

Dr. IRAM AMIN

CONTACT DETAILS

Email: iram.amin@cemb.edu.pk

Mobile: +92-335-4938177.

Postal Address: Centre of excellence in Molecular Biology (CEMB), University of the Punjab,

87-West Canal Bank Road, Thokar Niaz Baig, Lahore-Pakistan.



PROFESSIONAL EXPERIENCE

Assistant Professor

November 2023- Till date

Division of Molecular Virology and Infectious Diseases, Centre of Excellence in Molecular Biology, University of the Punjab, Lahore-Pakistan.

Research Officer cum Lecturer

January 2010-October 2023

Division of Molecular Virology and Infectious Diseases, Centre of Excellence in Molecular Biology, University of the Punjab, Lahore-Pakistan.

Research Officer

May 2007-December 2009

Division of Molecular Virology and Infectious Diseases, Centre of Excellence in Molecular Biology, University of the Punjab, Lahore-Pakistan.

Medical Technologist

July 2005- June 2007

Pathology lab. (Routine-Chemistry Section), Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore-Pakistan

Medical Technologist

August 2004-June 2005

Pathology lab. (Routine-Chemistry Section), Ittefaq Hospital(Trust), Lahore-Pakistan.

ACADEMIC QUALIFICATION

2015-2022

Ph.D. Molecular Biology and Forensic Sciences, Centre for Applied Molecular Biology, University of the Punjab, Lahore-Pakistan

2013-2015

MS Biotechnology, Lahore College for Women University, Lahore-Pakistan

2001-2003

MSc Biochemistry, Institute of Biochemistry and Biotechnology, University of the Punjab, Lahore-Pakistan.

ACADEMIC AND RESEARCH DISTINCTIONS

1. Awarded **Post-doctoral fellowship** sponsored by Higher Education Commission (HEC)-Pakistan for the period of nine months from March-2026 to November 2026 in Wuhan University-China.
2. Awarded and got training under **Charles Wallace Visiting Fellowship** for the year 2024-2025 supported by British Council Pakistan & Charles Wallace Trust, United Kingdom to conduct research at Queen Mary University of London, United Kingdom.
3. Awarded **International Research Support Initiative Program (IRSIP)** by Higher Education commission (HEC) of Pakistan for period of six months (2019) in CDC-USA.
4. **Research Incentive Award**, cash prizes of Rs. 7,350, 22,480, 19,000 and 16,475/ for the Years 2016, 2017, 2019 and 2020 from University of the Punjab, Lahore-Pakistan
5. **Performance Evaluation Award** for teaching and research for the Year 2017 by University of the Punjab, Lahore-Pakistan.

SKILLS & HANDS ON EXPERIENCE

- Extensive experience in working with viruses such as Hepatitis B, C, D, Dengue Virus, HIV, SARS-CoV-2, and Mycobacterium Tuberculosis.
- Specific expertise in Handling of BSL2 and BSL3 Contaminant level| RNA/DNA Extraction| Reverse Transcription| DNA Amplification| Agarose Gel Electrophoresis| Conventional & RT-PCR| Genotyping| Molecular Cloning| DNA Sequencing by Sanger and NGS| Molecular Diagnostics| SDS-PAGE| Western Blot| ELISA| Protein expression and purification| Bacterial Transformation| Bacterial, Yeast and Mammalian Cell Culturing and maintenance| Isolation of total PBMCs, Neutrophils and Monocytes| Isolation and Counting of Cells| Cell viability Assay| FACS (Fluorescence Activated Cell Sorting) staining| Flow Cytometry| Gene Expression analysis by qPCR and Nanostring Technology| High Performance Liquid Chromatography| Nickel affinity and Ion-Exchange Liquid Chromatography| In-house Assay development.

RESEARCH GRANTS/ PROJECTS

1. "Expression and Methylation Analysis of TNF- α , CXCL10, CCL5, and CTGF as Blood-Based Biomarkers for HCV-Induced Hepatocellular Carcinoma" as PI from University of the Punjab, Lahore. 2025-2026. (PKR 300000).
2. "Integrated Approaches to Infection Prevention and Control: Benchmarking the Effectiveness and Feasibility of Multimodal Strategies for Healthcare-associated Multidrug-Resistant Pathogens across varied resource-limited settings" AP24-01787: as Co-PI from TDR research grants of WHO for developing countries, of worth 9000USD in 2024-2025.
3. "Indigenous and low-cost, point-of-care kit for rapid detection of Hepatitis Delta virus for primary health care settings" as PI from University of the Punjab, Lahore. 2024-2025. (PKR 200000).
4. "Identification and comprehensive analysis of competing endogenous RNA networks in human immunodeficiency virus infection and treatment responses" as Co-PI from National Institute of Health, Islamabad NHCG-22/R2-60 of worth Rs.3.79 Million Rupees in year 2022-2025.
5. "Studies on streamline Molecular approaches to Hepatitis C: Implications for patient management and public health" as a Team Scientist funded by Higher Education Commission-Pakistan from 2015-2019; NRGPU PKR. 4,520,288.
6. "Development of Dengue Assays based on ELISA and PCR Diagnostic systems for Reproducible and early detection of Dengue Virus" as Team Scientist, funded by University of the Punjab, Lahore as Lumpus provision for research of an amount PKR. 10,00,000 in the year 2016-2017.
7. "Streamline analysis of dengue virus genome, Serotype, genotype and Heterogeneity: Application to Molecular Epidemiology and Clinical studies" as Team Member, funded by University of the Punjab, in the year 2015 for an amount of PKR. 200,000.
8. Dengue detection and serotyping analysis of patients from major hospitals of Punjab during Dengue Outbreaks of 2011-2015. diagnostic services conducted at CEMB, University of the Punjab, Lahore-Pakistan.
9. Prime Minister Program for control and prevention of Hepatitis B & C in Pakistan from 2007-2010 conducted at CAMB, University of the Punjab, Lahore-Pakistan.
10. Punjab TB control program conducted by Govt. of Pakistan at CAMB, University of the Punjab, Lahore as a Team Member from 2007-2010.

