

## Qazi Mohd. Rizwanul Haque, Ph. D.

Professor

Department of Biosciences

Jamia Millia Islamia

New Delhi – 110025



+91 11 26981717 (Board Number) 74302 (Extn.)

Fax: +91 011 26980229 + 91 9891225707 (Mobile)

qhaque@jmi.ac.in (Primary) qmrhaque@gmail.com (Secondary)

**Field of Specialization:** Microbiology & Plant Biotechnology

**Current Research Interests:** Multidrug and heavy metal resistance in bacteria, special interests include *bla*TEM, *bla*SHV, *bla*CTX-M, *bla*CMY and *mcr*, *pmr*, *pho*, *mgr* genes conferring resistance to ESBL and polymyxin antibiotics respectively. Co-resistance of antibiotics and heavy metals (mercury, silver and arsenic etc).

### Teaching Experience (Courses/ Papers Taught): 18 Years

- **Ph.D. Course Work:** Biosciences

*Paper: Microbiology, Advances in Biosciences -I*

- **Postgraduate Courses:** M. Sc. Biosciences, M. Sc. Biotechnology, M. Sc. Biochemistry & M. Tech. (Environmental Science & Engineering)

*Papers: Microbiology, Microbial Biochemistry and Environmental Microbiology*

- **Undergraduate Courses:** B. Sc. Biosciences, B.Sc. Biotechnology, & Bachelor of Physiotherapy (BPT)

*Papers: Microbiology & Immunology, Plant Physiology, Plant Diversity*

### Education

**Ph. D.** (1996) Dr. R. M .L Avadh University, Faizabad, India. (**Research work carried out at Plant Molecular Virology Lab, National Botanical Research Institute, Lucknow**)

Thesis Title: “Coat protein gene of cucumber mosaic virus - molecular cloning, sequencing and comparison with some other isolates.”

**M. Sc.** (1989) Lucknow University, Lucknow, India. (Botany).

**B. Sc.** (1987) Lucknow University Lucknow, India. (Botany, Chemistry and Zoology).

### Career Profile

Designation	Duration	Organization/ Institution
Professor	Dec. 2012 - Till date	Department of Biosciences, Jamia Millia Islamia, New Delhi
Associate Professor	Nov. 2009 - Dec. 2012	-Do-
Reader	Nov. 2006 - Nov. 2009	-Do-
Lecturer & Sr. Lecturer	Sept. 1998 - Nov. 2006	-Do-
Scientist	Oct.1997 - Sept. 1998	Department of Plant Molecular Biology, University of Delhi, South Campus, New Delhi
DBT- Post doctoral	Aug. 1996 - Sept. 1997	National Research Centre on Plant Biotechnology,

Fellow		IARI, New Delhi
CSIR Research Associate	April - August 1996	Advanced Centre for Plant Virology, IARI, New Delhi

### Awards/ Certificate/ Fellowships

CSIR-UGC (NET)-Life Sciences 1989  
 GATE 1990  
 JRF & SRF 1991-96  
 CSIR-Research Associateship 1996  
 DBT- Postdoctoral Fellowship 1996-97  
 Certificate for outstanding performance as participant of the 53<sup>rd</sup> Orientation Programme held at Academic Staff College, JMI, 2001

### Membership of Professional Societies

Life Member Indian Virological Society (LM-13/IVS/2012)  
 Life Member Association of Microbiologists of India (3565-2011)

### Academic and Professional Activities/Positions

- Incharge Time-Table**, Department of Biosciences, Jamia Millia Islamia, New Delhi. (2006 -2016)
- Teacher Placement Coordinator**, Department of Biosciences, Jamia Millia Islamia, New Delhi. (2011 - till date)
- Advisor**, Biosciences Subject Association, Department of Biosciences, Jamia Millia Islamia, New Delhi. (2009 -2013).
- Member, Purchase Committee**, Department of Biosciences, Jamia Millia Islamia, New Delhi. (2002 - 2007).
- Member, Board of Studies**, Department of Biosciences, Jamia Millia Islamia, New Delhi. (1998 - till date).
- Assistant Superintendent Examinations** (Postgraduate Courses), Department of Biosciences, Jamia Millia Islamia, New Delhi. (2010 -2012).
- Member, Faculty Committee**, Faculty of Natural Sciences, Jamia Millia Islamia, New Delhi. (2012 - till date)
- Member, Institutional Biosafety committee**, Jamia Millia Islamia, New Delhi. (2009-2012, 2015- till date)
- Member, Institutional Animal Ethics committee**, Jamia Millia Islamia, New Delhi. (2009-2012)
- Incharge, Plagiarism evaluation**, Department of Biosciences, Jamia Millia Islamia, New Delhi. (2015-till now)
- Member, Research Advisory committee**, Division of Biotechnology, Netaji Subhas Institute of Technology, Sector-3, Dwarka, New Delhi (2014 - till date).
- Member, Board of Studies**, Department of Botany, Jamia Hamdard, New Delhi.
- Member, Student Research Advisory committee**, Department of Botany, Jamia Hamdard, New Delhi.

### Curriculum Development

- Convener, UG syllabus review committee, Department of Biosciences (2017-18)
- Member, expert committee for designing and development of M.Sc. Microbiology syllabus and course content.

3. Development /updating of syllabus for paper Microbiology (M. Sc. Biosciences semester pattern), Plant Diversity I, Plant Diversity II and Plant Diversity III (B.Sc. Biosciences semester pattern).
4. An active member in designing and development of M.Sc. Biotechnology semester Pattern course structure and course content (Currently running in the Department of Biotechnology).

### Organization of Seminar /Conference / Symposia

**Member**, Organizing Committee, National Conference on Protein structure and Dynamics and Agriculture, 3-4 November 2017, held at Jamia Millia Islamia, New Delhi.

**Member**, Advisory Committee, National Seminar on Recent advances in environmental toxicology, JMI, New Delhi, February-2017.

**Member**, Advisory Committee, UGC-DRS sponsored National Seminar on Metal Toxicity and Oxidative Stress, JMI, New Delhi, September-2014.

**Convener**, Extension Lecture series “Recent Trends in Biosciences 2010, 2011 & 2012”.

**Convener**, Agricultural Science Research Committee at 32nd Indian Social Science Congress, Dec 18-22, 2008, Jamia Millia Islamia, New Delhi, India.

**Member**, Organizing Committee, National Symposium on "Intellectual Property Rights and Indian Germplasm Resources: Emerging Challenges" held at the Jamia Millia Islamia, New Delhi on October 20-21, 2000.

### Ph D/M Phil/ PG Examiner/ (Outside University)

- Aligarh Muslim University, Aligarh, UP.
- Amity University, Noida, UP.
- Delhi University, New Delhi.
- Hamdard University, New Delhi.
- Integral University, Lucknow, UP.
- Lucknow University Lucknow, UP.
- Sharda University, Noida, UP.
- Rashtrasant Tukoji Maharaj University, Nagpur
- AcSIR

### Participation in Orientation Course/ Refresher Course/ Workshop

1. 53<sup>rd</sup> four week **Orientation Course** from 10<sup>th</sup> April – 9<sup>th</sup> May 2001, organized by UGC at Academic Staff College, Jamia Millia Islamia New Delhi.
2. 10<sup>th</sup> four week UGC sponsored **Refresher Course** in **Life Sciences** during 27.12.2004 to 21.01.2005, held at Academic Staff College, JNU, New Delhi.
3. **Subject Expert** in workshop for the Development of **Hindi Dictionary of Biotechnology**, organized by the Commission for Scientific & Technical Terminology, **Ministry of Human Resource Development, Government of India** from 28<sup>th</sup> January – 30<sup>th</sup> January 2009, at the Department of Biotechnology Jamia Millia Islamia, New Delhi.
4. One week Quality Improvement Programme (QIP) course on **Advances in wastewater treatment** from 10-15 Oct 2011 at Chemical Engineering Department, Indian Institute of Technology, Delhi.
5. Science Academies’ Lecture **Workshop on Nanoscience and Nanotechnology** during March 1-2, 2013 at Jamia Millia Islamia, New Delhi.

