

## Curriculum vitae

Name Mahjabeen Saleem  
Father's Name: Muhammad Saleem  
Present position: Assistant Professor of Biochemistry, Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore.  
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E. mail address mahjabeensaleem1@hotmail.com  
Highest Qualifications  
Ph.D. Biochemistry University of the Punjab, Lahore.  
Distinction  
HEC approved research supervisor  
First position in M.Sc

### Current Research Interests

1. Identification of biomarkers in cancer screening and their use in therapeutic discoveries.
2. Identification and characterization of marker proteins in various pathological conditions.
3. Characterization and molecular cloning of antifungal proteins from different plant origin.
4. Genetic studies for quality traits in Raya.
5. Characterization of industrially important thermophilic microbial enzymes like proteases, hemicellulases and cellulases, their overproduction and improvement through genetic manipulation.
6. Characterization of thermophilic and extreme thermophilic bacterial species.
7. Applications of these enzymes in textile, paper and pulp industries. The study of the role of the enzymes in the production of the sugars from the raw materials of different origin.

### Curricular Activities

Member, Board of Studies, Institute of Biochemistry and Biotechnology, Punjab University.  
Member, Purchase committee, Institute of Biochemistry and Biotechnology, Punjab University.  
Treasure, Pakistan Society for Biochemistry and Biotechnology

Chairperson Admission Committee, Institute of Biochemistry and Biotechnology, Punjab University.

#### Conferences conducted at University Level

7<sup>th</sup> National Conference of Pakistan Society for Biochemistry and Molecular Biology” held at Punjab University, Lahore during April 2-5, 2003.

“Third National Conference of Pakistan Society for Biochemistry and Molecular Biology” held at Lahore during April 3-6, 1995.

#### Scientific Workshops and Conferences attended

Workshop on “Computational Resources for Protein Modeling” at Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore on 14-19 March, 2011.

Workshop on “Immunoassay” at PMRC, Shaikh Zayed Hospital, Lahore on 23-26 February, 2011.

Seminar on “Water and Energy Crisis and its solution” at Centre for Undergraduate Studies, University of the Punjab, on 9<sup>th</sup> February, 2011.

Workshop on “Separation Science and the Omics” at School of Biological Sciences, University of the Punjab, on 6-10 April, 2009.

“Continuous Medical Education Seminar” organized by The Agha Khan University Hospital on 14<sup>th</sup> October, 2009.

Workshop on ‘Research Ethics” on 26-27 November, 2007 at Shaikh Zayed Hospital, Lahore

One day training workshop on “Quality assurance in Higher Education” at Hotel Ambassador, Lahore on 9 March, 2007.

“Proposal Writing and Log frame” workshop by British Council under HEC and British Council Higher Education Link Programme Phase II at Hotel Avari, Lahore on 27<sup>th</sup> May, 2006.

Biochemical Engineering and Fermenter Application held at Institute of Biochemistry and Biotechnology, University of the Punjab, on 19<sup>th</sup> August 2006.

Participation and research work presentation in “18<sup>th</sup> FAOBMB Symposium on Genomics and Proteomics in Health and Agriculture” held at Punjab University, Lahore during November 20-23, 2005.

“Orientation Program” organized by “Human Resources Development Center” during July 2003

Participation and oral presentation of a research paper in “4<sup>th</sup> National Conference of Pakistan Society for Biochemistry and Molecular Biology” held at NWFP Agricultural University, Peshawar during April 7-10, 1997.

“Teaching and research trends in Biochemical Sciences” held during April 4-8, 1993, at the UGC Regional Centre, Lahore, organized by Pakistan Society for Biochemistry and Molecular Biology, International Union of Biochemistry and Molecular Biology (IUBMB) and University of the Punjab, Lahore.

### Scholarships

1. First Class Degree holder’s scholarship awarded by University Grants Commission, Islamabad.
2. Sughra Begum Scholarship awarded by “Promotion of Education in Pakistan (PEP), CEMB, University of the Punjab, Lahore.
3. Research Officer in a Pakistan Science Foundation Research Project No. P-PU/Chem.(83)

### Research publications

Mahjabeen Saleem, Farheen Aslam, Muhammad S Akhtar, Mohsin - Tariq and Muhammad I Rajoka. Characterization of a thermostable and alkaline xylanase from *Bacillus* sp. and its bleaching impact on wheat straw pulp. *World Journal of Microbiology and Biotechnology*. DOI 10.1007/s11274-011-0842-z