M.PHIL/PH.D RESEARCH SUPERVISION

Ser#	Student Name	Degree	Title of Thesis	Year
1	Mariam Nasim	Ph.D.	Epigenetic and transcriptional regulation of HCC related genes as Blood-Based Biomarkers for HCV-Induced Hepatocellular Carcinoma	2024–2029
2	Mahnoor Fatima	Ph.D.	Identification of circular RNA expression based competing endogenous RNA networks and drug resistance in HIV-infected patients.	2022–2027
3	Fatima Shahid	M.Phil	Mechanistic Validation of the miR-21-5p / miR-199b-5p Diagnostic Panel through STAT3, ERBB2, and JAG1	2025–2027

			Target Gene Expression Analysis in HCV-Associated Hepatocellular Carcinoma	
4	Ahmad Raza Khan	M.Phil	Identification of circulating MicroRNase panel for early, non-invasive diagnosis of HCV-associated Hepatocellular carcinoma.	2024–2026
5	Sanaa Rahmna Cheema	M.Phil	Transcriptomic analysis of exosomal circular RNA RNA SPHC3,FBXW7ANDZNF609 pre and post anti-retroviral therapy: a qPCR-based validation study.	2024–2026
6	Lubna Afzal	M.Phil	Expression Profiling of the TNF- α , CXCL10, CCL5 and CTGF in Pakistani Patients with HCV-induced Hepatocellular Carcinoma.	2023–2025
7	Muhammad Bilal Javed	M.Phil	Expression Analysis of Long Non-Coding RNAs XIST and MMP2-AS1 in HIV-Infected Pakistani Patients Undergoing Antiretroviral Therapy	2023–2025
8	Faiza Abdullah	M.Phil	Evaluating <i>E.coli</i> as an expression system for dengue subunit vaccine candidates.	2023–2025
9	Hifza Manzoor	M.Phil	Molecular Characterization of Hepatitis Delta Virus Antigen from Pakistani Isolate using Prokaryotic System and Assessing Its Immunogenic Response in Rabbits	2022–2024
10	Muhammad Huzaifa	M.Phil	Cloning and expression of antigenic epitopes of Dengue envelope protein domain III: A potential subunit vaccine candidate.	2022–2024
11	Muniba Mehmood	M.Phil	Amplification and Molecular Cloning of Recombinant Antigenic Hepatitis B Surface antigen in <i>Pichia pastoris</i> for high expression.	2022–2024

RESEARCH PUBLICATIONS INDEX

Journal Impact Factor	115
No. of Publications	66
Total citations:	607
H-index:	15
Research interest score	438.6

RESEARCH PUBLICATIONS

Year 2026

- Nawaz, R., Nawaz, A., Arif, M. A., Rehman, Z., Shah, R., Shafi, F., Javaid, M., Idrees, H., Shahid, M., **Amin, I.**, Afzal, S., Ahad, A., Ali, M. R., Khan, M. A., Sajjad, S., Rafique, S., & Idrees, M. (2026). Characterization of the Hepatitis C virus in Pakistan: Comprehensive molecular and epidemiological insights. *BMC Infectious Diseases*. <https://doi.org/10.1186/s12879-026-14248-9>
- Naveed, H., Zain-Ul Abidien, Maqsood, K., **Amin, I.**, Shahid, M., & Afzal, S. (2026). Decoding the functional landscape of long non-coding RNAs in hepatocellular carcinoma: Molecular mechanisms, clinical implications, and therapeutic prospects. *Journal of the Egyptian National Cancer Institute*, 38, 39.

