

# Curriculum Vitae

## Personal Details

Name: **Dr. Zahoor Ahmad Sajid s/o Asghar Ali**  
Mailing Address: Assistant Professor (HEC Approved Supervisor)  
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Date of Birth: May 1, 1978  
Marital Status: Married  
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## Teaching/ Other Job Experiences

- **Assistant Professor (TTS)** from July 09, 2019 to date at the Department of Botany University of the Punjab Lahore.
- **Assistant Professor (Contract)** from January 11, 2016 to July 13, 2018 at the Department of Botany University of the Punjab Lahore.
- **Assistant Professor (IPFP-Contract)** from May 31, 2013- May 31, 2014 at the Department of Botany University of Education Okara Campus.
- **Incharge Botanical Garden** from March 23, 2008 to May 31, 2013 at the Department of Botany, University of the Punjab, Lahore

## Honors and Awards

- 3<sup>rd</sup> position in M. Phil examination held in 2003-04.
- Fellowship awarded by Higher Education Commission of Pakistan under International Research Support Initiative Program (IRSIP) for 6 months short duration training techniques at Department of Horticulture and Landscape Architecture, Purdue University, West Lafayette Indiana USA. From Oct 15, 2008- May 19, 2009.
- Awarded boarding and lodging grant for 5 days training workshop on Bio-safety and Bio-security in Plant Tissue Culture Collection held on 13-17 August 2018 at Amsterdam Netherland. By CRDF Global.

## **Research Projects completed:**

1. A research project entitled “Biofortification of Selenium enhance the growth and productivity of Chili (*Capsicum annuum* L.)” submitted to University of the Punjab in 2021-2022. Funded amount Rs.280000/-
2. A research project entitled “Sustainable Mass Scale Production, Improvement, and Conservation of King Mulberry (*Morus macroura* L.)” awarded by University of the Punjab was completed in 2020-2021. Funded amount Rs.150000/-

3. A research project entitled “Salicylic acid enhances activity of antioxidant enzymes and drought stress tolerance in potato” awarded by University of the Punjab was completed in 2019-2020. Funded amount Rs.150000/-

### **Research Students Supervised**

#### **Ph.D Students (Synopsis approved by ASRB)**

1. **Umme Habiba: 2019.** Ph.D-Bt10F19. Synopsis titled “Evaluation of Rhizospheric Actinobacteria for Plant Growth Promoting Potential and Yield Enhancement of Potato (*Solanum tuberosum* L.)” (Approved ASRB).
2. **Nida Fatima: 2019.** Ph.D-Bt11F19. Synopsis titled “Efficacy of halotolerant bacteria to alleviate salinity stress of *Solanum lycopersicum* Mill. (Approved ASRB).
3. **Maria : 2021.** Ph.D-Bt03F21. Course work in progress

### **MS/MPhil Thesis completed**

1. **Muhammad Usman: 2020-21.** Influence of plant growth regulators on callus induction and regeneration of *Crocus sativus* L. (M. Phil Thesis).
2. **Anam Khalil: 2020-21.** Effect of Mint hydrosol on growth and antioxidant activity in *Lycopersicon esculentum* L.). (M. Phil Thesis).
3. **Zainab Zahra: 2020-21.** Salinity effects on growth and antioxidant enzyme activities of *Stevia rebaudiana* Bertoni L. (MS Thesis).
4. **Ayesha Iqbal: 2020-21.** An efficient method for callus induction and regeneration of *Paulownia tamontosa* L. (MS Thesis).
5. **Eza Qayyum: 2018-20.** Effect of Epibrassinolide on the physiological and biochemical attributes of potato (*Solanum tuberosum* L.) under Nickle stress. (MS Thesis).
6. **Zeshan ur Rehman: 2017-19.** Amelioration of salinity stress tolerance in lemon grass (*Cymbopogon flexuosus* Steud. Wats) by exogenous application of salicylic acid. (M. Phil Thesis)
7. **Asrar Javaid: 2017-19.** Amelioration of salinity stress tolerance in Tulsi (*Ocimum tenuiflorum*) by exogenous application of ascorbic acid. (M. Phil Thesis).
8. **Abdul Raziq: 2013-14.** Impact of ascorbic acid on maiz (*zea mays*) under saline conditions. (M. Phil Thesis)
9. **Muhammad Safdar: 2013-14.** Amelioration of salinity stress tolerance in pea (*Pisum sativum*) by exogenous application of salicylic acid. (M. Phil Thesis)
10. **Aamir Mehmood: 2013-14.** Influence of salicylic acid on salinity stress tolerance by seed priming and foliar application on maiz (*zea mays*). (M. Phil Thesis)

