

LIST OF PUBLICATIONS

Research articles in scientific journals:

1. **Ali, S.A.**, Alam, M., Abbasi, A. Stoeva, S. and Voelter, W. (2007) Molecular mechanism of inhibition: Prediction of the three-dimensional structure of Bs- α KTx6 from scorpion (*B. indicus*) venom and its interactions with human K⁺-channel Kv1.1. *Submitted*.
2. **Ali, S.A.**, Grossmann, J.G. Abbasi, A. and Voelter, W. (2007) Structural and conformational analysis of scorpion (*Buthus indicus*) hemocyanin using low resolution techniques. *Protein Peptide Lett.*, 14(5): 481-488.
3. Merkel, P., Beck, A., Muhammad, K., **Ali, S.A.**, Schönfeld, C., Voelter, W. and Duszenko, M. (2007) Spermine isolated and identified as the major trypanocidal compound from the snake venom of *Eristocophis macmahoni* causes autophagy in *Trypanosoma brucei*. *Toxicon*, May 6; [Epub ahead of print]
4. **Ali, S.A.**, Wang, B., Alam, M., Beck, A., Stoeva, S., Voelter, W., Abbasi, A. and Duszenko, M. (2006) Structure-activity relationship of an α -toxin Bs-Tx28 from scorpion (*Buthus indicus*) venom suggests a new α -toxin subfamily. *Arch. Biochem. Biophys.*, 445: 81-94.
5. Saeed, S., Rasool, S.A., Ahmed, S., Khanum, T., Khan, M.B., Abbasi, A., and **Ali, S.A.** (2006) New insight in staphylococcin research: bacteriocin or/and bacteriocin-like inhibitory substance(s) produced by *S. aureus* AB188. *World J Microbiol. Biotechnol.*, 22: 713-722.
6. Lutfullah, G., **Ali, S.A.** and Abbasi, A. (2005) Molecular mechanism of high altitude respiration: Primary structure of a minor hemoglobin component from Tufted duck (*Aythya fuligula*, Anseriformes). *Biochem. Biophys. Res. Commun.*, 326: 123-130.
7. Pirzada, Z.A., **Ali, S.A.**, Khan, M.B. and Rasool, S.A. (2004) Production and Physico-chemical Characterization of Bacteriocins-like Inhibitory Substances from Marine Bacterium ZM81. *Pak. J. Biol. Sci.*, 7: 2026-2030.
8. Sattar, R., **Ali, S.A.**, Kamal, M., Khan, A.A. and Abbasi, A. (2004) Molecular mechanism of enzyme inhibition: Prediction of the three-dimensional structure of dimeric trypsin inhibitor from *Leucaena Leucocephala* by homology modeling. *Biochem. Biophys. Res. Commun.*, 314: 755-765.
9. Hussain, M. and **Ali, S.A.** (2004) Bacterial cross-talks: their role in pathogenicity with reference to molecular and genetic control. *Int. J. Biol. Biotech.*, 1: 121-127.
10. Saeed, S., Rasool, S.A., Ahmad S. and **Ali, S.A.** (2004) Immunological and toxicological studies of Staphylococcin Bac188 (a Bacteriocin/ Bacteriocin-like Inhibitory substance) on experimental animals. *Pak. J. Biol. Sci.*, 7: 1888-1892.

