Dr. IRAM AMIN

CONTACT DETAILS

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PROFESSIONAL EXPERIENCE

Assistant Professor

1st November-Continued

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

Research Officer cum Lecturer

May 2007-October 2023

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

Medical Technologist

July 2005- May 2007

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

Medical Technologist

August 2004-June2005

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

ACADEMIC QUALIFICATION		
2015-2022	 Ph.D. in Molecular Biology and Forensic Sciences, Centre forApplied Molecular Biology, University of the Punjab, Lahore. Thesis Title: Expression and Molecular Characterization of Antigenic Recombinant Proteins Encoded by Hepatitis Delta Virus Antigen of Local isolate 	
2013-2015	MS Biotechnology, Lahore College for Women University, Lahore Thesis Title: Inhibitory effects of Thiazolides compounds (Nitazoxanide and its derivatives) against Hepatitis C virus in HuH-7 cell lines.	
2001-2003	MSc Biochemistry, Institute of Biochemistry and biotechnology, University of the Punjab, Lahore Thesis Title: A study of antioxidants (Total Vitamin C & E), Lipid profile and their co-relation in Diabetes mellitus Type-2 patients.	

AWARDS AND HONOURS

- 1. Award of International Research Support Initiative Program (IRSIP) by Higher Education commission (HEC) of Pakistan for period of six months in CDC-USA in July 2019.
- 2. Research Incentive Cash Awards for the Years 2016, 2017, 2018, 2019 and 2020 from University of the Punjab, Lahore-Pakistan
- 3. Performance Evaluation Award for the Year 2017 by University of the Punjab, Lahore-Pakistan.

SKILLS & HANDS ON EXPREINCE

As a Molecular Biologist I have particular interest in Virology. I had worked on virus related research on Hepatitis B, C, D, Dengue virus, HIV and Sars Cov-2 and also on Mycobacterium Tuberculosis. My specific expertise are in RNA/DNA Extraction, Reverse Transcription, DNA Amplification, Gel Electrophoresis, Real-Time PCR, Conventional PCR, Genotyping, Molecular Cloning, DNA Sequencing, Bacterial Transformation, Bacterial and Mammalian Cell Culturing and maintenance, Molecular Diagnostics, SDS-PAGE, Western Blot, ELISA, Protein expression/purification, Chromatography and in-house assay development. I am fully trained to work on BSL2 and BSL3 Contaminant level particularly, for handling of SARS Cov-2 samples with proper safety measures.

I have fully command on following instruments like Systaq AB quantgene system, Cepheid Smart Cycler, Veriti 96 well Thermal cycler by Applied Biosystem, Cell distruption system, AKTA Explorer for Nickel Affinity Chromatography, Hitachi Modular P800(Roche), Hitachi 912 (Roche), Kodak Ektachem 550(Ortho Vitrous), Blood Gas Analyzer (Nova Phox Plus), Osmomat 030-D, Roche Cobas C311 Chemistry analyzer

RESEARCH GRANTS/ PROJECTS (Ongoing)

- 1. "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.
- 2. "Development of new in-house ELISA assay for detection of anti-HDV antibody of Hepatitis Delta virus" as PI of 0.2 Million Rupees from University of the Punjab as Research Grant for year 2023.

DIAGNOSTIC /FUNDED PROJECTS (Completed)

- Genotype based co-relation of Hepatitis B and Hepatitis D viruses in different areas of Pakistan in collaboration with Lahore College for Women University research grant from 2015-2019.
- Development of Dengue Assays based on ELISA and PCR Diagnosis Systems for reproducible and early detection of Dengue Virus. Lumpus Provision for Research, University of the Punjab, Lahore. 2016-17. (PKR 10'00'000 grant).
- Streamlined Analysis of Dengue Virus Genome, Serotypes, Genotypes & Heterogeneity: Application to Molecular Epidemiology and Clinical Studies. University of the Punjab, Lahore. 2015. (PKR 2'00'000 grant).

- Dengue detection and serotyping analysis of patients from major hospitals of Punjab during Dengue Outbreaks of 2011-2014. Free of cost diagnostic services.
- Prime Minister Program for prevention of Hepatitis B & C in Pakistan from 2007-2011.
- Punjab TB control program 2007-2011.

