

Name: Nadeem Ahmad

Designation: Assistant Professor BPS 19

Highest Degree: PhD

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Lab: **Biopharmaceutical Lab.**

Name of Institution	Year Attended		Diploma or Degree Received	Major Subjects	Marks obtained Out of	Division
	From	To				
GovtIslamia College Civil lines Lahore	1992	1994	B.Sc.	Chem, Phys, Math	561/800	Ist
Institute of Chemistry PU Lahore	1994	1996	M. Sc.	Chemistry	798/1200	Ist
CEMB PU Lahore	2003	2009	Ph. D.	Molecular Biology		Ist

Field of Study: **Molecular Biology/Biotechnology**

Summary of independent research

I started my research carrier in 1994 as M.Sc student. In year 1997 I joined Center for Applied molecular biology (CAMB) as Assistant Research Officer. Year wise research activities are briefed bellow.

1997-2002

As Research officer I worked on projects related to Environmental biotechnology. I worked in different area of molecular biology which is briefly mentioned bellow.

My research focus was studies on pollutant stress response in bacteria. Methods were developed using molecular biology tools to find stress protein in bacteria in response to environmental pollutant. Biomarkers (stress protein) were identified for selected pollutants.

2003-2006

Human therapeutic proteins purification

In year 2003, I started my PhD research project under the supervision of Dr. S. Riazudin. Title of my thesis was “cloning and expression studies of human interleukin-2 gene”. Gene was cloned and interleukin-2 protein was purified by chromatography techniques. Bioassay for purified protein was performed using a proliferation assay.

In year 2005 I started work on purification of Interferon alpha 2a. Gene was cloned in bacterial expression system. Expression condition was optimized for large scale production of IFN alpha 2a protein. Interferon alpha 2a protein purification method was also characterized. Quality control test was optimized according to European pharmacopeias.

2006-2007

In year 2007 I have cloned human G-CSF gene in bacterial expression system. Expression conditions were optimized and method was developed for refolding and one step purification of hG-CSF protein.

2008 to date

In year 2008 I started work on PEGylation of human interferon alpha 2a protein. Experiments are designed for increasing the yield and purity of mono pegylated interferon alpha 2a. In year 2008 human IFN gamma gene was successfully cloned in bacterial expression system. Refolding conditions have been optimized. In year 2009 IFN beta gene was cloned. Experiment was designed for periplasmic expression of human GM-CSF gene.

Current Research Interest:

- 1. Upstream and downstream process development for human therapeutic proteins.**
- 2. PEGylation and purification of human recombinant therapeutics.**

Research Publication:

Khan MA, Ahmad UZ, Nadeem A, Idrees AN And Muhammad AQ (2011). Screening of local habitat for alkaline protease producing bacilli and physio-chemical characterization of the enzyme. Afr J. Biotechn. 10 (33): 6203-6212.

Zahoor Ahmad, Zaib Sarwar, Nadeem Ahmad, Muhammad Sabir Hussain and S.

Riazuddin, (1999). Genetic Modification of *Pseudomonas putida* for Enhanced Degradation of Phenol and Nitrophenol. **Pak. J. of Brioche. and Mol. Biol. 2: 32-37.**

Beenish Bashir, M Saqib Shahzad, Syasir Abbas Bokhari, Nadeem Ahmad, Zahoor Ahmad and S.Riazuddin, (2003).Analysis of insulin gene in patients with type 1 diabetes mellitus for mutations.**Proc. Pakistan Congr.Z00L, Vol.23, pp. 191-198.**

Training Courses:

- Workshop on latest development in the field of Molecular Biology and Biotechnology held from 08-13 October 2001 at UGC Regional Centre.
- Workshop on operational/Trouble-shooting Training on High Performance Liquid Chromatography sponsored by Ministry of Science and Technology, Government of Pakistan, held at PCSIR Laboratories Complex, Lahore from 09-13 April, 2002.
- Training course for biopharmaceutical protein production production at ICGEB ITALY
- The 30th A-IMBN/AMBO International Training Course held in YPRC, Yonsie University Seoul Korea from 28-03 June 2007.