11. Sattar, R., **Ali, S.A.** and Abbasi, A. (2003) Bioinformatics of granzymes: sequence comparison and structural studies on granzyme family by homology modeling. *Biochem. Biophys. Res. Commun.*, 308: 726-735.
12. Sattar, R., **Ali, S.A.** and Abbasi, A. (2003) Molecular mechanism of apoptosis: prediction of the three-dimensional structure of caspase-6 and its interactions by homology modeling. *Biochem. Biophys. Res. Commun.*, 308: 497-504.
13. **Ali, S.A.**, Weiß, T., Stevanovic, S., Faigle, M. and Neumeister, B. (2002) Influence of Legionella-associated Protozoa on Intracellular Growth of Legionellae in Human Monocytes. 54. Annual Meeting of the "Deutsche Gesellschaft für Hygiene und Mikrobiologie" (DGHM) at Heidelberg, Germany. Published in *Int. J. Med. Microbiol.* vol. S292, p-119.
14. Alam, J.M., **Ali, S.A.**, Faridi, N., Alam, S.M. (2002) Myotoxic characteristics of snake venoms; myonecrosis induced in albino rats by crude venoms and the purified myotoxic component, phospholipase A₂. *JCPSP*, 12: 398-404.
15. **Ali, S.A.**, Stoeva, S., Grossmann, J.G., Abbasi, A., and Voelter, W. (2001) Purification, characterization and primary structure of four depressant insect-selective neurotoxin analogues from the scorpion (*Buthus indicus*) venom. *Arch. Biochem. Biophys.*, 391(2): 197-206.
16. Iqbal, A., **Ali, S.A.**, Abbasi, A., Voelter, W. and Rassol, S.A. (2001) Production, purification and some properties of Bac201, a bacteriocin-like inhibitory substance produced by *Staphylococcus aureus* AB201. *J. Basic Microbiol.*, 41(1): 25-36.
17. **Ali, S.A.**, Stoeva, S., Abbasi, A., Alam, J.M., Kayed, R., Faigle, M., Neumeister, B. and Voelter, W. (2000) Isolation, structural, and functional characterization of an Apoptosis-Inducing L-amino acid oxidase from Leaf-nosed viper (*Eristocophis macmahoni*) snake venom. *Arch. Biochem. Biophys.*, 384(2): 216-226.
18. Grossmann, J.G., **Ali, S.A.**, Abbasi, A., Zaidi, Z.H., Stoeva, S., Voelter, W. and Hasnain, S.S. (2000) Molecular conformations of single functional subunits from arthropodan and molluscan hemocyanins studied by solution X-ray scattering. *Biophys. J.*, 78(2): 977-981.
19. **Ali, S.A.**, Abbasi, A., Stoeva, S., Kayed, R., Dolashka-Angelova, P., Schwarz, H. and Voelter, W. Oxygen Transport proteins: III. (2000) Structural studies of the scorpion (*Buthus indicus*) hemocyanin, partial primary structure of its subunit Bsin1. *Comp. Biochem. Physiol.*, B126: 361-376.
20. **Ali, S.A.**, Alam, J.M., Abbasi, A., Zaidi, Z.H., Stoeva, S. and Voelter, W. (2000) Sea Snake (*Hydrophis cyanocinctus*) venom, II: Histopathological changes, induced by a myotoxic phospholipase A₂ (PLA₂-H1). *Toxicon*, 38(5): 687-705.
21. Dolashka-Angelova, P., **Ali, S.A.**, Demirevska-Kepova, K., Stoeva, S. and Voelter, W. (2000) Purification, characterization and thermostability of Ribulose 1, 5-Bisphosphate Carboxylase-Oxygenase from Barley Leaves. *Z. Naturforsch.*, C55: 611-619.
22. **Ali, S.A.**, Alam, J.M., Stoeva, S., Schutz, J., Abbasi, A., Zaidi, Z.H. and Voelter, W. (1999) Sea Snake (*Hydrophis cyanocinctus*) venom, I: Purification,

- characterization and N-terminal sequence of two phospholipases A₂. *Toxicon*, 37(11): 1509-1524.
23. **Ali, S.A.**, Hamid, F., Abbasi, A., Zaidi, Z.H. and Shehnaz, D. (1999) Pharmacological effects of the leaf-nosed viper (*Eristocophis macmahoni*) venom and its HPLC fractions. *Toxicon*, 37(8): 1095-1107.
 24. **Ali, S.A.**, Stoeva, S., Abbasi, A., Georgieva, D.N., Genov, N. and Voelter, W. (1999) Oxygen Transport proteins: II. Chemical and spectroscopic properties of scorpion (*Buthus indicus*) native hemocyanin and purified subunit Bsin1. *Comp. Biochem. Physiol.*, 122: 65-74.
 25. Iqbal, A., Ahmed, S., **Ali, S.A.**, and Rasool, S.A. (1999) Isolation and partial characterization of Bac201: A plasmid-associated Bacteriocin-like Inhibitory Substance from *Staphylococcus aureus* AB201. *J. Basic Microbiol.*, 39(5-6): 325-336.
 26. **Ali, S.A.**, Stoeva, S., Schutz, J., Kayed, R., Abbasi, A., Zaidi, Z.H. and Voelter, W. (1998) Purification and primary structure of low molecular mass peptides from scorpion (*Buthus indicus*) venom. *Comp. Biochem. Physiol.*, 121(4): 323-332.
 27. **Ali, S.A.**, Alam, J.M., Zaidi, Z.H. and Abbasi, A. (1998) Isolation and characterization of a toxic phospholipase A₂ from sea snake (*Hydrophis cyanocinctus*) venom. *Pak. J. Zool.*, 30(4): 289-294.
 28. Alam, J.M. and **Ali, S.A.** (1998) Comparative biochemical and biological studies on venom of Cobra (*Naja naja naja*) snakes of varying ages from different localities. *Pak. J. Zool.*, 30(3): 203-206.
 29. Georgieva, D.N., Stoeva, S., **Ali, S.A.**, Abbasi, A., Genov, N. and Voelter, W. (1998) Circular dichroism study of the hemocyanin thermostability. *Spectrochem. Acta.*, 54: 765-771.
 30. Khurshid, R., Akhtar, M.S., **Ali, S.A.** and Abbasi, A. (1997) Characterization of breast tissue of normal/breast cancer patient. *Pak. J. Biochem. Mol. Biol.*, 30: 39-48.
 31. **Ali, S.A.**, Zaidi, Z.H. and Abbasi, A. (1995) Oxygen Transport proteins: II. Structure, organization and subunit heterogeneity in scorpion hemocyanins. *Pak. J. Biochem. Mol. Biol.*, 28: 95-103.
 32. **Ali, S.A.**, Zaidi, Z.H. and Abbasi, A. (1995) Oxygen Transport Proteins: I. Structure and organization of hemocyanin from scorpion (*Buthus indicus*). *Comp. Biochem. Physiol.*, 112 (1): 225-232.

