

Curriculum Vitae (DR. SAIMA SADAF)

Personal

Name Saima Sadaf
Father's Name Muhammad Iqbal
Marital Status Single
Current Position Assistant Professor (TTS)/BPS-18
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Academic Qualification

- Ph.D. (2008) Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore [Thesis title: Cloning, over-expression and characterization of somatotropin gene of a local bubaline breed]
- M.Sc. Biochemistry (2000) Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore
- B.Sc. (1997) Queen Mary College, Lahore
- F.Sc. (1995) Queen Mary College, Lahore
- Matriculation (1993) Board of Intermediate and Secondary Education, Lahore

Work Efficiency Improvising Qualification

- Training as visiting research fellow at Department of Molecular Biology and Genetics, Cornell University, Ithaca, NY-USA (June 18-November 25, 2004)
- Training course on "Advanced techniques in Biotechnology" from National Institute of Biotechnology and Genetic Engineering, Pakistan (April 04-09, 2004)
- Certificate of Intellectual Property from WIPO World Intellectual property Organization (March 01 - April 15, 2003)
- Certificate of computer training in word processing, power point, spread sheet analysis, internet, etc. (February 2002-July 2002)

Research and Professional Experience

- Assistant Professor at the Institute of Biochemistry and Biotechnology (IBB), University of the Punjab, Lahore, under the HEC Tenure Track System (June 16, 2008-till date)
- Lecturer (December 20, 2000-June 15, 2008)
- Coordinator of BS/M.Sc./M.Phil./Ph.D. degree programs of the IBB (May 2009-till date)
- Assistant Link Coordinator of HEC-British Council research project (January 2007-January 2010)
- Research supervision of several BS/M.Sc./M.Phil. students for dissertation projects of six-twelve months duration for partial fulfillment of their graduate and post-graduate studies
- Assistant, Dean Faculty of Sciences, University of the Punjab, Lahore (Aug. 01, 2002-April 30, 2004)
- Coordinator of B.Sc. (Hons.) and M.Sc. Biochemistry/Biotechnology degree programs of the IBB (July 2001-June 2004)

Affiliation to Learned Bodies

- Member, Executive Council of Pakistan Society for Biochemistry and Molecular Biology (PSBMB) since March 2005
- Life member PSBMB since August 2001
- Life member Proteomics Society of Pakistan since July 2009

- Member, Board of Faculty of Life Sciences, University of the Punjab, Lahore (March 2006-2009)
- Member, Board of Study and Board of Faculty, University of the Punjab, Lahore, (January, 2001-June, 2004)

Distinctions, Honors and Awards

- HEC approved Research Supervisor since 2008
- International Union for Biochemistry and Molecular Biology (IUBMB) young scientist travel fellowship award for participation in Federation of European Biochemical Society's (FEBS) Young Scientists Forum, 33rd FEBS congress and 11th IUBMB conference held at Athens, Greece (June 26-July 03, 2008)
- IUBMB and SIGMA-ALDRICH Corporation young scientist travel fellowship award for participation in FEBS Young Scientists Forum, 30th FEBS congress and 9th IUBMB conference held at Budapest, Hungary (June 30-July 07, 2005)
- American Society for Biochemistry and Molecular Biology (ASBMB) travel fellowship award to attend annual ASBMB meeting and 8th IUBMB Conference held at Boston-MA, USA (June 12-16, 2004)
- Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB) young scientist travel fellowship award to attend 10th FAOBMB Congress held at Bangalore-India (December 07-11, 2003)
- Academic distinction in 24 credit hours Ph.D. course work (2002-first position)
- Distinction in M.Sc. Biochemistry (1999)
- Highly competitive President Talent Scholarship awarded during M.Sc. Biochemistry (1999)
- Roll of Honor awarded in B.Sc. (1997)
- First position in Queen Mary College in Botany, Zoology and Chemistry discipline (B.Sc.)
- First prize in Inter Schools' Essay writing competition (1993)
- President Talent Scholarship in Class-8 (1991)

