

# Curriculum vitae

## Dr. Malik Mobeen Ahmad

Assistant Professor  
Department of Agriculture  
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### Objective:

An ardent believer of hard work and team work environment. Looking forward to be an integral part of a research and development team of leading Biotechnology/Microbiology based institution/organization.

### Positions held:

S. No	Institution Place	Position	From (date)	To (date)
i.	Department of Agriculture, Integral Institute of Agricultural Science & Technology (IIAST), Integral University, Lucknow	Assistant Professor	Aug 11 <sup>th</sup> , 2014	Till date
ii.	Department of Biotechnology, Jamia Hamdard, New Delhi	Senior Research Fellow	March 6 <sup>th</sup> , 2012	Aug 6 <sup>th</sup> , 2014
iii.	Department of Biotechnology, Jamia Hamdard, New Delhi	Junior Research Fellow	March 5 <sup>th</sup> , 2010	March 5 <sup>th</sup> , 2012

### Teaching Experience:

- Teaching Microbiology, Plant Pathology and Plant Biotechnology at Dept. of Agriculture, IIAST, Integral University.
- Taught Biotechnology to M. Sc. class for six months at Directorate of Quality Management Study and Research Centre, New Delhi.
- Taught Microbiology under Botany subject for one year (2010-11) at Faculty of Medicine, Jamia Hamdard.

### Areas of Interest:

- Molecular Biotechnology (Microorganisms/Plants)
- Microbial/Fungal Secondary Metabolite Production (Mycotoxins)
- Microbial/Fungal Biodiversity
- Microbial Biological Control

**Educational Qualification:**

Examination Passed	Name of University	Year of Passing	Class/ Division	Percentage	Major Subjects
Ph. D	Dept. of Biotechnology, Jamia Hamdard, New Delhi	2014	-	-	Microbial Biotechnology, Molecular Biology, Biochemistry, Microbiology
M. Sc.	Dept. of Agricultural Microbiology, AMU, Aligarh	2006	I	73.6	
B. Sc. (Hons.)	Dept. of Botany, AMU, Aligarh	2004	I	65.4	Botany, Zoology, Chemistry
SSSE	CBSE	2000	I	70.6	English, Hindi, Science, Maths, Social Science
SSE	CBSE	1998	I	76.0	English, Hindi, Science, Maths, Social Science

**Thesis title:**

“DNA Based Detection of Aflatoxigenic Moulds” (2014), Department of Biotechnology, Jamia Hamdard, New Delhi.

**M. Sc. Dissertation Work:**

“Heavy Metal Toxicity and Bioaccumulation in Nitrogen Fixing Symbiotic Bacteria” (2006) Department of Agricultural Microbiology, Aligarh Muslim University, Aligarh.

**Awards and Recognitions:**

- Awarded **Certificate of Recognition** by Organizing Committee for International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security (ICPASN-2016).
- **International Travel Grant** awarded by for visiting **Ghent University, Belgium** to attend **35th Mycotoxin Workshop** (2013-14).
- Awarded **Senior Research Fellow** of **Research Fellowship in Science for Meritorious Students (RFSMS)** funded by **University Grants Commission (UGC)**, Government of India, New Delhi for Doctoral studies (2012-14).
- Awarded **Junior Research Fellow** of **Research Fellowship in Science for Meritorious Students (RFSMS)** funded by **University Grants Commission (UGC)**, Government of India, New Delhi for Doctoral studies (2010-12).
- **Hamdard National Foundation (HNF) Research Fellowship** at Hamdard University, New Delhi for Doctoral studies (2008-09 and 2009-2010).
- **Bharat Sewa Trust Scholarship**, New Delhi for Post-graduation studies at AMU (2006).
- **Sir Syed Scholarship**, AMU Alumni Association of Northern California, USA for Graduation studies at AMU (2004).
- **Sir Syed Scholarship**, The AMU Alumni Association of Michigan, USA for Graduation studies at AMU (2003).

