

## Curriculum Vitae

### *Munir Ahmad*

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## EDUCATION

### **PhD (Biological Sciences)**

School of Biological Sciences, University of the Punjab, Lahore (Pk)

#### *Research Title*

Optimization of conditions for the folding and bioprocessing of different derivatives of human insulin.

Supervisor: Prof M. Akhtar FRS

### **M.Sc. (Chemistry)**

University of the Punjab, Lahore (Pk)

#### *Research Title*

Spectrophotometric determination of nicotine in different varieties of tobacco of district Mardan (NWFP)

### **B.Sc. (Botany, Zoology, Chemistry)**

University of the Punjab, Lahore (Pk)

### **Higher Secondary School Certificate**

Board of Intermediate and Secondary Education, Faisalabad (Pk)

### **Secondary School Certificate**

Board of Intermediate and Secondary Education, Faisalabad (Pk)

## RESEARCH INTERESTS

Production, Purification, and characterization of therapeutic Proteins (insulin, interleukin, blood coagulation factor VII) using prokaryotic, and eukaryotic expression systems.

## PERSONAL INFORMATION

<b>Father's Name</b>	Bashir Ahmad
<b>Domicile</b>	Faisalabad (Punjab, Pk)
<b>Nationality</b>	Pakistani
<b>Mobile</b>	+9233334973275
<b>Phone</b>	+924299230960
<b>Postal Address</b>	School of Biological Sciences, University of the Punjab, Quaid-e-Azam Campus, Lahore, 54590. Pakistan
<b>Permanent Address</b>	House No. P-615, Ghulam Muhammad Abad No.1, Faisalabad, 38900. Pakistan

## PUBLICATIONS

- Muhammad Fayyaz ur Rehman, Chaudhary Fariha, Aqsa Anwar, Naveed Shahzad, **Munir Ahmad**, Salma Mukhtar and Muhammad Farhan Ul Haque, 2020. Novel coronavirus disease (COVID-19) pandemic: A recent mini review. *COMPUTATIONAL AND STRUCTURAL BIOLOGY JOURNAL* **19**(2021):612-623.
- Hadia Khadija, Rohama Zahid, Sabahat Gulzar, **Munir Ahmad**, 2021. Emerging Variants of SARS Cov-2 “A New Challenge of 2021 for the World”. *Archives of Microbiology & Immunology* **5** (2021): 373-383.
- Naveed Shahzad, Tehreem Munir, Mariam Javed, Fareeda Tasneem, Bilal Aslam, Moazzam Ali, Zeeshan Mutahir, Muhammad Akhtar Ali, Muhammad Umer, **Munir Ahmad**, Kokab Farooq, Umair Hassan, Tanveer Mustafa, Rana Salman Anjum and Abdul Rauf Shakoori, 2020. SHISA3, an antagonist of the Wnt/ $\beta$ -catenin signaling, is epigenetically silenced and its ectopic expression suppresses growth in breast cancer. *Journal of PLOS ONE* **15**(7):1-16.
- **Munir Ahmad**, Qurra-tul-Ann Afza Gardner, Naeem Rashid and Muhammad Akhtar, 2017. Designing structural motifs for the preparation of acylated proinsulin and their regiospecific conversion into insulin modified at Lys (K<sup>29</sup>). *Journal of Bioorganic Chemistry* **73**(2017):147-153.
- Rooma Adalat, Faiza Saleem, Aftab Bashir, **Munir Ahmad**, Soumble Zulifiqar, Abdul Rauf Shakoori, 2018. Multiple upstream start codons (AUG) in 5' untranslated region enhance translation efficiency of cry 2Ac11 without helper protein. *Journal of Cellular Biochemistry* **120**(2):2236-2250.
- Hina Zain, **Munir Ahmad (co-first author)**, Qurra-tul-Ann Afza Gardner and Muhammad Akhtar, 2015. Hierarchy of N-acylation Sites in Human Insulin Studied by RP-HPLC and Mass Spectrometry. *Journal of Chemical Society of Pakistan*. **37**(6):1260-1267.
- Majida Parveen Narejo, Javed Ahmed Ujan, Shahnawaz Ujan, Sham Lal, Om Parkash, **Munir Ahmad**, Majeeda Ruk, Fawad Shabir Memon, Aziz Ahmed Ujjan, Shahid Jakhriani, 2022. Determination of the novel SNPs in UQCC gene among three different cattle breeds in Pakistan. *International journal of Biosciences* **18** (2022): 167-173.
- Alisha Khalid, Muhammad Tayyab, Abdul Rauf Shakoori, Abu Saeed Hashmi, Tahir Yaqub, Ali Raza Awan, Muhammad Wasim, Sehrish Firyal, Zaheer Hussain and **Munir Ahmad**, 2019. Cloning, Expression and characterization of Highly Active Recombinant Thermo stable Cellulase from *Thermotoga naphthophila*. *Pakistan Journal of Zoology* **51**(3):925-34.
- Huma Khurshid, Muhammad Rafiq, Fahad Nazir, Imran Ali, **Muneer Ahmed**, Bilal Akbar, Mushtaq Ahmed and Anser Ali, 2019. Antimicrobial properties of hydrogen peroxide and potash alum alone and in combination against clinical bacterial isolates. *Pure Appl. Biol.*, **8**(4): 2238-2247.
- Asmat Ullah, Abad Khan, Zafar Iqbal, Ismail Khan, Lateef Ahmad, Waqar Ahmad Kaleem, Mirina Shaki, Saqib Jahan, **Munir Ahmad**, 2019. Effect of Chronic Hashish consumption on liver function and coagulation profile in hashish users. *J Postgrad Med Inst*; **33**(2):117-21.

