

Curriculum Vitae

Dr. Mohammad Misbah

Guest faculty

Deen Dayal Upadhyaya KAUSHAL Kendra

Jamia Millia Islamia

New Delhi – 110025

India.

Mobile: 00-91- 9891276062

[Email: misbah.micro786@gmail.com](mailto:misbah.micro786@gmail.com)



CAREER OBJECTIVES:

My primary aim is to contribute significantly and scientifically in the field of biological research that would enable me to develop professional, analytical and technical skills. The most challenging task however, is to explore and innovate in the realm of HIV virology, pathogenesis and management, thereby aiming for a fundamental contribution to my discipline. As a proactive biotechnologist, I hereby shoulder the responsibility of repaying my debt to the society by working with unflinching enthusiasm towards the cultivation of science with an effort zeroed in exclusively on the welfare of HIV patients worldwide.

EDUCATIONAL QUALIFICATIONS:

| Education | University/Board | Year | Field of Study |
|------------------------------|---|------|--|
| Doctor of Philosophy (Ph.D.) | Molecular Virology Laboratory, Department of Biotechnology, Faculty of Natural Sciences, Jamia Millia Islamia, New Delhi, India | 2015 | Genotypic Characterization of HIV-1 <i>pol</i> gene from Patients non-responsive to ART |
| Master of Science (M.Sc.) | Veer Bahadur Singh Purvanchal University, Jaunpur, India | 2007 | Microbiology |
| Bachelor of Science (B.Sc.) | Veer Bahadur Singh Purvanchal University, Jaunpur, India | 2002 | Chemistry, Botany and Zoology |

Honors and Awards:

- 2011-2014 -Senior Research Fellowship (SRF) - Council of Scientific and Industrial Research (CSIR).
- 2010-2011-Senior Research Fellowship (SRF) - Central Council for Research in Unani Medicine (CCRUM).
- 2012-Awarded second prize on poster presentation in the World Conference on HIV/AIDS (WCHA)-2012 held at Kottayam, Kerala, India.
- 2012-Awarded second prize on poster presentation in the 5th National Conference of AIDS Society of India held at Bangalore, India.

EMPLOYMENT:

Position: Guest Faculty

Institution and Place: Deen Dayal Upadhyaya Kaushal Kendra, Jamia Millia Islamia,
New Delhi- 110025, India.

Professional Experience: 18th July 2022 to present

Position: Assistant Professor (Cont.)

Institution and Place: Deen Dayal Upadhyaya Kaushal Kendra, Jamia Millia Islamia,
New Delhi- 110025, India.

Professional Experience: 1st September 2020 to 30th June 2022

Position: Guest Faculty

Institution and Place: Department of Biotechnology, Jamia Millia Islamia, New Delhi-
110025, India.

Professional Experience: 19 August 2015-30th April 2018

RESEARCH EXPERIENCE:

Completed PhD entitled “**Genotypic Characterization of HIV-1 *pol* gene Patients non-responsive to ART**” which had **CSIR** funding, under the supervision of Dr. Mohammad Husain, Molecular Virology laboratory, Department of Biotechnology, Jamia Millia Islamia, New Delhi-110025.

Worked as Senior Research Fellow under the CCRUM sponsored EMR Project entitled “**Investigation of Anti-HIV Potential of Some Herbal Plants *Adhatoda vasica*, *Boerhaavia difussa*, *Cephalandra indica* and *Nardostachys jatamansi* from Indian Subcontinent.**” under the supervision of Dr. Mohammad Husain, Molecular Virology laboratory, Department of Biotechnology, Jamia Millia Islamia, New Delhi-110025 (23rd Sep.2010 to 19th May, 2011).

Completed M.Sc. dissertation entitled “**Photo-Sensitivity of PolyCyclic-Aromatic hydrocarbon by using *E.coli*, MCF-7 and A-431 cell lines as a model**” under the supervision of Dr. R.K Hans (Head and Scientist, Photobiology Division) Industrial Toxicology Research Centre (I.T.R.C.), Lucknow, India.