- Arif, M. A., Mubashir, F., Raffay, A., Talha, M., Zohaib, M., Khan, A. R., Naseer, M. U., Idrees, M., Afzal, S., **Amin, I.**, & Shahid, M. (2026). Recent advances in CRISPR-Cas mediated detection of dengue virus. *Critical Reviews in Eukaryotic Gene Expression*, 36(1), 19–35.
- Taufiq, I., Naveed, H., **Amin, I.**, Shahid, M., Idrees, M., & Afzal, S. (2026). Genetic profiling of interleukin variants and their correlation with hepatitis C viral response to different therapeutic strategies administered in Pakistani patients. *Journal of Interferon & Cytokine Research*. Advance online publication. <https://doi.org/10.1177/10799907261438862>

Year 2025

- Yousaf, T., Chen, J., Naz, W., Xu, J., Liu, Y., Huang, J., Yang, S., Zhang, J., **Amin, I.**, Guo, M., Tang, Y., & Sun, G. (2025). RNA and ChIP-sequencing analysis reveals SOX3 suppresses antiviral innate immunity through the AKT1–PTEN signaling axis. *Virologica Sinica*.
- Manzoor, H., Shahid, M., Ahmed, N., Afzal, S., Huzaifa, M., Tahir, S., & Amin, I. (2025). Immunogenic response assessment of hepatitis delta virus antigen from Pakistani isolate in rabbits using a prokaryotic expression system. *Viral Immunology*.
- Fatima, M., Shahid, M., **Amin, I.**, & Javed, H. (2025). Circular RNAs MTO1 and ZNF292 as potential diagnostic biomarkers in HIV patients treated with antiretroviral therapy. *Molecular Biology Reports*, 52(1), 1–12.
- Munir, R., Rafique, S., **Amin, I.**, Ahmed, S., Vajeeha, A., Ali, A., Shahid, M., Khan, M. U., & Idrees, M. (2025). Potential role of recombinant capsid protein of dengue virus serotype 2 in the development of an in-house ELISA-based detection of infection. *Pakistan Journal of Zoology*, 57(1), 89–97.
- Khokhar, N., Khan, M. U., Ashraf, M. A., Ghani, M. U., Younis, S., **Amin, I.**, Shahid, M., Ullah, I., & Munir, R. (2025). Investigation of biochemical markers of COVID-19 infected patients. *Pakistan Journal of Scientific & Industrial Research Series A: Physical Sciences*, 68(3), 314–324.
- Khan, M. U., Shafqat, A., Ghani, M. U., Younis, S., Zahid, T., **Amin, I.**, Shahid, M., & Inamullah. (2025). Presence of anti-nuclear and anti-double-stranded DNA antibodies among healthy individuals in the twin cities (Rawalpindi and Islamabad) of Pakistan. *Pakistan Journal of Scientific & Industrial Research*, 68B(3), 254–261.
- Khurram, I., Khan, M. U., Ibrahim, S., Ghani, M. U., & Amin, I. (2025). Thapsigargin and its prodrug derivatives: Exploring novel approaches for targeted cancer therapy through calcium signaling disruption. *Medical Oncology*, 42(1), 1–21.
- Shahid, M., **Amin, I.**, Nawaz, R., Afzal, S., Ghani, M. U., Fatima, M., Naveed, H., Farooq, F., Habiba, U. E., & Idrees, M. (2025). LncRNA HULC and LncRNA HOTAIR expression profile are strong predictors of direct antiviral agents therapy response in chronic hepatitis C virus-infected patients. *Egyptian Liver Journal*, 15(1), 40.

Year 2024

- Almas, I., Tariq, S., **Amin, I.**, Shahid, M., Idrees, M., & Afzal, S. (2024). Molecular epidemiology and genetic characterization of hepatitis B virus in two major provinces of Pakistan. *Archives of Virology*, 169(11), 1–6.
- Choudry, M. W., Riaz, R., Raza, M. H., Nawaz, P., Ahmad, B., Jahan, N., Rafique, S., & Amin, I. (2024). Development of non-viral targeted RNA delivery vehicles: A key factor in the success of therapeutic RNA. *Journal of Drug Targeting*, 1–14.
- **Amin, I.**, Rafique, S., Ali, A., Ahmed, N., Shahid, M., Afzal, S., Tahir, S., Waqas, M., Elgorban, A. M., Idrees, M., Shah, M., & Syed, A. (2024). Improving access to anti-HDV testing:

Development and validation of an affordable in-house ELISA assay. *ACS Omega*, 9(15), 17137–17142.

- Shah, B. S. Y., Khan, M. U., Zulfikar, A., Zahid, T., Ghani, M. U., **Amin, I.**, Shahid, M., Munir, R., Younas, S., & Vajeelha, A. (2024). Recent updates on molecular epidemiology of hepatitis C virus in Gujranwala, Pakistan. *African Health Sciences*, 24(4), 20.
- Khurram, I., Khan, M. U., Saleem, A., Ibrahim, S., Ghani, M. U., Shahid, M., **Amin, I.**, Calina, D., & Sharifi-Rad, J. (2024). The potential of cell-free DNA in cancer: Towards standardization and optimization for enhanced diagnosis and monitoring. *Journal of Biological Regulators and Homeostatic Agents*, 38(4), 2713–2732.
- Almas, I., Afzal, S., Idrees, M., Shahid, M., **Amin, I.**, & Malik, K. (2024). Quasispecies analysis through NGS and identification of escape mutation in a family infected with hepatitis B virus: A study from Lahore, Pakistan. *Pakistan Journal of Zoology*, 1–4.

