immunization for Plant Growth and Protection*, P-649-658. ISBN: 978-0-12-822919-4

31. Amin, I., Banerjee, A., **Zaid, A.**, Mir, M. A., Wani, S. H., Ahmed, N., & Masoodi, K. Z. (2020). **Spectrum of Physiological and Molecular Responses in Plant Salinity Stress Tolerance.** In *Improving Abiotic Stress Tolerance in Plants* (pp. 1-12). CRC Press. ISBN: 9780429027505

32. Sharifi, P., Bidabadi, S. S., **Zaid, A.**, & Latef, A. A. H. A. (2021). **Efficacy of multi-walled carbon nanotubes in regulating growth performance, total glutathione and redox state of *Calendula officinalis* L. cultivated on Pb and Cd polluted soil.** *Ecotoxicology and Environmental Safety*, 213, 112051. (Impact Factor- **4.527**).

33. Abdel Latef, A. A. H., **Zaid, A.**, & Alwaleed, E. A. (2021). **Influences of Priming on Selected Physiological Attributes and Protein Pattern Responses of Salinized Wheat with Extracts of *Hormophysa cuneiformis* and *Actinotrichia fragilis*.** *Agronomy*, 11(3), 545. (Impact Factor-**2.60**)

34. **Zaid A.**, Ahmad B., Wani S.H. (2021) **Medicinal and Aromatic Plants Under Abiotic Stress: A Crosstalk on Phytohormones' Perspective.** In: Aftab T., Hakeem K.R. (eds) *Plant Growth Regulators*. Springer, Cham. https://doi.org/10.1007/978-3-030-61153-8_5. ISBN: 978-3-030-61152-1

35. Dawood, M.F.A., **Zaid, A.** & Latef, A.A.H.A. (2022). **Salicylic Acid Spraying-Induced Resilience Strategies Against the Damaging Impacts of Drought and/or Salinity Stress in Two Varieties of *Vicia faba* L. Seedlings.** *Journal of Plant Growth Regulation*. 41, 1919–1942, <https://doi.org/10.1007/s00344-021-10381-8>. (Impact Factor 4.17).

36. Mushtaq, M., Ahmad Dar, A., Skalicky, M., Tyagi, A., Bhagat, N., Basu, U., Bhat, B.A., **Zaid, A.**, Ali, S., Dar, T.U.H. and Rai, G.K., (2021). **CRISPR-Based Genome Editing Tools: Insights into Technological Breakthroughs and Future Challenges.** *Genes*, 12(6), p.797. (Impact Factor-**3.75**).

37. **Zaid, A.**, Mushtaq, M., & Wani, S. H. (2021). **Interactions of phytohormones with abiotic stress factors under changing climate.** In *Frontiers in Plant-Soil Interaction* (pp. 221-236). ISBN: 978-0-323-90943-3. DOI: 10.1016/C2020-0-02785-4 © 2021 Elsevier Inc. All rights reserved.