6. **Subject Expert** in workshop for the Development of **Hindi Dictionary of Biotechnology**, organized by the Commission for Scientific & Technical Terminology, **Ministry of Human Resource Development, Government of India** from 09th March – 13th March 2015, at the Department of Biotechnology Jamia Millia Islamia, New Delhi.
7. Workshop on choice based credit system and credit framework for skill based vocational course. Organized by UGC at Jamia Millia Islamia, New Delhi on 24<sup>th</sup> March 2015.
8. Symposium on Flow Cytometry: single tool for versatile application. Organized by ThermoFisher Scientific, held at Department of Biosciences, Jamia Millia Islamia, New Delhi on 25<sup>th</sup> September 2017.
9. Orientation Programme on Turnitin, Organized by Dr. Zakir Hussain library, Jamia Millia Islamia on 7<sup>th</sup> April 2015.
10. Seminar on Impact of ultrapure water on Mass Spectrometry and biological applications. Organized by Merck Life Sciences, at Jamia Millia Islamia, New Delhi on 23<sup>rd</sup> November 2015.
11. Author workshop on Getting published in the Digital Age. Organized by Taylor & Francis Group at Jamia Millia Islamia, New Delhi on 11<sup>th</sup> October 2017.
12. Chaired Session at UGC-SAP sponsored National Seminar on recent advances in environmental toxicology. Held at Department of Biosciences, Jamia Millia Islamia, New Delhi, from 13-14 February 2017.

### Research & Development Projects

1. Identification and analysis of genes associated with nitrogen use efficiency (NUE) in *Oryza sativa* L. **Co -Principal Investigator, UGC- Major Research Project** (Ongoing)
2. Effect of Abiotic Stresses on the Expression of Different MicroRNA-Targeted Transcription Factors in Rice. **Principal Investigator, UGC- Major Research Project** (Completed 2014).
3. Genetic Engineering of *E. coli* mer Operon and Improvement of Mercury Tolerance in *Nicotiana tabacum*. **Co -Principal Investigator, DBT -Major Research Project** (Completed 2007).
4. Development of Diagnostic Kit for detection of viruses infecting banana (*Musa* species). **Principal Investigator, DST Major Research Project** (Completed 2006).
5. Screening of banana plantations for virus infection and their Characterization. **Principal Investigator, JMI/UGC -Minor Project** (Completed 2003).

### Ph. D. Supervision :

S. No.	Name of the Ph.D. Scholar	Title of Thesis	Status
1.	Usharani, K.S.	“Characterization of Soybean Mosaic Virus and Its Phylogenetic Relationship with Other Whitefly Transmitted Geminiviruses”.	Awarded 2004
2.	Sudhir Kumar Gupta	“Molecular marker assisted selection for leaf rust resistance in wheat ( <i>Triticum aestivum</i> L.)”.	Awarded 2004
3.	Naseem Akhtar Gaur	“Regulation of multidrug resistance genes of <i>Candida albicans</i> ”.	Awarded 2005

4.	<b>Saurabh Kulshrestha</b>	“Molecular characterization of the virus causing rose mosaic disease complex”.	Awarded 2005
5.	<b>Seema Mandal</b>	“Molecular characterization of cucumber green mottle mosaic virus occurring in India and development of transgenic plant using coat protein gene”.	Awarded 2008
6.	<b>Shahanavaj Khan</b>	“Molecular characterization of viruses causing mosaic disease in banana ( <i>Musa Spp.</i> ) and standardization of techniques for their detection”.	Awarded 2008
7.	<b>Mohammad Arif</b>	“Molecular marker assisted screening for disease susceptibility in shisham seeds and pathogenic variability in <i>Fusarium Solani</i> ”	Awarded 2008
8.	<b>Md Nazrul Islam</b>	“Molecular characterization and phylogenetic studies of banana bunchy top virus and development of diagnostic methods for its detection”.	Awarded 2009
9.	<b>Manaswini Das</b>	“Screening and genetic manipulation of mulberry for abiotic stress tolerance”.	Awarded 2010
10.	<b>Kailash Narayan Gupta</b>	“Molecular characterization of Citrus yellow mosaic virus & citrus greening bacterium and to develop techniques for their detection in citrus”.	Awarded 2010
11.	<b>Vikas Koundal</b>	“Structural genomics, synergy and silencing of cucumber mosaic virus and tomato leaf curl virus”	Awarded 2010
12.	<b>Afsar Raza Naqvi</b>	“Micro RNAs as biomarker for tomato leaf curl virus disease”.	Awarded 2011
13.	<b>Arif Tasleem Jan</b>	“Molecular characterization of mer B gene from an efficient mercury-tolerant Indian isolate of <i>Pseudomonas</i> ”.	Awarded 2012
14.	<b>Bushra Aquil</b>	“Studies on micropropagation and genetic transformation of banana ( <i>Musa spp.</i> )”.	Awarded 2012
15.	<b>Parul Singhal</b>	“Characterization of Abiotic Stress inducible plant Promoters and Bacterial Genes for Osmotolerance using Transgenic Approach”.	Awarded 2013
16.	<b>Manoj Kumar Singh</b>	“Molecular characterization of Begomovirus causing leaf curl disease of tobacco in India”.	Awarded 2013
17.	<b>Veer Bahadur Singh</b>	Studies on RNAi Mediated Resistance for the Management of <i>Mungbean Yellow Mosaic India Virus</i> (MYMIV) in Soybean.	Awarded 2015
18.	<b>Mohiuddin Khan Warsi</b>	“Studies on effect of abiotic stress on the expression of different microRNA targeted transcription factor and micro RNA Pathway genes”.	Awarded 2015
19.	<b>Mudsser Azam</b>	Studies on the expression of acquired multidrug resistant genes - Extended Spectrum $\beta$ -Lactamases (ESBLs) among environmental isolates of <i>E. coli</i> in heavily polluted Delhi stretch of river Yamuna.	Awarded 2017
20.	<b>Aftab Hossain Mondal</b>	Studies on multidrug resistant environmental isolates of <i>Klebsiella spp.</i> and their susceptibility towards in vivo synthesized nanoparticles.	Awarded 2017

21.	<b>Kehkashan Siddiqui</b>	Studies on prevalence and distribution of antibiotic resistance determinants among bacterial isolates from Delhi stretch of river Yamuna.	Submitted 2018
22.	<b>Mohammad Tahir Siddiqui</b>	Studies on CTX-M type Extended Spectrum $\beta$ -Lactamases producing bacterial isolates from Delhi stretch of river Yamuna.	Registered 2013
23.	<b>Asghar Ali</b>	Studies on molecular, structural and functional aspects of CTX-M type $\beta$ -lactamase.	Registered 2014
24.	<b>Insha Sultan</b>	A study on the role of genetic factors in acquisition and dissemination of CTX-M type $\beta$ -lactamase gene among bacteria.	Registered 2014
25.	<b>Firdoos Ahmad Gogry</b>	Polymyxin resistance in bacteria: A study on genetic factors involved and their diversity among ESBL producing environmental isolates of bacteria.	Registered 2016
26.	<b>Fazila Nargis</b>	Screening of ESBL producing bacterial strains of Yamuna water and their correlation with plasmid mediated quinolone resistance genes under environmental stress.	Registered 2016
27.	<b>Heena</b>		Registered 2017

