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Shazia Rafique

WORK EXPERIENCE

- Jan, 2012 to date **Assistant Professor**
Centre for Applied Molecular Biology, Ministry of Science & technology, Pakistan.
- 2010-2012 **Research Fellow**
LUMS School of Science and Engineering, Lahore, Pakistan
- 2010 **Lecturer (biotechnology)**
Govt. College University, Lahore.
- 2004-2007 **Lecturer (Chemistry)**
Garrison Post Graduate College for Women, Lahore.
- 2003-2004 **Demonstrator**
Institute of Chemistry, University of the Punjab, Lahore, Pakistan.

SUMMARY OF QUALIFICATIONS

- 2005-2010 **Ph.D in Virology.**
Center of Excellence in Molecular Biology, (University of the Punjab, Lahore, Pakistan.
Thesis: Generation of Infectious Hepatitis C Pseudo-particles Containing Functional E1-E2 Envelope Protein Complexes and their neutralization Assay.
- 2003-05 **M.Phil. in Chemistry** 1st Division (First Class)
Institute of Chemistry, University of the Punjab, Lahore, Pakistan.
Thesis: Preparation Of Metal Complexes Of Dehydro Acetic Acid and Their Biological Assay. Major Subject: Co-ordination Chemistry.
- 1999-2002 **Master in Chemistry (M.Sc.);** 1st Division (First Class).
Thesis: Development of brighteners for basic zinc electroplating bath. Institute of Chemistry, University of the Punjab, Quaid-e-Azam Campus, Lahore, Pakistan.
Major Subject: Organic Chemistry.
- 1997-1999 **B.Sc.;** 1st Division (First Class).
Lahore college for women, Lahore, Pakistan. Major subjects: Botany, Zoology and Chemistry
- 1995-1997 **HSSC (Pre-Medical);** 1st Division (First Class). Lahore college for women, Lahore, Pakistan.
- 1992-1994 **SSC (Secondary School Certificate);** 1st Division (First Class). Cathedral High School, Lahore, Pakistan.

ACHIEVEMENTS & AWARDS

- 2014 Attended course on Protein Purification by Cold Spring Harbor Lab, USA.
- 2009 Nominee for the **Maurice Hillman** earlier career Investigation Award. **NFID** Baltimore, USA.
- 2008 **Recipient of Arthur Kornberg Fellowship Award. 31st A-IMBO/AMBO** International training course, International Vaccine Institute, Seoul, Korea.
- 2005 **Second Position in M Phil.** University of the Punjab, Lahore, Pakistan.
- 2000 **Academic Roll of Honour in B.Sc.** Lahore College for Women University, Lahore. Academic Roll of Honour in B.Sc. is an award given in acknowledgement of top position in every semester in the c

RESEARCH GRANT

Higher education commission Start up grant for new PhD Scholars 0.5Million.

TRAVEL GRANTS

- 2010 Travel Award by NFID for poster presentation in The Thirteenth Annual Conference on Vaccine Research. April 26-28, 2010, Bethesda, Maryland.
- 2010 Travel Award by ICGB for Workshop "Human RNA Viruses" India.
- 2008 Travel Award by International Vaccine Institute, Seoul, Korea.

AREAS OF EXPERTISE

- DNA/RNA Extraction
- PCR/ Multiplex PCR/ RT-PCR
- Genotyping of PCR product
- Sequencing of PCR product
- PAGE and agarose gel electrophoresis
- Southern / Northern / Western Blotting/
- Spectrophotometry
- Cloning
- Construction of Allelic Ladder

COURSES QUALIFIED

- General Molecular Biology
- Gene Regulation and Expression
- Recombinant DNA Techniques
- General Virology
- Molecular Immunology
- Toxicology
- Instrumentation
- Bioinformatics and Biostatistics

