



Naeem Mahmood Ashraf

Date of birth: 10/08/1984 | **Nationality:** Pakistani | **Gender:** Male | (+92) 3355064805 |

naeem.mahmood@uog.edu.pk |

<https://uog.edu.pk/en/faculty/c-yii588f0aa78d64a/department-of-biochemistry-&-biotechnology>

Skype: naeemhmg |

Chughtai Manzal, Sheshawala Mohala, Moti Bazar, Wazirabad, Dist Gujrawanala,, 52000, Wazirabad, Pakistan

● WORK EXPERIENCE

23/03/2013 – CURRENT – Gujrat, Pakistan

LECTURER BIOCHEMISTRY AND BIOTECHNOLOGY – UNIVERSITY OF GUJRAT

1. Teaching undergraduate classes
2. Coordinator of Hayatian Society of Biochemistry and Biotechnology
3. Member of Board of Studies
4. Member of Faculty Board of Faculty of Science University of Gujrat

Education | www.uog.edu.pk | Gujrat, Pakistan

21/03/2010 – 21/03/2013

CHEMIST – POULTRY RESEARCH INSTITUTE

1. I was responsible to look after all the activities of Feed Testing Lab
2. Chemical Analysis of poultry feed samples
3. Support research groups of poultry research institute

Rawalpindi, Pakistan

27/08/2009 – 15/03/2010

UNIVERSITY RESEARCH ASSISTANT – DR. MUHAMMAD ANSAR, QUAID-E-AZAM UNIVERSITY

1. Look after the Dr Muhammad Ansar research lab
2. Help Dr Muhammad Ansar in undergraduate courses especially in practical classes.

Islamabad, Pakistan

● EDUCATION AND TRAINING

25/02/2014 – 28/01/2020 – Hafiz Hayat Campus, University of Gujrat, Gujrat, Pakistan

DOCTORATE OF PHILOSOPHY (BIOCHEMISTRY AND MOLECULAR BIOLOGY) – University of Gujrat

My thesis title was

"Characterization and Rational Modification of Microbial Protease for thermostability and Industrial Application"

Thermostable protease designed during PhD studies claimed as Patent

Field(s) of study

- Protein Engineering

<http://pr.hec.gov.pk/jspui/handle/123456789/13430>

21/08/2008 – 01/12/2010 – Islamabad, Pakistan

MASTER OF PHILOSOPHY (M PHIL) – Department of Biochemistry, Quaid-e-Azam University

Research Thesis Title: "A Study of Pakistani Families with Autosomal Recessive Achromatopsia."

In this research project, we have used linkage analysis technique to find out the mutated gene. Moreover, I have also taken a variety of various courses during my first two semesters including Advances in Molecular Biology, Advances in Genetics, Genomics etc.

CGPA 3.9/5

Field(s) of study

- Molecular Biology

www.qau.edu.pk

22/01/2006 – 22/02/2008 – Islamabad, Pakistan

MASTER IN SCIENCE (BIOCHEMISTRY & MOLECULAR BIOLOGY) – Department of Biochemistry, Quaid-e-Azam University,

A variety of courses covering every aspect of Biochemistry & Molecular Biology including Enzymes, Genetics, Genetic engineering, vitamin and hormones, Plant Biochemistry, Biostatistics etc

74.5% Marks obtained and got 8th position in batch

Field(s) of study

- Biochemistry & Molecular Biology

www.qau.edu.pk

27/08/2003 – 20/11/2005 – Lahore, Pakistan

BACHELOR'S OF SCIENCE IN BIOLOGY (B.SC.) – Govt. College University, Lahore

3.25/4 CGPA

Field(s) of study

- Biology

www.gcu.edu.pk

02/07/2017 – 18/12/2017 – Singapore, Singapore

TRAINING IN PROTEIN CHEMISTRY – Department of Biological Science, National University of Singapore

I joined a structural biology lab in the Department of Biological Sciences, National University of Singapore, under the supervision of Dr Kunchithapadam Swaminathan for a period of six months. During my stay, I have equipped myself with advance research techniques in structural biology. Moreover, I have also constructed thermostable protease mutants during my stay.

Field(s) of study

- Structural Biology, Bioinformatics, Protein Engineering

www.nus.edu.sg

21/12/2018 – CURRENT

DATA SCIENCE WITH R PROGRAMMING LANGUAGE – Datacamp.com

Acquired skills

- to handle, clean, analyze, sort, visualize, etc data
- to apply various machine learning algorithm to train models

● JOB-RELATED SKILLS

01/09/2008 – CURRENT

Research-related skills

- **My first main area of expertise is cloning, expression, and biophysical characterization and crystallization of proteins.**
- **My second main area of expertise is bioinformatics. I am skill full in all bioinformatics techniques including 3D structure prediction, Molecular docking, MD simulations, QSAR analysis in Drug discovery, Epitope based design, Cancer Bioinformatics, Evolutionary Bioinformatics etc.**
- Skill full in R programming for Data Analysis, and Machine Learning.
- Basic skills in Python programming
- Skill full in Molecular Biology techniques like PCR, Gel Electrophoresis, Sequencing, 2-D Gel Electrophoresis, Different Chromatographic techniques.