TECHNICAL SKILLS:

MOLECULAR BIOLOGY:

Isolation of PBMC, genomic DNA and RNA from whole blood, serum and tissue, nested PCR gradient PCR, touchdown PCR and real time PCR, sequencing and molecular Cloning, fluorescent activated cell sorting (FACS), viral loading (VL), ELISA assays, restriction fragment length polymorphism (RFLP) and polyacrylamide gel electrophoresis.

CELL CULTURE:

NIH3T3 (mouse skin fibroblasts), A431 (human epidermoid carcinoma cell lines), MCF7

(human breast carcinoma cell lines), MTT assay and Trypan Blue test.

MICROBIOLOGY:

Isolation and purification of bacteria, antagonistic and antibiotic sensitivity tests and INT test.

BIOINFORMATICS:

Primer design, multiple sequence alignment (Clustal X software program) and Phylogenetic analysis (PHYLIP software package).

STATISTICAL ANALYSIS:

MEDCALC version 12, IBM SPSS version 20.

KNOWLEDGE OF COMPUTER:

Basic proficiency in computer applications [MS-Office, Use of Internet, Operating Systems (Windows) and Software].

PUBLICATIONS:

Mohd. Faisal Khan, Dr. Ashok Khurana, Dr. Kapil Dev, Dr. Saad Mustafa, **Dr. Mohammad Misbah. Addressing Nutritional Challenges in Pregnant Women: Findings from a descriptive study in New Delhi, India. Indian Obstetrics & Gynaecology, Volume 13, No. 04, Oct-Dec 2023. <https://iog.org.in/journal/index.php/iog/article/view/8>. ISSN: 2455-6017.**

M. Rizwan Jameel, Hina Jameel, Saad Mustafa, Mohd Faisal Khan, **Mohammad Misbah. Engineering Low Glycemic Rice by CRISPR/Cas9 for editing of Targeted Genes for benefit in Diabetic and Cancer. High Technology Letters, Volume 29, Issue 3, 14 March 2023. <https://doi.org/10.37896/HTL29.03/8263>. ISSN: 1006-6748.**

M. Rizwan Jameel, Farha Jameel, Saad Mustafa, Mohd Faisal Khan, **Mohammad Misbah. Investigation of Entrapment of Therapeutic Agents, Enzymes, and Drug Targeting in Erythrocytes. High Technology Letters, Volume 29, Issue 3, 13 March 2023. <https://doi.org/10.37896/HTL29.03/8262>. ISSN: 1006-6748.**

M. Rizwan Jameel, **Mohammad Misbah**, Farha Jameel, Sher Ali. **Analysis Gateway cloning vectors and Construct of CRISPR/Cas9. High Technology Letters, Volume 29, Issue 1, January 2023. <https://doi.org/10.37896/HTL29.01/8050>. ISSN: 1006-6748.**

Mohammad Misbah, Poonam Gupta, Gaurav Roy, Suresh Kumar, Mohammad Husain. **Drug Resistance Mutations in Protease Gene of HIV-1 Subtype C Infected Patient Population. Virus Disease, volume 32, 480–491 (2021) 13 July 2021. DOI. 10.1007/s13337-021-00725-z.**

Gaurav Roy, Papai Roy, Atanu Bhattacharjee, Mudassar Shahid, **Mohammad Misbah**, Subash Gupta, Mohammad Husain. **Expression signature of Lysosomal-associated Transmembrane Protein 4B in Hepatitis C virus induced Hepatocellular Carcinoma. The**

International Journal of Biological Markers, 2018 April 9. DOI: 10.1177/0123456789123456.

Gaurav Roy, Atanu Bhattacharjee, Neelanjana Roy, Koushik Dutta, Mudassar Shahid, **Mohammad Misbah**, Subash Gupta, Mohammad Husain. **A Preliminary Predictive Model of Post-Transplant Tumor Recurrence in Hepatitis B Virus Associated Hepatocellular Carcinoma-Epidemiological and Therapeutic Implications.** *Gastroenterol Hepatol Int J* **2017**, 2(4): 000133. ISSN: 2574-8009.

