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# **Working Experiences**

#### Non- Medical Scientist, NHM, (Oct 2020 to Feb 2022)

Worked as Non- Medical Scientist at Virology Lab, Department of Microbiology, King George's Medical University, Lucknow, Uttar Pradesh, India. The job responsibilities were supervision for COVID-19 and test reporting (Analysis and Interpretation).

# Research Associate, ICMR, (Oct 2018 to Oct 2020)

Worked as Research Associate at Molecular Cell Biology Lab, Department of Biochemistry, King George's Medical University, Lucknow, Uttar Pradesh, India. The project entitled: Correlation of vascular endothelial growth factor (VEGF) and serum heavy metals concentration with clinico-radiological profile of Perthes disease. The job responsibilities were supervision for GC-MS and Dissertation project.

# **Application Scientist, Thermo Fisher** (Sept 2016 – Sept 2018)

Worked as Application Scientist at Department of Molecular Biology, Center For Advance Research, King George's Medical University, Lucknow, Uttar Pradesh, India. The job responsibilities were supervision for GC-MS/MS and molecular diagnosis.

#### Research Scientist, DRDO (Apr 2015 – Sept 2016)

Worked as Research Scientist, Department of Orthopedic Surgery, King George's Medical University, Lucknow, Uttar Pradesh, India. On a DRDO funded grant the project entitled Analysis of Malalignment of lower limb as a risk factor for unorganised physical training and exercises related overuse injuries in young adults.

#### Senior Research Fellow, CSIR (Apr 2014 – Mar 2015)

Worked in Department of Biochemistry, King George's Medical University, Lucknow, India. The project Isolation and characterization anti-diabetic metabolites from selected plant. To supervise students for their master thesis, PhD thesis, MD thesis, DM thesis and to overall monitoring of lab.

#### Senior Research Fellow, ICMR (Mar 2012 - Mar 2014)

Worked in Department of Biochemistry, King George's Medical University, Lucknow, India. The major responsibilities were to ICMR project in Functional genomics approach to understand the importance of catsper ion channel genes in male Infertility and to establish PCR based molecular detection of various diseases, to supervise students for their master thesis, PhD thesis, MD thesis, DM thesis and to overall monitoring of lab being an in-charge.

#### **Research Assistant, Era University** (Jan 2007 to Mar 2012)

Worked in Department of Biotechnology, Era's Lucknow Medical College and Hospital, Lucknow, India. The job responsibilities were teaching Molecular Biology, Biochemistry, Immunology and Genetic to undergraduate medical students as well as active participation in research and establishment of Molecular Diagnostics & Central Research Lab.

#### **Education**

#### **Doctor of Philosophy in Biotechnology (2013)**

Worked at Department of Biotechnology, Era's Medical College and Hospital, Lucknow, Uttar Pradesh, India in collaboration with Department of Biotechnology, Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh. The title of my Ph.D. thesis is *Role of c-KIT gene mutation(s) in neoplasia of Humans*. The above doctoral work is mainly based on Genetic Variation, Clinical Cancer genetic and Gene Mutation analysis.

# Master of Science in Biomedical Sciences (2006)

Completed from Bundelkhand University, Jhansi, India in dissertation project collaboration with Era's Medical College and Hospital, Lucknow, Uttar Pradesh, India.

#### **Bachelor of Science (2003)**

Completed Bachelor of Science in Zoology, Botany and Chemistry from Bokaro Steel City College, Vinoba Bahve University, Hazaribag, Jharkhand, India.

#### Dissertation (M.Sc)

**Title:** A study on the oxidative stress in patients suffering with various complications of diabetes mellitus.

# **Teaching Experience**

- MBBS Students (first year) Molecular Biology: 5 years
- M.Sc. Biotechnology students (first year) Molecular Biology: 3 years