NUMBER OF RESEARCH PUBLICATIONS, IMPACT FACTOR, AND CITATIONS

Journal Impact Factor	88
No. of Publications	48
Author's citations index:	
(i) Total citations:	384
(ii) H-index:	12
(iii) Research interest Score	291

RESEARCH PUBLICATIONS

Year 2023

- Muhammad Shahid, Muhammad Idrees, Afza Rasul, **Iram Amin**, and Samia Afzal. "Identification of Predictive Factors in Chronic Hepatitis C Patients with Non-Infected Individuals: A Comparative Analysis." *Pakistan Journal of Zoology* 55, no. 3 (2023): 1065.
- Iqra Almas, Samia Afzal, Muhammad Idrees, Muhammad Shahid, **Iram Amin**, and Kausar Malik. "Quasispecies Analysis Through NGS and Identification of Escape Mutation in a Family Infected with Hepatitis B Virus: A Study from Lahore, Pakistan." (2023): *Pakistan J. Zool.*, 1-4.
- Rakhtasha Munir, Shazia Rafique, **Iram Amin**, Sameen Ahmed, Ayesha Vajeeha, Amjad Ali, Muhammad Shahid, Muhammad Umer Khan, and Muhammad Idrees. "Potential Role of Recombinant Capsid Protein of Dengue Virus Serotype 2 in the Development of an In-House Elisa Based Detection of Infection." (2023). *Pakistan J. Zool.*, pp 1-9.

Year 2022

- Iram Amin, Shazia Rafique, Nadeem Ahmed, Muhammad Shahid, Samia Afzal, Tahir Rehman Samiullah, Mohsin Ahmed Khan, and Muhammad Idrees. "Bacterial Expression and Purification of Antigenic Recombinant Protein Encoded by Hepatitis Delta Virus Antigen of Pakistani Isolate." Pakistan Journal of Zoology 54, no. 6 (2022): 2969.
- Fatima Butt, Muhammad Shahid, Muhammad Hassan, Farah Tawakkal, **Iram Amin**, Samia Afzal, Rashid Bhatti, Rabia Nawaz and Muhammad Idrees. "A review on hepatitis C virus: role of viral and host-cellular factors in replication and existing therapeutic strategies". *Egyptian Liver Journal* (2022) 12:71.
- Samia Afzal, Jahanzaib Ahmad, **Iram Amin**, Liaqat Ali, Muhammad Shahid , Mohsin Ahmad Khan and Muhammad Idrees. Frequency of Hepatitis D Viral Infection in Chronic Hepatitis B Patients in Pakistan. Pakistan J. Zool., vol. (2), pp 1-4 , (2022).
- Muhammad Shahid, Muhammad Idrees, Afza Rasul, **Iram Amin**, and Samia Afzal. "Identification of Predictive Factors in Chronic Hepatitis C Patients with Non-Infected Individuals: A Comparative Analysis." (2022). *Pakistan J. Zool.*, pp 1-7.
- Iqra Mir, Sania Aamir, Syed Rizwan Hussain Shah, Muhammad Shahid, Iram Amin,

Samia Afzal, Amjad Nawaz, Muhammad Umer Khan, and Muhammad Idrees. "Immune-related therapeutics: an update on antiviral drugs and vaccines to tackle the COVID-19 pandemic." *Osong Public Health and Research Perspectives* 13, no. 2 (2022): 84.

- Rakhtasha Munir, Shazia Rafique, Amjad Ali, Iram Amin, Sameen Ahmed, Ayesha Vajeeha, Muhammad Shahid, Tahir R. Samiullah, Muhammad Idrees, Yizhi J. Tao, "Muhammad Umer Khan. Molecular characterization of recombinant pre-membrane protein of dengue virus serotype-2 for development of diagnostic assay". *J Basic Microbiol.* (2022); 1–10.
- Rani, Mishal, Muhammad Farooq, Sania Aamir, Iqra Mir, Muhammad Hassan, Bakhtiar Ahmed, Abeera Iftikhar, Syed Rizwan Hussain Shah, Shazia Rafique, Samia Afzal, Muhammad Idrees, **Iram Amin** and Muhammad Shahid. A review on corona virus pandemic: Update on epidemiology, diagnosis, and treatment." *Pure and Applied Biology (PAB)* 11, no. 1 (2022): 146-158.
- Sania Aamir, Iqra Mir, Muhammad Shahid*, **Iram Amin**, Samia Afzal, Shazia Rafique, Rashid Bhatti, Amjad Nawaz, Fatima Butt, Rakhtasha Munir, Muhammad Idrees, and Kausar Malik. "Insights into the Structure, Replication, and Pathogenesis of the Severe Acute Respiratory Syndrome Coronavirus 2". *Re:GEN Open*. Volume 2, Number 1, (2022).