- Asmat Ullah, Abad Khan, Zafar Iqbal, Ismail Khan, Lateef Ahmad, Waqar Ahmad Kaleem, Mukhtar Alam, Naveed Ullah, and **Munir Ahmad**, 2019. A clinical case control study to evaluate oxidative stress in heroin addicts. *Journal of Heroin addiction & Related Clinical Problems* 21(6): 31-36.
- Mansoor Ahmed Charjo, Fahad Nazir Khoso, Imran Katri, Jamal U Din Hajano, Abdul Mubeen Lodhi, Sohail Otho, Imtiaz Ahmed Nizamani, **Munir Ahmad**, Anser Ali 2018. Chemotaxis of fruit fly species against Methyleugenol in the presence of different food flavors in a guava orchard. *Journal of Pure and Applied Biology*
- Noor Ul Ain, Saba Riaz, Samyia Abrar, **Munir Ahmad**, Zaeem Khan, Saleha Hafiz, Shahida Hussain, Muhammad Hayat Haider 2017. Horizontal Gene Transfer and Antibacterial Effect of *Allium sativum* (GARLIC) on Methicillin-Resistant *Staphylococcus aureus* *Analsof PIMS*.
- Najeebullah Khoso, Jan Muhammad Marri, Fahad Nazir Khoso, Bhai Khan Solangi, Agha Mushtaq Ahmed, Yasir Iftikhar, Anser Ali, Jamal U Din Hajano, **Munir Ahmad**, Kirshan Chand, Taimur Ur Rehman 2017. Assessment of botanical insecticides against tonion thrips, *Thrips taba* (L.) Thysanoptera: Thripidae. *Journal of Entomology and Zoology Studies*
- Sadia Aslam, Muhammad Asgher, Nasir Ahmad Khan, Zinnayer Subhani, Farina Jamil, Tanzila Sahar, Sobia Aleem, Riffat Iqbal, Naila Abdul Sattar, Nusrat Shafiq, **Munir Ahmad**, 2018. STATISTICAL OPTIMIZATION OF FUNGAL LACCASE PRODUCED BY SOLID STATE FERMENTATION *Research journal of Life Sciences, Bioinformatics, Pharmaceutical and Chemical sciences*.