(Degree Awarded: 20, Submitted: 0, Students registered: 7)

### Supervision of M. Sc. Dissertations Project (Total 39)

Heena Fakhr (2002), Eram Siddiqui (2003), Jaishree Bankoti (2003), Dharmendra Kumar (2004), Shafeekur Rahman (2005), Maithili A Thakur Desai (2005), Chandan Kishore (2007), Anwar Alam (2007), Mohd. Khubaib (2008), Edwina Thomas (2008), Deepika Kataria (2009), Sonu Sharma (2010), Ruchika Sharma (2010), Tripta Kanchan (2010), Mudsser Azam (2010), Mohd Asif Khan (2011) Swati Banvari (2011) Mohit (2011) Km Batool Azra (2011) Sapna Rani (2012), Shazia Khan (2012), Hemlata (2012), Jolly (2013), Tabassum Siddiqui (2013), Saniya Khan (2014), Ekta Dhamija (2014), Nudrat Huda Khan (2015), Imran Khan (2015), Hena kausar (2015), Firdous Khanam (2016), Shaheen (2016), Noorie (2017), Neha Kaushik (2017), Maryam Bashir (2017), Takreem Fatima (2017), Madhulika Tripathi (2017), Uzma Hijab (2018).Huma Fatima (2018), Kavita (2018).

### Research Publications

#### A.) *Journals*

1. Khan, S., Masood, S., Siddiqui, K., Alam, M., Zafar, F., **Haq, Q.M.R.** and Nishat, N. (2018). Utilization of renewable waste material for the sustainable development of thermally stable and biologically active aliphatic amine modified Cardanol (phenolic lipid) - Formaldehyde free standing films. **Journal of Cleaner Production.** 196 (1644-1656).
2. Aneja, B., Azam, M., Alam, S., Perwez, A., Maguire, R., Yadava, U., Kavanagh, K., Daniliuc, C.G., Rizvi, M.M.A., **Haq, Q.M.R.**, and Abid, M. (2018). Natural Product-

Based 1,2,3-Triazole/Sulfonate Analogues as Potential Chemotherapeutic Agents for Bacterial Infections. *ACS Omega*. 3(6): 6912-6930.

3. Siddiqui, K., Mondal, A.H., Siddiqui, M.T., Azam M. and **Haq, Q.M.R.** (2018). Prevalence and molecular characterization of ESBL producing Enterobacteriaceae from highly polluted stretch of river Yamuna, India. *Microbiology and Biotechnology letters*, **46 (2): 135-144.**
4. Shamsi T.N., Parveen R., Afreen S., Sen P., Sharma Y., **Haque Q.M.R.**, Fatma T., Manzoor N. and Fatima S. (2018): Trypsin Inhibitors from *Cajanus cajan* and *Phaseolus limensis* Possess Antioxidant, Anti-Inflammatory, and Antibacterial Activity. *Journal of Dietary Supplements*. 18:1-12
5. Jan A.T., Azam M., Rahman S., Almigeiti A.M.S., Choi D.H., Lee E.J., **Haq Q.M.R.** and Choi I. (2017). Perspective Insights into Disease Progression, Diagnostics, and Therapeutic Approaches in Alzheimer's Disease: A Judicious Update. *Frontiers in Aging Neuroscience*. 9:356.
6. Azam, M., Jan, A.T., Kumar, A., Siddiqui, K., Mondal, A.H. and **Haq, Q.M.R.** (2018). Study of pandrug and heavy metal resistance among *E.coli* from anthropogenically influenced Delhi stretch of river Yamuna. *Brazilian Journal of Microbiology*. doi: 10.1016/j.bjm.2017.11.001.
7. Shamsi, T.N., Parveen, R., Rehsawla, R., Afreen, S., Azam, M., Fatma, T., **Haq, Q.M.R.**, Fatima, S. (2016). In-Vitro Antioxidant, Antibacterial and Anti- Inflammatory Characterization Of Indian Honey. *Int. Journal of Pharm Res*. 8(1):33-38.
8. Mondal, A.H., Siddiqui, M.T., Siddiqui, K. and **Haq, Q.M.R.** (2016). Biosynthesis, characterization and antibacterial activity of silver nanoparticles against ESBL producing water-borne pathogens. *Advanced Materials Proceedings*. 1(1): 46-52.
9. Jan, A.T., Azam, M., Choi, I., Ali, A. and **Haq, Q.M.R.** (2016). Analysis for the presence of determinants involved in the transport of mercury across bacterial membrane from polluted water bodies of India. *Brazilian journal of Microbiology*. 47:55-62.
10. Azam, M., Jan, A.T. and **Haq, Q.M.R.** (2016). *bla*CTX-M-152, a novel variant of CTX-M-group-25, identified in a study performed on the prevalence of multidrug resistance among natural inhabitants of river Yamuna, India. *Frontiers in Microbiology*. 7:176.
11. Mondal, A.H., Azam, M., Siddiqui, M.T. and **Haq, Q.M.R.** (2016). Biosynthesis and antibacterial activity of silver nanoparticles. *Advance Material Letters*. 7(8): 659-665
12. Zafar, F., Azam, M., Sharmin, E., Zafar, H., **Haq, Q.M.R.** and Nishat, N. (2016). Nanostructured coordination complexes/polymers derived from cardanol: "one-pot, two-step" solventless synthesis and characterization. *RSC Advances*. 6:6607-6622.