#### **Conferences and Practical Training**

- 15th INDO-US Flow Cytometry workshop on Application of Flow Cytometry in Biomedical Research October 29–31, 2014. Department of Biotechnology, Babasaheb Bhimrao Ambedkar University, Lucknow, India.
- Workshop on Molecular simulation and drug design at Biotech Park, Lucknow, India during the month of March 21th 23th, 2013.
- One day workshop on "Placement and employment prospects in Indian patent offices and hands on training for patenting the research work" at Babasaheb Bhimrao Ambedkar University, Lucknow, India during the month of March 18th, 2013.
- 3<sup>rd</sup> Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14<sup>th</sup> 15<sup>th</sup>, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
- INDO- US symposium on Impact of early life adversity on developing brain, October 29<sup>th</sup>, 2013. Department of Biochemistry, King George's Medical University, Lucknow, India.
- Advance immunology course at King George's Medical University, Lucknow, India during the month of February 22th -23th, 2013.
- National Workshop on Prevention of Lead Poisoning at C S M Medical University, Lucknow, India during the month of March 29th, 2008.
- National symposium on lead awareness, October 5<sup>th</sup> 6<sup>th</sup>, 2013. Department of Biochemistry, King George's Medical University, Lucknow, India.
- International symposium on recent advances in Biochemistry at Era's Lucknow Medical College & Hospital, Lucknow, India during the month of January 30<sup>th</sup>, 2013.
- Second annual conference of the "Indian academy of biomedical sciences (IABS) and International symposium on animal model of human diseases" at King George's Medical University, Lucknow, India during the month of January 29<sup>th</sup>, 2013.
- 39<sup>th</sup> Annual conference of "Indian Immunology society" at Banaras Hindu University, Varanasi, India during the month of November 9<sup>th</sup> -11<sup>th</sup>, 2012.
- First annual conference of the "Indian academy of biomedical sciences (IABS) and International symposium on advances and applications of molecular biology" in clinical research at C S M Medical University, Lucknow, India during the month of Febuary 21<sup>th</sup> -22<sup>th</sup>, 2012.
- Research methodology lecture series and paper writing workshop at Era's Lucknow Medical College and Hospital, Lucknow, India during the month of September 2010 to March 2011.
- Biotechnology oration lecture" at Era's Lucknow Medical College & Hospital, Lucknow, India during the month of May 18<sup>th</sup> 2010.
- U.P. chapter IAPM annual conference and workshops (UP- PATHCON) at Era's Lucknow Medical College and Hospital, Lucknow, India during the month of October 24th- 25th, 2009.
- Workshop on Nextgen Research and Teaching tools: The Lab Tutor & Lab Chart revolution at CSM Medical University, Lucknow, India during the month of September 8th, 2008.
- National Workshop on "Prevention of Lead Poisoning" at C S M Medical University, Lucknow, India during the month of March 29<sup>th</sup>, 2008.

• Attended one-day seminar on "Hospital Waste Management" at Era's Lucknow Medical College & Hospital, Lucknow, India during the month of June 2007.

# **A Resource Person In**

- National Forensic Odontology Continuing Dental Education Programme and Forensic Workshop on Reconstructive dental identification and molecular DNA held during the month of April 26-27, 2013 at the scientific Convention Centre, King George's Medical University (KGMU), Lucknow, India.
- Advance immunology course held during February 22th -23th, 2013 at the King George's Medical University (KGMU), Lucknow, India.
- Second annual conference of the Indian academy of biomedical sciences (IABS) and International symposium on animal model of human diseases held during January 29th, 2013 at the King George's Medical University (KGMU), Lucknow, India.
- National Forensic Odontology Continuing Dental Education Programme and Forensic Workshop on DNA Isolation from Dental Pulp and Computerized Bite Mark Analysis held during the month of April 27-28, 2012 at the Convention Centre, C S M Medical University, Lucknow, India.
- Biotechnology oration lecture held during the month May 18th 2010 at the Era's Lucknow Medical College & Hospital (ELMC&H), Lucknow, India.
- U.P. chapter IAPM annual conference and workshops held during the month of October 24th- 25th 2009 at the Era's Lucknow Medical College & Hospital (ELMC&H), Lucknow, India.

#### Research Plan: A Proposal for Genetic and Molecular Diagnostic

We have established Molecular Biology Lab for advanced biomedical research at Department of Biochemistry, KGMU and Central Research Lab, Era's Medical College and hospital, Era University.

Molecular Diagnostics, also known as genetic testing or DNA tests, involves the examination of an individual's DNA. All living organisms are made up of cells, which contain chromosomes. Chromosomes are composed of informational molecule called DNA, which encodes genetic instructions and determines development, health and functioning of an organism. DNA in the form of genes determine characteristics of living organism such as height, colour, a condition which could lead to physical abnormality, or even a disputed parentage.

Genetic testing is "the analysis of, chromosomes (DNA), proteins, and certain metabolites in order to detect heritable disease-related genotypes, mutations,

phenotypes, or karyotypes for clinical purposes." It can provide information about a person's genes and chromosomes throughout life.

Once a person decides to proceed with genetic testing, after obtaining the consent, necessary sample (blood, hair, skin, amniotic fluid etc.) Will be collected and tested for the respective health condition. The results of the genetic tests are interpreted taking in to the consideration of the person's medical history, family history, and the type of genetic test that was done. This complex procedure makes the interpretation very challenging and sometimes liable for corrections.

The scope of traditional laboratory diagnostics in testing different genetic disorders is limited and needed to be tested at sub cellular and molecular level. With the advancement of science and emerging technologies in life sciences and diagnostics, diagnostic laboratories are adapting the approach of genetic testing to better understand the health of an individual.

Research and Teaching Experience: (MBBS and Graduate/ Post graduate) Classes Molecular Biology to the first year MBBS and BSc, MSc/B.Tech, M.Tech Students.

# Supervising short-term research training & dissertation projects for undergraduate and postgraduate students.

In an outcomes-based curriculum, classes, modules, and programmes are designed based on the end goal, the skills and knowledge the students should be able to achieve as a result of the class, module or programme.