### Research Experience:

- Apart from teaching, I am currently Co-supervising a research student on mining of novel bioactive natural products from endophytic fungi.
- Seven years of Research experience during PhD where I had done my research work on post harvest management through microbial biotechnology. Post harvest management of Foods/feeds from fungus ***Aspergillus flavus*** and ***A. parasiticus*** producing aflatoxins are imperative as they are easily susceptible for invasion by aflatoxigenic *Aspergillus* species in warm and humid climates, thereby producing aflatoxins before harvest, during processing, transportation, or storage of commodities. Their detection is much more important as these toxins damage liver when ingested alongwith food and feeds thereby causing liver cirrhosis, cancer, etc. Its prior detection can provide a signal of contamination of food and its products. A consensus sequence from the exonic region of gene *afIP*, which is penultimate precursor of aflatoxin biosynthesis, for designing a single primer for the amplification of aflatoxigenic molds. PCR gave a sensitivity of up to 1 pg level with very high specificity. Another amplification method, **Loop mediated isothermal amplification (LAMP)** had also been used to amplify the same consensus sequence with which visual detection can be employed for predicting the presence of these molds. The threshold limit obtained by this method was upto 100 fg  $\mu\text{l}^{-1}$ . PCR and LAMP had directly detected  $10^4$  fungal spores even at time of contamination in the peanut samples. The restriction of PCR products with *NlaIV* and *BanI* had differentiated the *A. flavus* from *A. parasiticus*. In future, LAMP assay developed by us may replace the other detection methods of aflatoxigenic molds, where large screenings of molds are to be performed with higher sensitivity. The present LAMP-based assay protocol can easily be adapted by government and commercial laboratories, who are involved in monitoring the presence of aflatoxins/aflatoxigenic molds and forecasting the early stage infestation in food/feeds and other agricultural commodities.
- In the dissertation work, the nitrogen fixing bacteria i.e. *Mesorhizobium* and *Rhizobium* had been isolated from the metal contaminated site and plant growth promoting activity alongwith minimum inhibitory concentration (MIC) were tested. It was found to accumulate heavy metals like  $\text{Cu}^{2+}$ ,  $\text{Cr}^{3+}$ , and  $\text{Cd}^{2+}$  when subjected to grow under sub-lethal conditions. It was found that few of them were more resistant to the heavy metal concentration when growth rate of the selected bacteria was observed. The highly resistant samples showed more plant growth promoting activity than the susceptible ones. Finally, the resistant samples were evaluated for bio-accumulated heavy metals with the help of atomic adsorption spectroscopy. These resistant rhizobial strains can be applied as biofertilizers in the agricultural fields for enhancing the crop production and thereby yield.

### Published Research Articles:

1. Salman Ahmad, Mohammad Shafiq Ansari, Hadi Hussain Khan, **Malik M. Ahmad**, Saba Siddiqui (2017) Effect of trap cropping system on the population dynamics of *Helicoverpa armigera* (Hubner) in chickpea agro-ecosystem. [**Accepted in *Journal of Experimental Zoology India***]
2. Nadeem Khan, **Malik M. Ahmad**, Saba Siddiqui, Salman Ahmad, Mubeen, O.P. Rai (2017) Effect of Spatial distribution and Nitrogen level on Growth attributes of Hybrid Rice (*Oryza sativa* L.). *International Journal of Current Microbiology and Applied Sciences*, 6, pp 729-738.
3. A. Ali, **Malik M. Ahmad**, M. A. Khan, A. A. Ganai, U. Kiran, A. Prakash, I. Hassan, P. Saxena, S. Khan, S. Ahlawat, M. Z. Abdin (2016) Computational characterization and *in vivo* expression of squalene synthase gene in different tissues of *Artemisia annua* L. plants. *South African Journal of Botany*, 105, pp 169-177.

4. A. Ali, S. Sumbul, **Malik M. Ahmad**, S Ahmad, H. Kabir, M. Z. Abdin (2015) Development of standard operating procedure and standardization of Habb-e-Banafsha Qawi-A Unani polyherbal formulation. *Journal of Pharmacy and Bioallied Sciences*, 7, pp 250-253.
5. M. Saifi, N. Nasirullah, **Malik M. Ahmad**, A. Ali, J. Khan, M. Z. Abdin (2015) *In silico* analysis, expression profiling and correlation of miRNAs targeting genes of steviol glycosides biosynthetic pathway with steviol glycosides contents in different tissues of *Stevia rebaudiana*. *Plant Physiology and Biochemistry*, 94, pp 57-64.
6. **Malik M. Ahmad**, A. Ali, M. A. Khan, M. Z. Abdin (2014) Biomoleuclar behaviour of *Aspergillus niger* under cadmium metal stress. *Environmental Processes*, DOI 10.1007/s40710-014-0047-1.
7. **Malik M. Ahmad**, A. Ali, P. Alam, S. Javed, M. Z. Abdin, M. S. Khan (2014) Toxicity, PGP activity, Bioaccumulation of Cadmium, Copper and Chromium (VI) in nitrogen-fixing rhizobacteria. *International Journal of Plant Pathology*, 5, pp 12-20.
8. **Malik M. Ahmad**, M. Ahmad, A. Ali, R. Hamid, S. Javed, M. Z. Abdin (2014) Detection of *Aspergillus flavus* and *Aspergillus parasiticus* from aflatoxin-contaminated peanuts and their differentiation using PCR-RFLP. *Annals of Microbiology*, 64, pp 1597-1605.
9. Anis Mohammad, P. Alam, **Malik M. Ahmad**, A. Ali, J. Ahmad, M. Z. Abdin (2014) Impact of plant growth regulators (PGRs) on callogenesis and artemisinin content in *Artemisia annua* L. plants. *Indian Journal of Biotechnology*, 13, pp 26-33.
10. P. Alam, A. Mohammad, **Malik M. Ahmad**, M. A. Khan, Mohd. Nadeem, R. Khan, Mohd. Akmal, S. Ahlawat, M. Z. Abdin (2014) Efficient method for agrobacterium mediated transformation of *Artemisia annua* L. *Recent Patents on Biotechnology*, 8, pp 102-107.
11. Mahboob Ahmad, **Malik M. Ahmad**, Rifat Hamid, M. Z. Abdin, Saleem Javed (2013) Use of Response Surface Methodology for the Effect of Media Composition on Aflatoxin Production by *Aspergillus flavus*. *Mycotoxin Research*, 29, pp 39-45.
12. Rifat Hamid, Mahboob Ahmad, **Malik M. Ahmad**, M. Z. Abdin, Saleem Javed (2013) Purification and characterization of thermostable chitinase from a novel *S. maltophilia* strain. *Malaysian Journal of Microbiology*, 9, pp 7-12.
13. Rifat Hamid, Minhaj Ahmad Khan, Mahboob Ahmad, **Malik M. Ahmad**, M. Z. Abdin, Saleem Javed (2013) Chitinases-An Update. *Journal of Pharmacy and Bioallied Sciences*, 5, pp 21-29.
14. Mahboob Ahmad, **Malik M. Ahmad**, Rifat Hamid, M. Z. Abdin, Saleem Javed (2012) *In vitro* Inhibition study against *A. flavus* with *Stenotrophomonas maltophilia* immobilized in calcium alginate gel beads. *Journal of Pure and Applied Microbiology*, 6, pp 597-608.
15. Mohammad Nadeem, Mauji Ram, Pravej Alam, **Malik M. Ahmad**, Anis Mohammad, Fahad Al-Qurainy, Salim Khan, Malik Zainul Abdin (2012) *Fusarium solani*, P1, a new endophytic podophyllotoxin-producing fungus from roots of *Podophyllum hexandrum*. *African Journal of Microbiology Research*, 6, pp 2493-2499.
16. Mather Ali Khan, Mauji Ram, Prabhakar Jha, **Malik M. Ahmad**, Pravej Alam, Kamaluddin, Athar Ali, Usha Kiran, M. Z. Abdin (2011) Screening and detection of biomarkers in chickpea plants exposed to chromium and cadmium. *Journal of Environmental Biology*, 32, pp 51-55.
17. M. Z. Abdin, **Malik M. Ahmad**, Saleem Javed (2010) Advances in molecular detection of *Aspergillus*: An Update. *Archives of Microbiology*, 192, pp 409-425.
18. **Malik M. Ahmad**, M. Z. Abdin, Saleem Javed (2010) DNA based detection of *Aspergillus* using LAMP-A green technology for nucleic acid amplification. *International Journal of Current Chemistry*, 1, pp 17-22.