Books:

1. Protein Structure - Function Relationship (2005) Proceedings of the 8th International Symposium on Protein Structure - Function Relationship (Abbasi, A. and **Ali, S.A.** Eds) Ajab Printing Press, Karachi, Pakistan (ISBN 969-8113-09-6).
2. Protein Structure - Function Relationship (2003) Proceedings of the 7th International Symposium on Protein Structure - Function Relationship (Abbasi,

A. and **Ali, S.A.** Eds) BCC & T Press, University of Karachi, Pakistan (ISBN 969-8113-08-8).

Chapters in Book:

1. Alam, M., **Ali, S.A.** and Schmidt, W.J. (2007) The terminal degeneration of dopaminergic neurones after chronic systemic inhibition of mitochondrial complex I. In Press.
2. Khan, S., **Ali, S.A.**, and Abbasi, A. (2005) Isolation, purification and characterization of acid phosphatase from the seeds of *Nelumbo nucifera*. Proceedings of the 8th International Symposium on Protein Structure Function Relationship (Abbasi A. & Ali S.A. Eds). Ajab Printing Press, Karachi, Pakistan. Pp. 331-339.
3. **Ali, S.A.**, Alam, M., Kamal, M., Alam, J.M. and Abbasi, A. (2003) Role of proteins as biochemical markers for identification: New approaches for structural and functional taxonomy. Proceedings of the 7th International Symposium on Protein Structure Function Relationship (Abbasi A. & Ali S.A. Eds). BCC & T Press, University of Karachi, Pakistan. Pp. 179-194.
4. Abbasi, A., Lutfullah, G., Sattar, R., and **Ali, S.A.** (2003) Structural basis of protein function: the role of residues in stability and activity. Proceedings of the 7th International Symposium on Protein Structure Function Relationship. (Abbasi A. & Ali S.A. Eds). BCC & T Press, University of Karachi, Pakistan. Pp. 17-40.
5. Kamal, M., **Ali, S.A.** and Abbasi, A. (2003) Molecular modeling of subtilisin from *Bacillus subtilis* strain RT5. Proceedings of the 7th International Symposium on Protein Structure Function Relationship. (Abbasi A. & Ali S.A. Eds). BCC & T Press, University of Karachi, Pakistan. Pp. 145-154.

Contribution in academic conferences:

1. Waheed, H., Moin, S.F., Abbasi, A. and **Ali, S.A.** (2007) A molecule to breath with: characterization of hemoglobin from Leaf-nosed Viper (*E. macmahonii*) and Sindh Krait (*B. sindanus sindanus*). 9th International Symposium on Protein Structure Function Relationship (11-14th Jan) University of Karachi. **Ist Poster Prize.**
2. Moin, S.F., Alam, M., Zehra, K., Abbasi, A. and **Ali, S.A.** (2007) Purification and characterization of a novel covalently linked heterodimeric phospholipase A₂ from the venom of Sindh Krait. 9th International Symposium on Protein Structure Function Relationship (11-14th Jan) University of Karachi.
3. Sami, F., **Ali, S.A.** and Abbasi, A. (2007) Bacillus Sp. RM15: an eye-catching entrant for in-vitro as well as in-vivo biocatalysis of lipidic substrates. 9th International Symposium on Protein Structure Function Relationship (11-14th Jan) University of Karachi.