13. Jan, A.T., Azam, M., Siddiqui, K., Ali, A., Choi, I. and **Haq, Q.M.R.** (2015). Heavy Metals and Human Health: Mechanistic Insight into Toxicity and Counter Defense System of Antioxidants. *International Journal of Molecular Sciences*. 16:29592–29630.
14. Singhal, P., Jan, A.T., Azam, M. and **Haq, Q.M.R.** (2015). Plant abiotic stress: a prospective strategy of exploiting promoters as alternative to overcome the escalating burden. *Frontiers in Life Science*. 9(1): 52-63.
15. Warsi, M.K. and **Haq, Q.M.R.** (2015). Expression Analysis of Conserve MicroRNAs in Rice Under Abiotic Stress Condition. *International Journal of Scientific Research*. 4(7): 562-569.
16. Arif, M., Zaidi, N.W., **Haq, Q. M. R.**, Singh, Y. P., Taj, G., Kar, C. S. and Singh, U. S. (2015). Morphological and comparative genomic analyses of pathogenic and non-pathogenic *Fusarium solani* isolated from *Dalbergia*. *Mol Biol Rep.* (DOI 10.1007/s11033-014-3849-3.)
17. Singh, V.B., **Haq, Q.M.R.** and Malathi, V.G. (2014) Regeneration of three Indian soybean cultivar using cotyledonary node method. *Soybean Research* 12(2): 44-53.
18. Jan, A. T., Azam, M., Ali, A. and **Haq, Q.M.R.** (2014) Prospects for exploiting bacteria for bioremediation of metal pollution. *Critical Reviews in Environmental Science and Technology*. 44:519–560.
19. Shamshi, T.N., Parveen, R., Afreen, S., Azam, M., Fatma, T., **Haq, Q.M.R.** and Fatima, S. (2014). In-vitro antibacterial and antioxidant activities of sandalwood (*Santalum album*) *Journal of Biotechnology and Bioengineering*. 1(2):1-3.
20. Arif, M. Zaidi, N. W, **Haq, Q. M. R.**, Singh Y. P., Khan S. and Singh U. S.(2013) Molecular phylogeny and pathotyping of *Fusarium solani*: a causal agent of *Dalbergia sissoo* decline. *Forest Pathology*. 43:478–487.
21. Das, M., Tetorya, M., **Haq, Q.M.R.** and Khurana, P. (2013) Screening and expression analysis of HAL3a, dehydrin and NHX1 in ten genotypes of mulberry for abiotic stress tolerance. *Sericologia*. 53(2)
22. Jan, A. T., Singhal, P., and **Haq, Q.M.R.** (2013) Plant abiotic stress: deciphering remedial strategies for emerging problem. *Journal of Plant Interactions*. 8(2): 97-108.
23. Singh, V.B., **Haq, Q.M.R.** and Malathi, V.G. (2013) Antisense RNA approach targeting Rep gene of *Mungbean yellow mosaic India virus* to develop resistance in soybean. *Archives of Phytopathology and Plant Protection*. 46(18): 2191-2207.
24. Aquil, B., Jan, A. T., Sarin, N. B. and **Haq, Q.M.R.** (2012) Micropropagation and Genetic Transformation Of Banana For Crop Improvement And Sustainable Agriculture. *Journal of Crop Science* 3(2): 64-77.
25. Gupta K. N. , Baranwal V. K. and **Haq Q. M. R.** (2012) Sequence analysis and comparison of 16S rRNA, 23S rRNA and 16S/23S intergenic spacer region of greening bacterium associated with yellowing disease (Huanglongbing) of Kinnow mandarin. *Indian Journal of Microbiology* 52(1):13–21.
26. Jan, A. T., Azam, M., Ali, A. and **Haq, Q.M.R.** (2012) Molecular Characterization of mercury resistant bacteria inhabiting polluted water bodies of different geographical locations in India. *Current Microbiology*. 65(1):14-21.



27. Khan, S., Jan, A. T., Mandal, B., and **Haq, Q.M.R.** (2012) Immunodiagnosics of *Cucumber mosaic virus* using antisera developed against recombinant coat protein. *Archives of Phytopathology & Plant Protection* 45(5):561–569.
28. Singh, M. K., **Haq, Q.M.R.**, Mandal, B. and Varma, A. (2012) Evidence of the association of *Radish leaf curl virus* with tobacco yellow leaf curl disease in Bihar, India. *Indian Journal of virology* 23(1):64–69.
29. Das, M., Chauhan, H., Chibbar, A., **Haq, Q. M. R.**, and Khurana, P. (2011) High-efficiency transformation and selective tolerance against biotic and abiotic stress in mulberry, *Morus indica* cv. K2, by constitutive and inducible expression of tobacco Osmotin. *Transgenic Research*. 20 (2): 231-246.
30. Huidrom, P., Jan, A. T., **Haq, Q.M.R.** and Sharma, G. D. (2011) Molecular characterization of endosulfan tolerant rhizospheric microbes from tea gardens of Silchar Assam, India. *Journal of Experimental Science* 2 (2): 1-4.
31. Jan, A. T., Azam, M., Ali, A. and **Haq, Q.M.R.** (2011) Novel approaches of beneficial *Pseudomonas* in mitigation of plant diseases - An appraisal. *J. Plant Interactions*. 6(4): 195-205.
32. Jan, A. T., Ali, A. and **Haq, Q.M.R.** (2011) Glutathione as an antioxidant in inorganic mercury induced nephrotoxicity. *Journal of Postgraduate Medicine* 57 (1): 72-77
33. Jan, A. T., Azam, M., Warsi, M. K., Ali, A. and **Haq, Q.M.R.** (2011) Technical Advancement in Plant Virus Diagnosis – An Appraisal. *Arch. Phytopath. & Plant Protection* 1-13 (DOI:10.1080/03235408.2011.599156)
34. Khan, S., Jan A. T., Aquil, B and **Haq, Q.M.R.** (2011) Coat protein gene based characterization of Cucumber mosaic virus isolates infecting banana in India. *Journal of Phytology* 3 (2): 94-101.
35. Koundal V., **Haq, Q.M.R.** and Praveen, S. (2011) Characterization, Genetic Diversity, and Evolutionary Link of Cucumber mosaic virus Strain New Delhi from India. *Biochemical Genetics*. 49:25–38.
36. Naqvi, A.R., Sarwat, M., Pradhan, B., Choudhury, N.R., **Haq, Q.M.R.** and Mukherjee, S.K. (2011) Differential expression analyses of host genes involved in systemic infection of Tomato leaf curl New Delhi virus (ToLCNDV) *Virus research*. 160: 395-399.
37. Naqvi AR, Choudhury N R, Mukherjee S K, and **Haq Q M R** (2011) *In silico* analysis reveals that several tomato microRNA/microRNA\* sequences exhibit propensity to bind to *tomato leaf curl virus* (ToLCV) associated genomes and most of their encoded open reading frames (ORFs). *Plant Physiology and Biochemistry*. 49(1): 13-17.
38. Singh, M. K., Singh, K., **Haq, Q.M.R.**, Mandal, B. and Varma, A. (2011) Molecular characterization of *Tobacco leaf curl Pusa virus*, a new monopartite begomovirus associated with tobacco leaf curl disease in India. *Virus Genes* 43: 296-306.
39. Islam M. N., Naqvi A. R., Jan, A. T. and **Haq, Q. M. R.** (2010) Genetic Diversity and Possible Evidence of Recombination among *Banana Bunchy Top Virus*(BBTV) Isolates *International Research Journal of Microbiology* 1(1): 001-012.
40. Jan, AT., Kamli, M., Murtaza, I., Singh, JB., Ali, A. and **Haq, Q.M.R.** (2010). Dietary flavonoid Quercetin and Associated Health Benefits – An overview. *Food Reviews International*. 26:302–317.