Year 2023

- Shahid, M., Idrees, M., Rasul, A., **Amin, I.**, & Afzal, S. (2023). Identification of predictive factors in chronic hepatitis C patients with non-infected individuals: A comparative analysis. *Pakistan Journal of Zoology*, 55(3), 1065.
- Shahid, M., **Amin, I.**, Nawaz, R., Afzal, S., Rasul, A., Khan, M. U., Butt, F. A., & Idrees, M. (2023). A comparative analysis of baseline variables in responder and non-responder groups of chronic hepatitis C patients. *Pakistan Journal of Zoology*, 1–4.
- Mehdi, Z., Khalid, I., Bano, I., Ghani, M. U., Sabar, M. F., Khan, M. U., Rehman, H. M., Hussain, M., Anjum, S., Mumtaz, A., **Amin, I.**, & Shahid, M. (2023). Association of TSLP gene's SNP variants with asthma disease in Pakistan. *Pakistan Journal of Zoology*, 1–7.
- Khan, M. U., Khokhar, N., Ashraf, M. A., Ghani, M. U., Younas, S., **Amin, I.**, Shahid, M., Ullah, I., Munir, R., & Ahmed, S. (2023). Association between COVID-19 infection susceptibility and ABO blood groups and rhesus antigen. *Pakistan Journal of Health Sciences*, 46–50.
- Munir, R., Rafique, S., Ali, A., **Amin, I.**, Ahmed, S., Vajeelha, A., Shahid, M., Samiullah, T. R., Idrees, M., Tao, Y. J., & Khan, M. U. (2023). Molecular characterization of recombinant pre-membrane protein of dengue virus serotype-2 for development of diagnostic assay. *Journal of Basic Microbiology*, 63(5), 489–498.
- Munir, R., Rafique, S., **Amin, I.**, Ahmed, S., Vajeelha, A., Ali, A., Shahid, M., Khan, M. U., & Idrees, M. (2023). Potential role of recombinant capsid protein of dengue virus serotype 2 in the development of an in-house ELISA-based detection. *Pakistan Journal of Zoology*, 1–9.

Year 2022

- **Amin, I.**, Rafique, S., Ahmed, N., Shahid, M., Afzal, S., Samiullah, T. R., Khan, M. A., & Idrees, M. (2022). Bacterial expression and purification of antigenic recombinant protein encoded by hepatitis delta virus antigen of Pakistani isolate. *Pakistan Journal of Zoology*, 54(6), 2969.
- Butt, F., Shahid, M., Hassan, M., Tawakkal, F., **Amin, I.**, Afzal, S., Bhatti, R., Nawaz, R., & Idrees, M. (2022). A review on hepatitis C virus: Role of viral and host-cellular factors in replication and existing therapeutic strategies. *Egyptian Liver Journal*, 12, Article 71.
- Afzal, S., Ahmad, J., **Amin, I.**, Ali, L., Shahid, M., Khan, M. A., & Idrees, M. (2022). Frequency of hepatitis D viral infection in chronic hepatitis B patients in Pakistan. *Pakistan Journal of Zoology*, 1–4.
- Shahid, M., Idrees, M., Rasul, A., **Amin, I.**, & Afzal, S. (2022). Identification of predictive factors in chronic hepatitis C patients with non-infected individuals: A comparative analysis. *Pakistan Journal of Zoology*, 1–7.
- Mir, I., Aamir, S., Shah, S. R. H., Shahid, M., **Amin, I.**, Afzal, S., Nawaz, A., Khan, M. U., & Idrees, M. (2022). Immune-related therapeutics: An update on antiviral drugs and vaccines to tackle the COVID-19 pandemic. *Osong Public Health and Research Perspectives*, 13(2), 84.

Year 2021

- Hassan, M., Hassan, A., Farooq, M., Afzal, S., Khan, M. A., **Amin, I.**, Shahid, M., Idrees, M., & Shahid, A. A. (2021). Dengue vaccines: Ongoing challenges and current status in the advancement of different candidates. *Critical Reviews™ in Eukaryotic Gene Expression*, 31(5).
- Rani, M., Farooq, M., Aamir, S., Mir, I., Hassan, M., Ahmed, B., Iftikhar, A., Shah, S. R. H., Rafique, S., Afzal, S., Idrees, M., **Amin, I.**, & Shahid, M. (2021). A review on coronavirus pandemic: Update on epidemiology, diagnosis, and treatment. *Pure and Applied Biology (PAB)*, 11(1), 146–158.