4. Survery, S., Raza-ul-Haq, S., Ahmad, A. and **Ali, S.A.** (2007) Screening, influence of cultivation condition and partial purification of α -galactosidase from yeast. 6th International Biennial Conference of Pakistan Society for Microbiology (18-21st March) Quaid-e-Azam University, Islamabad.
5. Zehra, K., Waheed, H., Abbasi, A. and **Ali, S.A.** (2007) Signals of death: breaking the PLA code. 9th International Symposium on Protein Structure Function Relationship (11-14th Jan) University of Karachi.
6. **Ali, S.A.** and Alam, M. (2006) Venom proteins and peptides as possible candidate for drug design: I. Scorpion Venomics. First International Conference on Biotechnology and Informatics (10-12 April 2006) BUIT, Quetta. Invited lecture.
7. Hussain, M., Abbasi, A. and **Ali, S.A.** (2006) Partial purification and physico-biochemical characterization of a novel class-III bacteriocin(s) from Enterococci-HA38. 10th International Symposium on Natural Product Chemistry (6-9th Jan) University of Karachi, Pakistan. **Ist Poster Prize.**
8. Khan, M.B., Abbasi, A. and **Ali, S.A.** (2005) Purification and characterization of a major 25 kDa alkaline serine protease from the seeds of *C. colocynthis*. 8th International Symposium on Protein Structure Function Relationship (7-10th Jan) University of Karachi. **2nd Poster Prize.**
9. Hussain, M., Alam, M., Abbasi, A. and **Ali, S.A.** (2005) Delving out interaction sites and possible mode of action of class IIa bacteriocins established by molecular docking studies. 5th International Biennial Conference of Pakistan Society for Microbiology (10-15th Jan) University of Karachi. **2nd Poster Prize.** Paper in preparation.
10. Khan, M.T., Survery, S., Abbasi, A. and **Ali, S.A.** (2005) Little more than just yoghurt: Screening and isolation of yeast isolates as potential enzymatic source. 8th International Symposium on Protein Structure Function Relationship (7-10th Jan) University of Karachi. **3rd Poster Prize.**
11. Hussain, M., Abbasi, A. and **Ali, S.A.** (2005) Bioinformatics of Class IIa bacteriocins: Unleashing the site and nature of interactions with simulated membrane by molecular docking studies. 8th International Symposium on Protein Structure Function Relationship (7-10th Jan) University of Karachi.
12. Amin, R., Noor, N., Kamal, M., **Ali, S.A.** and Abbasi, A. (2005) Isolation and characterization of industrially important thermophilic microbial strains from Hot springs of Karachi. 8th International Symposium on Protein Structure Function Relationship (7-10th Jan) University of Karachi.
13. Sami, F., **Ali, S.A.**, Kamal, M. and Abbasi, A. (2005) Screening and optimization for the production of extra-cellular lipase from *Bacillus* sp. Isolated from Hot spring of Manghopir – Karachi. 8th International Symposium on Protein Structure Function Relationship (7-10th Jan) University of Karachi.
14. Gul, N., Amin, R., Kamal, M., **Ali, S.A.** and Abbasi, A. (2005) Effect of culture conditions on growth and Alkaline phosphatase production from *Bacillus* sp. 8th International Symposium on Protein Structure Function Relationship (7-10th Jan) University of Karachi.
15. Khan, S., **Ali, S.A.** and Abbasi, A. (2005) Purification and characterization of acid phosphatase from the seeds of Lotus *Nelumbo nucifera*. 8th International

Symposium on Protein Structure Function Relationship (7-10th Jan) University of Karachi.