### **MSc/BS Thesis completed**

11. **Rania Jamil.:2020-21.** Rooting of softwood shoots of *Ginkgo biloba* L. (BS Thesis)
12. **Sadia Noureen: 2020-21.** Effect of Ascorbic acid on chromium (Cr) Stress in *Saccharum officinarum* ((BS Thesis))

13. **Shumaila Nawaz: 2020-21.** Propagation of King Mulberry by using IBA (M.Sc Thesis)
14. **Razeen Gull: 2020-21.** Effect of IBA application on adventitious roots formation in *Ficus carica* L. (M.Sc Thesis)
15. **Farheena Dildar: 2020-21.** Rooting response of grapevine using IBA (M.Sc Thesis)
16. **Amarha Rehman: 2015-16.** Micropropagation and callus induction in *Ginkgo biloba*. (BS Thesis)

### **Community Services**

#### **Administrative/Advisory:**

- Incharge University Seed Center, Institute of Botany PU Lahore
- Incharge Botanical Garden, Institute of Botany PU Lahore
- Member Institutional Auction Committee
- Incharge Committee of Institutional cleanliness
- Member event organizing committee

#### **Reviewer of the following Impact Factor Journals**

- International Journal of Agricultural Education and Extension
- Frontier in Plant Sciences
- Advances in Agriculture (Hindawi)
- International Journal of Agronomy (Hindawi)
- International Journal of Pharmaceutical Sciences
- Gene Reports
- Pakistan Journal of Botany
- Journal of the Science of Food and Agriculture
- World Journal of Agricultural Sciences
- Pakistan Journal of Science

#### **Reviewer of the following Non-Impact Factor HEC Recognized Journals**

- Bilogia (Pakistan)
- Journal of Innovative Sciences
- Journal of Science Education

#### **Evaluation of BS, MPhil and MS Thesis of various Universities**

- Department of Microbiology and Molecular Genetics, Punjab University Lahore
- L.C. W. University, Lahore
- University of Lahore
- University of Education
- University of Okara
- Govt. College University Lahore
- GC University Faisalabad
- University of Sargodha
- University of Veterinary and Animal Sciences

### **Paper setter and External Examiner of various Universities**

- University of the Punjab Lahore
- University of Okara
- Islamia University Bawalpur
- University of Education

### **Teaching and Research Expertise/Specializations**

My research focus is on to study the mechanism of salinity tolerance in agricultural crop and True halophytes (*Thellungiella halophila* and indigenous Halophytes) under in vitro condition. Currently, I am evaluating the potential of different bio-molecules (Salicylic acid, ascorbic acid, proline,  $\text{KH}_2\text{PO}_4$  etc) against various stresses in different commercially important crops (Potato, pea, maiz etc). Exogenous application of these bio-molecules (pretreatment to plants/ callus cultures before inoculation/added in medium) or foliar spray to pot-grown plants has shown to have reduced its effect substantially in plants. These bio-molecules minimized the oxidative damage by increasing the amount of antioxidant enzymes (superoxide dismutase, catalase and peroxidase) that in turn reflected in better growth parameters of plants.

I taught various courses, i.e., Plant Biochemistry, Plant Tissue Culture, Cell and Molecular Biology, Horticulture, Fundamentals of Forestry, Plant Diversity, Biotechnology for Sustainable Development to BS/MS/MPhil and PhD classes.