There are many approaches to writing lesson plans. Some instructors develop their plans independently from scratch, while others borrow plans from a shared curriculum. Some carefully write out all the details for their lesson, while others use a brief outline. Your approach to writing lesson plans will depend on various factors: how well you know the material you are teaching, how long you have been teaching, the kinds of teaching you have done, and the students you expect to have in your class. There is no single formula for writing lesson plans, but this guide will help you think through some of the processes that other instructors have found valuable to their own lesson planning.

Guidelines for writing lesson plans:

Consider your destination

Sequence your objectives

Know your time frame

Create activities to meet your objectives

Check for understanding

# **Technical Expertise**

- Expertise in DNA Mutation and Sequencing analysis.
- Cell Culture and Cell lines maintain (Vero, K562, FaDu and Cal-27cells )
- Used for various Molecular techniques (SSCP, SSLP, SSP, SNP, PCR, RT-PCR, SDS-PAGE, Blotting Techniques, Primers Designing and Probes Preparation, Molecular Diagnosis, DNA Mutation and Sequencing etc) Expertise in various Microbiological, Cellular & Immunological Techniques.
- Expertise in various Microbiological, Cellular & Immunological Techniques
- Expertise in various Biochemical tests (LPO, GSH, CATALASE etc)
- Various techniques used in the study of Molecular diagnosis include Male Infertility, HLA-B27, Mycobacterium tuberculosis, Hepatitis B virus, Helicobacter pylori and Cystic fibrosis etc.
- Gas chromatography Mass Spectroscopy (GC-MS/MS and GC-MS).
- HPLC and ICP-OES

#### **Invited Reviewer of Journals**

- Leukemia and Lymphoma
- Tumor Biology
- Current Proteomics
- International Journal of Immunogenetics
- Turlish J of Hematology
- Chinese Journal of Cancer Research
- International Blood Research & Reviews
- Journal of Bioprocessing & Biotechniques
- International Journal of Pathology and Clinical Research
- Medical Practice and Reviews
- Turkish Journal of Medical Science
- Current Bioactive Compounds

# **Publications** (\*Global Impact Factor/\*\*Research Gate)

- Sharma D, **Syed Rizwan Hussain** et al. Association of OCT-1 gene polymorphism in type II diabetes mellitus patients from North Indian population. **International Journal of Research and Development in Pharmacy and Life Sciences (2019) Accepted.**
- Syed Rizwan Hussain, Sabir Ali, Ajai Singh, Vineet Kumar, Nazia Rizivi, Manish Yadav, Mohammad Kaleem Ahmad, Vijay Kumar, Abbas Ali Mahdi. Identification Of The Cysteine-Rich 61 (Cyr61) Gene Variations In Osteosarcoma Patients. Turkish Journal of Medical Science 2017; 27: 287-294

- Hena Naqvi, Mohammad Kaleem Ahmad, Syed Rizwan Hussain, Shalini Gupta, Mohammad Waseem, Abbas Ali Mahdi. Retrospective case-control study of correlation between MTHFR gene and OSCC risk in North India. Clinical Oral Investigations 2017; 21: 1929-1934
- Kumar V, Singh PK, Syed Rizwan Hussain, Ahmad MK. IL-10 (-819C/T) Single Nucleotide Polymorphisms Squamous Cell Carcinoma (OSCC) In Indian Population. International Journal of Current Advanced Research. 2018 May; 7 (5):13063-13067.
- Nigam N, Singh SK, Agarwal M, Pandey A, Verma N, Mohan N, Syed Rizwan Hussain, Singh PK. Cytogenetics: Modern Aspects In Diagnosis of Chromosomal Abnormalities In India. International Journal of Scientific Research. 2018 June; 7 (6): 93.98.
- Syed Rizwan Hussain, Mohammad Kaleem Ahmad, Abbas Ali Mahdi, Hena Naqvi, Mohammad Waseem, Saurabh Srivastava, Kumud Nigam, Shalini Gupta. Association of Interleukin-10 (A1082G) gene polymorphism with Oral squamous cell carcinoma in north Indian population. Journal Of Genetics 2016; 95: 249-255
- Shashank Kumar, Syed Rizwan Hussain Mohammad Waseem, Farzana Mahdi, Chery Bansal, Mohammad Kaleem Ahmad. D allele frequency in insertion/deletion polymorphism of the angiotensin converting enzyme (ACE) gene is associated with development of breast cancer risk in Indian women.
   Current Proteomics 2016; 13: 297 304.
- Hena Naqvi, Shyam Pyari Jaiswar, Mohammad Kaleem Ahmad, Syed Rizwan Hussain, Farzana Mahdi, Abbas Ali Mahdi. Correlation between Catsper 1 gene mutation and human male infertility in north India. International Journal of Recent Scientific Research 2016; 10: 13959-13963.
- Hena Naqvi, Shyam Pyari Jaiswar, Syed Rizwan Hussain, Mohammad Kaleem Ahmad, Farzana Mahdi, Abbas Ali Mahdi. Genomic analysis of missense and silent mutations in CatSper 2 gene in infertile male cases. International Journal of Biomedical Research 2016; 7: 588-593.
- Ajai Singh, Sabir Ali, Syed Rizwan Hussain, Vineet Kumar, Abbas Ali Mahdi, Rajeshwar Nath Srivastava. Analysis of correlation of CYR61 and MTHFR Gene Polymorphism in Legg-Calve-Perthes disease. South American Journal of Clinical Research 2016; 3: 1-7.