Year 2021

Hassan, Muhammad, Ali Hassan, Muhammad Farooq, Samia Afzal, Mohsin Ahmad Khan, Iram Amin, Muhammad Shahid, Muhammad Idrees, and Ahmad Ali Shahid.
 "Dengue Vaccines: Ongoing Challenges and Current Status in the Advancement of Different Candidates." *Critical Reviews™ in Eukaryotic Gene Expression* 31, no. 5 (2021).

Year 2020

- Almas, I., Afzal, S., Imtiaz, H., Shaheen, M.A., Daud, M., Saghir, A., **Amin, I.**, Shahid, M. and 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. and 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. and 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. and 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, pp.1-14.
- Hassan, A., Saeed, A., Afzal, S., Shahid, M., **Amin, I.** and Idrees, M., 2020. Applications and hazards associated with carbon nanotubes in biomedical sciences. Inorganic and Nano-Metal Chemistry, pp.1-12.
- Zahid, Sadia, Saadia Andleeb, Sadia Anjum, Samia Afzal, **Iram Amin**, Muhammad Shahid, Shazia Rafique, and Muhammad Idress. "A Molecular Based Approach to Characterize Untypable HCV Genotype." International Journal of Pathology (2020): 128-135.
- Zahid, K., Shakoor, S., Sajid, H.A., Afzal, S., Ali, L., Amin, I., Shahid, M. and

Idrees, M., 2020. Advancements in developing an effective and preventive dengue vaccine. Future Virology, (00).

- Afzal, S., Zahid, S., **Amin, I.**, Shahid, M. and Idrees, M., 2020. Prevalence and Upcoming Threats of Chikungunya Virus in Pakistani Population. Pakistan Journal of Zoology, 52(4), pp.1623-1626.
- Sherzada, S., Khan, M.N., Babar, M.E., Idrees, M., Wajid, A., Sharif, M.N., Iqbal, M.S., **Amin, I.** and Shahid, M., 2020. Identification of Three Cyprinidae Family Members through Cytochrome Oxidase I. Pakistan J. Zool, 52(1), pp.417-420.

Year 2019

- Shahid, M., Idrees, M., Butt, A.M., Raza, S.M., **Amin, I.**, Rasul, A., Afzal, S., Zahid, S. and Nawaz, R., 2019. Short article: Hepatitis C and G virus coinfection in Punjab, Pakistan: incidence and its correlation analysis with clinical data. European journal of gastroenterology & hepatology, 31(3), pp.389-392.
- Amin, I., Younas, S., Afzal, S., Shahid, M. and Idrees, M., 2019. Herpes Simplex Virus Type 1 and Host Antiviral Immune Responses: An Update. Viral immunology, 32(10), pp.424-429.
- Amin, I., Vajeeha, A., Younas, S., Afzal, S., Shahid, M., Nawaz, R., Khan, M.U. and 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. and Idrees, M., 2019. Comparative Analysis of Immunological and Genomic Outcomes of Dengue Virus Outbreak in Pakistan. Pakistan Journal of Zoology, 51(5), pp.1971-1974.

Year 2018

• Aftab M, Amin I, Idrees M, Ali A, Rafique S, and 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. and Zahid, S., 2017. Role of circulatory microRNAs in the pathogenesis of hepatitis C virus. Virus disease, 28(4), pp.360-367.
- Khubaib, B., Idrees, M., Fatima, Z., Akram, M., Afzal, S., **Amin, I.**, Shahid, M. and 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), pp.404-409.
- Shahid, M., Amin, I., Afzal, S., Fatima, Z., Zahid, S., Ashraf, U. and 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, I. and Afzal, S., 2017. HCV-induced regulatory alterations of IL-1β, IL-6, TNF-α, and IFN-Y operative, leading liver en-route to non-alcoholic steatohepatitis. Inflammation Research, 66(6), pp.477-486.
- Manzoor, F., Amin, I., Shahid, M., Afzal, S., Ramzan, H., Samiullah, T.R. and 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. and **Amin, I.**, 2017. Nrf2: A MASTER REGULATOR OF CELLULAR DEFENSE MECHANISM AND A NOVEL THERAPEUTIC FACTOR. Pak. J. Biotechnol. Vol, 14(1), pp.121-126.

Year 2016

• Amin, I., Naz, S., Shahid, M., Afzal, S., Ashraf, U., Rasheed, A., Rasul, A., Nawaz,

R., Zahid, S., Almas, I. and Zahid, K., 2016. Inhibitory Effects of Thiazolide Compounds against Hepatitis C virus: in vitro Study. 2016, 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.** and 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), pp.121-125.
- Younas, S., Amin, I., Shahid, M., Fatima, Z. and 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. and 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, pp.36-37.
- Akram, M., Fatima, Z., Purdy, M.A., Sue, A., Saleem, S., **Amin, I.**, Shahid, M., Idrees, M. and Nawaz, R., 2015. Introduction and evolution of dengue virus type 2 in Pakistan: a phylogeographic analysis. Virology journal, 12(1), p.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 J. Zool*, 47(3), 887-890.