## **LIST OF PUBLICATIONS: IF. 21**

1. Rehman, Z; Hussain, A; Saleem, S; Khilji, S.A. and **Sajid, Z.A** 2022. Exogenous application of salicylic acid enhances salt stress tolerance in lemongrass (*Cymbopogon flexuosus* steud. Wats). *Pakistan Journal of Botany*. 54(2): DOI: [http://dx.doi.org/10.30848/PJB2022-2\(13\)](http://dx.doi.org/10.30848/PJB2022-2(13)) ISSN 1589-1623. pISSN 0556-3321; **IF 0.972**.
2. Zaman, A; Badshah, L; Ullah, S; and **Sajid, Z.A** 2022. conservation status and threats pattern of narrow endemics: a case study from terich valley, hindukush range, Chitral, northern Pakistan. *International Journal of Conservation Science*. 13(1):190-212 ISSN 2067-533X. **HJRS X category**.
3. Munir, N; Khilji, S.A. Sabar, M and **Sajid, Z.A**. 2021. Exogenous application of ascorbic acid enhances the antimicrobial and antioxidant potential of *Ocimum sanctum* L. grown under salt stress. *Journal of Food Quality*. 4977410. <https://doi.org/10.1155/2021/4977410>. **IF. 2.450**
4. Khilji, S.A; Aqeel, M; Maqsood, M.F; Khalid, N; Tufail, A; **Sajid, Z.A et al.** 2021. *Hemarthria compressa—Aspergillus niger—Trichoderma pseudokoningii* Mediated Trilateral Perspective for Bioremediation and Detoxification of Industrial Paper Sludge. *Sustainability* 21(13). DOI:10.3390/su132112266 **IF. 3.251; 2071-1050**
5. Zainab, Rauf M., Gul H., **Sajid Z.A.**, Abid M., Jan U, Rahman A.U, Behram, Ullah I, Khan A, Javeria, Aziz K, Begum H. A. 2021. Identification of Evolutionary Conserved Promoter- Based Regulatory Sequences for Senescence- Associated 29 Gene. *International Journal of Computational Intelligence in Control*. 13: 61-79.
6. Khilji, S.A. and **Sajid, Z.A** 2020. Phytoremediation potential of lemongrass (*Cymbopogon flexuosus* stapf.) Grown on tannery sludge contaminated soil. *Applied Ecology and Environmental Research*. 18(6): 7703-7715. ISSN 1589-1623; DOI: [http://dx.doi.org/10.15666/aeer/1806\\_77037715](http://dx.doi.org/10.15666/aeer/1806_77037715). **IF. 0.972**
7. **Sajid, Z.A** and Khilji, S.A. 2020. Evaluation of salt stress tolerance on some growth and biochemical attributes in *Suaeda fruticosa* L. (Forssk). *Biologia (Pakistan)*. 42(II): 103-110.
8. Khilji, S.A. and **Sajid, Z.A** 2020. Appraisal of the effect of industrial effluents on the chlorophyll, protein and heavy metals contents in water hyacinth (*Eichhornia crassipes* L.) *Biologia (Pakistan)*. 42(II): 203-215. ISSN 2313-206X
9. Mahmood, A; **Sajid, Z.A** and Khilji, S.A. 2018. Influence of Salicylic acid on salinity tolerance by seed priming and foliar application on Maiz L. *Biologia (Pakistan)*. 64(II): 303-312.
10. **Sajid, Z.A** and Aftab F. 2016. Foliar spray of ascorbic acid improves salinity tolerance in *Solanum tuberosum* L. *Acta Horticulturae*. 1145(10): 69-74. DOI: 10.17660/ActaHortic.2016.1145.10; ISSN 0567-7572
11. **Sajid, Z.A** and Aftab F. 2016. An efficient method for the establishment of cell suspension cultures in potato (*Solanum tuberosum* L.) *Pakistan Journal of Botany*. 48(5): 1993-1997. pISSN 0556-3321; **IF 0. 0.972**