41. Koundal, V., Vinutha T, **Haq, Q.M.R.** and Praveen, S. (2010) Modulation of Plant Development and MYB Down Regulation: Both during In Planta Expression of miR159a and in Natural ToLCV Infection. *J. Plant Biochemistry and Biotechnology* 19(2): 171-175.
42. Naqvi, AR., **Haq, Q.M.R** and Mukherjee S. K. (2010). MicroRNA profiling of Tomato leaf curl New Delhi virus (ToLCNDV) infected tomato leaves indicates that deregulation of miR159/319 and miR172 might be linked with leaf curl disease. *Virology Journal* 7:281.
43. Arif, M., Zaidi, N.W., **Haq, Q.M.R.** and Singh, U.S. (2009) Nuclear rDNA Sequence Data Based Identification and Relative Efficiency of ISSR and RAPD Markers for Genetic Diversity of *Fusarium sp.* Associated With Mango Malformation in India. *International J. of Plant Breeding*.3(1) : 65-70.
44. Arif, M., Zaidi, N.W., Singh Y.P., **Haq, Q.M.R.** and Singh, U.S. (2009). A comparative analysis of ISSR and RAPD markers for study of genetic diversity in shisham (*Dalbergia sissoo*). *Plant Mol. Biol. Reporter*. 27: 488-495.
45. Gupta, K.N., Baranwal, V.K., Prasanna, B.K., Singh J., **Haq, Q.M.R.** and Gopal K. (2009). Genome sequencing, comparison and phylogenetic analysis of *Citrus yellow mosaic virus* isolate originating from different citrus species in India. *International. J. Virology* 5:143-153
46. Jan, AT., Murtaza, I., Ali A. and **Haq, Q.M.R.** (2009). Mercury Pollution: An Emerging Problem and Potential Bacterial Remediation Strategies. *World J. Microbiol. Biotech.* 25:1529-1537.
47. Naqvi, AR., Islam, MN., Choudhury, NR. and **Haq, Q.M.R** (2009). The Fascinating World of RNA Interference. *International J. Biological Sciences* 5(2): 97-117.
48. Arif, M., Zaidi, N.W., **Haq, Q.M.R.** and Singh, U.S. (2008) Molecular Diversity in *Fusarium solani* Associated with Sissoo (*Dalbergia sissoo*) Wilt Assessed by RAPD DNA Markers. *Journal of Mycology & Plant Pathology*. 38 (2): 258-260.
49. Arif, M., Zaidi, N.W., **Haq, Q.M.R.** and Singh, U.S. (2008) Genetic variability within *Fusarium solani* as revealed by PCR- fingerprinting based on ISSR markers. *Indian Phytopathology*. 61 (3): 305-310.
50. Mandal, S., Mandal, B., **Haq, Q.M.R.** and Varma, A (2008) Properties, Diagnosis and Management of *Cucumber green mottle mosaic virus*. *Plant Viruses*. 2(1):25-34.
51. Gupta, S.K., Charpe, A., Prabhu, K.V. and **Haq, Q.M.R.** (2006). Identification and validation of molecular markers linked to the leaf rust resistance gene *Lr19* in wheat. *Theor. Appl. Genet.* 113:1027–1036.
52. Gupta, S. K., Charpe, A., Koul, S., **Haq, Q.M.R.** and Prabhu, K. V. (2006) Development and validation of SCAR markers co-segregating with an Agropyron elongatum derived leaf rust resistance gene *Lr24* in wheat. *Euphytica*.150: 233–240.
53. Kulshrestha, S., Hallan, V., Raikhy, G., Ram R., N.,Garg, I. D., **Haq, Q.M.R.** and Zaidi, A.A. (2006). Occurrence of *Iris mild mosaic potyvirus* in cultivated iris in India. *Indian J Biotechnology* 5: 94-98.
54. Cherukuri, D.P., Gupta, S.K., Charpe, A., Koul, S., Prabhu, K.V., Singh, R.B., and **Haq, Q.M.R.** (2005). Molecular mapping of an *Aegilops speltoides* derived leaf rust resistance gene *Lr 28* in wheat. *Euphytica* 143:19-26.

55. Gupta, S. K., Charpe, A., Koul, S., Prabhu, K. V. and **Haq, Q.M.R.** (2005). Development and validation of molecular markers linked to an *Aegilops umbellulata* derived leaf rust resistance gene *Lr9* for marker assisted selection in bread wheat. **Genome** 48(5): 823-830.
56. Kulshrestha, S., Hallan, V., Raikhy, G., Adekunle, O.K. Verma, N., **Haq, Q.M.R.** and Zaidi, A.A. (2005). Reverse transcription polymerase chain reaction based detection of *Arabidopsis Mosaic virus* and Strawberry latent ring spot virus in vector nematodes. **Current Science** 89(10): 1759-1762.
57. Prasad, T., Saini, P., Gaur, N. A., Vishwakarma, R. A., Khan, L. A., **Haq, Q.M.R.** and Prasad, R (2005). Functional analysis of *CalPT1*, a sphingolipid biosynthetic gene involved in multidrug resistance and morphogenesis of *C. albicans*. **Antimicrobial Agents and Chemotherapy**. 49(8):3442-52.
58. Preeti, S., Prasad, T., Gaur, N. A., Shukla, S., Jha, S., Komath, S.S. **Haq, Q.M.R.**, Khan L.A. and Prasad, R. (2005). Alanine scanning of transmembrane helix 11 of Cdr1p ABC antifungal efflux pump of *Candida albicans*: identification of amino acid residues critical for drug efflux. **J. Antimicrobial Chemotherapy** 56(1): 77-86.
59. Usharani, K.S., Surendranath, B., **Haq, Q.M.R.** and Malathi, V.G.(2005). Infectivity analysis of soybean associate of *Mungbean yellow mosaic India virus* by agro-inoculation. **J. Gen. Plant Pathology**. 71:230-237.
60. Usharani, K.S., Surendranath, B., **Haq, Q.M.R.**, and Malathi V.G. (2004) Yellow Mosaic Virus infecting soybean in Northern India is distinct from the species infecting soybean in Southern and Western India. **Current Science** 86: 845-850.
61. Cherukuri, D.P., Gupta S. K., Charpe, A., Koul, S., Prabhu, K.V., Singh, R. B. and **Haq, Q.M.R.** (2003). Identification of a molecular marker linked to an *Agropyron elongatum*-derived gene *Lr19* for leaf rust resistance in wheat. **Plant Breeding**. 122: 204-208.
62. Prabhu, K. V., Gupta, S. K., Charpe, A., Koul, S., Cherukuri, D. P., Dhaliwal, H. S., Vikal, Y., Chhuneja, P., and **Haq, Q.M.R.** (2003) Molecular markers detect redundancy and miss-identity in genetic stocks with alien leaf rust resistance genes *Lr32* and *Lr28* in bread wheat. **J. Plant Biochem. and Biotech.** 12: 123-129.
63. Deval, J., Meena, L.S., **Haq, Q.M.R.**, Singh. Y., Sharma, A. K. and Tyagi, A. K. (2002). Expression of cholera toxin B subunit in transgenic tomato plants. **Transgenic Research**. 11:447-454
64. Mohanty, A., Grover, A., Choudhary, A., **Haq, Q.M.R.**, Sharma, A. K., Maheshwari, S.C. and Tyagi, A. K. (2000). Analysis of the activity of promoters from two photosynthesis related genes *psaF* and *petH* of spinach in a monocot plant, rice. **Ind. J. Biochemistry and Biophysics**. 37:447-452.
65. **Haq, Q.M.R.**, Singh, B.P. and Srivastava, K.M. (1996). Biological, serological and molecular characterization of a *Cucumber mosaic virus* isolate from India. **Plant Pathology**. 45: 823-828.
66. Raj, S.K., **Haq, Q.M.R.**, Srivastava, K. M. and Singh., B.P. (1995). Sequence homology of two Indian isolates of *cucumber mosaic virus* at N- terminal amino acid sequences of coat protein gene with CMV subgroup I strains. **J Plant Biochem. and Biotech.** 4: 77-80.
67. Srivastava., A., Raj, S.K., **Haq, Q.M.R.**, Srivastava, K.M., Singh B. P. and Sane , P. V (1995). Associations of a *cucumber mosaic virus* strain with mosaic disease of banana, *Musa paradisiaca* evidence using immuno/nucleic acid probe. **Ind. J. Exp. Biol.** 33: 986-988.