16. Ali, S., Hussain, M., Hussain, S., Khan, A.J. and **Ali, S.A.** (2005) Preliminary epidemiology of malaria: Prevalence of Plasmodium falciparum/malariae in the population of Lyari and its association with the ABO and Rh blood group systems. 5th International Biennial Conference of Pakistan Society for Microbiology (10-15th Jan) University of Karachi.
17. Ahmad, S., **Ali, S.A.** and Rasool, S.A. (2005) A comparative study of different methods for the detection and measurement of bacteriocinogenic activity in Group-D Streptococci. 5th International Biennial Conference of Pakistan Society for Microbiology (10-15th Jan) University of Karachi.
18. Saeed, S., Rasool, S.A., Ahmed, S., Khanum, T., Khan, M.B., Abbasi, A., and **Ali, S.A.** (2006) New insight in staphylococcal research: bacteriocin or/and bacteriocin-like inhibitory substance(s) produced by *S. aureus* AB188. 5th International Biennial Conference of Pakistan Society for Microbiology (10-15th Jan) University of Karachi.
19. **Ali, S.A.**, Alam, M., Beck, A., Stoeva, S. Abbasi, A. and Voelter, W. (2004) Venom Protein and Peptide as Possible Template for Drug Design: I. Structural basis of the interaction of peptidyl inhibitors (α KT-3) with human K⁺-channels (Kv1.1-1.3), from scorpion venom. 9th International Symposium on Natural Product Chemistry (10-13th Jan) University of Karachi, Pakistan. *Paper in preparation.*
20. **Ali, S.A.** and Abbasi, A. (2004) Low resolution techniques (Transmission electron microscopy and Solution X-ray scattering) for macromolecular structure elucidation. 5th International & 15th National Chemistry Conference, Quaid-i-Azam University, Islamabad, (Nov 24-27, 2004).
21. Alam, M., Sattar, R., Abbasi, A. and **Ali S.A.** (2004) Venom Protein and Peptide as Possible Template for Drug Design: II. Interaction of a Peptidyl Inhibitor (Bs- α KTx6) from the Scorpion Venom with Human K⁺- Channel. 9th International Symposium on Natural Product Chemistry (10-13th Jan), University of Karachi, Pakistan.
22. Merkel, P., Duszenko, M., **Ali, S.A.**, and Beck, A. (2003) A novel 5 kDa disintegrin from the leaf-nosed viper (*Eristocophis macmahoni*) snake venom blocks energy metabolism in Trypanosoma brucei. Molecular Parasitology Meeting (MPM) at Woods Hole, MA, USA.
23. **Ali, S.A.**, Beck, A., Deeg, M., Stoeva, S. and Voelter, W. (2001) On-line cRP-LC-ESI-MS and NanoES for establishing mass library: structure elucidation of an α -neurotoxin analog from scorpion (*Buthus indicus*) venom. *Proteomics Forum 2001* at München, **Germany.**
24. **Ali, S.A.**, Stoeva, S., Schulte, U., Fakler, B. and Voelter, W. (2000) Structure-function relationship of K⁺-channel inhibitor: A naturally occurring peptide toxin (Bs6) from the venom of scorpion *Buthus indicus*. 8th International Symposium on Natural Product Chemistry at Karachi, Pakistan.
25. **Ali, S.A.**, Stoeva, S., Grossmann, J.G. Abbasi, A., Zaidi, Z.H., Voelter, W., and Hasnain, S.S. (1999) Oxygen transport proteins: Structural studies of scorpion

- (*Buthus indicus*) hemocyanin in the native state and as purified subunit Bsin1. 6th International Symposium on Protein Structure-Function Relationship at Karachi, Pakistan. **Ist Poster Prize.**
26. Voelter, W., Stoeva, S., **Ali, S.A.**, Schütz, J. and Genov, N. (1999) Circular dichroism studies on hemocyanins. 7th International Conference on Circular dichroism at Mierki, **Poland.**
 27. **Ali, S.A.** Zaidi, Z.H. and Abbasi, A. (1996) Scorpion (*Buthus indicus*) hemocyanin: Primary structure elucidation and the anomalous behavior of subunit Bsin1 to Edman degradation analysis. Proceedings of the 7th National Chemistry Conference. University of Quata, Balochistan.
 28. **Ali, S.A.**, Zaidi, Z.H. and Abbasi, A. (1995) Subunit heterogeneity in arthropod hemocyanins: studies on scorpions (*Androctonus australis* and *Buthus indicus*) hemocyanins. Proc. 4th International Symposium on Protein Structure-Function Relationship at Karachi, Pakistan. Eds. Zaidi, Z.H. and Smith, D.L. (Plenum Press, New York), p-272.
 29. **Ali, S.A.**, Zaidi, Z.H. and Abbasi, A. (1993) Oxygen Transport Proteins: Structure and organization of hemocyanin from scorpion (*Androctonus australis* and *Buthus indicus*). Proc. 2nd Int. Biochem. Cong. Published in *Scientific J.* p-52. University of Tehran, **Iran.**

Recent academic workshops contributed and attended:

1. Workshop on “Characterization of Proteins” University of Karachi, (15-22nd Jan, **2007**)
2. Workshop on “Characterization of Proteins” University of Karachi, (11-18th Jan, **2005**).
3. Pak-China Binational Workshop on the Pharmacology and standardization of Herbal Medicines. University of Karachi, (Oct 22-27, **2004**)
4. First-Pak-France Binational Workshop on Natural Product Chemistry, University of Karachi, (Jan 14-15th, **2004**).
5. Modern NMR Spectroscopy and Its Application in Research, University of Karachi, (17-18th Feb, **2004**).
6. Pak-Japan-Binational Workshop on Lashmaniasis, University of Karachi, (14-15th Jan, **2004**).