19. P. Alam, U. Kiran, **Malik M. Ahmad**, Kamaluddin, Mather Ali Khan, M. Z. Abdin (2010) Isolation, Characterization and structural features of the Amorpho-4, 11-diene synthase (ADS<sub>3963</sub>) from *Artemisia annua* L. *Bioinformation*, 4, pp 421-429.
20. Mauji Ram, M. A. Khan, Prabhakar Jha, Salim Khan, Usha Kiran, **Malik M. Ahmad**, Saleem Javed, M. Z. Abdin (2010) HMG-CoA reductase limits artemisinin biosynthesis and accumulation in *Artemisia annua* L. plants. *Acta Physiologiae Plantarum*, 32, pp 859-566.

#### Communicated Articles:

1. **Malik M. Ahmad**, M. Ahmad, A. Ali, R. Hamid, S. Javed, M. Z. Abdin (2017) A sensitive and specific Loop-mediated isothermal amplification (LAMP) assay for rapid detection of aflatoxin-producing molds. [Under Review]
2. **Malik M. Ahmad**, A. Ali, M. Z. Abdin (2017) Differential gene expression and aflatoxin formation by *A. flavus* and *A. parasiticus* in response to carbon source media shift. [Communicated]
3. Athar Ali, Abdul Qadir, **Malik M. Ahmad**, Parul Saxena, Mather A. Khan, Malik Z. Abdin (2017) Production of a novel life-saving antimalarial precursor molecule artemisinic acid by transgenic *Saccharomyces cerevisiae*. [Under Review]

#### Conference Proceedings Publication:

1. **Editorial Board Member** for Publication of International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security (ICPASN-2016) organized by Integral Institute of Agricultural Science and Technology (IIAST), Integral University and UPCAR, Govt. of Lucknow on Nov 10-12th, 2016.

#### Proceedings Published:

1. **Malik M. Ahmad**, M. Ahmad, R. Hamid, M.Z. Abdin, Saleem Javed (2012) **A simple and highly sensitive molecular detection method for aflatoxigenic moulds**. Published by Uttarakhand State Biotechnology Department and Graphic Era University in “**A Lecture series on – Advances in Microbial Technology**” compendium of Hands-on Training program “New Tool Bars and Advances in Microbial Biotechnology” held at Graphic Era University, Dehradun on January 08-20, 2012.