Mohammad Misbah, Gaurav Roy, Mudassar Shahid, Nalin Nag, Suresh Kumar Mohammad Husain. **Comparative analysis of drug resistance mutations in the human immunodeficiency virus reverse transcriptase gene in patients who are non-responsive, responsive and naive to antiretroviral therapy.** *Archives of Virology*, **2016** Jan 11. DOI 10.1007/s00705-016-2760-8.

Poonam Gupta, Mohammad Husain, Charoo Hans, HanuRam, Supriya Singh, **Mohammad Misbah**, L. S. Chauhan, Arvind Rai. **Sequence heterogeneity in Human Immunodeficiency Virus-1 nef in Patients presenting with Rapid Progression and Delayed Progression to AIDS.** *Archives of Virology*, **2014** Apr 19. DOI 10.1007/s00705-014-2026-2.

Mausumi Bharadwaj, Gaurav Roy, Koushik Dutta, **Mohammad Misbah**, Mohammad Husain, Showket Husain. **Tackling hepatitis B virus-associated hepatocellular carcinoma-the future is now.** *Cancer and Metastasis Reviews*, **2013** June; 32 (1-2):229–268.

Mohammad Misbah, Gaurav Roy, Mudassar Shahid, Nalin Nag, Suresh Kumar Mohammad Husain. **Comparative analysis of Integrase gene for drug resistance mutations from HIV patients non-responsive, responsive and naive to ART. (submitted in Retrovirology).**

Mudassar Shahid, Sayeed Ahmad, **Mohammad Misbah**, Mohammad Husain, Pravin Singhal. **Comparative in vitro anti-HIV potential of methanolic extracts of Mentha piperita and Ocimum sanctum and their metabolomics fingerprinting by GC-MS. (Prepared for Journal of Phytomedicine).**

PUBLISHED ABSTRACT:

Abstract entitled “**Evaluation of Insulin-like Growth Factor-II protein levels in Hepatitis B Virus mediated Hepatocellular Carcinoma in Indian population**” at the 32nd Annual Convention of Indian Association for Cancer Research & International Symposium on Infection & Cancer entitled “IACR 2013” organized by Dr. B.R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, 13th-16th February, 2013, accepted as an abstract in the **Journal of Carcinogenesis**.

Orientation Programme:

- ❖ Participated as Academic Counselor in a two days orientation programme of **B.Sc. (Life Sciences)** jointly organized by School of Sciences and IGNOU regional centre Noida on October 21-22, 2016.

CONFERENCES, SYMPOSIUMS, SEMINARS & WORKSHOPS ATTENDED:

- ❖ Participated as **Organizing Member** in a two days National conference on Biotechnology and environment (NCOBE), jointly organized by Department of Biotechnology, Jamia Millia Islamia, New Delhi and National Environmental Science Academy (NESA), held at Jamia Millia Islamia, at New Delhi, India, from 10th to 11th April, 2017.
- ❖ UGC-SAP sponsored 2nd National Seminar on Regulatory and Quality Aspects of Herbal Drugs and Botanicals, organized by the Department of Pharmacognosy and Phytochemistry, held at the Faculty of Pharmacy, Jamia Hamdard, New Delhi on 1st February, 2014.
- ❖ Conference on Complimentary and Alternative Medicines organized by DST, ICMR, CSIR and ASSOCHAM INDIA, ASSOCHAM House, New Delhi, India. April 24th, 2012,
- ❖ World Conference on HIV and AIDS (WCHA-2012): organized by the Institute for Holistic Medical Sciences, held on 9-11 November 2012, in Kottayam, Kerala, India.
- ❖ 3rd International Conference of the Carcinogenesis Foundation (Frontiers in Carcinogenesis and Preventive Oncology-Molecular Mechanisms to Therapeutics) entitled “Carcinogenesis 2012” held on 19th to 21st November 2012, at Dr. Ram Manohar Lohia Hospital & PGIMER, New Delhi.
- ❖ 5th National Conference of AIDS Society of India: organized by the ASICON Bangalore held in Bangalore, India November 23-25, 2012.
- ❖ Participated as **Organizing Member** in a five day workshop on Basic Molecular Biology Techniques Relevant to Cancer Research, held at the Institute Of Cytology and Preventive Oncology (ICMR), at Noida, India, as a Centenary Celebration of ICMR, from 8th to 12th August, 2011.
- ❖ National Seminar on “Role of GC/MS, Flash Chromatography and HPTLC in Botanical Drug Development” organised by Department of Pharmacognosy and Phytochemistry, Jamia Hamdard, New Delhi. January 17, 2011.