38. Hossain, M. A., Hoque, T. S., **Zaid, A.**, Wani, S. H., Mostofa, M. G., & Henry, R. (2021). **Targeting the Ascorbate-Glutathione Pathway and the Glyoxalase Pathway for Genetic Engineering of Abiotic Stress-Tolerance in Rice.** In *Molecular Breeding for Rice Abiotic Stress Tolerance and Nutritional Quality*, 398-427. Online ISBN: 9781119633174 DOI: 10.1002/9781119633174 © 2021 John Wiley & Sons, Ltd.
39. Zulfiqar, F., Chen, J., Finnegan, P.M., Nafees, M., Younis, A., Shaukat, N., Latif, N., Abideen, Z., **Zaid, A.**, Raza, A. and Siddiqui, Z.S., 2021. **Foliar Application of Trehalose or 5-Aminolevulinic Acid Improves Photosynthesis and Biomass Production in Drought Stressed *Alpinia zerumbet*.** *Agriculture*, 11(10), p.908. (Impact Factor **2.92**).
40. Zulfiqar, F., Wei, X., Shaukat, N., Chen, J., Raza, A., Younis, A., Nafees, M., Abideen, Z., **Zaid, A.**, Latif, N. and Naveed, M., (2021). **Effects of Biochar and Biochar–Compost Mix on Growth, Performance and Physiological Responses of Potted *Alpinia zerumbet*.** *Sustainability*, 13(20), p.11226. (Impact Factor **3.25**).
41. Wani, S. H., Vijayan, R., Choudhary, M., Kumar, A., **Zaid, A.**, Singh, V and Yasin, J. K. (2021). **Nitrogen use efficiency (NUE): elucidated mechanisms, mapped genes and gene networks in maize (*Zea mays* L.).** *Physiology and Molecular Biology of Plants*, 1-17. (Impact Factor **2.39**).
42. Ahmad, B., **Zaid, A.**, Zulfiqar, F., Bovand, F., & Dar, T. A. (2022). **Nanotechnology: a novel and sustainable approach towards heavy metal stress alleviation in plants.** *Nanotechnology for Environmental Engineering*, 1-14.
43. **Zaid, A.**, Mohammad, F., & Siddique, K. H. (2022). **Salicylic acid priming regulates stomatal conductance, trichome density and improves cadmium stress tolerance in *Mentha arvensis* L.** *Frontiers in Plant Science*, 2189. (Impact Factor **6.62**).
44. Zulfiqar, F., Nafees, M., Darras, A., Shaukat, N., Chen, J., Ferrante, A., **Zaid, A.**, Latif, N., Raza, A. and Siddique, K.H., (2022). **Pre-harvest potassium foliar application improves yield, vase life and overall postharvest quality of cut gladiolus inflorescences.** *Postharvest Biology and Technology*, 192, p.112027. (Impact Factor **6.75**).
45. **Zaid, A.**, Wani, S. H., Latef, A. A. H. A., & Hasanuzzaman, M. (2022). **An insight into plant heavy metal/metalloid tolerance and detoxification mechanisms: A critical review.** *Metals Metalloids Soil Plant Water Systems*, 131-158.
46. Jabeen, R., Iqbal, A., Deeba, F., Zulfiqar, F., Mustafa, G., Nwaz, H., Habiba, U., Nafees, M., **Zaid, A.** and Siddique, K.H. (2022). **Isolation and characterization of peroxidase P7-like gene and Rab-GDI like gene from potential medicinal plants. A step toward understanding cell defense signaling.** *Frontiers in Plant Science*, p.3182. (Impact Factor **6.75**).
47. Zulfiqar, F., Nafees, M., Ashraf, M., Corpas, F.J., Ferrante, A., Darras, A., Chen, J., **Zaid, A.**, Latif, N. and Siddique, K.H., (2022). **Chemical Priming Enhances Plant Tolerance to Salt Stress.** *Frontiers in Plant Science*, p.2883. (Impact Factor **6.75**).