Workshops/Conferences Attended

- Delivered Talk on "Computational Tools Cracking the Protein Structure" during the Workshop on "Computational Resources for Protein Modelling" held at the Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore (March 14-18, 2011)
- Delivered Talk at 10th Biennial Conference of Pakistan Society for Biochemistry and Molecular Biology on "Biomolecular Sciences in Development" held at Dr. A.Q. Khan Institute of Biotechnology and Genetic Engineering (KIBGE), University of Karachi, Karachi (December 01-05, 2010)
- Attended workshop on "Bioinformatics Resources for Drug Discovery Research" held at PCMD, University of Karachi, Karachi (November 28-30, 2010)
- Delivered Talk at the International Workshop on "Enhanced Production of Recombinant Biomolecules of Commercial Importance" held at Dr. A.Q. Khan Institute of Biotechnology and Genetic Engineering (KIBGE), University of Karachi, Karachi during July 06-10, 2009
- Poster presentation in 33rd Federation of European Biochemical Societies (FEBS) Congress and 11th International Union for Biochemistry and Molecular Biology (IUBMB) Conference held at Athens, Greece (June 28-July 03, 2008)
- Poster presentation in FEBS Young Scientists Forum held at Loutraki, Greece (June 26-28, 2008)
- Oral Presentation at the International Symposium on "Glycoproteins in Health and Diseases" held at School of Biological Sciences, University of the Punjab, Lahore, Pakistan (May 27-29, 2008)
- Oral Presentation at the "International Symposium on Biotechnology" held at Sfax, Tunisia (May 04-08, 2008)

- Attended workshop on “Biochemical Engineering and Fermentor Applications” jointly organized by the Institute of Biochemistry and Biotechnology, University of the Punjab and Bioengineering, Switzerland (August 19, 2006)
- Oral presentation at National Symposium on “Biotechnology for Economic Prosperity” held at Nathiagali, Pakistan (July 24-26, 2006)
- Participation in Pre-18th FAOBMB workshop on “Problem-based Learning” held at School of Biological Sciences, University of the Punjab, Lahore, Pakistan (November 19, 2005)
- Oral Presentation in 18th Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB) Symposium held at Aaiwan-e-Iqbal Lahore, Pakistan (November 20-23, 2005)
- Poster presentation in 30th FEBS Congress and 9th IUBMB Conference held at Budapest, Hungary (July 02-07, 2005)
- Poster presentation in FEBS Young Scientists Forum held at Visegrad, Hungary (June 30-July 02, 2005)
- Poster presentation in American Society for Biochemistry and Molecular Biology (ASBMB) annual meeting and 8th IUBMB Conference held at Hynes Convention Centre, Boston, USA (June 12-16, 2004)
- Poster presentation in 10th Congress of Federation of Asian and Oceanian Biochemists and Molecular Biologists (FAOBMB) held at Indian Institute of Sciences, Bangalore, India (December 07-11, 2003)
- Oral presentation in International conference of Pakistan Society for Biochemistry and Molecular Biology (PSBMB) held at Lahore, Pakistan (April 02-05, 2004)
- Attended workshop on "Genetics in Medicines" jointly organized by Yale University School of Medicines, New York, USA; Department of Biochemistry and Medical Genetics, King Edward Medical College, Lahore; and Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore (January 01- 24, 2003)

Workshops/Conferences Organized

- Active participation as Secretary, Organizing Committee in organizing Workshop on “Computational Resources for Protein Modelling” held at Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore (March 14-18, 2011)
- Active participation as Secretary, Organizing Committee in organizing a Symposium on “Working with Proteins in Post-genomic Era” held at School of Biological Sciences, University of the Punjab, Lahore (January 06-07, 2010)
- Active participation as Resource Person, in organizing an International Workshop on “Enhanced Production of Recombinant Biomolecules of Commercial Importance” held at Dr. A.Q. Khan Institute of Biotechnology and Genetic Engineering (KIBGE), University of Karachi, Karachi during July 06-10, 2009
- Active participation as Member, Organizing Committee and Chairperson, Scientific Program Committee, in organizing an International Workshop on “Separation Sciences and the Omics” held at School of Biological Sciences, University of the Punjab, Lahore during April 06-10, 2009
- Active participation as Member, Organizing Committee and Chairperson, Scientific Program Committee, in organizing symposium on “Biomarker Measurements in Complex Matrices” held at School of Biological Sciences, University of the Punjab, Lahore during April 25-26, 2007
- Active participation as Member, Organizing Committee and Chairperson, Scientific Program Committee, in organizing 18th FAOBMB Symposium held at Aaiwan-e-Iqbal, Lahore during November 20-23, 2005
- Active participation as Chairperson, Scientific Session Committee, in organizing 7th International PSBMB Conference held at Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore during April 02-05, 2003