PRESENTATIONS (IN PAPER/POSTER/ORAL SESSIONS):

NATIONAL:

- ❖ **Mohammad Misbah**, Mohammad Husain. **Viral Load Monitoring and HIV Drug Resistance Profile in Patients Non-responsive and Responsive to Antiretroviral Therapy, oral presented, at the** National conference on Biotechnology and environment (NCOBE), jointly organized by Department of Biotechnology, Jamia Millia Islamia, New Delhi and National Environmental Science Academy (NESA), held at Jamia Millia Islamia, at New Delhi, India, from 10th to 11th April, 2017.
- ❖ **Gaurav Roy**, Namita Srow, Mudassar Shahid, **Mohammad Misbah**, Subash Gupta, Ranjana Gondal, Mohammad Husain. **Expression of TGF- β 1 protein in patients**

presenting with Hepatitis B Virus associated Hepatocellular Carcinoma, oral presented at the National Conference on Recent Trends in Molecular Virology-2014, held at the Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, on November 17-19, 2014.

- ❖ **Mohammad Misbah** Gaurav Roy, Mudassar Shahid, Poonam Gupta, Nalin Nag, Suresh Kumar, Mohammad Husain. **Genetic Diversity in reverse transcriptase gene of HIV-1 from ART non-responsive patients**, poster presented at 6th National Conference of AIDS Society of India held in Bangalore, India December 13-15, 2013.
- ❖ **Poonam Gupta**, Arvind Rai, Charoo Hans, **Mohammad Misbah**, Supriya Singh, Mohammad Husain. **Genetic variability in HIV-1 nef gene from rapid progressors and long-term**, oral presented at 6th National Conference of AIDS Society of India held in Bangalore, India December 13-15, 2013.
- ❖ **Mohammad Misbah**, Mausumi Bharadwaj, Mudassar Shahid, Gaurav Roy, Upma Sharma, Suresh Kumar, Nalin Nag, Mohammad Husain. **Molecular Characterization of Integrase gene in newly diagnosed HIV-infected patients**, poster presented at the 5th National Conference of AIDS Society of India held in Bangalore, India, from November 23rd to 25th, 2012.
- ❖ **Mudassar Shahid**, **Mohammad Misbah**, Sayeed Ahmad, Praveen Singhal, Mohammad Husain. Effect of Indian ethnomedicine *Mentha piperita* in inhibition of HIV-1 replication in human T lymphocytes” poster presented at 5th National Conference of AIDS Society of India held in Bangalore, India November 23-25, 2012.

INTERNATIONAL:

- ❖ **Mohammad Husain**, **Mohammad Misbah**. **Drug resistance and disease progression in HIV patients”** oral presented at International Conference on Emerging Trends in Biomedical Sciences held in Department of Biochemistry, Faculty of Life Sciences, Aligarh Muslim University, Aligarh, India March 6-8, 2016.
- ❖ **Mohammad Husain**, **Mohammad Misbah**, Nalin Nag, Poonam Gupta. **Pattern of HIV-1 reverse transcriptase drug resistance in patients responsive or nonresponsive to antiretroviral therapy”** oral presented at International Conference on Emerging Frontiers and Challenges in Management and Control of STIs and HIV held in Navi Mumbai, India April 27-30, 2014.
- ❖ **Gaurav Roy**, **Mohammad Misbah**, Mudassar Shahid, Koushik Dutta, Subash Gupta, Mohammad Husain. **Expression of TGF- β 1 and its role as a prognostic indicator of Hepatitis B virus (HBV) related Hepatocellular Carcinoma (HCC)**, poster presented at the 4th International Conference on Stem Cells & Cancer (ICSCC-2013): Proliferation, Differentiation & Apoptosis, organized by the International Centre for Stem Cells, Cancer and Biotechnology (ICSCCB, Pune, India), held at Durbar Hall, Haffkine Institute, Mumbai, India, from 19th to 22nd October, 2013.