68. **Haq, Q.M.R.**, Srivastava, K.M., Raizada R. K., Singh, B.P., Jain, R.K., Mishra, A. and Shukla, DD. (1994). Biological, serological and coat protein properties of a strain of *Turnip mosaic virus* causing a mosaic disease of *Brassica campestris* and *B. juncea* in India. *J. Phytopathology*. 140(1): 55-64.
69. Raj, S.K., **Haq, Q.M.R.**, Srivastava, K. M. and Singh, B.P. (1994). Characterization of a virus causing severe mosaic disease in *Dimorphotheca aurantiaca*. Hort. *Ind.J. Virology*.10:122-127.

#### **B.) Full Papers in Conference Proceedings**

1. Naqvi, A.R., Choudhury, N.R., **Haq, Q.M.R.**, Mukherjee S.K. (2008). MicroRNAs as Biomarkers in Tomato leaf curl virus (ToLCV) disease. *Nucleic Acids Symposia Ser (Oxf)* 52: 507-508.
2. Aminuddin, Raj, S.K., Khan, J. A., **Haq, Q.M.R.**, Hallan,V., Saxena, S. and Singh, B.P. (2000) Molecular approach for plant virus characterization and management. *Proceedings of the Indian Phytopathological Society-Golden jubilee International Conference on Integrated plant disease management for Sustainable agriculture*. 1:75-79.

#### **B.) Chapters in Books**

1. Sharmin E., Azam, M., Zafar F., Akram D., **Haq, Q.M.R.** and Ahmad S. (2015). **Green Organic-inorganic Hybrid Material from Plant Oil Polyol. Biomaterial Applications Macro to Nanoscales**. *Apple Academic Press*.
2. Jan, A.T., Ali, A., **Haq, Q.M.R.** (2014). Phytoremediation: A promising strategy on the crossroads on remediation. **Soil remediation and plants: prospects and challenges**. *Elsevier* (Academic Press). 63-68.
3. Jan, A.T., Ali, A., **Haq, Q.M.R.** (2012). Potential of chelation therapy in heavy metal toxicity. **Human and Animal Health: Environmental Perspectives**. *Satish Serial Publishing House, India*.129-142.
4. Naqvi, A.R., Choudhury, N. R., and **Haq, Q.M.R.** (2010). Small RNA-mediated defensive and adaptive responses in plants. **Sustainable Agriculture Reviews Volume 7**. *Springer*. 129-160.

#### **D.) Nucleotide /Gene sequences submitted to EMBL Database**

##### **(More than 400 accessions comprising the following)**

- Replicase /Movement /Coat Protein Genes of *Cucumber mosaic virus*, *Banana bract mosaic virus* and *Banana Bunchy Top virus*.
- Ribosomal RNA genes of *E. Coli*, *Citrobacter freundii*, *Pseudomonas aeruginosa* and *Fusarium sp.*
- Ribosomal RNA genes of extended spectrum  $\beta$ -lactamases (ESBLs) positive bacterial isolates.
- Bacterial *mer* operon genes (*mer P*, *mer T* and *mer B*).
- $\beta$ -lactamases encoding extended spectrum cephalosporinases (*bla<sub>TEM</sub>*, *bla<sub>SHV</sub>* and *bla<sub>CTX-M</sub>*).

***E.) Paper presented /Abstracts published in conferences / Symposia***

1. **Haq, Q.M.R.** (2018). The prevalence and diversity of Multidrug Resistant Extended Spectrum  $\beta$ -Lactamases among bacteria inhabiting natural water sources. National conference on recent trends in basic & applied sciences and sustainable environment (RT-BASE 2018), February 1-2. Held at Swami Vivekanand Subharti University, Meerut (U.P.). (IL-5)
2. Ali, A., Siddiqui, K. and **Haq, Q.M.R.** (2017). Prevalence of ESBL producing isolates of bacteria in different water bodies of Delhi NCR and molecular characterization of resistance determinants. 58<sup>th</sup> Annual conference of association of microbiologists of India (AMI-2017), and International symposium on Microbes for sustainable development: scope and applications, 2017, November 16-19. Held at Babasaheb Bhimrao Ambedkar University, Lucknow (U.P.).
3. **Haq, Q.M.R.** (2017). Prevalence and molecular characterization of Extended Spectrum  $\beta$ -Lactamases in bacterial isolates from urban water bodies in India. 58<sup>th</sup> Annual conference of association of microbiologists of India (AMI-2017), and International symposium on Microbes for sustainable development: scope and applications, 2017, November 16-19. Held at Babasaheb Bhimrao Ambedkar University, Lucknow (U.P.).
4. Siddiqui, M.T., Mondal, A.H. and **Haq, Q.M.R.** (2017). Alarming rise of multidrug resistant bacterial isolates in heavily polluted stretch of river Yamuna. International Seminar on Water pollution and Health, 2017, July 27-28. Held at Jamia Millia Islamia, New Delhi.
5. Siddiqui, M.T., Ali, A. and **Haq, Q.M.R.** (2017). CTX-M: The most prevalent ESBL among bacterial isolates of river Yamuna. National seminar on Recent Advances in Environment toxicology, 2017, February 13-14. Held at Jamia Millia Islamia, New Delhi. (PP-60)
6. Siddiqui, K., Azam, M. and **Haq, Q.M.R.** (2017). Characterization and spatial distribution of antibiotic resistant bacteria in Delhi stretch of river Yamuna. National seminar on Recent Advances in Environment toxicology, 2017, February 13-14. Held at Jamia Millia Islamia, New Delhi. (PP-58)
7. Mondal, A.H., Sultan, I. and **Haq, Q.M.R.** (2017). High prevalence of *bla*TEM type ESBL among *Klebsiella* isolates from river Yamuna. National seminar on Recent Advances in Environment toxicology, 2017, February 13-14. Held at Jamia Millia Islamia, New Delhi. (PP-6)
8. Ali, A., Siddiqui, M.T. and **Haq, Q.M.R.** (2017). Antibiotic resistance among bacterial inhabitants of lentic water bodies of Delhi. National seminar on Recent Advances in Environment toxicology, 2017, February 13-14. Held at Jamia Millia Islamia, New Delhi. (PP-47)
9. Sultan, I. and **Haq, Q.M.R.** (2017). Antibiotic resistant bacteria on rise from the pristine lakes in Jammu & Kashmir. National seminar on Recent Advances in Environment toxicology, 2017, February 13-14. Held at Jamia Millia Islamia, New Delhi. (PP-15)
10. Siddiqui, K., Azam, M., Mondal, A.H., Sultan, I. and **Haq, Q.M.R.** (2016). Pattern and persistence of ESBL positive bacteria in Delhi stretch of river Yamuna. International conference on Emerging Trends in Biomedical Sciences, 2016, March 6-8. Held at Aligarh Muslim University, Aligarh, India. (P-72)
11. Azam, M., Pandey, A.K., Hasnain, S.E. and **Haq, Q.M.R.** (2016). Identification and characterization of a *bla*CTX-M gene variant from anthropogenically influenced aquatic