- Mohammad Waseem, Syed Rizwan Hussain, Shashank Kumar, Mohammad Serajuddin, Farzana Mahdi, Satyendra Kumar Sonkar, Cherry Bansal and Mohammad Kaleem Ahmad. Association of MTHFR (C677T) Gene Polymorphism With Breast Cancer in North India. Biomarkers in Cancer 2016; 8: 111-117.
- Kumud Nigam, Shalini Gupta, Syed Rizwan Hussain, Mohammad Kaleem Ahmad, Abbas Ali Mahdi and Anurag Tripathi. Association of CYP2E1 genetic polymorphism with risk of Oral pre cancer and cancer in North Indian population. International Journal of Biomedical Research 2016; 7: 30-34.
- Sabir Ali, Syed Rizwan Hussain, Ajai Singh, Manish Yadav, Shah Walliullah, Vineet Kumar, Mohammad Kaleem Ahmad, Abbas Ali Mahdi. Analysis of c-KIT gene mutation as a marker for diagnosis of primary osteosarcoma in north Indian population. International Journal of Recent Scientific Research 2016; 7: 9407-9412.
- Nazia Rizvi, Ajai Singh, Manish Yadav, Syed Rizwan Hussain, Salma S, Sabir Ali, Vineet Kumar, Avinash Agarwal. Role of alpha-crystallin, early-secreted antigenic target 6-kDa protein and culture filtrate protein 10 as novel diagnostic markers in osteoarticular tuberculosis. Journal of Orthopaedic Translation 2016; 6: 18-26.
- Prithvi Kumar Singh, Girish Chandra, Jaishri Bogra, Rajni Gupta Vijay Kumar, Syed Rizwan Hussain, Amita Jain, Abbas Ali Mahdi, Mohammad Kaleem Ahmad. Association of Genetic Polymorphism in the Interleukin-8 Gene with Risk of Oral Cancer and Its Correlation with Pain. Biochemical Genetics 2016; 54: 95-106.
- Sabir Ali, Syed Rizwan Hussain, Ajai Singh, Vineet Kumar, Shah Walliullah, Nazia Rizvi, Manish Yadav, Mohammad Kaleem Ahmad, Abbas Ali Mahdi. Study of cysteine-rich protein 61 genetic polymorphism in predisposition to fracture nonunion: a case- control. Genetics Research International 2015; 2015: 754872. doi: 10.1155/2015/754872

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Manish Yadav, Ajai Singh, Nazia Rizvi, Sabir Ali, Salma S, Vineet Kumar, Syed Rizwan Hussain. The role of P2X7R purinoreceptor in osteosarcoma.
 Advances in Modern Oncology Research 2015; 1: 88-96.

- Manish Yadav, Ajai Singh, Sabir Ali, Nazia Rizvi, Syed Rizwan Hussain, Vineet Kumar. Role of Serum Albumin in fracture healing. International Journal of Biomedical Research 2015; 6: 452-455.
- Nazia Rizvi, Ajai Singh, Sabir Ali, Manish Yadav, Syed Rizwan Hussain, Rajeshwar Nath Srivastava. Expression of Alpha Crystallin Protein in Osteoarticular Tuberculosis in Latent Phase: A Review of Evidences. International Journal of Biomedical Research 2015; 6: 445-451.