12. **Sajid, Z.A;** Safdar, M and Khilji, S.A. 2016. Amelioration of Salinity Stress Tolerance in Pea (*Pisum sativum* L.) by Exogenous Application of Salicylic Acid. *Biologia (Pakistan)* 62(1): 69-78.
13. Imran, M.A, **Sajid, Z.A** and Chaudhry, M.N. 2015. Arsenic (As) Toxicity to Germination and Vegetative Growth of Sunflower (*Helianthus annuus* L.). *Polish Journal of Environmental Studies*. 24(5) 1993-2002.; DOI: <https://doi.org/10.15244/pjoes/39553>. **IF- 1.699**
14. **Sajid, Z.A** and Aftab, F. 2015. Enhanced Salinity Tolerance in Field-grown Potato (*Solanum tuberosum* L.) Treated with Ascorbic acid. *International Journal of Advances in Science and Technology*. Special issue pp 28-39.
15. Khilji, S.A, Bareen, F and **Sajid, Z.A**. 2015. Role of Antioxidants in the Growth and Heavy Metal Uptake from Tannery Sludge in Microbe Assisted Phytoremediation under Field Conditions. *Journal of Advances in Science and Technology*. Special issue pp 10-20.
16. **Sajid, Z.A** and Aftab, F. 2014. Plant regeneration from in vitro-selected salt tolerant callus cultures of *Solanum tuberosum* L. *Pakistan Journal of Botany*. 46(4): 1507-1514. pISSN 0556-3321; **IF 0. 0.972**
17. **Sajid, Z.A** and Aftab, F. 2012. Role of Salicylic acid in the Amelioration of Salt tolerance in *Solanum tuberosum* L. *Pakistan Journal of Botany*. 44(S11): 37-42. pISSN 0556-3321; **IF 0. 0.972**
18. Ejaz, B., **Sajid, Z.A** and Aftab, F. 2012. Effect of exogenous application of ascorbic acid on growth of *Saccharum* hybrid cv. HSF-240 under salt stress. *Turk Journal of Biology*.36:630-640. ISSN 1300-0152; DOI:10.3906/biy-1201-37. **IF.1.452**
19. **Sajid, Z.A** and Aftab, F. 2009. Amelioration of salinity tolerance in *Solanum tuberosum* L. by exogenous application of ascorbic acid. *In vitro Cellular and Developmental Biology-Plant*. 45(5): 540-549. ISSN 1054-5476. DOI. <https://doi.org/10.1007/s11627-009-9252-4>. **IF 2.252**
20. **Sajid, Z.A** and Aftab, F. 2009. The effect of Thidiazuran (TDZ) on *in vitro* micropropagation of *Solanum tuberosum* L. Cvs. Desiree and Cardinal. *Pakistan journal of Botany* 41(4): 1811-1815. pISSN 0556-3321; **IF 0.972**
21. **Sajid, Z.A** and Aftab, F. 2008. Changes in regeneration potential, protein, and peroxidase contents in callus cultures of *Solanum tuberosum* L. under NaCl stress. Proceeding of 1<sup>st</sup> symposium of microbiology and molecular genetic. Lahore, Pakistan. 23, 24 October-2007. pp 141-150.
22. **Sajid, Z.A** and Aftab, F. 2007. Protein and Peroxidase Contents *in vitro* Cultures of *Solanum tuberosum* (Cvs. Desiree and Cardinal) under NaCl stress. *Pakistan Journal of Biochemistry and Molecular Biology*. 40(4): 227-232. ISSN-1681-4525
23. Akbar, K.F., **Sajid, Z.A.**, Shad, M.A. and Ansari, T.M. 2003. An ecological study of roadside vegetation and soils of District Sahiwal. *Pakistan journal of Biological Sciences*. 3(7): 627-634. DOI: 10.3923/jbs.2003.627.634; pISSN: 1727-3048