48. Hussain, K., Nisa, R. T., **Zaid, A.**, & Mushtaq, M. (2023). **The Utilization of Speed Breeding and Genome Editing to Achieve Zero Hunger.** In *Sustainable Agriculture in the Era of the OMICs Revolution* (pp. 1-15). Springer, Cham.
49. Ullah, A., Chengfeng, Z., Maixi, Z., Chuanjiao, S., Xiaoxue, L., Jingling, H., Zeeshan, M., **Zaid, A.**, Tingbo D., and Tain, Z (2023). **Nitrogen enhances the effect of pre-drought priming against post-anthesis drought stress by regulating starch and protein formation in wheat.** *Physiologia Plantarum* (2023): e13907. (Impact Factor **5.08**).
50. Rashid, S., **Zaid, A.**, Per, T. S., Nisar, B., Majeed, L. R., Rafiq, S., Wani, S. H. (2023). **A critical review on phytoremediation of environmental contaminants in aquatic ecosystem.** *Rendiconti Lincei. Scienze Fisiche e Naturali*, 1-18. (Impact Factor **2.00**).
51. Keerthi Sree, Y., Lakra, N., Manorama, K., Ahlawat, Y., **Zaid, A.**, Elansary, H. O., Mahmoud, E. A. (2023). **Drought-Induced Morpho-Physiological, Biochemical, Metabolite Responses and Protein Profiling of Chickpea (*Cicer arietinum* L.).** *Agronomy*, 13(7), 1814. (Impact Factor **3.70**).
52. Sharma, P., Lakra, N., Ahlawat, Y., **Zaid, A.**, Abd-ElGawad, A. M., Elansary, H. O., & Gupta, A. (2023). **Putrescine Mitigates High Temperature Effects by Modulating Morpho-Physiological and Biochemical Attributes in *Brassica juncea* Seedlings.** *Agronomy*, 13(7), 1879. (Impact Factor **3.70**).
53. Sharma, P., Lakra, N., Goyal, A., Ahlawat, Y. K., **Zaid, A.**, & Siddique, K. H. (2023). **Drought and heat stress mediated activation of lipid signaling in plants: a critical review.** *Frontiers in Plant Science*, 14, 1216835. (Impact Factor **5.60**).
54. Jalil, S., Muhammad MN., Qurban A., Faisal Zulfiqar, Anam Moosa, Muhammad Ahsan Altaf, **Abbu Zaid**, Muhammad Nafees, Jean Wan Yong, and Xiaoli Jin. (2023). **"Zinc and nano zinc mediated alleviation of heavy metals and metalloids in plants: an overview."** *Functional Plant Biology*. <https://doi.org/10.1071/FP23021> (Impact Factor **3.00**).
55. Ziaf, K., Talha, H. M., Ghani, M. A., Ahmad, I., Anwar, R., Ali, B., **Zaid, A.** (2023). **Differential accumulation pattern of cadmium in plant parts of pea varieties in response to varying cadmium levels.** *South African Journal of Botany*, 161, 599-606. (Impact Factor **3.10**).
56. Alharbi, K., Soliman, M.H., **Zaid, A.** (2023). **Eco-Physiological and Morphological Adaptive Mechanisms Induced by Melatonin and Hydrogen Sulphide Under Abiotic Stresses in Plants.** In: Mukherjee, S., Corpas, F.J. (eds) *Melatonin: Role in Plant Signaling, Growth and Stress Tolerance. Plant in Challenging Environments*, vol 4. Springer, Cham. https://doi.org/10.1007/978-3-031-40173-2_13
57. Alnusairi, G. S., **Zaid, A.**, Kour, H., Alharbi, K., & Soliman, M. H. (2024). **Ecophysiological and Morphological Adaptations of Plants under Temperature Stress: Influence of Phytohormones.** In *Ecophysiology of Tropical Plants* (pp. 128-137). CRC Press.
58. Ahlawat, Y. K., Singh, M., Manorama, K., Lakra, N., **Zaid, A.**, & Zulfiqar, F. (2023). **Plant phenolics: neglected secondary metabolites in plant stress tolerance.** *Brazilian Journal of Botany*, 1-19. <https://doi.org/10.1007/s40415-023-00949-x>.

59. Hassan, M. U., Lihong, W., Nawaz, M., Ali, B., Tang, H., Rasheed, A., **Zaid, A.** (2024). **Silicon a key player to mitigate Chromium toxicity in plants: Mechanisms and future prospective.** Plant Physiology and Biochemistry, 108529.
60. Sharma, R., Lakra, N., Luhach, A., Islam, S., & **Zaid, A.** (2025). **Drought-induced differential biochemical and morphological responses in Indian mustard.** Journal of Plant Biochemistry and Biotechnology, 1-18.). <https://doi.org/10.1007/s13562-025-00963-y>

Edited a Special Issue in Frontiers in Plant Sciences, Section Plant Physiology (Impact Factor. 6.6) entitled “Phytohormones and Nanoparticles: A Critical Tolerance Trade-off in Plant Abiotic and Biotic Stress Resistance.

<https://www.frontiersin.org/research-topics/42793/phytohormones-and-nanoparticles-a-critical-tolerance-trade-off-in-plant-abiotic-and-biotic-stress-re>

CONFERENCES

- ✓ Poster presentation at International Conference on “Recent Trends in Bioinformatics and Biotechnology for Sustainable Development” held during October 12-13, 2017 at Sher-e- Kashmir University of Agricultural Sciences and Technology of Jammu (R.S. Pura) Jammu and Kashmir, India.
- ✓ Poster presentation at International Conference on “Contemporary Issues in Integrating Health and Nutrition with the Emerging Areas of Food Technology, Agriculture, Environment and Allied Sciences” Organized by Department of Food Technology, Shyama Prasad Mukherji College for Women, University of Delhi, New Delhi, India during April 06, 2019.
- ✓ Poster presentation at International Conference on “Innovative Strategies for Sustainable Water Management (ISSWM-2017)” held during November 17-18, 2017 at Lovely Professional University, Punjab India.
- ✓ Oral presentation at International Conference on “Food and Agriculture” held during March 23-31, 2018 at Sonotal Hotels and Resorts Pvt. Ltd. Ozone Galleria Mall I Floor 5 Saraidhela Dhanbad Jharkhand, India.
- ✓ Poster presentation at 2nd International Conference on “Advances in Agriculture, Biological and Applied Sciences for Sustainable Future (ABAS-2018)” held during October 20-22, 2018 at Swami Vivekanand Subharti University, Meerut, Uttar Pradesh India.
- ✓ Participation at International Conference on “Food and Agriculture” held during February 20-22, 2017 at Jawaharlal Nehru University New Delhi India.
- ✓ Participation at National Conference on “Recent Advances in Chemical Sciences” held on March 25-26, 2017 at Department of Chemistry, Faculty of Sciences, Aligarh Muslim University Aligarh India.