Year 2014

- Shahid, M., Idrees, M., Nasir, B., Raja, A.J., Raza, S.M., **Amin, I.**, Rasul, A. and 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), pp.788-794.
- Butt, F. A., **Amin, I.**, Idrees, M., & Iqbal, M. (2014). Hepatitis delta virus genotype-1 alone cocirculates 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.** and Shahid, M., 2013. Change in demographic pattern of dengue virus infection: evidence from 2011 dengue outbreak in Punjab, Pakistan. Public health, 127(9), pp.875-7.

Year 2012

• Idrees, M., Hussain, W., Rehman, H.U., Tayyab, G.N., Afzal, S. Shahid, M., and Fatima, Z., 2012. Dengue virus serotype 2 (DEN-2): the causative agent of 2011-dengue epidemic in Pakistan. Am J Biomed Sci, 4(4), pp.307-315.

Year 2011

- Amin, I., Idrees, M., Awan, Z., Shahid, M., Afzal, S. and Hussain, A., 2011. PCR could be a method of choice for identification of both pulmonary and extra-pulmonary tuberculosis. BMC Research Notes, 4(1), p.332
- Butt, S., Idrees, M., Rehman, I.U., Akbar, H., Shahid, M., Afzal, S., Younas, S. and **Amin, I.**, 2011. Mixed genotype infections with hepatitis C virus, Pakistan. Emerging infectious diseases, 17(8), p.1565.
- Butt, S., Idrees, M., Shahid, M., Amin, I., Younas, S., Afzal, S., Akbar, H. and 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), pp.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. and Saleem, S., 2010. Pattern and molecular epidemiology of Hepatitis B virus genotypes circulating in Pakistan. Infection, Genetics and Evolution, 10(8), pp.1242-1246.
- Zaidi, G., Idrees, M., Malik, F.A., **Amin, I.**, Shahid, M., Younas, S., Hussain, R., Awan, Z., Tariq, A. and 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), p.283.

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 aygepti. 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 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.

CONFERENCE AND SYMPOSIUM ORGANIZED

- International Conference on Trends and Challenges in Health Sciences, held on 1-2 March, 2023 at CEMB, University of the Punjab, Lahore.
- 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
- 2nd International Symposium In Advance in Molecular Biology of Plants and Health Sciences held at CEMB Punjab University. November 21-23, 2017.
- 1st International Symposium on Advances in Molecular Biology of Plants and Health Sciences hold in Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, October 14-16, 2015.

WORKSHOPS/SEMINAR AND SYMPOSIUM ATTENDED

- 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.
- Participated 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 in one-day International symposium on "Development of CKC Technology" held on December 15, 2020 at CEMB, University of the Punjab, Lahore-Pakistan.
- One day conference on "Web Of Science Conference" held Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, March 11, 2019
- 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
- One day symposium on "Industrial Biotech And Bio-refining" held Centre of Excellence in Molecular Biology, University of the Punjab, Lahore, July 20, 2018
- One day seminar on "Biosafety training" held in Centre for Applied Molecular Biology, University of the Punjab, Lahore, November 29, 2018.
- A seminar on "Advances in PCR Technology" held at CEMB Punjab University. April 5, 2017.
- A seminar on "Advances in Nucleic Acid Technology" held at CEMB University of the Punjab, Lahore, September 1, 2017.
- Workshop on behavioral based "Biosafety culture" held at CEMB Punjab University. August 23, 2017.
- Workshop on "Communication skill" held at CEMB Punjab University. April 25, 2017.
- Seminar on "Congo virus" held in CEMB, University of Punjab, 5 September 2016.
- Awareness Seminar on "Lungs and Bronchial Diseases" held in CEMB, University of Punjab, and November 17, 2017.
- Seminar on "A Day with Biosafety" held in CEMB, University of Punjab, 25 October 2016.
- Recent Advancements in "Stem Cell Research" institute of Biochemistry and Biotechnology, University of the Punjab
- Poster presentation 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.
- 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 September 2014 on "Detection of Dengue Virus in Larvae and adult Aedes Mosquitoes in Punjab"
- Poster presentation in "Lahore Biotech Cluster meeting": August 18, 2014, Department of Biological Sciences in Forman Christian College University Lahore.

- 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.

REFERENCES

1. Professor Dr. Muhammad Idrees

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