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- Syed Rizwan Hussain, Hena Naqvi, Shalini Gupta, Abbas Ali Mahdi, Pratibha Kumari, Mohammad Waseem, Mohammad Kaleem Ahmad. A study on oncogenic role of Leptin and Leptin receptor in Oral Squamous Cell Carcinoma.
   Tumor Biology 2015; 36: 6515-6523.
- Prithvi Kumar Singh, Girish Chandra, Jaishri Bogra, Rajni Gupta, Vijay Kumar, Amita Jain, Syed Rizwan Hussain, Abbas Ali Mahdi, Mohd. Kaleem Ahmad. Association of interleukin-6 genetic polymorphisms with risk of OSCC in Indian population. Meta Gene 2015; 4: 142-151.
- Prithvi Kumar Singh, Mohd. Kaleem Ahmad, Vijay Kumar, Syed Rizwan Hussain, Rajni Gupta, Amita Jain, Abbas Ali Mahdi, Jaishri Bogra, Girish Chandra. Effects of Interleukin-18 promoter (C607A and G137C) gene polymorphisms and their association with oral squamous cell carcinoma (OSCC) in northern India. Tumor Biology 2014; 35: 12275- 12284.
- Hena Naqvi, Syed Rizwan Hussain, Mohammad Kaleem Ahmad, Farzana Mahdi, Shyam Pyari Jaiswar, Satya Narayain Shankhwar, Abbas Ali Mahdi. Role of 677 C→T polymorphism a single substitution in methylenetetrahydrofolate reductase (MTHFR) gene in north Indian infertile men. Molecular Biology reports 2014; 41: 573- 579.
- Syed Rizwan Hussain, Hena Naqvi, Farzana Mahdi, Cherry Bansal, Suil G Babu. KIT proto-oncogene exon 8 deletions at codon 419 are highly frequent in acute myeloid leukaemia with inv(16) in Indian population. Molecular Biotechnology 2013; 54: 461- 468.
- Syed Rizwan Hussain, Sunil G. Babu, Syed Tasleem Raza, Pradyumn Singh, Faisal Ahmed, Hena Naqvi, Farzana Mahdi. Screening of the c-kit gene missense mutation in Invasive ductal carcinoma of breast among north Indian population.
   Molecular Biology reports 2012; 39: 9139- 9144.
- **Syed Rizwan Hussain**, Hena Naqvi, Syed Tasleem Raza, Faisal Ahmed, Sunil G Babu, Ashutosh Kumar, Zeashan Haider Zaidi, Farzana Mahdi.

Methylenetetrahydrofolate reductase C677T genetic polymorphisms and risk of leukaemia among the North Indian population. **Cancer Epidemiology 2012; 36: 227- 231. IF-2.7** 

- Syed Rizwan Hussain, Hena Naqvi, Faisal Ahmed, Sunil G Babu, Farzana Mahdi. Identification of the c-kit gene mutations in biopsy tissues of mammary gland carcinoma tumor. Journal of the Egyptian National Cancer Institute 2012; 24: 97–103.
- **Syed Rizwan Hussain**, Sunil G Babu, Hena Naqvi, Pradyumn Singh, Farzana Mahdi. The Frequency of Mutations in Exon 11 of the c-kit Gene in Patients with Leukemia. **Turkish Journal of Hematology 2012; 29: 10- 16. IF-0.82**
- Syed Rizwan Hussain, Syed Tasleem Raza, Sunil G Babu, Pradyumn Singh, Hena Naqvi, Farzana Mahdi. Screening of C-kit Gene Mutation in Acute Myeloid Leukemias in Northern India. Iranian Journal of Cancer Prevention 2012; 1: 27-32.
- **Syed Rizwan Hussain**, Amna Siddiqui, Javier Vargas-Medrano, Hena Naqvi, Jonathon Mohl, Farzana Mahdi, Fahim Ahmad. Identification of novel point mutations in c-kit gene from leukemia cases: a study from Lucknow, Uttar Pradesh, India. **Tecnociencia Chihuahua 2012; 4: 22- 32.**
- Syed Rizwan Hussain, Faisal Ahmed, Hena Naqvi, Pradyumn Singh, Farzana Mahdi, Sunil G Babu. C-kit proto-oncogene deletion and point mutation at exon 8, 17 in human acute myeloid leukemia. Turkish Journal of Cancer 2009; 39: 95- 103.
- Syed Rizwan Hussain, Hena Naqvi, Faisal Ahmed, Sunil G Babu, Cherry Bansal, Farzana Mahdi. A study of KIT activating mutations in acute myeloid leukemia M0 subtype in north India. The Egyptian Journal of Medical Human Genetics 2012; 13: 133- 138.

# **Published: Abstracts, Poster Presentation and Oral Presentation**

- Analysis of correlation of CYR61 and MTHFR Gene Polymorphism in Legg-Calve-Perthes disease. 2nd International Scientific E-Conference, 2015. Theme Research, Technology and Innovation: The Bedrock for Global Development. Texila American University, South America.
   Ajai Singh, Sabir Ali, Syed Rizwan Hussain, Vineet Kumar, Abbas Ali Mahdi, Rajeshwer Nath Srivastava.
- Association of Interleukin-10 (A1082G) gene polymorphism with Oral squamous cell carcinoma. International Conference on Recent Advances in Research and

Treatment of Human Diseases and 4th Annual meeting of the Indian Academy of Biomedical Sciences, January 9-11, 2015. Department of Clinical Pharmacology & Therapeutics, Nizam"s Institute of Medical Sciences, Hyderabad, India. **Syed Rizwan Hussain**, M K Ahmad, A A Mahdi, H Naqvi, M Waseem, S Gupta.