- ✓ Oral presentation at National Conference on “Recent Advances in Environmental Toxicology” held on February 13-14, 2017 at Department of Biosciences, Faculty of Sciences, Jamia Millia Islamia New Delhi India.
- ✓ Oral presentation at National Seminar on Himalayan Biodiversity characterization and Bioprospection for Sustainable Utilization held on 18Th and 19Th September 2017 at University of Kashmir (Jammu & Kashmir) India.
- ✓ Poster presentation at “BioZest 2017” held during November 10, 2017 at Faculty of Life Sciences and Biotechnology South Asian University New Delhi India.
- ✓ Poster presentation at National Conference on “Challenges and Strategies to Improve Crop productivity in Challenging Environment: An Integrated Approach” held on January 1, 2018 at Department of Botany Zakir Hussain College (University of Delhi) New Delhi India.
- ✓ Oral presentation at National Conference on “Innovative Technological Interventions for Doubling Farmers Income (NaCITI-2018)” held during February 8-10, 2018 at Sher-e- Kashmir University of Agricultural Sciences and Technology of Jammu Chatha Jammu and Kashmir, India.
- ✓ Poster presentation at National Conference on “Plant Sciences Research: Current Status and Future Challenges” held during December 7-8, 2017 at Department of Botany University College for Women, Koti Hyderabad Telengana India.
- ✓ Participation at “Recent Advances in Understanding the Role of Phytochemicals in Human Health (RAURPHH) held during July 25-26, 2018 at University of Kashmir (Jammu & Kashmir) India.

WORKSHOPS

- ✓ Four Day International Workshop on “Gene Cloning and Expression of Recombinant Protein” held from December 12-15, 2017 at Faculty of Life Sciences and Biotechnology South Asian University New Delhi India.
- ✓ One Week workshop on “Web Development Using PHP” held from 11th and 16th of September 2017 organized by Computer Engineering, Electrical Engineering Section, University Polytechnic, Faculty of Engineering and Technology, Aligarh Muslim University Aligarh (U.P) India.
- ✓ Two day workshop on “Writing Skills” held on 15th and 16th of September 2017 at Cultural Education Centre, Aligarh Muslim University Aligarh (U.P) India.
- ✓ One day workshop on “Intellectual Property Rights For Academic Institutions” held on 26th of September 2017 at Mechanical Engineering Section, University Polytechnic, Faculty of Engineering and Technology, Aligarh Muslim University, Aligarh (U.P) India.
- ✓ One day workshop on “Flow Cytometry” held on 17th of May 2017 at Department of Microbiology, Faculty of Medical Sciences, Jawaharlal Nehru Medical College and Hospital, Aligarh Muslim University, Aligarh (U.P) India.
- ✓ One day workshop on “Group Discussion” held on 15th of November 2017 at Cultural Education Centre, Aligarh Muslim University Aligarh (U.P) India.

- ✓ One day workshop on “Essential Bioinformatics and Data Mining” held on October 13, 2017 at Sher-e- Kashmir University of Agricultural Sciences and Technology of Jammu, Jammu and Kashmir, India.
- ✓ One day workshop on “Doing Field Work In Global Village” held on 13th of October 2017 at Cultural Education Centre, Aligarh Muslim University Aligarh (U.P) India.
- ✓ One day workshop on “Career Development” held on 30th of November 2017 at Biospark Faculty of Life Sciences, Aligarh Muslim University Aligarh (U.P) India.
- ✓ One Week workshop on “Research Methodology” held from 05th to 11th of February 2018 at B.R. Ambedkar Hall, Aligarh Muslim University Aligarh (U.P) India.
- ✓ One day workshop on “Preparing Synopsis and Research Proposal” held on 6th of January 2018 at Aligarh Muslim University Aligarh (U.P) India.
- ✓ One Week workshop on “Statistics and Optimization Techniques Using Software Packages” held from 07th to 12th of May 2018 at Department of Statistics and Operation Research, Aligarh Muslim University Aligarh (U.P) India.
- ✓ One day workshop on “National Information System for Climate and Environment Studies and its Activities” held on 29th of April 2019 at Department of Geography, Faculty of Science, Aligarh Muslim University Aligarh (U.P) 202002. India.