- environment. International conference on Emerging Trends in Biomedical Sciences, 2016, March 6-8. Held at Aligarh Muslim University, Aligarh, India. (P-108)
12. Mondal, A.H., Siddiqui, M.T. and **Haq, Q.M.R.** (2016). Biosynthesis, characterization and antibacterial activity of silver nanoparticles against ESBL producing water-borne pathogens. International Conference on Materials Science & Technology 2016, March 1-4, held at University of Delhi, New Delhi, India. DOI:10.5185/icmtech.2016
  13. Siddiqui, M.T., Mondal, A.H., Siddiqui, K. and **Haq, Q.M.R.** (2015). High Prevalence of *bla*<sub>CTX-M</sub> Type  $\beta$ -lactamase Genes among Bacterial isolates Inhabiting Delhi Stretch of River Yamuna. 56<sup>th</sup> Annual Conference of Association of Microbiologists of India (AMI-2015) & International Symposium on “Emerging Discoveries in Microbiology”, December 7-10, Jawaharlal Nehru University, New Delhi India. (EMP 84)
  14. Mondal, A.H., Sultan, I. and **Haq, Q.M.R.** (2015). Efficient biosynthesis of silver nanoparticles using *Aeromonas dhakensis* and their antibacterial activity against ESBLs producing waterborne pathogens. 6<sup>th</sup> World Congress on Biotechnology, October 5-7, New Delhi, India. (IBC- 087)
  15. Siddiqui, K., Siddiqui, M.T. and **Haq, Q.M.R.** (2015). A study on resistance pattern of ESBLs producing bacterial inhabitants of Delhi stretch of river Yamuna. World Congress on Biotechnology, October 5-7, New Delhi, India. (IBC- 095)
  16. Azam, M., Ali, A. and **Haq, Q.M.R.** (2015). Urban river environment as a repertoire of resistance genes: a novel variant of *bla*<sub>CTX-M</sub> identified from river Yamuna, India. World Congress on Biotechnology, October 5-7, New Delhi, India. (IBC- 096)
  17. Siddiqui, M.T., Mondal, A.H., Siddiqui, K. and **Haq, Q.M.R.** (2015). Preponderance of CTX-M type  $\beta$ -lactamases producing bacterial isolates in river Yamuna. World Congress on Biotechnology, October 5-7, New Delhi, India. (IBC- 097)
  18. Azam, M., Siddiqui, K. and **Haq, Q.M.R.** (2014). A novel variant of CTX-M type  $\beta$ -Lactamase identified in *Kluyvera georgiana* isolate from Delhi stretch of river Yamuna. *National conference on empowering mankind with microbial technologies (AMI-EMMT-2014)*, November 12-14, held at Department of Agricultural Microbiology, Tamil Nadu Agricultural University, Coimbatore, Tamilnadu, India. (EM 6)
  19. Mondal, A.H., Siddiqui, M.T. and **Haq, Q.M.R.** (2014). Efficient biosynthesis of silver nanoparticles using environmental isolate of *Escherichia coli*. *National conference on empowering mankind with microbial technologies (AMI-EMMT-2014)*, November 12-14, held at Department of Agricultural Microbiology, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India. (EM 7)
  20. Azam, M., Jan, A.T. and **Haq, Q.M.R.** (2014). No armor for defense against two-headed foe: ESBL producing *E.coli*. isolates harboring *bla*<sub>CTX-M</sub> and *mer* operon genes. *International conference on emerging trends in biotechnology (ICETB 2014)*, November 6-9, held at School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India. (MBF-41)
  21. Azam, M., and **Haq, Q.M.R.** (2014). Determinants of mercury resistance *merB*, *merP*, and *merT* among ESBL (*bla*<sub>TEM</sub> and *bla*<sub>CTX-M</sub>) positive *E. coli* isolates from river Yamuna. *National seminar on Metal toxicity and Oxidative stress*, September 23-24, held at Department of Biosciences, Jamia Millia Islamia, New Delhi, India. (pp13).

22. Mondal, A.H., Siddiqui, K., Siddiqui, M.T., and **Haq, Q.M.R.** (2014). Screening of environmental isolates of bacteria for efficient biosynthesis of silver nanoparticles. *National seminar on Metal toxicity and Oxidative stress*, September 23-24, held at Department of Biosciences, Jamia Millia Islamia, New Delhi, India (pp 46).
23. Warsi, M.K. and **Haq, Q.M.R.** (2014) MicroRNA expression analysis of rice under draught and salt stress. *National seminar on Plant Biotechnology and opportunities in 21<sup>st</sup> Century*, March 3-4, 2014 held at Jamia Hamdard, New Delhi (P20).
24. Azam, M., Hemlata and **Haq, Q.M.R.** (2012) Isolation and characterization of Multidrug Resistant Bacteria from river Yamuna. *International Conference on Microbial World: Recent Innovations and Future Trends (53<sup>rd</sup> AMI Conference)*, November 22-25, held at KIIT University, Bhubaneswar, Odisha, India (PD1-105MVM).
25. Jan, A. T., Azam, M., **Haq, Q.M.R.** (2012) Screening of *Pseudomonas* isolates collected from river Yamuna (Delhi stretch) for the presence of mercury resistance determinants *merB*, *merP* and *merT*. *International Conference on Microbial World: Recent Innovations and Future Trends (53<sup>rd</sup> AMI Conference)*, November 22-25, held at KIIT University, Bhubaneswar, Odisha, India (PD1-172 EM).
26. Azam, M., Mondal, A. H., Siddiqui, K., Sadaf, S. and **Haq, Q.M.R.** (2012) Antibiotic profiling and molecular characterization of multidrug resistant *E.coli* isolates from Delhi stretch of river Yamuna. *International Conference on Microbial World: Recent Innovations and Future Trends (53<sup>rd</sup> AMI Conference)*, November 22-25, held at KIIT University, Bhubaneswar, Odisha, India (PD1- 244EM).
27. Jan, A. T., Ali, A., **Haq, Q.M.R.** (2011) Molecular characterization of determinants for mercury resistance for use in bioremediation. *International conference on Microbial Biotechnology for Sustainable Development (52<sup>nd</sup> AMI conference)*, November 3-6, held at Panjab University, Chandigarh, India (MM-66).
28. Azam, M., Jan, A. T., Warsi, M.K., **Haq, Q.M.R.** (2011) Molecular cloning of mercury transport genes *mer P* and *mer T* from mercury tolerant bacterial isolates and their antibiotic profiling. *International conference on Microbial Biotechnology for Sustainable Development (52<sup>nd</sup> AMI conference)*, November 3-6, held at Panjab University, Chandigarh, India (MM-71).
29. Aquil, B., Sarin, N.B., **Haq, Q.M.R.** (2011) *Agrobacterium* mediated transformation of plantain (cooking banana) variety pidi monthan (ABB) for resistance towards fungal infection. *International conference on Microbial Biotechnology for Sustainable Development (52<sup>nd</sup> AMI conference)*, November 3-6, held at Panjab University, Chandigarh, India (AM-156).
30. Singhal, P., Bansal, K.C., **Haq, Q.M.R.** (2011) Stress inducible expression of N-methyltransferase *ApGSMT* and *ApDMT* improved salt, drought and low-temperature stress tolerance in transgenic Arabidopsis. *National conference on Dissecting the Complexities of Plant Biotechnology in the Post-genomic Era*, September 21, held at Tumkur University, Tumkur, India. (PP-01).
31. Jan, A. T., Warsi, M. K., Ali, A., **Haq, Q.M.R.** (2010) 16S rDNA sequences as signature character to identify mercury tolerant bacteria from diverse polluted sites of India. *International symposium*

on recent advances in cross-disciplinary microbiology: Avenues and Challenges (51<sup>st</sup> AMI conference), December 14-17, held at BITS Ranchi, India (EM-59).

