

AZAD ALAM SIDDIQUI



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EDUCATIONS:

PhD (Biochemistry)

Aligarh Muslim University, Aligarh
Awarded on June 02, 2016

M.Sc. (Biotechnology)

Aligarh Muslim University, Aligarh
June, 2010
Result: First Division / 71%

B.Sc. (Hons) Chemistry

Aligarh Muslim University, Aligarh
June, 2002
Result: First Division / 64%

Intermediate

U.P. Board, Allahabad
May, 1999
Result: First Division/65%

High School

U.P. Board, Allahabad
May, 1997
Result: First Division/71%

NATIONAL LEVEL TEST in SCIENCE:

Qualified National Eligibility Test (NET)–Dec., 2009 for lectureship conducted by CSIR – UGC, India

Qualified all India entrance examination, 2008 for AMU MSc in Biotechnology course.

AWARDS & HONORS:

National Post-Doctoral Fellowship was awarded by Science and Engineering Research Board, Department of Science and Technology, Government of India March 2017.

Senior Research Fellowship by UGC-BSR (Basic Scientific Research), Ministry of Human Resource Development, Government of India, New Delhi, India (2014-2015).

Junior Research Fellowship by UGC-BSR (Basic Scientific Research), Ministry of Human Resource Development, Government of India, New Delhi, India (2012-2014).

Studentship in M.Sc. Biotechnology (2008-10) from Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India, New Delhi, India.

Minority- Scholarship for the meritorious student of Uttar Pradesh, India (2009-10).

Central Government Merit-cum-Means Scholarship (2009-10).

PUBLICATIONS:

1. **Siddiqui AA**, Sohail A, Bhat SA, Rehman MT, Bano B. Non-enzymatic glycation of almond cystatin leads to conformational changes and altered activity. *Protein Pept Lett.* 2015; 22(5):449-59.
2. Sohail A, Bhat SA, **Siddiqui AA**, Zaman M, Khan RH, Bano B. Conformational transitions induced by in vitro macromolecular crowding lead to the amyloidogenesis of buffalo heart cystatin. *J Mol Recognit.* 2015 Dec; 28(12):699-709.
3. Bhat SA, Sohail A, **Siddiqui AA**, Bano B. Effect of non-enzymatic glycation on cystatin: a spectroscopic study. *J Fluoresc.* 2014 Jul; 24(4):1107-17.

4. **Siddiqui AA**, Khaki PSS, Bano B. Interaction of almond cystatin with pesticides: structural and functional analysis. *J Mol Recognit*. doi: 10.1002/jmr.2586
5. Sohail A, Faraz M, Arif H, Bhat SA, **Siddiqui AA**, Bano B. Deciphering the interaction of bovine heart cystatin with ZnO nanoparticles: Spectroscopic and thermodynamic approach. *Int J Biol Macromolec*. <http://dx.doi.org/10.1016/j.ijbiomac.2016.10.095>
6. **Siddiqui AA**, Khaki PSS, Feroz A, Bano B. Binding of λ -carrageenan (a food additive) to almond cystatin: An insight involving spectroscopic and thermodynamic approach. *Int J Biol Macromolecule*. <http://dx.doi.org/10.1016/j.ijbiomac.2017.01.143>
7. **Siddiqui AA**, Khaki PSS, Sohail A, Sarwar T, Bano B. Isolation and purification of phytocystatin from almond: Biochemical, biophysical and immunological characterization. *cogent biology*. 2016, 2: 1262489
8. Khaki PSS, Feroz A, **Siddiqui AA**, Qadri SM, Amin F, Bano B. Glycation induced conformational alterations in caprine brain cystatin (CBC) leads to aggregation via passage through a partially folded state. *Int J Biol Macromol*. 2017 doi: 10.1016/j.ijbiomac.2017.08.086.
9. Feroz A, Khaki PSS, **Siddiqui AA**, Amin F, SM Khan, Bano B. Purification and characterization of a cystatin like thiol protease inhibitor from Brassica nigra. *Int J Biol Macromol*. 2019 <https://doi.org/10.1016/j.ijbiomac.2018.12.169>

CONFERENCES / SYMPOSIA / WORKSHOPS/ SEMINAR:

A. Poster Presentations:

1. Presented a poster in the international conference entitled “Emerging Trends in Biomedical sciences” organised by department of biochemistry, A.M.U. Aligarh (2016).
2. Presented a poster in the National seminar entitled “Clinical chemistry update” held at Sher-I-Kashmir institute of Medical Sciences, Soura, Srinagar (2015).
3. Presented a poster in the National symposium entitled “Recent advances in free radical biology and biochemistry” organised by department of biochemistry, A.M.U. Aligarh (2014).

4. Presented a poster in the silver jubilee symposium on Emerging trends in Biochemical and Toxicological Sciences” organised by department of biochemistry, A.M.U. Aligarh (2012).
5. Presented a poster in the IV National Forestry Conference, organized by the Forest Research Institute at Dehradun (2009).