LIST OF PUBLICATIONS

1. **Shazia Rafique**, Muhammad Idrees, Amjad Ali, Kashif Iqbal Sahibzada, Muhammad Iqbal. Studies on the role of neutralizing antibodies against envelope genes in resolving HCV pseudo-particles infection. *Mol Biol Rep* 2014 Jun 25;41(6):3945-50. Epub 2014 Feb 25.
2. **Shazia Rafique**, Muhammad Idrees, Amjad Ali, Kashif Iqbal Sahibzada, Muhammad Iqbal. Generation of infectious HCV pseudo typed particles and its utilization for studying the role of CD81 & SRB1 receptors in HCV infection. *Mol Biol Rep* 2014 Jun 19;41(6):3813-9. Epub 2014 Feb 19.
3. Sabeen Sabri, Muhammad Idrees, Shazia Rafique, Muhammad Iqbal. Studies on the role of NS3 and NS5A non-structural genes of HCV 3a local isolates in apoptosis. *Int J Infect Dis* 2014 Aug 17;25:38-44
4. Ali.A, Nisar.M, Idrees.M, Rafique.S, Iqbal.M. Expression of HCV core and E2 recombinant antigenic proteins and their use for the development of diagnostic assays. *Int J Infect Dis* 2015 34:84-89.
5. **Rafique S**, Idrees M, Ilyas M, Hussain A, Ali M, Ali L, Butt S, Afzal S, Ur Rehman I, Saleem S. Positional effect of phosphorylation sites 266 and 267 in the cytoplasmic domain of the E2 protein of hepatitis C virus 3a genotype: interferon resistance analysis via sequence alignment. *Virology* 2011 May 5;8:204.
6. **Shazia Rafique**, Muhammad Idrees, Anwar Nasim & Amin Ather. Transition metal complexes as potential therapeutic agents. *Biotechnology and Molecular Biology Reviews* Vol. 5 (2), April, 2010.
7. Muhammad Idrees, **Shazia Rafique**, Irshad-ur-Rehman, Haji Akbar et al., 8 more authors. Hepatitis C genotype 3a infection and hepatocellular carcinoma: Pakistan experience. *World J Gastroenterol*. 2009 October 28; 15(40): 5080–5085.
8. Zunaira Awan, Muhammad Idrees, **Shazia Rafique**, Irshad-ur Rehman, Haji Akbar, Sadia Butt, Sobia Manzoor, Liaqat Ali Khan, Saira Munir, Samia Afzal, Zareen Fatima, Bisma Rauff, Mahrukh Naudhani, Mohammad Ali, Sana Saleem, Sadaf Badar. Hepatitis B virus YMDD-motif mutations with emergence of lamivudine-resistant mutants: a threat to recovery. *Gastroenterology and Hepatology From Bed to Bench*. 2010;3(3):108-114.
9. **Shazia rafique**, anwar nasim, muhammad idrees and sheikh riazuddin. Stable expression of envelope glycoproteins of hcv genotype 3a in huh-7 cell line volume: i: issue-2 aug-oct -2010 ISSN 0976-4550.
10. S. Butt, M. Idrees, I. Rehman, Z. Awan, S. Afzal, H. Akbar, A. Hussain, M. Shahid, **S. Rafique**, S. Manzoor. Frequency distribution and changing pattern in hepatitis C virus genotypes in Pakistan: a 10 year data of 22525 chronic HCV patients. *Journal infection, genetics and evolution*. MEEGID-D-10-00042.
11. Amjad Ali, Muhammad Nisar, Muhammad Idrees, Habib Ahmad, Abrar Hussain, **Shazia Rafiq**, Sabeen Sabri, Habib ur Rehman, Liaqat Ali, Shariatullah Wazir, Tariq Khan. Prevalence of HBV infection in suspected population of conflict-affected area of war against terrorism in North Waziristan FATA Pakistan. *Infection, Genetics and Evolution*. PII: S1567 1348(12)00241-9.
12. Amjad Ali, Habib ur Rehman, Muhammad Nisar a, **Shazia Rafique**, Sadia Ali, Abrar Hussain, Nausheen, Muhammad Idrees e, Sabeen Sabri, Hakeem Zada, Shah Hussain. Seroepidemiology of dengue fever in Khyber Pakhtunkhawa, Pakistan. *International Journal of Infectious Diseases* <http://dx.doi.org/10.1016/j.ijid.2013.01.007>
13. H. Akbar, M. Idrees, S. Manzoor, S. Butt, **S Rafique**, Zunaira Awan, B. Khubaib, M. Akram, M. Aftab, Hepatitis C Virus Infection: a review of the current and future aspects and concerns in Pakistan. *Journal of General and Molecular Virology* Vol. 1 (2), pp.012–018, July 2009.
14. Idrees M, Butt S, Awan Z, Aftab M, Khubaib B, Rehman IU, Akram M, Manzoor S, Akbar H, **Rafique S**, Riazuddin S. Nucleotide identity and variability among different Pakistani hepatitis C virus isolates. *Virology*. 2009 Aug 24; 6:130.

SEQUENCES SUBMITTED TO NCBI

Sequences of Local 3a HCV Glycoprotein

Accession no: EU399722, EU399721, & EU399720.

POSTER PRESENTED

- 1- Molecular Characterization of HCV Induced Epigenetic Changes LUMS School of Science & Engineering Lahore. Pakistan.
- 2- Stable expression of envelope glycoproteins of HCV 3a genotype in Huh-7 cell line ICGEB-IUBMB work shop on human RNA viruses. Delhi, India.
- 3- Development of genotype specific cell cultured based system for the detection of anti- envelope antibodies in the serum of HCV infected patients at The Thirteenth Annual Conference on Vaccine Research. April 26-28, 2010, Bethesda, Maryland.
- 4- Study of antigenic site in serine protease gene of HCV 3a genotype in 11th Biennial conference. Molecular Biosciences-Challenges and Opportunities at University of the Punjab.

MPhil Co. SUPERVISION (COMPLETED)

Sr.No	Student Name	Thesis title	Year
1	Rabia Nawaz	Antiviral effect of <i>phoenix dactylifera</i> , <i>figus carica</i> , <i>prunus armeniaca</i> and amlook extracts on hepatitis c virus propagation in huh-7 cell line.	2013
2	Nouman Sharif	Antiviral effect of <i>cinnamon</i> , <i>clove</i> , <i>mace</i> and <i>nutmeg</i> against HCV replication in Huh-7 cell line.	2013
3	Sara Basharat	Cloning and molecular characterization of E1 gene of HCV genotype 1a of Pakistani isolates	2013

PhD Co.SUPERVISION (ONGOING)

Sr.No	Student Name	Thesis title	Year
1	Sabeen Sabri	Studies on the role of NS3 and NS5A non-structural genes of HCV genotype 3A local isolates in apoptosis	2011-14
2	Amjad Ali	Production & Characterization of Antigenic recombinant proteins encoded by structural genes of HCV 3a local isolates.	2011-14
3	Ayma Aftab	Identification of DNA methylation profiles of promoter of p53 and Rb genes during HCV 3a genotype Infection	2014-16
4	Maria Maryam	Identification of DNA methylation profiles in promoter of Ras genes (<i>H-ras</i> , <i>K-ras</i> , <i>N-ras</i>) during HCV 3a genotype Infection in Pakistani population	2013-16

REFERENCES

- 1- Dr. Idrees Khan, Asst.Prof.
Centre of Excellence in Molecular Biology
87-W est Canal Bank, Thokar Niaz Beg, Lahore.
EMAIL: Idreeskhan96@yahoo.com
- 2- Dr- Haiba Kaul. Asst.Prof.
Department of Biochemistry
University of Health Sciences, Lahore.
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