LIFE MEMBERSHIPS

1. Society for Bioinformatics and Biological Sciences.
2. Eco-Club Aligarh Muslim University, Aligarh 202002, India.
3. Prof. H.S Srivastava Foundation for Science and Society, Lucknow India.
4. Plant Physiology Club (APP).
5. Indian Scientific Education and Technology Foundation.

Highlights/ Experimental Skills

- ✓ UV-VIS Spectrophotometer
- ✓ SPAD Chlorophyll meter
- ✓ Infra-red Gas Analyzer (IRGA)
- ✓ Ultra-Centrifuge
- ✓ Potassium Flame Photometer
- ✓ Psypro- Water potential System
- ✓ Junior PAM fluorometer

Additional Certificates Awarded

1. SIX MONTHS CERTIFICATE COURSE IN PISCICULTURE (FISHERIES) BY UNIVERSITY GRANT COMMISSION NEW DELHI GOVERNMENT OF INDIA
2. MEMBERSHIP CERTIFICATE OF ECOCLUB ALIGARH MUSLIM UNIVERSITY 202002 INDIA
3. SECOND TOPPER IN (M.Sc) EXAM ALIGARH MUSLIM UNIVERSITY ALIGARH 202002 INDIA (2016).

Scholarships Awarded

1. GOVERNMENT OF INDIA AWARDED MERITORIOUS AWARD IN 2008 FOR SECURING 100% MARKS IN MATHS.
2. GOVERNMENT OF INDIA AGAIN AWARDED MERITORIOUS AWARD IN 2012.
3. BOTANY DEPARTMENTAL SCHOLARSHIP BASED ON ENTRANCE TEST AT ALIGARH MUSLIM UNIVERSITY 202002 INDIA (A.M.U) IN 2013.
4. MRS.WAHEEDA AHMAD AWARD (A.M.U) 2013.
5. PROFESSOR MASHKOOR ALAM AWARD FOR SECURING THE HIGHEST MARKS IN PLANT PHYSIOLOGY (A.M.U) AT MASTER'S LEVEL (AMU ALIGARH) 2014.
6. KASHMIRI FUND AWARD (Aligarh Muslim University) 2014.
7. ALIGARH MUSLIM UNIVERSITY MERIT AWARD 2015.
8. UGC NON- NET SCHOLARSHIP DURING PhD.

Papers Reviewed

- (1). **Parental Drought-Priming Enhances Tolerance to Post-anthesis Drought in Offspring of Wheat.** (Original research Frontiers in Plant Sciences; Plant Abiotic stress section- <https://www.frontiersin.org/articles/10.3389/fpls.2018.00261/full>).
- (2). **Plant Abiotic Stress Proteomics: The Major Factors Determining Alterations in Cellular Proteome.** (Review article Frontiers in Plant Sciences; Plant Breeding section- <https://www.frontiersin.org/articles/10.3389/fpls.2018.00122/full>).
- (3). **A Novel WRKY Transcription Factor, MuWRKY3 (Macrotyloma uniflorum Lam. Verdc.) Enhances Drought Stress Tolerance in Transgenic Groundnut (Arachis hypogaea L.)** (Original research Frontiers in Plant Sciences; Plant Biotechnology section- <https://www.frontiersin.org/articles/10.3389/fpls.2018.00346/full>).
- (4). **Nutrient Characteristics in Relation to Plant Size of a Perennial Grass Under Grazing Exclusion in Degraded Grassland.** (Original research Frontiers in Plant Sciences; Agroecology and Land Use Systems, a section of the journal Frontiers in Plant Sciences- <https://www.frontiersin.org/articles/10.3389/fpls.2018.00295/full>).

(5.) Natural Ecosystem Surrounding a Conventional Banana Crop Improves Plant Health and Fruit Quality. (Original research *Frontiers in Plant Sciences*; Agroecology and Land Use Systems, a section of the journal *Frontiers in Plant Sciences*- (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6001115/>).