#### Published Book Chapters:

1. **Malik M. Ahmad**, Athar Ali, Saba Siddiqui, Kamaluddin, Malik Z. Abdin (2017) **Methods in Transgenic Technology**, In: Plant Biotechnology: Principles and Applications, Abdin, M.Z., Khantwal, U., Kamaluddin, M., Ali, A. (Eds.), Published by Springer Singapore, DOI 10.1007/978-981-10-2961-5.
2. **Malik M. Ahmad**, P. Alam, M. Z. Abdin, Saleem Javed (2012) **Panfungal PCR Method for the Detection of Aflatoxigenic Molds**, In: Laboratory Protocols in Fungal Biology: Current Methods in Fungal Biology, Gupta, V. K., Tuohy M., Ayyachamy M., Turner K. M., O'Donovan A., (Eds.), Published by Springer Publishing Co., USA. ISBN 978-1-4614-2355-3.
3. **Malik M. Ahmad**, Mahboob Ahmad, Athar Ali, Rifat Hamid, Saleem Javed, M. Z. Abdin (2010) **Molecular Methods for Detecting Pathogenic Fungi**, In: Fungal Biochemistry and Biotechnology, Gupta, V.K., Tuohy M., Gaur R.K. (Eds.), Published by LAP LAMBERT Academic Publishing AG & Co. KG, Germany. ISBN: 978-3-8433-5800-2.

- Mahboob Ahmad, **Malik M. Ahmad**, Minhaz A. Khan, Rifat Hamid, M. Z. Abdin, Saleem Javed (2010) **Biocontrol agents and their Potential Use in Controlling Pathogenic Fungi**, In: Fungal Biochemistry and Biotechnology, Gupta, V.K., Tuohy M., Gaur R.K. (Eds.), Published by LAP LAMBERT Academic Publishing AG & Co. KG, Germany. ISBN: 978-3-8433-5800-2.
- Zahid H. Siddiqui, A. Mujib, **Malik M. Ahmad**, Athar Ali (2010) **Fungal Elicitors: A Potent Approach for Enhancing Secondary Metabolites in Cultured Cells**, In: Fungal Biochemistry and Biotechnology, Gupta, V.K., Tuohy M., Gaur R.K. (Eds.), Published by LAP LAMBERT Academic Publishing AG & Co. KG, Germany. ISBN: 978-3-8433-5800-2.

#### Published Nucleotide Sequences:

*Aspergillus flavus* strain MTCC 277 O-methyltransferase (*omtA*) gene, partial cds (**Accession no. awaited**), *Aspergillus flavus* JH 11 O-methyltransferase (*omtA*) gene, partial cds (**Accession no. awaited**), *Aspergillus parasiticus* strain MTCC 2796 O-methyltransferase (*omtA*) gene, partial cds (**Accession no. awaited**).

KF731613, KF731614, KF731615, KF731616, KF017592, JX411790, JX411789, JX411788, JX411787, JX411786, JX205168, JX205167, JX205166, JX205165, JX205164, JX205163, JX205162, JX205161, JX205160, JX205159, JX205158, JX174533, JQ742089, JQ742088, JQ975004, JQ975003, JQ975002, GU808526, GQ451337, FJ716705, FJ432667

#### Faculty Development Programmes:

- Participated in one week **Faculty Development Programme Short Term Training Programme on Academic Leadership** conducted by UGC-Human Resource Development Centre at AMU, Aligarh at Integral University, Lucknow from 17th March 2017 to 23rd March 2017.
- Participated in a four week **Faculty Development Programme Orientation Programme** conducted by UGC-Human Resource Development Centre at AMU, Aligarh from 24th May 2016 to 20th June 2016.

#### Oral Presentations at International/National Conferences and Symposium:

- Malik M. Ahmad**, S. Siddiqui, S. Raizada, N. Khan (2015) **Microbial Spoilage of Foods** at National Conference on "Global Research initiatives for Sustainable Agriculture and Allied Sciences" at Rajmata Vijayaraje Scindia Krishi Vishwavidyala, Gwalior (M.P.), India held on December 12-13, 2015.
- Malik M. Ahmad**, Mahboob Ahmad, Rifat Hamid, Saleem Javed, M. Z. Abdin (2011) **PCR based Detection of Phytopathogenic Fungi in Stored Food** at National Symposium on "Biodiversity and Food Security: Challenges and Devising Strategies" at Indian Institute of Pulse Research (IIPR), Kanpur (U.P.) India held on December 10-11, 2011.

#### Poster Presentations at International/National Conferences and Symposium:

- Malik M. Ahmad**, S. Siddiqui, N. Khan, A. Ali, S. Raizada (2015) **Current Approaches in Molecular Diagnostics** of Fungal Pathogens at 'Novel tools and treatment approaches in health care system' Organized by Faculty of Pharmacy, Integral University, Lucknow on Mar 3<sup>rd</sup>, 2015.
- Piyush Srisvastava, N. Khan, S. Siddiqui, **Malik M. Ahmad** (2015) **Mushroom and Its Medical Benefits** at 'Novel tools and treatment approaches in health care system' Organized by Faculty of Pharmacy, Integral university, Lucknow on Mar 3<sup>rd</sup>, 2015.