● PUBLICATIONS

Patent

2021

Modified Serine Protease. Patent Application No. 441/2018

Publication

<https://doi.org/10.1007/s42690-021-00546-z> – 2021

Mahmood, I., Afroz, A., Malik, M. F., Zeeshan, N., Khan, M. R., Rashid, U., ... & Alam, S. (2021). RNA interference-mediated knockdown of odorant-binding protein 2 and MP58 gene causes mortality in *Myzus persicae*. *International Journal of Tropical Insect Science*, 1-12.

Publication

<https://doi.org/10.1007/s11356-021-14477-2> – 2021

Butt, M. Q., Zeeshan, N., **Ashraf, N. M.**, Akhtar, M. A., **Ashraf, H.**, Afroz, A., ... & Naz, S. (2021). Environmental impact and diversity of protease-producing bacteria in areas of leather tannery effluents of Sialkot, Pakistan. *Environmental Science and Pollution Research*, 1-10.

Publication

[10.1111/1348-0421.12866](https://doi.org/10.1111/1348-0421.12866) – 2021

Hina Batool Sana Batool Malik Siddique Mahmood Nada Mushtaq Azmat Ullah Khan Muhammad Ali Kashif Iqbal Sahibzada Naeem Mahmood Ashraf (2021). Prediction of putative epitope-based vaccine against all corona virus strains for the Chinese population: Approach toward development of vaccine. *Microbiology and Immunology*. (65), 154-160.

Publication

<https://doi.org/10.1080/14756366.2020.17> – 2020

Mashooq A. Bhat a , Mohamed A. Al-Omar a , Nawaf A. Alsaif , Abdulrahman A. Almezizia, Ahmed M. Naglah, Suhail Razak, Azmat Ali Khan and Naeem Mahmood Ashraf. (2020) Novel sulindac derivatives: synthesis, characterisation, evaluation of antioxidant, analgesic, anti-inflammatory, ulcerogenic and COX-2 inhibition activity. *Journal of Enzyme Inhibition and Medicinal Chemistry*, 35:1, 921-934

Publication

<https://doi.org/10.1016/j.mgene.2020.100674> – 2020

Malik Siddique Mahmood, Saba Irshad, Tehreem Aqdas Butt, HinaBatool, Sana Batool, Naeem Mahmood Ashraf (2020) *In-silico* analysis of deleterious missense SNPs of human *TYR* gene associated with oculocutaneous albinism type 1 (OCA1). *MetaGene* <https://doi.org/10.1016/j.mgene.2020.100674>

Publication

<https://doi.org/10.1016/j.mgene.2020.100771> – 2020

HinaBatoool, Nada Mushtaq, Sana Batoool, Fariha Inayat Ullah, Arslan Hamid, Muhammad Ali, Falak Shar Khan, Asad Raz Butt, Naeem Mahmood Ashraf* (2020) Identification of the potential type 2 diabetes susceptibility genetic elements in South Asian populations. MetaGene.

Publication

<https://doi.org/10.1016/j.ijbiomac.2018>. – 2019

Naeem Mahmood Ashraf, Akashaya Krishnagopal, Aadil Hussain, et al., (2019) Engineering of serine protease for improved thermostability and catalytic activity using rational design. International Journal of Biological Macromolecules.126, 229-237 DOI <https://doi.org/10.1016/j.ijbiomac.2018>.

Publication

<https://doi.org/10.1515/tjb-2018-0454> – 2019

Muhammad Zubair Mahboob, Arslan Hamid, Nada Mushtaq, Sana Batoool, Hina Batoool, Nadia Zeeshan, Muhammad Ali, Kalsoom Sughra* and Naeem Mahmood Ashraf*(2019). Data-mining approach for screening of rare genetic elements associated with predisposition of prostate cancer in South-Asian populations. Turkish Journal of Biochemistry

Publication

<https://doi.org/10.1016/j.mcp.2018.11.0> – 2018

Malik SiddiqueMahmood, MuhammadAsad-Ullah, HinaBatoool, SanaBatoool, Naeem Mahmood Ashraf*. (2018). Prediction of epitopes of Neisseria Gonorrhoeae against USA human leukocyte antigen background: An immunoinformatic approach towards the development of future vaccines for the USA population.Molecular Cellular Probes. DOI <https://doi.org/10.1016/j.mcp.2018.11.0>

Publication

<https://doi.org/10.1016/j.mcp.2017.07.002> – 2017

Naeem Mahmood Ashraf, Komal Imran, David W. Kastner Khadija Ikram Ayesha Mushtaq Aadil Hussain, Nadia Zeeshan. (2017). Potential involvement of mi-RNA 574-3p in progression of prostate cancer: A bioinformatic study. Molecular and Cellular Probes. 36. 21

Publication

<https://doi.org/10.1016/j.meegid.2016.05.009> – 2016

Naeem Mahmood Ashraf, Muhammad Bilal, Malik Sadique, Muhammad Aadil. (2016). In-Silico Analysis of Putative HCV Epitopes against Pakistani Human Leukocyte Antigen Background: An Approach towards Development of Future Vaccines for Pakistani Population. Infection, Genetics and Evolution, 43, 58-66