- Role of Angiotensin Converting Enzyme (ACE) Insertion/Deletion Gene Polymorphism in Leukemia. 2nd Lucknow Science Congress LUSCON-2014, March 27-28, 2014. Department of Biotechnology, BBAU, India.
   Syed Rizwan Hussain, M Kaleem Ahmad, Sunil G Babu, Pradyumn Singh, Farzana Mahdi, Abbas Ali Mahdi.
- Detection of the c-KIT gene mutations in biopsy tissues of mammary gland carcinoma tumour. 3rd Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14-15, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
   Syed Rizwan Hussain, M K Ahmad, H Naqvi, J A Ansari, M Waseem, C Bansal, F Mahdi and A A Mahdi.
- KIT Proto-oncogene Exon 8 Deletions at Codon 419 are Highly Frequent in Acute Myeloid Leukaemia with Inv(16) in Indian Population. 39th Conference of Indian Immunology Society, November 9- 11, 2012. IMS, BHU, Varanasi, India.
   Syed Rizwan Hussain, Sunil G. Babu, M. K Ahmad, F Mahdi and Abaas Ali Mahdi.
- Role of HLA-G14bp insertion deletion in cancer susceptibility and progression. Eighth Annual AACR International Conference on Frontiers in Cancer Prevention Research. December 06-09, 2009, Houston, TX, USA.
   Abbas A, Syed Rizwan Hussain, Naqvi H, Fatima R, Babu S G, Sing P Mahdi F.
- Analysis of c-KIT Exon-11 Polymorphisms in Neoplasia. International Symposium on Role of Genomics in Clinical Practice and 35th Annual Conference of the Indian Society of Human Genetics. March 6-8, 2010, SGPGI, Lucknow, India.
   Syed Rizwan Hussain, Singh Pradyumn, Naqvi Hena, Abbas Ata, Babu G.Sunil, Mahdi Farzana.
- Role of human leukocyte antigen-G (HLA-G) in cancer progression and susceptibility. 101 Annual Meeting of American Association for Cancer Research, April 17-21, 2010, Washington DC, USA.
   Abbas A, Syed Rizwan Hussain, Naqvi H, Fatima R, Hasan S, Mahdi F.
- Association of Interleukin-10 (A1082G) gene polymorphism with Oral squamous cell carcinoma. nternational Conference on Recent Advances in Research and

Treatment of Human Diseases and 4th Annual meeting of the Indian Academy of Biomedical Sciences, January 9-11, 2015. Department of Clinical Pharmacology & Therapeutics, Nizam's Institute of Medical Sciences, Hyderabad, India.

**Syed Rizwan Hussain**, M K Ahmad, A A Mahdi, H Naqvi, M Waseem, S Gupta.

- Involvement of methylenetetrahydrofolate reductase (MTHFR) gene C677T polymorphism in Oral Squamous Cell Carcinoma in north Indian Population. nternational Conference on Recent Advances in Research and Treatment of Human Diseases and 4th Annual meeting of the Indian Academy of Biomedical Sciences, January 9-11, 2015. Department of Clinical Pharmacology & Therapeutics, Nizam's Institute of Medical Sciences, Hyderabad, India. H Naqvi, M K Ahmad, Syed Rizwan Hussain, S Gupta, M Waseem and A A Mahdi.
- Role of Angiotensin Converting Enzyme (ACE) Insertion/Deletion Gene Polymorphism in Leukemia. 2nd Lucknow Science Congress LUSCON-2014, March 27-28, 2014. Department of Biotechnology, BBAU, India.
   Syed Rizwan Hussain, M Kaleem Ahmad, Sunil G Babu, Pradyumn Singh, Farzana Mahdi, Abbas Ali Mahdi.
- Detection of the c-KIT gene mutations in biopsy tissues of mammary gland carcinoma tumour. 3rd Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14-15, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
   Syed Rizwan Hussain, M K Ahmad, H Naqvi, J A Ansari, M Waseem, C Bansal, F Mahdi and A A Mahdi.
- Identification of Novel Mutation in Catsper 2 Gene in Infertile Men. 3rd Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14- 15, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
   M K Ahmad, H Naqvi, Syed Rizwan Hussain, F Mahdi, S PJaiswar, S N Shankhwar and A A Mahdi.
- Polymorphism of leptin gene G2548A and leptin receptor A668G associated with increased risk for Oral Cancer. 3rd Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14- 15, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
  - M Waseem, M K Ahmad, **Syed Rizwan Hussain**, H Naqvi, M N Hasan, S Gupta and A A Mahdi.