3. **Malik M. Ahmad**, S. Siddiqui, N. Khan, Mohd. H. Siddiqui, S. Raizada (2015) **Role of Microbial Biotechnology in Fungal Disease Diagnostics** at 'Recent Advances in Diagnosis and Management of Diseases of Field and Horticultural Crops' Organized by Departments of Plant Pathology, Narendra Deva University of Agriculture & Technology, Kumarganj, Faizabad on Feb 28<sup>th</sup> – Mar 1<sup>st</sup> , 2015.
4. **Malik M. Ahmad**, M. Ahmad, A. Ali, S. Javed, M. Z. Abdin (2013) **PCR-based Detection of Aflatoxin-producing Fungi in Stored Food Products** at '35<sup>th</sup> Mycotoxin Workshop' Organized by Faculty of Applied Bioscience Engineering, University College Ghent, Ghent University, Belgium and Society for Mycotoxin Research on May 22<sup>nd</sup>- 24<sup>th</sup>, 2013.
5. M. Ahmad, **Malik M. Ahmad**, R. Hamid, M. Z. Abdin, S. Javed (2013) **Development of Microbial Formulation against Mycotoxigenic Fungi** at '35<sup>th</sup> Mycotoxin Workshop' Organized by Faculty of Applied Bioscience Engineering, University College Ghent, Ghent University, Belgium and Society for Mycotoxin Research on May 22<sup>nd</sup> - 24<sup>th</sup>, 2013.
6. **Malik M. Ahmad**, Mahboob Ahmad, Rifat Hamid, Saleem Javed, M. Z. Abdin (2012) **Molecular Detection of Aflatoxin Producing Molds** at 3<sup>rd</sup> Global Conference on "Plant Pathology for Food Security" at Rajasthan College of Agriculture, MPUAT, Udaipur, Rajasthan, India, sponsored by Indian Society of Mycology and Plant Pathology, held on January 10-13, 2012.
7. Mahboob Ahmad, **Malik M. Ahmad**, Rifat Hamid, M. Z. Abdin, Saleem Javed (2012) **Alginate Gel Immobilization for Biological Control Agent** at 3<sup>rd</sup> Global Conference on "Plant Pathology for Food Security" at Rajasthan College of Agriculture, MPUAT, Udaipur, Rajasthan, India, sponsored by Indian Society of Mycology and Plant Pathology, held on January 10-13, 2012.
8. Mahboob Ahmad, **Malik M. Ahmad**, Rifat Hamid, M. Z. Abdin, Saleem Javed (2011) **Formulation of Biocontrol Agents for Prevention of Contamination in Food Crop by Phytopathogenic Fungi** at National Symposium on "Biodiversity and Food Security: Challenges and Devising Strategies" at Indian Institute of Pulse Research (IIPR), Kanpur (U.P.), India, held on December 10-11, 2011.
9. **Malik M. Ahmad**, Parvej Alam, Athar Ali, Mahboob Ahmad, Riyazuddin Khan, Anis Mohammad, Saleem Javed, MZ Abdin (2011) **PCR Based Detection of Aflatoxigenic Molds** at National Seminar on "Recent Advances in Plant Biotechnology: Prospects and Potentials" at Dept. of Botany, AMU, Aligarh (U.P.), India, held on February 19-20, 2011.

#### **Abstract Publications in International/National Conferences:**

1. **Malik M. Ahmad**, Salman Ahmad, S. Siddiqui, Nadeem Khan (2016) **Molecular methods in determining Post-harvest Microbial Phytopathogens**, published as Lead Paper at 'International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security (ICPASN-2016)' Organized by Integral Institute of Agricultural Science and Technology (IIAST), Integral University and UPCAR, Govt. of Lucknow on Nov 10-12<sup>th</sup>, 2016.
2. Salman Ahmad, **Malik M. Ahmad** (2016) **Toxic effects of insecticides on the fitness of *Earias vittella* for the successful production of Okra for export purpose**, published as Lead Paper at 'International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security (ICPASN-2016)' Organized by Integral Institute of Agricultural