Publication

[10.1007/s00439-015-1571-4](https://doi.org/10.1007/s00439-015-1571-4) – 2015

Muhammad Ansar, Regie Lyn P. Santos-Cortez, Muhammad Arif Nadeem Saqib, Naeem Mahmood Ashraf, Fareeha Zulfiqar, Kwanghyuk Lee, et al.,(2015) Mutation of ATF6 Causes Autosomal-Recessive Achromatopsia. Hum Genet. DOI [10.1007/s00439-015-1571-4](https://doi.org/10.1007/s00439-015-1571-4)

Publication

[10.1038/nrrol.2014.301](https://doi.org/10.1038/nrrol.2014.301) – 2014

Muhammad Nawaz, Thomas Kislinger, Hadi Valadi, Giovanni Camussi, Irina Nazarenko, Karin Ekström, Xiaoqin Wang, Neelam Shah, Naeem Mahmood Ashraf, Farah Fatima, Luciano Neder. (2014). Emerging Role of Extracellular vesicles as diagnostic and prognostic markers for Urogenital Cancers. Nature Review Urology. 11: 688-701. (Equal Contribution)

● CONFERENCES AND SEMINARS

Conferences

- (1) Malik Siddique Mahmood, Cyro Alves De Brito, Aadil Hussain, Muhammad Zubair Mehboob, Mahjabeen Saleem, Nadia Zeeshan and Naeem Mahmood Ashraf. (2018). Development of an epitope-based vaccine for Zika virus against the Brazilian human leukocyte antigen background: a bioinformatic approach. EuroScicon Joint event on Genetics, Cell and Gene Therapy, Amsterdam, Netherlands. DOI: [10.21767/2471-8084-C3-015](https://doi.org/10.21767/2471-8084-C3-015)
- (2) Muhammad Zubair, Naeem Mahmood Ashraf et al., In silico Prediction & Effect of nsSNPs in CERB1 Protein. (2016) International Conference on Biochemistry & Biomaterial. University of Agriculture Faisalabad. Pakistan.
- (3) Malik Sadique Mahmood, Naeem Mahmood Ashraf et al., In Silico Structural and Functional Characterization of a Hypothetical Protein of Vaccinia Virus. (2016). International Conference on Biochemistry & Biomaterial. University of Agriculture Faisalabad. Pakistan.

● PRESENTATIONS

Workshop Resources Person

Resources Person in Computational Biology Workshop in COMSATS Univesity Abbottabad Held in Jan 2019.

● PROJECTS

Projects

- Development of Natural Anti-diabetic Compounds Reported in the Literature from 1985 to up till now. The database will be available for public soon.
- Development of Machine Learning based algorithm for prediction of DNA quantity in Agarose Gels (Project in Pipeline)
- Rational Engineering of Serine protease for high stability and Catalytic activity (Submitted to HEC)

● HONOURS AND AWARDS

Honours and awards

- (1) IRSIP Scholarship Awarded by Higher Education Commission of Pakistan for six-month training in the National University of Singapore.
- (2) Merit-based scholarship for Master of Philosophy (MPhil) degree program awarded by Quaid-e-Azam University, Islamabad, Pakistan

● COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

- good communication skills gained through my six-year teaching experience as a lecturer in the Department of Biochemistry, University of Gujrat
- good scientific writing skills gained through writing scientific articles during my academics. Moreover, my experience as editor of scientific newsletter "Scientific Beats" also helps me to polish my communication skills.

● ORGANISATIONAL SKILLS

Organisational skills

- Currently working as coordinator of Hayatian Society of Biochemistry & Biotechnology (HSBB), University o Gujrat
- Worked as President of Quaidian Blood Donner Society (QBDS)

● CERTIFICATIONS

Certifications

Certification: Specialization in Data Science with R

Organization: <https://www.datacamp.com>

Total No Courses in Certification: 23

● CITATIONS

Citations

Google Scholar Citations Since 2014

Total Number: 358

h-index: 5

i10-index: 4

● RECOMMENDATIONS

(1) Dr Muhammad Ansar, Prof Department of Biochemistry, Quaid-e-Azam University, Islamabad, Pakistan. E-mail: ansar@qau.edu.pk

(2) Dr Nadia Zeeshan, Associate Prof, Chairperson Department of Biochemistry & Biotechnology, University of Gujrat, E.mail: nadia.zeeshan@uog.edu.pk

(3) Dr Umer Rashid, Associate Prof, Ex-Chairman, Department of Biochemistry & Biotechnology, University of Gujrat, E.mail: umer.rashid@uog.edu.pk

● DIGITAL SKILLS

Microsoft Office | Social Media | Microsoft Teams | Organizational and planning skills | Good listener and communicator | Word | Power Point | Written and Verbal skills | Decision-making | Reliability | Analytical skills

● LANGUAGE SKILLS

Mother tongue(s): PUNJABI | URDU

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C2	C2	C2	C2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user