- Role of C677T Polymorphism a Single Substitution in Methylenetetrahydrofolate Reductase (MTHFR) gene in North Indian Infertile Men. 3rd Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14- 15, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
  - Hena Naqvi, M K Ahmad, **Syed Rizwan Hussain**, S P Jaiswar, S N Shankhwar, F Mahdi and A A Mahdi.
- Association of Angiotensin-Converting Enzyme and Angiotensin Ii type I receptor polymorphism in Coronary Artery Disease. 3rd Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14- 15, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
  - P K Singh, B Mittal, M K Ahmad, J Bogra, V S Narain, N Srivastava, **Syed Rizwan Hussain** and A A Mahdi.
- Association of leptin gene (G2548A) Polymorphism in Obese Infertile Female from North Indian Population. 3rd Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14- 15, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
  - P Kumari, M K Ahmad, S P Jaiswar, P L Sankhwar, **Syed Rizwan Hussain** and A A Mahdi.
- Analysis of lead in water samples from luck now city by ICP-OES. 3rd Annual meeting of the Indian Academy of Biomedical Sciences and Symposium on Modern Trends in human Diseases, December 14- 15, 2013. Department of Biochemistry, Faculty of Medicine, JNMC, AMU, India.
  - J A Ansari, M K Ahmad, N Fatima, H J Khan, **Syed Rizwan Hussain**, M Abid, A K Verma and A A Mahdi.
- KIT Proto-oncogene Exon 8 Deletions at Codon 419 are Highly Frequent in Acute Myeloid Leukaemia with Inv(16) in Indian Population. 39th Conference of Indian Immunology Society, November 9- 11, 2012. IMS, BHU, Varanasi, India.
   Syed Rizwan Hussain, Sunil G. Babu, M. K Ahmad, F Mahdi and Abaas Ali Mahdi.
- Methylenetetrahydrofolate reductase C677T genetic polymorphisms and risk of leukaemia among the North Indian population" 8th International Jordanian

Oncology Society Conference, September 06 - 08 2012. Arab Medical Association Against Cancer (AMAAC), Amman, Jordan.

**Syed Rizwan Hussain**, H Naqvi, S T Raza, F Ahmed, Sunil G Babu, A Kumar and F Mahdi.

- Screening of the c-kit gene missense mutation in invasive ductal carcinoma of breast among north Indian population. 1st Annual Conference of the Indian Academy and International Symposium on Advances and Applications. February 21- 22, 2012. C S M Medical University, Lucknow, India.
  - **Syed Rizwan Hussain**, Faisal Ahmed, Hena Naqvi, Shania Abbas, Nazia Rizvi, Ale Eba, Syed Tasleem Raza, Farzana Mahdi.
- Association of ACE I and FABP2 genes polymorphism in cases with Type-2 Diabetes mellitus in Northern India. 1st Annual Conference of the Indian Academy and International Symposium on Advances and Applications. February 21-22, 2012. C S M Medical University, Lucknow, India.
   F Mahdi, S Abbas, Syed Rizwan Hussain, F Ahmed, H Naqvi, N Rizvi, S T

Raza.

- Association of Insertion/Deletion polymorphism of ACE gene in leukaemia among north Indian population, UGC national seminar on Environmental Degradation and its impact on Biodiversity in India with Special reference to North- Eastern Region, February 17-18, 2012, Barpeta, Assam.
   Faisal Ahmed, Syed Rizwan Hussain, Hena Naqvi, Syed Tasleem Raza, Farzana Mahdi.
- Screening of C-Kit gene mutations in Acute Myeloid Leukemias in northern India. International Congress on Applied Biology, Sept.01- 02, 2011, Islamic Azad University of Mashhad, Mashhad, Iran.
   Farzana Mahdi, Syed Rizwan Hussain, Hena Naqvi, Sunil G Babu, Faisal Ahmed, Abbas Ali Mahdi and Syed Tasleem Raza.
- Role of c-kit exon 9 mutations and HLA-G polymorphism in acute myeloid leukemias in northern India. International Congress on Applied Biology, Sept.01-02, 2011, Islamic Azad University of Mashhad, Mashhad, Iran.
   Syed Tasleem Raza, Syed Rizwan Hussain, Hena Naqvi, Sunil G Babu, Faisal Ahmed, Abbas Ali Mahdi and Farzana Mahdi.
- Role of c-kit exon 11 mutations and HLA-G polymorphism in leukemia in northern India. International Conference of Molecular Medicine, June 27- 30, 2011, Istanbul, Turkey.

Syed Tasleem Raza, **Syed Rizwan Hussain**, Hena Naqvi, Sunil G. Babu, Abbas Ali Mahdi, Farzana Mahdi.

 Incidence and prognostic significance of c-kit exon 9 mutations in neoplasia in northern India. International Conference of Molecular Medicine, June 27- 30, 2011, Istanbul, Turkey.

Farzana Mahdi, **Syed Rizwan Hussain**, Hena Naqvi, Sunil G. Babu, Abbas Ali Mahdi, Syed Tasleem Raza.

 Detection of c-kit exon 11 mutations in Leukemia cases in Northern India; identification of novel mutations. International Conference on "Genomics, Genetic Diseases and Diagnostics" and 36th Annual Conference of the Indian Society of Human Genetics. February 14-16, 2011, Manipal University, Manipal, India.

**Syed Rizwan Hussain**, Hena Naqvi, Syed Tasleem Raza, Sunil G. Babu, Farzana Mahdi.

 Role of human leukocyte antigen-G (HLA-G) in cancer progression and susceptibility. 101 Annual Meeting of American Association for Cancer Research, April 17-21, 2010, Washington DC, USA.