- Science and Technology (IIAST), Integral University and UPCAR, Govt. of Lucknow on Nov 10-12th, 2016.
3. Nelima Garg, **Malik M. Ahmad**, Saleem Javed, Rakesh K. Khandal (2016) **To evaluate the effect of ionizing radiation on aflatoxins by LC-MS-MS method** at 'International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security (ICPASN-2016)' Organized by Integral Institute of Agricultural Science and Technology (IIAST), Integral University and UPCAR, Govt. of Lucknow on Nov 10-12th, 2016.
  4. S. Bhandari, N. Khan, S. Siddiqui, **Malik M. Ahmad** (2015) **Phyllanthus emblica (Amla)-The Pancea** at 'Novel tools and treatment approaches in health care system' Organized by Faculty of Pharmacy, Integral university, Lucknow on Mar 3<sup>rd</sup>, 2015.
  5. Saba Siddiqui, **Malik M. Ahmad**, N. Khan, S. Raizada (2015) **Influence of Air Pollutants on Fungal Colonization on Decaying Leaf Litter and Disease Development in Crops** at 'Recent Advances in Diagnosis and Management of Diseases of Field and Horticultural Crops' Organized by Departments of Plant Pathology, Narendra Deva University of Agriculture & Technology, Kumarganj, Faizabad on Feb 28<sup>th</sup> – Mar 1<sup>st</sup>, 2015.
  6. **Malik M. Ahmad**, Mahboob Ahmad, Rifat Hamid, Saleem Javed, M. Z. Abdin (2011) **PCR based Detection of Phytopathogenic Fungi in Stored Food**. National Symposium on "Biodiversity and Food Security: Challenges and Devising Strategies" at Indian Institute of Pulse Research (IIPR), Kanpur (U.P.) India held on December 10-11, 2011. pp, 100.
  7. Mahboob Ahmad, **Malik M. Ahmad**, Rifat Hamid, M. Z. Abdin, Saleem Javed (2011) **Formulation of biocontrol agents for prevention of contamination in food crop by phytopathogenic fungi**. National Symposium on "Biodiversity and Food Security: Challenges and Devising Strategies" at Indian Institute of Pulse Research (IIPR), Kanpur (U.P.) India held on December 10-11, 2011. pp, 64.
  8. Ahsan Rais, Saleem Javed, **Malik M. Ahmad** (2011) **Optimization of Polymerase Chain Reaction (PCR) for DNA based detection of Aspergillus species**. National Seminar on 'Climate Change and its Impact on Biological Communities' at Department of Environmental Sciences, Dr. RML Awadh University, Faizabad, pp 61-62.
  9. Mather Ali Khan, Mauji Ram Tyagi, P. Jha, **Malik M. Ahmad**, Kamaluddin, M. Z. Abdin (2008) **A Proteomic Approach to Study Plant Pathogen Interaction**. 1<sup>st</sup> International Society Biotechnology Conference at Sikkim Manipal University, Sikkim, 28-30 Dec, p. 34.
  10. **Malik M. Ahmad**, P. Alam, M.A. Khan, Mohd. Nadeem, S. Javed, M. Z. Abdin (2008) **Molecular Emphasis on detection of Aflatoxicosis disease**. National Symposium on 'Advances in Clinical Biochemistry-Biomarkers, Molecular Diagnoses and Quality Assurances' at Department of Biochemistry, JNMC, AMU, Aligarh, 15-16 Nov., p. 40.
  11. **Malik M. Ahmad**, F. Masood, M. S. Khan, M. Musheer Altaf, M. Z. Abdin (2008) **Toxicity, PGP activity, Bioaccumulation of Cadmium, Copper and Chromium (VI) in Nitrogen-fixing Bacteria**. National Conference-cum-Seminar on "Emerging trends in Biotechnology" at IMS Engineering College, Ghaziabad (U.P.), sponsored by DBT, 18-19 Jan. p. 20.
  12. Pravej Alam, M. A. Khan, M. Akmal, **Malik M. Ahmad**, Anis Mohammad, Salim Khan and M. Z. Abdin (2008) **Genetic Improvement of Artemisia annua L. for the Production of Novel Antimalarial Drug Artemisinin**. National Conference-cum-Seminar on "Emerging trends in Biotechnology" at IMS Engineering College, Ghaziabad (U.P.), 18-19, Jan., p. 8.

#### Participation in Workshops:

1. A eight week online course agMOOCs Workshop on '**Integrated Pest Management**' by IIT, Kanpur in collaboration with NPTEL, University of Agricultural Sciences, Raichur and Commonwealth of Learning, Canada funded by Ministry of HRD, Government of India on 28th Jan – 19th Mar 2017.
2. A eight week online course agMOOCs Workshop on '**Agricultural Value Chain Management**' by IIT, Kanpur in collaboration with NPTEL, University of Agricultural Sciences, Raichur and Commonwealth of Learning, Canada funded by Ministry of HRD, Government of India on 28th Jan – 19th Mar 2017.
3. A six week online course agMOOCs Workshop on '**Basics of Entrepreneurship Development in Agriculture**' by IIT, Kanpur in collaboration with NPTEL, University of Agricultural Sciences, Raichur and Commonwealth of Learning, Canada funded by Ministry of HRD, Government of India on 12th Feb – 19th Mar 2017.
4. A eight week online course agMOOCs Workshop on '**Integrated Pest Management**' by IIT, Kanpur in collaboration with NPTEL, University of Agricultural Sciences, Raichur and Commonwealth of Learning, Canada funded by Ministry of HRD, Government of India on 18th Jan – 14th Mar 2016.
5. A eight week online course agMOOCs Workshop on '**Nutrition, Therapeutics and Health**' by IIT, Kanpur in collaboration with NPTEL, University of Agricultural Sciences, Raichur and Commonwealth of Learning, Canada funded by Ministry of HRD, Government of India on 18th Jan – 14th Mar 2016.
6. A eight week online course agMOOCs Workshop on '**GIS in Ag-Essentials and Applications**' by IIT, Kanpur in collaboration with NPTEL, University of Agricultural Sciences, Raichur and Commonwealth of Learning, Canada funded by Ministry of HRD, Government of India on 18th Jan – 14th Mar 2016.
7. A eight week online course agMOOCs Workshop on '**Weather Forecast in Agriculture and Agro-advisory**' by IIT, Kanpur in collaboration with NPTEL, University of Agricultural Sciences, Raichur and Commonwealth of Learning, Canada funded by Ministry of HRD, Government of India on 18th Jan – 14th Mar 2016.
8. A six week online course agMOOCs Workshop on '**Fasal Utpadan ke Moolbhoot Sidhant**' by IIT, Kanpur in collaboration with NPTEL, University of Agricultural Sciences, Raichur and Commonwealth of Learning, Canada funded by Ministry of HRD, Government of India on 31st Jan – 14th Mar 2016.
9. National Workshop on '**Advanced Manufacturing Processes and Quality Management**' organized by Department of Mechanical Engineering, Integral University, Lucknow, 25 Feb., 2016.
10. Training Program on '**Transformation and Molecular Characterization of Medicinal Plants and Animals**' sponsored by University Grants Commission (UGC) organized by Centre for Transgenic Plant Development (CTPD), Department of Biotechnology, Hamdard University, New Delhi, 16-21 Dec., 2010.
11. National Workshop on '**Biotechnological Approaches for Conservation of Unani Herbs and Enhancing their Medicinal Efficacy**' sponsored by Central Council for Research in Unani Medicine (CCRUM) organized by Centre for Transgenic Plant Development (CTPD), Department of Biotechnology, Hamdard University, New Delhi, 8-11 Nov., 2010.
12. Training Program on '**Bioinformatic Application in System Biology**' organized by Bioinformatic Instrumentation Facility (BIF), Department of Computer Science, Jamia Millia Islamia, New Delhi, 3-4 Mar., 2010.
13. Workshop cum Hands-on training on '**Bioinformatics and Computer-aided Drug Design**' sponsored by Department of Biotechnology (DBT), Govt. of India organized by Department of Biochemistry, Hamdard University, New Delhi, 21-22 Dec., 2009.