- ❖ **Mohammad Misbah**, Mudassar Shahid, Rameez Hasan, Shams Tabrez, Ankit Dwivedi Sayeed Ahmad, Mohammad Husain. **Antimicrobial activity of *Nardostachys jatamansi*, *Boerhaavia diffusa*, *Cephalandra indica* and *Adhatoda vasica* against *Pseudomonas aeruginosa* and *Staphylococcus aureus***, poster presented at Bioproduct and the OMICS revolution 16-17 March, 2013. (Published in the International Journal of Pharma and Bio Sciences). ISSN 0975-6299.
- ❖ Mudassar Shahid, **Mohammad Misbah** Rameez Hasan, Shams Tabrez, Ankit Dwivedi Sayeed Ahmad, Mohammad Husain. **Phytochemical analysis and antimicrobial activity of *Mentha piperita* and *Ocimum sanctum* against *Pseudomonas aeruginosa* and *Staphylococcus aureus***, poster presented at Bioproduct and the OMICS revolution 16-17 March, 2013 (Published in the International Journal of Pharma and Bio Sciences). ISSN 0975-6299.
- ❖ Rameez Hasan Mudassar Shahid, **Mohammad Misbah**, Poonma Gupta, Sayeed Ahmad, Mohammad Husain. **Antioxidant and antimicrobial activity of *Nardostachys jatamansi*, *Boerhaavia diffusa*, *Cephalandra indica* and *Adhatoda vasica* against *Escherichia coli***, poster presented at Bioproduct and the OMICS revolution 16-17 March, 2013 (Published in the International Journal of Pharma and Bio Sciences). ISSN 0975-6299.
- ❖ **Gaurav Roy**, Showket Hussain, Anoop Kumar, Subash Gupta, **Mohammad Misbah**, Mohammad Husain, Mausumi Bharadwaj. Evaluation of Insulin-like Growth Factor-II protein levels in Hepatitis B Virus mediated Hepatocellular Carcinoma in Indian population, poster presented at the 32nd Annual Convention of Indian Association for Cancer Research & International Symposium on Infection & Cancer entitled “IACR 2013” organized by Dr. B.R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi, New Delhi, India, from 13th to 16th February, 2013.
- ❖ **Gaurav Roy**, Showket Hussain, Upma Sharma, **Mohammad Misbah**, Subash Gupta, Mohammad Husain, Mausumi Bharadwaj. Association of TGF- β 1 promoter polymorphisms in Hepatitis B Virus mediated Hepatocellular Carcinoma in Indian population, poster presented at the 3rd International Conference of the Carcinogenesis Foundation (Frontiers in Carcinogenesis and Preventive Oncology-Molecular Mechanisms to Therapeutics) entitled “Carcinogenesis 2012” held on 19th to 21st November 2012, at Dr. Ram Manohar Lohia Hospital & PGIMER, New Delhi, India.
- ❖ **Mohammad Misbah**, Mudassar Shahid, Gaurav Roy, Upma Sharma, Suresh Kumar, Nalin Nag, Mausumi Bharadwaj, Mohammad Husain “Genotypic Characterization of *Reverse transcriptase* gene in newly confirmed HIV-infected patients” at World Conference on HIV and AIDS held in Kottayam, Kerla, India November 9-11, 2012.
- ❖ **Mudassar Shahid**, **Mohammad Misbah**, Sayeed Ahmad, Praveen Singhal, Mohammad Husain. Inhibition of HIV -1 Reverse transcriptase, Toxicological and Phyto-chemical profile of sacred basil, *Tulsi* Extracts” at World Conference on HIV and AIDS held in Kottayam, Kerala, India November 9-11, 2012.