Abbas A, Hussain **Syed Rizwan, Naqvi** H, Fatima R et al.

- Analysis of c-KIT Exon-11 Polymorphisms in Neoplasia. International Symposium on Role of Genomics in Clinical Practice and 35th Annual Conference of the Indian Society of Human Genetics. March 6-8, 2010, SGPGI, Lucknow, India.
   Syed Rizwan Hussain, Singh Pradyumn, Naqvi Hena, Abbas Ata, Babu G.Sunil, Mahdi Farzana.
- Role of HDAC1, CBP and P300 in prostate cancer progression. International Symposium on Role of Genomics in Clinical Practice and 35th Annual Conference of the Indian Society of Human Genetics. March 6-8, 2010, SGPGI, Lucknow, India.

Abbas A, **Syed Rizwan Hussain**, Fatima R, Nagvi H et al.

 Role of Human Leukocyte antigen-G in Physiopathology of Unexplained RSA. International Symposium of Endocrinology and Reproduction: Molecular Mechanism to Molecular Medicine and 28th Meeting of Society for Reproductive Biology and Comparative Endocrinology. February 4-6, 2010, New Delhi, India. Ata Abbas, Hena Naqvi, Rabab Fatima, **Syed Rizwan Hussain** et al.

- Role of HLA-G14bp insertion deletion in cancer susceptibility and progression. Eighth Annual AACR International Conference on Frontiers in Cancer Prevention Research. December 06-09, 2009, Houston, TX, USA.
   Abbas A, Syed Rizwan Hussain, Naqvi H, Fatima R et al.
- Role of HLA-G 14bp Insertion Deletion in Cancer Susceptibility and Progression.
   UP-PATACON-2009, Department of Pathology 24-25 October 2009, Era's Lucknow Medical College & Hospital, Lucknow, India.

   Sved Pizwan Hussain, Hena Nagyi, Pahab Fatima, Sunil G. Babu, Pradyumn
  - **Syed Rizwan Hussain**, Hena Naqvi, Rabab Fatima, Sunil G. Babu, Pradyumn Singh, Farzana Mahdi, Ata Abbas.
- Mutation of C-KIT Gene in Neoplasia. Young Life Scientist (YLS) "Networking Angiogenesis", University of Chester 14th July 2009, UK.
  - **Syed Rizwan Hussain**, Hena Naqvi, Farzana Mahdi, Pradyumn Singh, Sunil G. Babu.
- Exon-11 analysis of c-kit gene mutations in acute myeloid leukemia. International symposium on "Ethics Culture and Population Genomics" &"34th Annual Conference of Indian Society of Human Genetics (ISHG), March 17-20, 2009, Delhi, India.
  - **Syed Rizwan Hussain**, Hena Naqvi, Farzana Mahdi, Sunil G. Babu.
- Association of C reactive protein (CRP) Levels in Type- 2 Diabetes Mellitus. International Conference on advances in free radical research: Natural products, antioxidants and radio protectors and 8th annual meeting of the society for free Radical Research (SFRR), March 19-21, 2009, C S M Medical University, Lucknow, India.
  - **Syed Rizwan Hussain**, Ata Abbas, Hena Naqvi, Amit Pal, B. Rathor, Farzana Mahdi.
- Dual Role of Iron Supplementation in Iron Deficient Anemic Women: Friend or Foe. International Conference on advances in free radical research: Natural products, antioxidants and radio protectors and 8th annual meeting of the society for free Radical Research (SFRR), March 19-21, 2009, C S M Medical University, Lucknow, India.
  - Amit Kumar Mani Tiwari, Abbas Ali Mahdi, Sudarshan Chandyan, Fatima Zahra, **Syed Rizwan Hussain**, Madan Mohan Godbole.

#### **Awarded Research Article and Abstract**

 Retrospective case-control study of correlation between MTHFR gene and OSCC risk in North India. Clinical Oral Investigations 2017; 21: 1929-1934 (Highest impact factor showcase KGMU 2016)

- A study on oncogenic role of Leptin and Leptin receptor in Oral Squamous Cell Carcinoma. Tumor Biology 2015; 36: 6515-6523 (Highest impact factor showcase KGMU 2015).
- Role of HLA-G 14bp insertion deletion in cancer susceptibility and progression (Best Poster UP PATHCON- 2009 Era's Medical College and hospital).

# **Completed PhD Thesis and dissertation work**

#### **PhD Thesis:**

- **Pirthvi Kumar Singh,** Oral Cancer, Department of Anesthesia, King George's Medical University, Lucknow, India.
- **Sabir Ali,** Fracture Healing, Department of Orthopedic Surgery, King George's Medical University, Lucknow, India.
- **Hena Naqvi,** Male Infertility, Department of Obstetrics and Gynecology, King George's Medical University, Lucknow, India.

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