14. Training Program on '**Tissue Culture, Transgenic Technology and Biotechnology**' sponsored by University Grants Commission (UGC) at Hamdard University, New Delhi, 30 Nov. - 5 Dec., 2009.
15. National Workshop on '**Advanced Analytical Instrumentation and Applications**' at AIF-USIC, Jawaharlal Nehru University (JNU), New Delhi, 5-7 Jan., 2009.
16. Workshop on '**Real Time-PCR**' in collaboration with Roche Diagnostics organized by Department of Biochemistry, Hamdard University, New Delhi, 26-27 Dec., 2007.

#### **Participation in International/National Conferences and Seminar:**

1. International Extension Education Conference on '**Education, Research and Service**' organized by Department of Extension Education, Institute of Agricultural Sciences, BHU, Varanasi (U.P.), 27-30 Jan., 2016.
2. Regional Seminar on '**Intellectual Property Protection and Management**' in collaboration with Central Council for Research in Unani Medicine (CCRUM) and National Research Development Corporation (NRDC), at Hamdard University, New Delhi, 11-12 Feb., 2009.
3. Interdisciplinary Science Conference on '**Mathematics in Biology**' organized by Centre for Interdisciplinary Research in Basic Sciences (CRBSc) at Jamia Millia Islamia, New Delhi, 2008.
4. **5<sup>th</sup> Indo-Australian Conference on Medical Biotechnology**, National Institute of Immunology, New Delhi, 11-12 Feb., 2008.
5. National Conference-cum-Seminar on '**Emerging Trends in Biotechnology**' at IMS Engineering College, Ghaziabad (U. P.), 18-19, Jan., 2008.
6. Interdisciplinary Science Conference on '**Recent Trends in Research in Biological Sciences**' organized by Centre for Interdisciplinary Research in Basic Sciences (CRBSc) at Jamia Millia Islamia, New Delhi, 7 Dec., 2007.
7. International Conference on '**Research Advances in Traditional Medicine: Challenges and Opportunities**' organized by Foundation for Promotion of National Products in collaboration with CCRYN, Hamdard University, MedCity, Islahi Dawakhana at Jamia Hamdard, New Delhi, 30 – 31 Oct, 2007.

#### **Hands-on Experience:**

##### **Molecular Methods**

- Real time PCR, PCR, Isothermal amplification method, DNA ligation, Transformation and  $\alpha$ -complementation test, Competent cell preparation, RAPD, PCR-RFLP and RFLP, SCAR, Isolation of genomic and plasmid DNA, Agarose gel electrophoresis

##### **Microbiological Methods**

- Phage titer by PFU method, Determination of  $\beta$ -lactamase activity, UV mutagenesis, Bacterial conjugation, Antibiotic sensitivity test, Minimum inhibitory concentration (MIC) of heavy metals and antibiotics, Enzyme production determination in microorganisms, Antimicrobial test by herbal and phytochemical compounds, Inoculation of virus on plants, Isolation of microbes from root nodules and soil, Preparation of biofertilizers

##### **General Biochemical tests**

- Quantitative DNA & RNA estimation, Calorimetric protein & carbohydrate estimation, Qualitative carbohydrate tests, Analyzing direct and indirect oxidative stress markers, Paper chromatography of chlorophyll compounds

### **Spectrophotometric techniques**

- DNA concentration estimation by UV-VIS spectrophotometry and Nanodrop, Analyzing heavy metals on Atomic Absorption spectrophotometry