Year 2020

- Almas, I., Afzal, S., Imtiaz, H., Shaheen, M. A., Daud, M., Saghir, A., **Amin, I.**, Shahid, M., & Idrees, M. (2020). Drug resistance in hepatitis C virus: Future prospects and strategies to combat it. *Critical Reviews™ in Eukaryotic Gene Expression*, 30(4).
- Shaheen, M., Afzal, S., Khubaib, B., **Amin, I.**, Shahid, M., & Idrees, M. (2020). Association of IL28B polymorphism with clearance of hepatitis C virus: A mini review. *Critical Reviews™ in Eukaryotic Gene Expression*, 30(3).
- Ali, S., Afzal, S., Yousaf, M. Z., Shahid, M., **Amin, I.**, Idrees, M., & Aftab, A. (2020). Paradoxical role of dengue virus envelope protein domain III antibodies in dengue virus infection. *Critical Reviews™ in Eukaryotic Gene Expression*, 30(3).
- Shahid, M., Idrees, M., Butt, A. M., Raza, S. M., **Amin, I.**, Rasul, A., & Afzal, S. (2020). Blood-based gene expression profile of oxidative stress and antioxidant genes for identifying surrogate markers of liver tissue injury in chronic hepatitis C patients. *Archives of Virology*, 1–14.
- Hassan, A., Saeed, A., Afzal, S., Shahid, M., **Amin, I.**, & Idrees, M. (2020). Applications and hazards associated with carbon nanotubes in biomedical sciences. *Inorganic and Nano-Metal Chemistry*, 1–12.
- Zahid, S., Andleeb, S., Anjum, S., Afzal, S., **Amin, I.**, Shahid, M., Rafique, S., & Idrees, M. (2020). A molecular-based approach to characterize untypable HCV genotype. *International Journal of Pathology*, 128–135.
- Zahid, K., Shakoor, S., Sajid, H. A., Afzal, S., Ali, L., **Amin, I.**, Shahid, M., & Idrees, M. (2020). Advancements in developing an effective and preventive dengue vaccine. *Future Virology*.
- Afzal, S., Zahid, S., **Amin, I.**, Shahid, M., & Idrees, M. (2020). Prevalence and upcoming threats of chikungunya virus in Pakistani population. *Pakistan Journal of Zoology*, 52(4), 1623–1626.
- Sherzada, S., Khan, M. N., Babar, M. E., Idrees, M., Wajid, A., Sharif, M. N., Iqbal, M. S., **Amin, I.**, & Shahid, M. (2020). Identification of three Cyprinidae family members through cytochrome oxidase I. *Pakistan Journal of Zoology*, 52(1), 417–420.

Year 2019

- Shahid, M., Idrees, M., Butt, A. M., Raza, S. M., **Amin, I.**, Rasul, A., Afzal, S., Zahid, S., & Nawaz, R. (2019). Hepatitis C and G virus coinfection in Punjab, Pakistan: Incidence and its correlation analysis with clinical data. *European Journal of Gastroenterology & Hepatology*, 31(3), 389–392.
- Amin, I.**, Younas, S., Afzal, S., Shahid, M., & Idrees, M. (2019). Herpes simplex virus type 1 and host antiviral immune responses: An update. *Viral Immunology*, 32(10), 424–429.
- Amin, I.**, Vajeeha, A., Younas, S., Afzal, S., Shahid, M., Nawaz, R., Khan, M. U., & Idrees, M. (2019). HSV-1 infection: Role of viral proteins and cellular receptors. *Critical Reviews™ in Eukaryotic Gene Expression*, 29(5).
- Shahid, M., **Amin, I.**, Afzal, S., Fatima, Z., & Idrees, M. (2019). Comparative analysis of immunological and genomic outcomes of dengue virus outbreak in Pakistan. *Pakistan Journal of Zoology*, 51(5), 1971–1974.

Year 2018

- Aftab, M., **Amin, I.**, Idrees, M., Ali, A., Rafique, S., & Naz, S. (2018). Molecular epidemiology of hepatitis delta and hepatitis B viruses circulating in two major provinces (East and North-West) of Pakistan. *Infection, Genetics and Evolution*, 64, 65–69.

Year 2017

- Almas, I., Afzal, S., Idrees, M., Ashraf, M. U., **Amin, I.**, Shahid, M., Zahid, K., & Zahid, S. (2017). Role of circulatory microRNAs in the pathogenesis of hepatitis C virus. *Virus Disease*, 28(4), 360–367.
- Khubaib, B., Idrees, M., Fatima, Z., Akram, M., Afzal, S., **Amin, I.**, Shahid, M., & Wasim, M. (2017). Evaluation of three techniques for detection of IL28B SNP: A prognostic tool for HCV treatment outcome. *Journal of Digestive Diseases*, 18(7), 404–409.
- Shahid, M., **Amin, I.**, Afzal, S., Fatima, Z., Zahid, S., Ashraf, U., & Idrees, M. (2017). Prevalence and molecular detection of dengue virus in 2013 outbreak in KPK and Punjab, Pakistan. *Pakistan Journal of Zoology*, 49(3).
- Nawaz, R., Zahid, S., Idrees, M., Rafique, S., Shahid, M., Ahad, A., **Amin, I.**, Almas, & Afzal, S. (2017). HCV-induced regulatory alterations of IL-1 β , IL-6, TNF- α , and IFN- γ operative, leading liver en-route to non-alcoholic steatohepatitis. *Inflammation Research*, 66(6), 477–486.
- Manzoor, F., **Amin, I.**, Shahid, M., Afzal, S., Ramzan, H., Samiullah, T. R., & Idrees, M. (2017). *Aedes aegypti* is the major vector for transmission of dengue virus in Lahore, Pakistan. *Pakistan Journal of Zoology*, 49(2).
- Javeed, S., Almas, M., Shahid, M., Sumrin, A., Bashir, H., Bilal, M., Saleem, Z., Jahangir, G. Z., Afzal, S., Idrees, M., & **Amin, I.** (2017). Nrf2: A master regulator of cellular defense mechanism and a novel therapeutic factor. *Pakistan Journal of Biotechnology*, 14(1), 121–126.