## **Conferences and Symposium Attended**

1. Dissecting the Scholarly Publishing Processing. An Overview and Guidance on Publishing by John Wiley & Sons, Publishing Company. Jan 27, 2021. (Online webinar).
2. New trends in Natural Sciences, emerging infectious diseases, communicable diseases insight, Zoonoses and strategies held at LCW University Lahore, 21-22 Dec 2020.
3. 1<sup>st</sup> International symposium on current trends and future perspectives in botanical research 2020. Nov.10, 2020 (Online webinar).
4. 7<sup>th</sup> international Horticulture Research conference held at Department of Horticulture, Beijing, Shanghai. July 07-August 07-2020. (Online webinar).
5. 4<sup>th</sup> international conference of Role of Botanical Gardens in Climate Change Adaptation and Mitigation held at GCU Lahore. Feb. 21-23, 2018.
6. 1<sup>st</sup> International Conference on Conventional and Modern Approaches in Plant Sciences held at Department of Botany, PU Lahore. Nov, 28-29-2017.
7. 2<sup>nd</sup> International Conference of Agriculture, Biological and Environmental Sciences held at Eastin Hotel Pattaya Thailand. March 28-29, 2015.
8. 3<sup>rd</sup> international conference on “Education in Pakistan: Practices and Challenges held at University of Education Lahore on 6-7<sup>th</sup> January 2014.
9. “International Conference on Advances in Plant Sciences” held at Empress Hotel and Convention Center Chiang Mai Thailand on November 14-18, 2012.
10. 12<sup>th</sup> National and 3<sup>rd</sup> International Conference of Botany (ICB-2012) held at Quaid-i-Azam University Islamabad on Sep. 01-03, 2012.
11. “International Symposium on Biotechnology and Other Omics in Vegetable Science” in Antalya-Turkey (29 April-02 May 2012).
12. 2<sup>nd</sup> International Conference of Plant Scientist held at Department of Botany, GC University Lahore on Feb. 22-24, 2011.
13. “International Conference of Plant Scientists” (10<sup>th</sup> National Meeting of Plant Scientists) at University of Agriculture Faisalabad, Pakistan. April 21-24-2008.
14. 1<sup>st</sup> Symposium on “Genomics, proteomics, Metabolomics: Recent trends in Biotechnology” at PU. Lahore, Pakistan. October 22-23, 2007.
15. 1<sup>st</sup> Int. Conference on Biotechnology and Informatics” at Baluchistan University of Information Technology and Management Sciences. April 10-12-2006
16. International Symposium on “Applications of Plant Sciences in Emerging Scenario” at G.C.U. Faisalabad, Pakistan. March 20-22-2006.

## **Training Courses Attended**

1. 5 days training workshop on Bio-safety and Bio-security in Plant Tissue Culture Collection held on 13-17 August 2018 at Amsterdam Netherland.
2. One days training workshop on Strengthening Research Planning using Elsevier Tools-Scopus, Science Direct & Mendeley @ ELSEVIER held on 22 October 2020 (Online Webinar).
3. 5 days training workshop on Bio-safety and Bio-security in Plant Tissue Culture Collection held on 13-17 August 2018 at Amsterdam Netherland.

4. One day training workshop on innovative ideas in Kitchen Gardening and Mushroom cultivation held at Department of Botany, University of the Punjab Lahore. Oct. 4<sup>th</sup> 2017. (As Recourse Person).
5. 3<sup>rd</sup> One Week Faculty Training program held on November 17-22, 2014 at the Department of Microbiology and Molecular Genetics University of the Punjab Lahore in Collaboration with Learning Innovation Division HEC Islamabad.
6. Development of Sustainable and Collaborative Research Network. Talented Researchers Exchange Program. INSPIRE Pakistan held on March 13-14, 2010, in Department of Botany, Lahore College for Women University.
7. 1<sup>st</sup> Proteomics Workshop: “From Sample Preparation to Data Analysis” University of the Punjab, Lahore, Pakistan. October 24-25, 2007.
8. 4<sup>th</sup> National Training Course on “Modern Techniques in Biotechnology” NIBGE Faisalabad. March 26-31-2006.