### **Bioinformatics Proficiency:**

- Sequence and Structure alignment, Genome Annotation, Gene Prediction, Protein sequence and structure analysis, Homology Modeling, Molecular Docking, Primer & Probe Designing, Phylogenetic Tree Analysis, Efficient working knowledge of NCBI, PDB and Swiss Prot databases

### **Seminars Delivered:**

- Presentation delivered on '**Molecular Based Detection of Aflatoxigenic Moulds by Conventional PCR and LAMP Based Method**' at Faculty of Science, Hamdard University.
- Presentation delivered on '**PCR-based Detection of Aflatoxigenic Moulds**' at Faculty of Science, Hamdard University.
- Presentation delivered on '**Molecular Methods for Detecting Pathogenic Fungus**' at CTPD, Department of Biotechnology, Hamdard University.
- Presentation on theoretical concept, working principles and usages of the '**Nuclear Magnetic Resonance (NMR)**' in the field of the Molecular Biology, during M. Sc.
- Presentation on theoretical concept and working principles of '**High Performance Liquid Chromatography (HPLC)**' during M. Sc.
- Presentation on Occurrence and Industrial production of '**Microbial Polyesters and Their Application**' during M. Sc.

### **Member in Professional Societies:**

- The Science Advisory Board, USA
- ResearchGate, Germany
- LiveDNA

### **Professional Activities: Reviewer/Editorial Board/Guest Editor**

#### **Reviewer for Research Journals**

- Mycopathologia (Springer)
- Archives of Clinical Microbiology
- Microbiology Insights, Biomarker Insights (Libertas Academica)
- Biotechnology Insights

### **Computer Skills:**

- Operating System : Win-98/2000/Xp/Vista
- Packages Programming : MS Office 2003/07 (Word, Excel, Power Point)
- Adobe Photoshop
- Corel Draw
- Picasa
- Internet Explorer

### **As Resource Person:**

- **Convener, National Organizing Committee** of International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security (ICPASN-2016).
- **In-Charge: Publication Committee** of International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security (ICPASN-2016).
- Active participation in **Website Development** of International Congress on Post-Harvest Technologies of Agricultural Produce for Sustainable Food and Nutritional Security (ICPASN-2016) (icpasn2016.iul.ac.in).
- Member **Faculty Board** and **Board of Studies (BOS)** of Integral Institute of Agricultural Science and Technology (IIAST), Integral University, Lucknow.
- Nominated for the **Website Coordinator** of Integral Institute of Agricultural Science and Technology (IIAST), Integral University, Lucknow.
- Organized a webcast programme on '**5<sup>th</sup> National Organic Farming Convention**' Organized by National Institute of Technical Teachers Training & Research (NITTTR), Chandigarh at Integral Institute of Agricultural Science and Technology (IIAST), Integral University, Lucknow on 28<sup>th</sup> February - 2<sup>nd</sup> March, 2015.
- Actively participated in organizing a Training Program on '**Transformation and Molecular Characterization of Medicinal Plants and Animals**' sponsored by University Grants Commission (UGC) organized by Centre for Transgenic Plant Development (CTPD), Department of Biotechnology, Hamdard University, New Delhi, 16-21 Dec., 2010.
- Taken active part in organizing National Workshop on '**Biotechnological Approaches for Conservation of Unani Herbs and Enhancing their Medicinal Efficacy**' sponsored by Central Council for Research in Unani Medicine (CCRUM) organized by Centre for Transgenic Plant Development (CTPD), Department of Biotechnology, Hamdard University, New Delhi, 8-11 Nov., 2010.
- Helped in arranging a Training Program on '**Tissue Culture, Transgenic Technology and Biotechnology**' sponsored by University Grants Commission (UGC) held at Jamia Hamdard, New Delhi, 30 Nov. - 5 Dec., 2009.
- Taken part in organizing a Regional Seminar on '**Intellectual Property Protection and Management**' in collaboration with Central Council for Research in Unani Medicine (CCRUM) and National Research Development Corporation (NRDC), at Jamia Hamdard, New Delhi, 11-12 Feb., 2009.
- Taken active part in organizing Workshop on '**Real Time-PCR**' in collaboration with Roche Diagnostics at Jamia Hamdard, New Delhi, 26-27 Dec., 2007.
- Trained Bachelor and Master students' for their dissertation/project works during Research work and at IIAST.

#### **Extracurricular Activities:**

- Member of **Student Research Council** of Hamdard University from 2009-2010.
- Nominated in **Marquis Who's Who in the World 2012** for publication of Biography in 29<sup>th</sup> edition.
- Selected for **2000 Outstanding Intellectuals of the 21<sup>st</sup> Century** for publication of Biography by International Biographical Centre, Cambridge, England.

#### **Personal Profile:**

Father's Name : Late Malik Shabbir Ahmad

Mother's Name : Mrs. Shahiddun Nisha Malik  
Date of Birth : 02<sup>nd</sup> Jan., 1983  
Nationality : Indian  
Gender : Male  
Languages Known : English, Urdu & Hindi  
Permanent Address : Vill. & P.O. - Bitheria, Teh - Domariaganj, Distt -  
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