Year 2016

- **Amin, I.**, Naz, S., Shahid, M., Afzal, S., Ashraf, U., Rasheed, A., Rasul, A., Nawaz, R., Zahid, S., Almas, I., & Zahid, K. (2016). Inhibitory effects of thiazolide compounds against hepatitis C virus: *In vitro* study. *International Journal of Virology and Molecular Biology*, 5(2), 27–33.
- Awan, Z., Idrees, M., Hussain, A., Ur Rehman, I., Ali, M., Afzal, S., Ali, L., Butt, S., Saleem, S., **Amin, I.**, & Shahid, M. (2016). Influence of hepatitis B virus genetic heterogeneity on treatment response against lamivudine and interferon in Pakistani isolates. *Anti-Infective Agents*, 14(2), 121–125.
- Younas, S., **Amin, I.**, Shahid, M., Fatima, Z., & Idrees, M. (2016). Detection of *Salmonella enterica* subsp. *enterica* serovar Typhi in dengue virus seropositive samples. *Pakistan Journal of Zoology*, 48(6).

Year 2015

- Shahid, M., Butt, A., **Amin, I.**, Rasul, A., & Idrees, M. (2015). Gene expression profiling of human oxidative stress and antioxidant genes in patients with hepatitis C virus-induced liver fibrosis: P26. *Journal of Viral Hepatitis*, 22, 36–37.
- Akram, M., Fatima, Z., Purdy, M. A., Sue, A., Saleem, S., **Amin, I.**, Shahid, M., Idrees, M., & Nawaz, R. (2015). Introduction and evolution of dengue virus type 2 in Pakistan: A phylogeographic analysis. *Virology Journal*, 12(1), Article 148.
- Shah, S. S., Maqbool, A., Zaman, S., Idrees, M., Anjum, A. A., Afzal, S., **Amin, I.**, & Nisar, A. (2015). Role of *Aedes* and *Culex* in dissemination of dengue virus. *Pakistan Journal of Zoology*, 47(1).

- Afzal, S., Maqbool, A., Zaman, S., Idrees, M., Anjum, A. A., Shah, S. S., **Amin, I.**, & Latif, M. (2015). Evidence of transmission of dengue virus by different developmental stages of mosquitoes, *Aedes aegypti* and *Aedes albopictus*. *Pakistan Journal of Zoology*, 47(3), 887–890.

Year 2014

- Shahid, M., Idrees, M., Nasir, B., Raja, A. J., Raza, S. M., **Amin, I.**, Rasul, A., & Tayyab, G. U. (2014). Correlation of biochemical markers and HCV RNA titers with fibrosis stages and grades in chronic HCV-3a patients. *European Journal of Gastroenterology & Hepatology*, 26(7), 788–794.
- Butt, F. A., **Amin, I.**, Idrees, M., & Iqbal, M. (2014). Hepatitis delta virus genotype-1 alone co-circulates with hepatitis B virus genotypes A and D in Pakistan. *European Journal of Gastroenterology & Hepatology*, 26(3), 319–324.

Year 2013

- Fatima, Z., Afzal, S., Idrees, M., Rafique, S., Akram, M., Khubaib, B., Saleem, S., **Amin, I.**, & Shahid, M. (2013). Change in demographic pattern of dengue virus infection: Evidence from 2011 dengue outbreak in Punjab, Pakistan. *Public Health*, 127(9), 875–877.

Year 2012

- Idrees, M., Hussain, W., Rehman, H. U., Tayyab, G. U. N., Afzal, S., Fatima, Z., Akram, M., Raza, S. M., Ali, L., Hussain, A., **Amin, I.**, Shahid, M., Khubaib, B., Saleem, S., Nasir, B., Tariq, A., Wasim, M., & Waqar, M. (2012). Dengue virus serotype 2 (DEN-2): The causative agent of 2011 dengue epidemic in Pakistan. *American Journal of Biomedical Sciences*, 4(4), 307–315.

Year 2011

- **Amin, I.**, Idrees, M., Awan, Z., Shahid, M., Afzal, S., & Hussain, A. (2011). PCR could be a method of choice for identification of both pulmonary and extra-pulmonary tuberculosis. *BMC Research Notes*, 4(1), Article 332.
- Butt, S., Idrees, M., Rehman, I. U., Akbar, H., Shahid, M., Afzal, S., Younas, S., & **Amin, I.** (2011). Mixed genotype infections with hepatitis C virus, Pakistan. *Emerging Infectious Diseases*, 17(8), 1565.
- Butt, S., Idrees, M., Shahid, M., **Amin, I.**, Younas, S., Afzal, S., Akbar, H., & Ur Rehman, I. (2011). Change in hepatitis C virus clades: A cross-sectional study of chronic HCV patients in Pakistan from 2000–2010. *European Journal of Clinical Microbiology & Infectious Diseases*, 30(5), 669–672.