B. Participations:

1. Participated in the Science Communication workshop organized by The Wellcome Trust, held at Aligarh Muslim University, Aligarh. (2015)
2. Attended a workshop on “Biomedical engineering and its recent trends” organized by Zakir Husain college of engineering and technology, A.M.U. Aligarh. (2014)
3. Participated in two days national conference on Nanoscience and Nanotechnology, organized by Zakir Husain College of engineering and technology, A.M.U. Aligarh. (2013)
4. Participated in national symposium on “Nanotechnology for chemical applications”, organized by Zakir Husain College of engineering and technology, A.M.U. Aligarh. (2013)
5. Attended lecture in international symposium and workshop on” The control of Helminth parasites with Emphasis on liver Fluke” and “liver Fluke: an RNAi workshop” organised by the section of Parasitology, Department of Zoology, A.M.U. Aligarh (2013)
6. Participated in the 100th Indian Science congress held at Calcutta University, Kolkata. (2013)
7. Participated in national symposium on “Emerging trends in Biological Sciences: Special Emphasis on Neurosciences” organized by Interdisciplinary Brain Research Centre, Faculty of medicine, A.M.U. Aligarh (2012).
8. Attended lecture in international conference on “Chemistry: Frontiers and Challenges” organized by department of chemistry, A.M.U. Aligarh (2011).
9. Attended two days’ workshop on “In silico analysis of Bio macromolecules” sponsored by Department of Biotechnology (DBT), Government of India. (2010).
10. Participated in two days International Symposium on the topic “Free Radicals in Health and Disease”, organized by Department of Biochemistry, Aligarh Muslim University, Aligarh. (2009).

11. Participated in International Symposium on “Cancer Chemoprevention and Translational Research”, organized by Jawaharlal Nehru University, Delhi. (December 2009).

12. Participated in two days’ workshop on “Exploring Proteins with Bioinformatics” sponsored by Department of Biotechnology (DBT), Government of India. (2009)

C. Academic Seminar Lectures:

1. Presented seminar on the topic “ELISA” during the 1st sem. of M.Sc. Biotechnology.
2. Seminar on the topic “Cancer” during the 2nd sem. of M.Sc. Biotechnology.
3. Seminar on the topic “Ribosome Conformation and Role” during the 3rd sem. of M.Sc. Biotechnology.
4. Presented research paper entitled “An Activator of Mutant and Wildtype Aldehyde Dehydrogenase Reduces Ischemic Damage to the Heart” during the 4th sem. of M.Sc. Biotechnology.

TECHNICAL SKILLS:

Instruments: UV-Visible and Fluorescence Spectroscopy, Circular Dichroism, Dynamic Light Scattering, Isothermal Calorimetry, FTIR, ELISA reader, Lyophilizer, Sonicator, Centrifuges.

Biochemistry: Enzyme kinetic, Enzyme inhibition, IC₅₀ value determination, Biochemical assays, Structure-function analysis, Protein/DNA and drug/ligand interaction using fluorescence, Isothermal Titration Calorimetry (ITC).

Biophysics: Protein stability, Chemical and Thermal denaturation of proteins, Characterization of different intermediate states of protein (Molten Globules), folding-unfolding pathway.

Immunology: ELISA, Binding assays, Western blotting.

Protein Sciences: Isolation and Purification of Proteins, Protein purification from inclusion bodies, PAGE-SDS & Native, Ion-exchange chromatography, Affinity chromatography, Gel filtration chromatography, FPLC.

Microbiology: Maintenance of microbiological strains, Growth curves, Antibiotic resistance, Disc-diffusion assay, Formulation of plant extract.

TEACHING & RESEARCH EXPERIENCE:

I am working as an Assistant Professor in Department of B. Voc. (MMDT), Km. Mayawati Govt. Girls PG college, Badalpur, G.B. Nagar (U.P.) India.

Teaching

1. I worked as a Senior Resident/Tutor in Department of Biochemistry, Pandit Jawaharlal Nehru Govt. Medical College and Hospital, Chamba, (H.P.) India for two and half years.
2. Co- supervised M. Sc. students in their dissertation, guided research assistance and was taking undergraduates theoretical and practical classes during my PhD.

M.Sc. Dissertation

“Prophylactic Potential of a Nanoparticle Based Vaccine against Systemic *Listeria Monocytogenes* Infection in Balb/c Mice Model”

Research Experience:

Ph.D. Thesis work: (2011 – 2015)

Topic: “BIOCHEMICAL STUDIES ON PHYTOCYSTATIN PURIFIED FROM ALMOND”

REFERENCES:

Prof. Bilqees Bano

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Faculty of Life Sciences
Aligarh Muslim University
Aligarh – 202 002, India
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(Professor and Head)
Department of Biochemistry
Pt. Jawaharlal Nehru Govt. Medical
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