- ❖ Gaurav Roy, Showket Hussain, **Mohammad Misbah**, Subash Gupta, Mohammad Husain, Mausumi Bharadwaj. Role of TGF- β 1 -509 C/T polymorphism in Hepatitis B Virus associated Hepatocellular Carcinoma in Indian population, poster presented at the 30th Annual Convention of Indian Association for Cancer Research and International Symposium on “Signaling Network and Cancer” held at the Indian Institute of Chemical Biology (CSIR), Calcutta, India, from February 6th to 9th, 2011.

NUCLEOTIDE SEQUENCE ACCESSION NUMBERS PUBLISHED IN GENBANK (NATIONAL CENTRE FOR (BIOTECHNOLOGY INFORMATION) :

- I. **Mohammad Misbah**, Mudassar Shahid, Gaurav Roy, Nalin Nag, Mohammad Husain. **Genetic Diversity in reverse transcriptase gene of HIV-1 from ART patients.** Accession Numbers **KF739310 to KF739320, KF739322 to KF739341 and KF739343 to KF739347.**
- II. **Mohammad Misbah**, Mudassar Shahid, Gaurav Roy, Mohammad Husain. **Genetic Diversity in integrase gene of HIV-1 from ART non-responsive patients.** Accession Numbers **KF689196 to KF689225.**
- III. **Mohammad Misbah**, Mudassar Shahid, Gaurav Roy, Nalin Nag, Mohammad Husain. **Genetic Diversity in reverse transcriptase gene from HIV-1 naïve and ART non-responding patients.** Accession Numbers **KF689129 to KF689165 and KF689169 to KF689195.**
- IV. **Mohammad Misbah**, Mudassar Shahid, Gaurav Roy, Nalin Nag, Suresh Kumar, Mohammad Husain. **Evaluation of mutation profile of protease gene in confirmed HIV-1 infected patients presenting with antiretroviral drug resistance.** Accession Numbers **KF689039 to KF689073, KF689074 to KF689105 and KF689106 to KF689128.**
- V. **Mohammad Misbah**, Mudassar Shahid, Gaurav Roy, Nalin Nag, Suresh Kumar, Mohammad Husain. **HIV-1 isolates JMI-IN.HRI2 from INDIA integrase (pol) gene, partial cds.** Accession Numbers **KF687259 to KF687296.**
- VI. **Mohammad Misbah**, Mudassar Shahid, Gaurav Roy, Poonam Gupta, Nalin Nag, Mohammad Husain. **Molecular Characterization of Integrase gene in newly diagnosed HIV-infected patients.** Accession Numbers **KF373692 to KF373728.**

PERSONAL DETAILS:

Father's name- Mr. Ishtiaque Ahmad
Date of birth- 12/10/81
Nationality- Indian
Religion- Muslim

Marital status- Married

Languages known- English (the medium of education till date), Hindi (official language of India), Urdu (mother tongue)

Passport Number- R4316180

Date of Expiry - 19/10/2027

References:

- 1. Dr. Suresh Kumar, Director** Professor & HOD, Department of Medicine, Maulana Azad Medical College, Room No.127, BL Taneja Block, Bhadur Shah Zafar Marg, New Delhi-110002.
Contact Number: +91-9891158991, **E mail id:** drskumar31@yahoo.co.in
- 2. Dr. Mohammad Husain,** Professor, Department of Biotechnology, Faculty of Natural Sciences, Jamia Millia Islamia, New Delhi-110025, India.
Contact Number: +91-9891422004, **E mail id:** mhusain2@jmi.ac.in

Declaration:

I, Dr. Mohammad Misbah, hereby declare that the above information given by me is true to the best of my knowledge and belief. If at any stage discrepancy is found, my candidature is liable to be cancelled.

Date:

Place: New Delhi

Dr. MOHAMMAD MISBAH