Mahjabeen Saleem , Atiqah Rehman Riffat Yasmin and Bushra Munir. Biochemical analysis and investigation on the prospective applications of alkaline protease from a *Bacillus cereus* strain. *Molecular Biology Reports*. DOI 10.1007/s11033-011-1033-6

Mamoona Naz, Maria Riaz, Mahjabeen Saleem. Potential role of Neuregulin 1 and TNF-alpha (-308) polymorphism in schizophrenia patients visiting hospitals in Lahore, *Molecular Biology Reports*. DOI 10.1007/s11033-010-0606-0 Key: citeulike:8401499

Khurshid, R. Mahjabeen Saleem, M. S. Akhtar, Salim, A. Granzyme M: characterization with sites of post-translational modification and specific sites of interaction with substrates and inhibitors. *Molecular Biology Reports*, 2011,38,2953. 10.1007/s11033-010-9959-7, 2010

Sumra Afzal, Mahjabeen Saleem, Riffat Yasmin, Mamoona Naz and Muhammad Imran. Pre and post cloning characterization of a  $\beta$ -1,4 endoglucanase from *Bacillus* sp. *Molecular Biology Reports*, 2010, 37, 1717-1723.

T.R. Samiullah, A. Bakhsh, A.Q. Rao, Mamoona Naz, Mahjabeen Saleem Isolation, Purification and characterization of extracellular  $\beta$ -glucosidase from *Bacillus* sp. *Advances in Environmental Biology*, 3(3), 2009, 269-277

Mahjabeen Saleem, Rizwan Tabassum Riffat Yasmin, and Muhammad Imran. Potential of xylanase from *Bacillus* sp. XTR-10 in biobleaching of wood kraft pulp, *International Biodeterioration & Biodegradation*. 63,2009, 1119–1124

Saira Saghir, M. Faiz, Mahjabeen Saleem, Amina Younis and H. Aziz. Characterization and anti-microbial susceptibility of gram negative bacteria isolated from bloodstream infections of cancer patients on chemotherapy in Pakistan, *Indian Journal of Medical Microbiology*, 2009, 27, 341-347

Amina Younis, M. Faiz, Mahjabeen Saleem and Saira Saghir. Antimicrobial susceptibility patterns and characterization of clinical isolates of *Staphylococcus aureus* in immunocompromised cancer patients undergoing chemotherapy in Pakistan. *Journal of Chemotherapy*, 2009, 21 (1), 31-35

M. Ibrahim Rajoka, M. Siddiqur Awan, Mahjabeen Saleem and Najma Ayub. Solid-state fermentation-supported enhanced production of alpha-galactosidase by a deoxyglucose-resistant mutant of *Aspergillus niger* and themostabilization of the production process. *World Journal of Microbiology and Biotechnology*. 2009, 25, 171-178

Mahjabeen Saleem, M. S. Akhtar, Riffat Yasmin, Mahreen Zahid, N.N. Malik, M. Afzal and M.I.Rajoka. Production, Purification and Characterisation of beta-1,4-Endoglucanase from a novel bacterial strain CTP-09 of a *Bacillus* sp. *Protein and Peptide Letters*. 2008, 15, 402-410

I. Afzal, S.M.A. Basra, M. Shahid and Mahjabeen Saleem: Physiological enhancements of spring maize (*Zea mays* L.) under cool conditions. *Seed Science and Technology*. 2008, 36, 497-503

Roquyya Gul, Tahira Anjum, Riffat Yasmin, Rao M.Ijaz and Mahjabeen Saleem. Serum total antioxidant status in cardiovascular patients and in healthy individuals. *Pak. J. Biochem and Mol. Bio.*2010, 43 (3), 140-143.

Khurshid, R. Gul-e-Ranna, Mamoona, Naz, Mohammad Mustansar, Sadia Zafar., Mahjabeen Saleem, Zafar Ali Ch. and Fida. To study the role of IL-6 and IL-12 in the diagnosis of bacterial meningitis in neonates and infants. *Pak. J. Phyl.* 2010, 8 (1), 56-59

Khurshid, R. Shore, N., Mahjabeen Saleem., Naz, M. and Zameer, N. Diagnostic significance of adenosine deaminase in pleural tuberculosis. *Pak. J. Phyl.* 2007, 3, 21-23

Urfa, Mahjabeen Saleem and Khurshid, R., Occupational asthma and IgE: An electrophoretic approach *Pak. Post Gra. Med. J.* 2006, 17, 58-60

Najmus-Sehar, Mahjabeen Saleem and Khurshid, R., To study the role of A-1 antitrypsin and hemoglobin in developing chronic obstructive pulmonary diseases in children. *Pak. Post Gra. Med. J.* 2006, 17, 61-64

Ahmad, S., Naz, S., Ghafoor, F., Akhtar, M. S., Saleem, M. and Akhtar, M. W. Electrophoresis of serum proteins in prostate cancer. *Pak. J. Med. Res.* 2004, 43, 15-18.

