

## RESUME

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### PROFILE

- Research expertise in Plant systematic with an emphasis on phylogenetic studies to address the questions related to phylogeny, evolutionary processes and historical biogeography.
- Rich experience in DNA sequencing, PCR, Gel electrophoresis and microsatellite isolation. Expertise in computer programs PAUP, MrBayes, BEAST, S-DIVA, BBM, Lagrange, and GeoSSE.
- Homology modeling, docking, Insilco analysis, Protein-protein interactions, gene profiling
- Subtractive genomics and proteomics

### EDUCATION

- Karl Franzens University Graz, Austria.  
Ph.D. Biology/Botany, July 2013.
- Quaid-i-Azam University Islamabad, Pakistan.  
M.Sc. Biochemistry and molecular biology, 1999.

### RESEARCH INTERESTS

- Molecular systematic,
- Historical Biogeography,
- Divergence time estimates,
- Evolution,
- Phylogenetics,
- Ecology,
- Homology modeling, docking, Insilco analysis, protein protein interaction, gene profiling
- Subtractive genomics and proteomics

### RESEARCH EXPERIENCE

Phylogenetic and Biogeographic program, Karl Franzens University Graz & Biocenter Linz, Austria. Doctoral thesis research was conducted with Dr. Wolfgang Wetschnig and Dr. Martin Pfosser. Phylogenetic and Biogeographic analyses of family Hyacinthaceae was conducted with an emphasis on systematic positions of Madagascan members of family, reasons of disjunct distribution patterns and role of geodispersal, long distance dispersal, vicariance and extinction events in these distribution patterns. These investigations resulted in 5 publications (4 published and one submitted).

## **EVENTS ORGANIZED**

- Fund raising for IDPs Waziristan 2014
- Blood grouping camp 2015

## **ADMINISTRATIVE POSITIONS**

- Campus coordinator from December 2015 to September 2016.
- Director, Center for Biotechnology & Microbiology, University of Swat, from May 2015 to September 2016.
- Member of Graduate studies committee and department semester committee.
- Organizer, Disaster management and health affair society university of Swat.

## **TEACHING AND SUPERVISION**

- Assistant Professor, since 2013 at Center for Biotechnology & Microbiology, University of Swat, Odigram, Swat, KPK, Pakistan (three year teaching, research and administration experience).
- Taught plant systematic, microbial systematic, bioinformatics, plant diversity and environmental biotechnology courses to BS, MSc, MPhil and PhD classes.
- Supervised and co-supervised seven MSc students in 2014-15.
- Currently supervising and co-supervising two MPhil and eight BS students. (2017)
- Evaluation of 3 MS student thesis.
- External examiner of 2 MS student thesis.

## **AWARD**

- PhD overseas scholarship by Higher Education Commission Pakistan, Government of Pakistan.

## **PROJECTS**

- Biotechnology Lab. Up gradation project (2 million Rs.) (2015).

- Exploration (phylogenetics) of Geminivirus complex in Swat valley (0.5 m, Co PI) (2015).

#### **SEMINARS/WORKSHOPS**

- How to write a winning research proposal (2014)
- Dengue prevention (2014)
- Risk assessment (2014)
- Early warning system for floods. (2014)
- Zoonotic diseases (2014)

#### **REVIEWER,**

Reviewed articles in a peer-reviewed journal (Journal of biogeography & plant biosystems)

#### **Evaluation of MS Thesis**

- Evaluated and conducted via of MS students.

#### **PUBLICATIONS**

1. Aftab Alam, Nisar Ahmad, **Syed Shujait Ali**, Hina Fazal, Haji Khan (2019) Optimization of culture conditions for cultivation of cells to enhance productivity of biomass and secondary cell products in endangered *Caralluma tuberculata*. **Scientific report** (accepted). **(IF 4.21)**
2. Hina Fazal, Bilal Haider Abbasi, Nisar Ahmad, Mohammad Ali, **Syed Shujait Ali**, Abbas Khan and Dong-Qing Wei (2019) Sustainable production of biomass and industrially important secondary metabolites in cell cultures of selfheal (*Prunella vulgaris* L.) elicited by silver and gold nanoparticles. **ARTIFICIAL CELLS, NANOMEDICINE, AND BIOTECHNOLOGY**, 47(1): 2553–2561. **(IF 4.46)**
3. Shahzeb Khan, Abbas Khan, Ashfaq Ur Rehman, Irfan Ahmad, Saif Ullah, Abdul Aziz Khan, **Syed Shujait Ali**, Sahib Gul Afridi, Dong-Qing Wei (2019) Immunoinformatics and structural vaccinology driven prediction of multi-epitope vaccine against Mayaro virus and validation through in-silico expression. **Infection Genetics and Evolution** 73: 390-400. **(IF 2.6)**
4. Abbas Khan, Aman Chandra Kaushik, **Syed Shujait Ali**, Nisar Ahmad, Dong-Qing Wei (2019) Deep-learning-based target screening and similarity search for the predicted inhibitors of the pathways in Parkinson's disease. **RSC advances**, 9: 10326-10339. **(IF 2.9)**
5. Ali A, Khan A, Kaushik A, Wang Y, **Ali S**, Junaid M, Saleem S, Cho W, Mao X, Wei D