Year 2010

- Awan, Z., Idrees, M., **Amin, I.**, Butt, S., Afzal, S., Akbar, H., Rehman, I. U., Younas, S., Shahid, M., Lal, A., & Saleem, S. (2010). Pattern and molecular epidemiology of hepatitis B virus genotypes circulating in Pakistan. *Infection, Genetics and Evolution*, 10(8), 1242–1246.
- Zaidi, G., Idrees, M., Malik, F. A., **Amin, I.**, Shahid, M., Younas, S., Hussain, R., Awan, Z., Tariq, A., & Parveen, K. (2010). Prevalence of hepatitis delta virus infection among hepatitis B virus surface antigen positive patients circulating in the largest province of Pakistan. *Virology Journal*, 7(1), Article 283.

CONFERENCE/SYMPOSIUM/WORKSHOPS/SEMINARS

CONFERENCE PROCEEDINGS

- Samia Afzal, Muhammad Idrees, Iqra Almas, Shazia Rafique, **Iram Amin**, Muhammad Shahid: Study of inhibition of interferon inducible genes by dephosphorylation of E2 envelope gene of HCV genotype 1a. 2017 14th International Bhurban Conference on Applied Sciences and Technology (IBCAST); 01/2017, DOI:10.1109/IBCAST.2017.7868053.

- Khadija Zahid, Zahid Iqbal, Samia Afzal, **Iram Amin**, Muhammad Shahid, Muhammad Idrees. Development of Global Consensus Sequence & Identification Of Conserved Domains In Hcv Ns5b Protein. CEMB, 2017, 2nd International Symposium on Advances in Molecular Biology of Plants and Health Sciences. 21-23 November, 2017, Lahore-Pakistan.
- Samia Afzal, Muhammad Idrees, **Iram Amin**, Muhammad Shahid. Global consensus sequence development of dengue virus for peptide based vaccine design against local Dengue Virus. CEMB, 2015, 1st International Symposium on Advances in Molecular Biology of Plants and Health Sciences, 29-31 December, 2015, Lahore-Pakistan.
- **Iram Amin**, Muhammad Idrees, Muhammad Shahid, Samia Afzal. Vertical Transmission of Dengue by Aedes aegypti. CEMB, 2015, 1st International Symposium on Advances in Molecular Biology of Plants and Health Sciences, 29-31 December, 2015, Lahore-Pakistan.
- Muhammad Shahid, Muhammad Idrees, **Iram Amin**, Samia Afzal. Correlation of clinical marker, viral load with liver fibrosis stages and grades in chronic HCV patients with genotype 3a. CEMB, 2015, 1st International Symposium on Advances in Molecular Biology of Plants and Health Sciences, 29-31 December, 2015, Lahore-Pakistan.
- **Iram Amin**, Muhammad Idrees. "PCR could be a method of choice for identification of
- **Iram Amin**, Muhammad Idrees. "PCR could be the method of Choice for both Pulmonary and Extra pulmonary Tuberculosis" in 38th annual conference/3rd joint conference of societies of pathology collaboration of royal college of pathologist and British association of Pakistan pathologist held in Pearl continental hotel Lahore-Pakistan, 6th-8th November 2015.

ORGANIZED

1. Organized a "Hands on training workshop on Exploring the Potential of Transgenic Algae in Green Biotechnology", dated 16 September, 2025 at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore-Pakistan.
2. Organized a "Hands on training workshop on CRISPR/Cas Systems in Genome Editing", dated 17-19 June, 2025 at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore-Pakistan.
3. Organized a "Hands on training workshop on Mammalian Cell Culturing Techniques", dated 11th-12th September, 2024 at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore-Pakistan.
4. Organized a "One day workshop on Computational Tools for Molecular Docking and Molecular Dynamics Simulation in Drug Discovery" dated 15, May, 2024 at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore-Pakistan.
5. Organized a "Hands on training workshop on Real-Time PCR", dated 24th-25th April, 2024 organized at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore-Pakistan.
6. Organized an "International Conference, Current Trends, Prospects and Opportunities in Vaccine Research Unlocking a Healthier Tomorrow: The Crucial Role of Vaccines", Dated 28-29 February 2024 at Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore, Pakistan. www.vaccine.cemb.edu.pk
7. Organized an "International Conference on Trends and Challenges in Health Sciences", held on 1-2 March, 2023 at CEMB, University of the Punjab, Lahore.
8. 4th International Symposium on Advances in Molecular Biology and Health Sciences November 2020 at CEMB, University of the Punjab, Lahore.
9. Organized a "3rd International Symposium on Advances in Molecular Biology of Plants and Health", held in Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, December 19-21, 2018.
10. Organized a "2nd International Symposium In Advance in Molecular Biology of Plants and Health Sciences", held at CEMB Punjab University. November 21-23, 2017.
11. Organized a "1st International Symposium on Advances in Molecular Biology of Plants and Health Sciences", held in Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, October 14-16, 2015.

ORAL/POSTER PRESENTATIONS

- Accepted for Poster presentation entitled "Immunogenicity Profiling of Polyclonal Antibodies Against Hepatitis Delta Virus HDag-Antigen: A Study on Pakistani Isolates" at The Third

International Conference of the World Society for Virology “THE VIROSPHERE OF OUR CELLULAR WORLD” on MAY 6 - 8, 2025 in Kuala Lumpur, Malaysia.