32. Warsi, M. K., Jan, A. T., **Haq, Q.M.R.** (2010) RT-PCR based amplification and cloning of DREB2 homologous in rice (*Pusa basmati 1*) under salt stress. *International symposium on recent advances in cross-disciplinary microbiology: Avenues and Challenges (51st AMI conference)*, December 14-17, held at BITS Ranchi, India (EM-59).
33. Singh, V. B., Haq, Q. M. I., **Haq, Q.M.R.** Malathi, V. G. (2010) Transformation of soybean with antisense construct targeting *Rep* gene of Mungbean Yellow Mosaic India Virus (MYMIV). *International conference on whitefly and thrips transmitted viruses*, August 27-28, held at University of Delhi (South campus), India.
34. Jan, A. T., Islam, M.N., Warsi, M. K., **Haq, Q.M.R.** (2009) Isolation and characterization of mercury tolerant bacteria from river Yamuna, Delhi. *International conference on Microbial Biotechnology, MICROCON 2009: Microbes for the sustainability of mankind*. March 3-4, held at Department of Microbial Biotechnology, Punjab University, Chandigarh.
35. Arif, M., Zaidi, N.W., **Haq, Q.M.R.** and Singh, U.S. (2008). Etiology and management of Shisham wilt in India using conventional molecular and *in silico* techniques. *Journal of Biotechnology*.(VII2-Y-020, S621).136: 621-622.
36. Arif, M., Shukla, S.K., Zaidi, N.W., **Haq, Q.M.R.** and Singh, U.S. (2008) Genetic Characterization by RAPD analysis of *Fusarium solani* isolates associated with shisham wilt in India. *60<sup>th</sup> annual meeting of Indian Phytopathological Society*, Mahatma Phule Krishi Vidyapeeth, Mahabaleshwar, MS, India. 10-12 Jan., pp 110.
37. Arif, M., Shukla, S.K., Zaidi, N.W., **Haq, Q.M.R.** and Singh, U.S. (2008) Molecular characterization within *Fusarium solani* as revealed by PCR-fingerprinting based on SPAR markers. *60<sup>th</sup> annual meeting of Indian Phytopathological Society*, Mahatma Phule Krishi Vidyapeeth, Mahabaleshwar, MS, India. 10-12 Jan., pp 117.
38. Islam, M.N., Khan S., and **Haq Q.M.R.** (2007) Molecular cloning, sequence analysis and detection of banana bunchy top virus isolates from different parts of India. *International Conference on Emerging and Re-Emerging Viral Diseases of the Tropics and Sub- Tropics*, December 11-14, held at IARI, New Delhi (PV-163).
39. Khan S., Islam, M.N., Mandal, B. and **Haq Q.M.R.** (2007). Sero diagnostics for detection of CMV Infection in banana. *International Conference on Emerging and Re-Emerging Viral Diseases of the Tropics and Sub- Tropics*, December 11-14, held at IARI, New Delhi (PI-20).
40. Gupta, K.N., **Haq, Q.M.R.** and Baranwal V.K. (2007). Distribution of Citrus Mosaic Virus in different Tissue of infected citrus plant. *International Conference on Emerging and Re-Emerging Viral Diseases of the Tropics and Sub- Tropics*, December 11-14, held at IARI, New Delhi (PV-171).
41. Arif, Mohd., Zaidi, N.W., **Haq, Q.M.R.**, Singh, V.K. and Singh, U.S. (2007) Confirmation of *Fusarium* sp. using bioinformatics tools to study etiology of shisham wilt. *International conference on bioinformatics and drug discovery*, University of Hyderabad, Hyderabad, India. 16-22 Dec., pp 83.



42. Arif, Mohd., **Haq, Q.M.R.**, Zaidi, N.W. and Singh, U.S. (2007) Development of highly polymorphic marker for *Fusarium solani* associated with shisham wilt disease. *2<sup>nd</sup> Uttarakhand State Science Congress*, Kumaon University, Nainital, UK, India, 15-17 Nov., pp112.
43. Gupta, S. K., Charpe, A., Koul, S., **Haq, Q.M.R.** and Prabhu, K.V. (2003) Development and validation of a SCAR marker linked to an *Aegilops umbellulatum* derived gene *Lr9*, for leaf rust resistance in wheat. *National Seminar on advances in genetics and plant breeding- impact of DNA revolution* at University of Agriculture Sciences, Dharwad, India, 30-31 Oct.
44. Chi, D. P., Charpe, A., Gupta, S. K., Koul, S. K. **Haq, Q.M.R.** and Prabhu, K. V. (2002). Identification of a molecular marker linked to an *Agropyron elongatum* derived gene *Lr 19*, for leaf Rust Resistance in wheat. *2<sup>nd</sup> International Group Meeting on Wheat Technologies for Warmer Areas*, September 23-26, held at MACS Agharkar Research Institute, Pune, India (P II- 31).
45. Gupta, S. K., Koul, S., Charpe, A., Chi, D. P. Chouhan, S. V. S., **Haq, Q.M.R.** and Prabhu, K.V. (2002). Development of a SCAR Marker linked to an *Agropyron elongatum* Derived gene *Lr 19*, for leaf rust Resistance in wheat. *2<sup>nd</sup> International Group Meeting on Wheat Technologies for Warmer Areas*, September 23-26, held at MACS Agharkar Research Institute, Pune, India (P II- 32).
46. Raj, S.K., **Haq Q.M.R.**, Srivastava, K. M. and Singh, B.P. (1995). Indian isolates of cucumber mosaic virus show more homology with CMV subgroup I strains in their N- terminal amino acid sequences of coat protein gene. *XVII All India Cell Biology Conference and Symposium*, held at NBRI, Lucknow, pp. 98.
47. **Haq Q.M.R.**, Srivastava, K. M. and Singh, B.P. (1995). Molecular characterization of coat protein gene of cucumber mosaic virus (CMV-P isolate) to generate virus resistant transgenic plants. *64<sup>th</sup> Annual Meeting of Society of Biological Chemist (India)*, 6-8 October, pp. 198.
48. Srivastava, A., **Haq, Q.M.R.**, Zaidi, A.A., Srivastava, K.M. and Singh B. P. (1995). Nucleic acid probe based detection of cucumber mosaic virus causing yellow stripe in banana. *Indian Phytopathological Society, Annual Meeting and Symposium on Foliar Diseases of Field Crop and Their Management*, Jan.17-18, held at N.D.U.A.T., Kumarganj, Faizabad.
49. Raizada, R.K., Madhavi, K., Srivastava, K.M. and **Haq, Q.M.R.** and Singh, B.P. (1994). Molecular cloning of partial genome of *Acalypha* yellow mosaic virus and its use as a probe for detection of geminiviruses. *IX<sup>th</sup> Annual Convention of Indian Virological Society and National Symposium on Recent Advances in the Management of Viral Diseases*. Feb. 8-10, held at Haryana Agricultural University, Hisar, India (SM6).
50. Srivastava, K.M., Raizada, R.K., **Haq, Q.M.R.** and Singh, B.P. (1993). Cloned probe for detection of *Acalypha* yellow mosaic virus, a geminivirus. *National Seminar on Diagnosis and Management of Plant Diseases*, April 3-4, held at Lucknow University, Lucknow India.
51. Raizada, R.K., Aslam, M., **Haq, Q.M.R.** and Singh, B.P. (1991). *Vicia hirsuta*: a natural host of bean yellow mosaic virus. *International Conference on Virology in the Tropics*, Dec. 2-6, held at NBRI, Lucknow, India.

**Date**  
**July, 2018**