- (2019) Immunoinformatics and systems biology approaches to predict and validate peptide vaccines against Epstein-Barr virus (EBV). *Scientific report*, 9:720. (IF 4.21)
6. Hamed Yousefzadeh, Ali Khodadost, Hamid Abdollahi, **Syed Shujait Ali**, Gregor Kozlowoski, Hamid Bina (2019) Biogeography and phylogenetic relationships of Hyrcanian wild apple using cpDNA and ITS noncoding sequences. *Systematics and biodiversity*, 1-13. (IF 2.20)
  7. Abbas Khan; Muhammad Junaid; Aman Chandra Kaushik; **Syed Shujait Ali**; Dongqing Wei (2018) Computational identification, characterization and validation of potential antigenic peptide vaccines from hrHPVs E6 proteins using immunoinformatics and computational systems biology approaches. *Plos one*.13 (5) e0196484 (IF 2.81)
  8. Khan A., Saleem s., Idrees M., **Ali SS.**, Junaid M (2018) Allosteric ligands for the pharmacologically important Flavivirus target (NS5) from ZINC database based on pharmacophoric points, free energy calculations and dynamics correlation. *Journal of molecular graphics and modeling*. 82: 37-47 (IF 1.754)
  9. Khan F, Ahmad A, Ali A, Rehman T, **Ali SS** (2017) Conformational hotspots of Dengue Virus NS5 RdRp *Current Bioinformatics*. 83(3): 310-318 (IF 0.77).
  10. Fazal H., Abbasi B., Ahmad N., **Ali SS.**, Akbar F., Kanwal F (2016) Correlation of different spectral lights with biomass accumulation and production of antioxidant secondary metabolites in callus cultures of medicinally important *Prunella vulgaris* L. *Journal of photochemistry and photobiology. B, Biology*. 159: 1-7. (IF = 3.03).
  11. Ali M, Abbasi BH, Ahmad N, **Ali SS**, Ali S, Ali GS (2016) Sucrose-enhanced biosynthesis of medicinally important secondary metabolites in cell suspension cultures of *Artemisia absinthium* L. *Bioprocess and Biosystems Engineering*. 39(12): 1945-1954 (IF = 1.91) (DOI: 10.1007/s00449-016-1668-8)
  12. Waheed A, Ali S, **Ali SS** (2016) Pakistan as major obstruction in global end to poliomyelitis program: background and 2016 update, *Brazilian journal of infectious diseases*. 20 (5): 518-520. (IF = 1.40 (DOI: 10.1016/j.bjid.2016.07.009)
  13. Bina H, Yousefzadeh H, **Ali SS**, Esmailpour M (2016) Phylogenetic Relationships, Molecular Taxonomy, Biogeography of *Betula*, with Emphasis on Phylogenetic Position of Iranian Populations. *Tree genetics and Genomes*. 5: 1-17. (IF = 2.13). (DOI: 10.1007/s11295-016-1037-4)
  14. Kalsoom, Akbar F., Younas M., Tasneem U., Suleman M., **Ali SS.**, Ali S., Roohi A. (2014). Prevalence of typhoid fever in five Southern districts of Khyber Pakhtunkhwa, Pakistan: A preliminary study. *International Journal of Biosciences*. 4: 325-330.

15. Akbar F., Farooqi A., Naeem T., Suleman M., **Ali SS.**, Ishaq, Ali S. (2013). Characterization of seed storage proteins of different varieties of *Brassica napus* seeds. *International Journal of Biosciences*. 3: 1-7.
16. **Ali SS.**, Pfosser M., Wetschnig W., Martínez-Azorín M., Crespo B., Yu Y. (2013). Out of Africa: Miocene dispersal, vicariance and extinction within Hyacinthaceae subfam. Urgineoideae. *Journal of integrative plant biology*. 55: 950-964. (**IF = 3.92**)
17. Pfosser M., Knirsch W., Pinter M., **Ali SS.**, Dutta S., Wetschnig W. (2012). Phylogenetic relationships of Malagasy Hyacinthaceae. *Plant Ecology and Evolution*. 145: 65–72. (**IF= 1.16**)
18. **Ali SS.**, Yu Y., Pfosser M., Wetschnig W. (2012). Inferences of biogeographical histories within subfamily Hyacinthoideae using S-DIVA and Bayesian Binary MCMC analysis implemented in RASP (Reconstruct Ancestral State in Phylogenies). *Annals of Botany*. 109: 95-107. (**IF = 4.03**).
19. Wetschnig W., Knirsch W., **Ali SS.**, Pfosser M. (2007). Systematic position of three little known and frequently misplaced species of Hyacinthaceae from Madagascar. *Phyton* (Austria) 47(1-2): 321–337. (**IF = 0.44**).

## REFERENCES

1. Dr. Shahid Ali, Centre for Biotechnology and Microbiology, University of Swat.  
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