- Poster presentation entitled “Study of inhibition of interferon inducible genes by dephosphorylation of E2 envelope gene of HCV genotype 1a.” at 2017 14th International Bhurban Conference on Applied Sciences and Technology (IBCAST); 01/2017, DOI:10.1109/IBCAST.2017.7868053(Conference proceedings).
- Poster presentation entitled “Vertical Transmission of Dengue by Aedes aygepti” at 1st International Symposium on Advances in Molecular Biology of Plants and Health Sciences, 29-31 December, 2015, CEMB, University of the Punjab, Lahore-Pakistan.
- Poster presentation “PCR could be the method of Choice for both Pulmonary and Extra pulmonary Tuberculosis” in 38th annual conference/3rd joint conference of societies of pathology collaboration of royal collage of pathologist and British association of Pakistan pathologist hold in Pearl continental hotel Lahore Pakistan, 6th-8th November 2015.
- Oral presentation on “Prediction Of Dengue Outbreak For Year 2014” in Dengue Seminar organized by Dengue Research Group (DRG), University of the Punjab, Lahore-Pakistan in February 2014 on “Dengue Progress Report 2013-2014”
- Poster presentation in “Lahore Biotech Cluster meeting”: August 18, 2014, Department of Biological Sciences in Forman Christian College University Lahore.

INVITED GUEST EXPERT/TRAINER

- Attended as a Trainer/Invited Speaker in “Hands-on training workshop on Real-Time PCR (qPCR), From RNA Isolation to Gene Expression Analysis” on 9th September 2026 in University of Central Punjab (UCP), Lahore.
- Invited as a guest expert in 2nd International symposium & Stakeholder dialogue. Theme: Precision medicine: Transforming the future of Health Biotechnology. Organized by University of Central Punjab on April 30th, 2026.
- Invited as a guest expert in “National Conference on Control of Viral Hepatitis B&C in Pakistan” held on 9th December, 2021 organized by The University of Azad Jammu & Kashmir Zoological Society of Pakistan Islamic Relief Pakistan Islamabad, Pakistan, at Serena Hotel, Islamabad Pakistan.

PARTICIPATED/ATTENDED

- Attended “An insight event from HEC Directions to Impact, advancing the applied research initiative organized by University of the Punjab, on 13th August, 2026.
- Participated in “Project Formulation Workshop” held on May 24-25, 2023 at Forman Christian College University, Lahore organized by Pakistan Science Foundation, Islamabad.
- Attended International Conference on Plants Molecular Biology held at CEMB, on 14-15 December, 2022.
- Attended an online Webinar on Coronavirus: SARS-COVID-2 update for clinical laboratories on August 12, 2021 Organized by WILEY Team.
- Participated in one-day International symposium on “Development of CKC Technology” held on December 15, 2020 at CEMB, University of the Punjab, Lahore-Pakistan.
- Attended One day conference on “Web Of Science Conference” held Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, March 11, 2019
- Attended One day seminar on “Risk Assessment of Genetically Modified Crops” held Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, July 20, 2018
- Attended One day symposium on “Industrial Biotech And Bio-refining” held Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, July 20, 2018
- Attended One day seminar on “Biosafety training” held in Centre for Applied Molecular Biology, University of the Punjab, Lahore, November 29, 2018.
- Attended A seminar on “Advances in PCR Technology” held at CEMB Punjab University. April 5, 2017.

- Attended A seminar on “Advances in Nucleic Acid Technology” held at CEMB University of the Punjab- Lahore, September 1st, 2017.
- Attended Workshop on behavioral based “Biosafety culture” held at CEMB Punjab University. August 23, 2017.
- Attended Workshop on “Communication skill” held at CEMB Punjab University. April 25, 2017.
- Attended Seminar on “Congo virus” held in CEMB, University of Punjab, 5 September 2016.
- Attended Awareness Seminar on “Lungs and Bronchial Diseases” held in CEMB, University of Punjab, and November 17, 2017.
- Attended Seminar on “A Day with Biosafety” held in CEMB, University of Punjab, 25 October 2016.
- Hands-On Training Workshop on “GeneXpert (real time PCR system by Cepheid, USA)” held in Centre of Applied in Molecular Biology, University of the Punjab, Lahore, 28th October 2015
- Participated in Training Workshop on “New Trends in Biomedical Research Grant writing” in Centre of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore-Pakistan on 22 December 2014
- Participated in International Workshop on “Biosafety” in University of Veterinary and Animal Sciences, Lahore-Pakistan dated 18-20 December 2014.
- Attended the Dengue Seminar organized by Dengue Research Group (DRG), University of the Punjab, Lahore-Pakistan in February to September 2014 on “Detection of Dengue Virus in Larvae and adult Aedes Mosquitoes in Punjab”
- Attended the Dengue Seminar organized by Dengue Research Group (DRG), University of the Punjab, Lahore-Pakistan in February 2014 on “Dengue Progress Report 2013-2014”
- Participated in 2nd one workshop on “Young Researcher Skill Development and Nays Emerging Idea” conference at CEMB university of Punjab 7-January 2012.