Publications

Papers Published in Impact Factor (IF) Journals

1. Saima Sadaf, M. Altaf Khan, David B. Wilson and M. Waheed Akhtar (2007) Molecular cloning, characterization and expression studies of water buffalo (*Bubalus bubalis*) somatotropin. *Biochemistry Moscow*, **72**, 162-169. **(IF: 1.4)**
2. Saima Sadaf, M. Altaf Khan and M. Waheed Akhtar (2007) Production of bubaline somatotropin by auto-induction in *Escherichia coli*. *Biotechnology and Applied Biochemistry*, **47**, 21-26. **(IF: 1.288)**
3. M. Altaf Khan, Saima Sadaf and M. Waheed Akhtar (2007) Role of silent gene mutations in the expression of caprine growth hormone gene in *Escherichia coli*. *Biotechnology Progress*, **23**, 1049-1052. **(IF: 2.108)**
4. Saima Sadaf, M. A. Khan and M. Waheed Akhtar (2008) Expression enhancement of bubaline somatotropin gene in *E. coli* through modifications in 5'-coding region. *Journal of Biotechnology*, **135**, 134-139. **(IF: 2.9)**
5. M. Altaf Khan, Saima Sadaf, M. Sajjad and M. Waheed Akhtar (2009) Production enhancement and refolding of caprine growth hormone expressed in *Escherichia coli*. *Protein Expression and Purification*, **68**: 85-89. **(IF: 1.621)**
6. Nadia Ikram, Shumaila Naz, M. Ibrahim Rajoka, Saima Sadaf and M. Waheed Akhtar (2009) Enhanced production of subtilisin of *Pyrococcus furiosus* expressed in *Escherichia coli* using auto-inducing medium. *African Journal of Biotechnology*, **8**: 5867-72. **(IF: 0.547)**
7. Shumaila Naz, Nadia Ikram, M. Ibrahim Rajoka, Saima Sadaf and M. Waheed Akhtar (2010) Enhanced production and characterization of β -glucosidase from *Bacillus halodurans* expressed in *Escherichia coli*. *Biochemistry Moscow*, **75**, 513-518. **(IF: 1.4)**

Papers Published in National Journals

8. Nadia Ikram, Shumaila Naz, Saima Sadaf and M. Waheed Akhtar (2008) Overexpression of carboxypeptidase of extreme thermophile *Pyrococcus furiosus* in *Escherichia coli*. *Pakistan Journal of Biochemistry and Molecular Biology*, **41**, 57-61.
9. Najam-us-Sehar Sadaf Zaidi, Saima Sadaf and M. Waheed Akhtar (2008) Cloning and overexpression of *Pyrococcus furiosus* endoglucanase A gene (*eglA*) in *Escherichia coli*. *Pakistan Journal of Biochemistry and Molecular Biology*, **41**, 172-175.
10. Nadia Ikram, Shumaila Naz, Saima Sadaf and M. Waheed Akhtar (2009) Characterization of novel protease producing *Serratia* sp. isolated from soil. *Pakistan Journal of Biochemistry and Molecular Biology*, **42**, 165-172.
11. Shumaila Naz, Nadia Ikram, Saima Sadaf and M. Waheed Akhtar (2010) 5'-end coding sequence of β -glucosidase gene of *Bacillus halodurans* determines the rate of expression and folding of the product in *E. coli*. *Pakistan Journal of Biochemistry and Molecular Biology*, **43**, 153-158.
12. M. Altaf Khan, Saima Sadaf and M. Waheed Akhtar (2010) Sequence analysis, high level expression and one-step purification of recombinant caprine growth hormone. *Pakistan Journal of Biochemistry and Molecular Biology*, **43**, 163-168.

Granted Patent

Patent No. 139216: A Recombinant Nucleic Acid Encoding a Protein Exhibiting Enhanced Activity for Milk Production.

Applicants: M. Waheed Akhtar, **Saima Sadaf**, M. Altaf Khan

Patent Granted on: February 18, 2007

Research Areas of Interest

- Production of Recombinant Biopharmaceuticals
- Study of Nucleic Acid and Protein Biomarkers for Early Diagnosis of Cancers

Research Projects/Grants

Project Title	Donor Agency	Role As	Amount	Duration	Status
Receptor binding assays of modified bovine growth hormone	British Council-Higher Education Commission	Co-PI	£ 31,000/-	2007-2010	Completed
Molecular cloning and sequence analysis of human interleukin	University of the Punjab, Lahore	PI	Rs. 100,000/-	2009-2010	Completed
Recombinant production of biopharmaceutical using a prokaryotic expression system	Third World Academy of Sciences (TWAS)-COMSTECH	PI	\$ 12,000/-	2009-2011	In progress
Production of recombinant cytokine of therapeutic importance	Pakistan Academy of Sciences	Co-PI	Rs. 1.982/- million	2010-2012	In progress
Free circulating molecular markers for cancer diagnosis and prognosis	Higher Education Commission	Co-PI	Rs. 4.197/- million	2010-2013	In progress