Mahjabeen Saleem, Akhtar. M. S., Jamil. S. Production of xylanase on natural substrate by *B. subtilis* *Int. J. Agri. Biol.*2002, 4 , 211-213.

Mahjabeen Saleem, Akhtar, M. S. Biobleaching of craft pulp by xylanase produced by *B. Subtil.* *Int. J. Agri. Biol.* 2002, 4, 242-244.

Akhtar, M,S., Mahjabeen Saleem and Akhtar, M. W. Saccharification of lignocellulosic material by the cellulases of *B. Subtilis.* *Int. J. Agri. Bio.* 2001, 3, 199-202.

Akhtar, M,S. Mahjabeen Saleem and Ruby. G. Enzymatic saccharification of lignocellulosic material by the xylanase of *B. subtilis.* *Online J. Biological Science* ,2001,5, 398-400.

Mahjabeen Saleem, Akhtar, M.S., and Akhtar, M.W. Purification of cell bound beta xylosidase produced by locally isolated *B. subtilis.* *Pak. J. Sci.*2001, 53,

54-58.

Mahjabeen Saleem and Akhtar, M. W. Production of cellulases from *B. subtilis* strain grown on lignocellulosic substrate. *Pak. J. Biochem and Mol. Bio.*2000, 33, 50-54.

Mahjabeen Saleem, Akhtar, M.S. and Akhtar, M. W. Cloning and expression of *B. subtilis* xylanase gene in *E. coli*. *Pak. J. Biochem and Mol. Bio.*1999, 32, 12-17.

Khurshid. R., Akhtar. M. S., Ali. S. A., Rizvi, S. M. A., Tabasum. F., Mahjabeen Saleem, Tabasum. F. and Abbasi, A. Isolation and purification of high molecular weight protein from metastatic breast cancerous tissue. *Pak. J. Biochem and Mol. Bio.*1997, 30, 90-96.

Rizvi, M.A., Akhtar, M. S, Mahjabeen Saleem and Akhtar, M. W. Regulation, purification and characterization of thermostable and potentially useful alkaline xylanases of thermophilic *Bacillus* sp. Strain XT2. *Pak. J. Biochem and Mol. Bio.*1997, 30, 1-21.

Akhtar, M. S., Mahjabeen Saleem, Malik, N. N. and Akhtar, M. W. Cloning and expression of *B. subtilis* endoglucanases genes in *E. coli*. *Pak. J. Biochem and Mol. Bio.*1997, 30, 27-32.

Mahjabeen Saleem, Akhtar, M, S., Malik, N. N. and Akhtar, M.W. Purification and Characterization of thermostable xylanase from a locally isolated *Bacillus subtilis*. *Pak. J. Biochem and Mol. Bio.*1997, 30, 55-67.

Akhtar, M. S., Mahjabeen Saleem, Malik, N.N. and Akhtar, M.W. Purification and characterization of three endoglucanases of *B. subtilis*. *Pak. J. Biochem. and Mol. Bio.* 1996, 29, 22-33.

#### Ph.D Research Students

Nusrat Yasmin	Identification, Characterization and cloning of pathogenesis related thaumatin like antifungal protein from banana
Asima Ayub	Identification of biomarkers used in lung cancer screening program targeted in therapeutic discoveries
Riffat Tahira	Molecular Genetic Studies for Quality Attributes in Raya ( <i>Brassica juncea</i> )

#### Membership

1. Pakistan Society for Biochemistry and Molecular Biology, Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore.
2. Khwarizmi Science Society, University of the Punjab, Lahore.
3. Pakistan Proteomics Society (PPS), Karachi University, Karachi.

#### Research Projects

1. Production and characterization of protease enzyme and its potential applications for the development of ecofriendly industrial technologies.
2. Molecular cloning and expression of xylanase gene from *Bacillus sp.* in *E. coli*.
3. Genetic analysis of endothelial nitric oxide synthase (eNOS) and manganese superoxide dismutase Mn (SOD) in diabetic nephropathy patients.