Served as a potential reviewer for

- ✓ **Acta Physiologiae Plantarum (Springer)**
- ✓ **Indian Journal of Plant Physiology (Springer)**
- ✓ **Agrigene (Elsevier)**
- ✓ **Chemosphere (Elsevier)**
- ✓ **FABS**
- ✓ **Scientia Horticulturae (Elsevier)**
- ✓ **Plant Physiology and Biochemistry (Elsevier)**
- ✓ **Pesticide Biochemistry and Physiology (Elsevier)**
- ✓ **Environmental Science and Pollution Research (Springer)**
- ✓ **Archives of Agronomy and Soil Science (Taylor and Francis)**
- ✓ **Journal of Plant Growth Regulation (Springer)**
- ✓ **Chemistry and Ecology (Taylor and Francis)**
- ✓ **Phyton-International Journal of Experimental Botany**
ISSN: 0031-9457 (printed) Impact Factor: 0.282; ISSN: 1851-5657 (online)
- ✓ **Physiology and Molecular Biology of Plants (Springer)**
- ✓ **Plant Cell Tissue and Organ Culture (Springer)**
- ✓ **International Journal of Phytoremediation (Taylor and Francis)**
- ✓ **Notulae Botanicae Horti Agrobotanici Cluj-Napoca**
- ✓ **Journal of Soil Science and Plant Nutrition (Springer)**
- ✓ **Cereal Chemistry (Wiley)**
- ✓ **3 Biotech (Springer)**
- ✓ **Carbon (Elsevier)**
- ✓ **Chemical Engineering Journal (Elsevier)**
- ✓ **Industrial Crops and Products (Elsevier)**
- ✓ **Gesunde Pflanzen (Springer)**
- ✓ **Bulletin of the National Research Centre (Springer)**
- ✓ **Forests (MDPI)**
- ✓ **Biocell (Tech Science press)**
- ✓ **Photosynthetica**
- ✓ **Life (MDPI)**
- ✓ **Plant Growth Regulation (Springer)**
- ✓ **Rendiconti Lincei (Springer)**
- ✓ **Saudi Journal of Biological Sciences (Elsevier)**
- ✓ **Environmental and Experimental Botany (Elsevier)**
- ✓ **Open Life Sciences (Elsevier)**
- ✓ **Nanotechnology Reviews**
- ✓ **Water, Air and Soil Pollution (Springer)**
- ✓ **Journal of Cleaner Production (Elsevier)**
- ✓ **Plos One**
- ✓ **Science of The Total Environment (Elsevier)**
- ✓ **Journal of Hazardous Materials (Elsevier)**
- ✓ **Scientific Reports (Nature Journal)**
- ✓ **Biotechnology Reports (Elsevier)**
- ✓ **Journal of Environmental Management (Elsevier)**
- ✓ **New Zealand Journal of Botany (Taylor and Francis)**
- ✓ **Environmental Claims Journal (Taylor and Francis)**
- ✓ **Chemical Speciation & Bioavailability (Taylor and Francis)**

- ✓ Environmental Technology & Innovation (Elsevier)
- ✓ Plant Science (Elsevier)
- ✓ Critical Reviews in Environmental Science and Technology (Taylor and Francis)
- ✓ Egyptian Journal of Agronomy
- ✓ BMC Plant Biology (Springer)
- ✓ Journal of Biotechnology (Elsevier)
- ✓ Gene (Elsevier)
- ✓ Next Research (Elsevier)
- ✓ Canadian Journal of Soil Science
- ✓ Functional Plant Biology
- ✓ Next Research (Elsevier)
- ✓ Journal of Environmental Sciences (Elsevier)
- ✓ Journal of Environmental Chemical Engineering (Elsevier)
- ✓ International Journal of Biological Macromolecules (Elsevier)
- ✓ European Journal of Agronomy (Elsevier)
- ✓ Environmental Chemistry and Ecotoxicology (Elsevier)
- ✓ Environmental Claims Journal (Taylor and Francis)
- ✓ Plant, Cell and Environment (Wiley)
- ✓

Personal Details

Father's Name: Shoket Hussain
 Mother's Name: Shabnam Ara
 Date of Birth: 26-04-1993
 Place of Birth: Bhadarwah
 Nationality: Indian
 Sex: Male
 Marital Status: Married
 Languages' Known: English, Urdu, Kashmiri
 Permanent Address: Qilla Mohalla Tehsil Bhadarwah, Doda (182222) Jammu and Kashmir, India

Declaration

I hereby declare that all the above information furnished by me is true to the best of my knowledge and belief.

Place: Jammu (180006) (INDIA)

Date: April 18, 2025

(ABBU ZAID)