## EXPERTISE

Extraction, isolation, and purification of Enzymes from various mammalian tissues (heart, liver)  
 Enzyme Kinetics, Assays  
 UV/Visible-Spectroscopy  
 RNA, Plasmid and Genomic DNA isolation  
 PCR & RT-PCR  
 Cloning and Expression of genes encoding therapeutic proteins  
 DNA Agarose Gel Electrophoresis & SDS-PAGE analysis  
 Production and purification of inclusion bodies  
 Refolding of proteins using redox couples (cysteine & cystine).  
 Modifications of proteins for enhancement of shelf life (Acylation)  
 Purification of proteins by different purification techniques  
 Chromatographic Techniques (Ion Exchange, Size Exclusion, HPLC, FPLC)  
 Bioassays

## JOB EXPERIENCE

- **Senior Experimental Officer**

School of Biological Sciences, University of the Punjab, Lahore (Pk)  
 From 05/13/2016 To date

- **Experimental officer**

School of Biological Sciences, University of the Punjab, Lahore  
 From 12/03/2013 To 05/12/2016

## Students Supervision

### M. Phil students

- Fatima tul Zahra  
(M.Phil Biological Sciences, 2020-2022). School of Biological Sciences, University of the Punjab, Quaid-e-Azam campus, Lahore.
- Tasduq Yaqoob  
(M.Phil Biological Sciences, 2020-2022). School of Biological Sciences, University of the Punjab, Quaid-e-Azam campus, Lahore.
- Huzaifa Farooq:  
(M.Phil Biological Sciences, 2020-2022). School of Biological Sciences, University of the Punjab, Quaid-e-Azam campus, Lahore.
- Iqra Shafiq: Optimization of constitutive GAP promoter derived expression system for *Pichia Pastoris* strains. (MS Biotechnology, 2018-2020). Lahore College for Women University, Lahore.
- Amna Safdar: Fate of recombinant interleukin-2 (hil-2) in *Bacillus* expression system. (MS Biotechnology, 2016-2018). Lahore College for Women University, Lahore.
- Quratulain Amjad: Impact of loop residues of the receptor-binding domain of *Bacillus thuringiensis* Cry2Ac11 toxin on insecticidal activity (MS Biotechnology, 2012-2014). Lahore College for Women University, Lahore.
- Zainab Khalid: comparative analysis of Cry2Ac and Cry2Ad type insecticidal proteins of *Bacillus thuringiensis* (MS Biotechnology, 2012-2014). Lahore College for Women University, Lahore.
- Kashaf Jamil. Expression analysis of human proinsulin gene in *Bacillus subtilis* KO7 strain. (MS Biotechnology, 2015-2017). Lahore College for Women University, Lahore.
- Sana Saleem Dar. Implication of additional ATG in the 5'UTR on expression level of cry3A gene in acrySTALLIFEROUS *Bacillus thuringiensis* strain 4Q7 (MS Biotechnology, 2015-2017). Lahore College for Women University, Lahore.

### PhD Students

- Uzma Nisar. *Bacillus subtilis* cell factory for heterologous expression of human therapeutic peptides (PhD Biotechnology session fall 2016). Lahore College for Women University, Lahore (Continue).
- Hafsa Amjad. Evaluation of microbial expression system for heterologous chymosin production. (PhD Biotechnology session fall 2017). Lahore College for Women University, Lahore (Continue).

### Scholarships/Awards

HEC indigenous PhD scholarship for M.Phil leading to PhD (2006)  
HEC Approved PhD Supervisor (2019)

## **Scientific and Administrative Responsibilities**

Teaching a lab course “*Protein chemistry and Enzymology*” to newly admitted M.Phil scholars every year since 2013

Incharge Chromatography (*HPLC*) lab to facilitate the M.Phil and PhD scholars in purification of proteins and compounds since 2013.

Organizer National workshop on “*Recombinant DNA Technology*” (April every year since 2016)

Organizer National workshop on “*Production and Purification of Recombinant Proteins*” (November every year since 2016)

Member “*Technical Committee*” of School of Biological Sciences since 2019