

CURICULAM VITAE

NAME: Dr. JOSE MATHEW

Highest qualification. Ph D from School of Life Sciences, J.N.U., New Delhi.

Current Position: Assistant Professor, Dept. Biotechnology, Bundelkhand University.

Fellowships

1. Graduate aptitude test in engineering (GATE). 1989. Percentile 95.13
2. CSIR-UGC NET 1989

Teaching Experience: 23 Years

Research experience : 23 Years

Administrative Experience as Coordinator of the Department of Biotechnology:

- 30-04-2001 to 03-10-2002
04-09-2006 to 13-07-2008
25-04-2017 to 01-02-2022

Total Administrative experience: 08 years

WORK SHOPS ATTENDED

1. Short course in genetic engineering. Department of MBGE , CBSH , GB Pant University. Pant Nagar. 1987. 20-04-1987 to 02-05-1987.
2. 09 days training on "Microsatellite markers : Development and analysis" from N.B.F.G.R Lucknow.(6 th to 14th feb. 2006)

3. Attended faculty development programme held at Bundelkhand University, Jhansi. 1-7th September, 2014. Conducted by Dream Uny Education Pvt.Ltd.
4. Attended the training workshop (turnitin, iThenticate) organized by I Group Infotech India Pvt. Ltd. On 6th December 2014.
5. Participated the 97th National workshop on Radio chemistry and Application of Radio Isotopes conducted jointly by Dept. of Atomic Energy (DAE), Board of Research in Nuclear Sciences (BRNS), Indian Association of Nuclear Chemists and Allied Sciences (IANCAS) and Department of Chemistry, Bundelkhand University., Jhansi. 04-09, 2017.
6. Participated "Two day workshop on blended learning and ICT for teaching" organized by Guru Angad Dev Learning Centre of MHRD, SGTB Khalsa College, University of Delhi and Bundelkhand University on 24-25 January 2019.

Research Publications

Published Papers

1. **Mathew, J** and Johri, B.N. 1988. Propagation of vesicular arbuscular mycorrhizal fungi in (*Vigna radiata* L.) through Nutrient film technique (NFT). *Current science* 57: 156-58.
2. **Mathew, J.** and Johri, B.N. 1989. Effect of indigenous and introduced VAM fungi on growth of mung bean. *Mycological Research* 92: 491-93.
3. **Mathew, J;** Shankar, A; Neeraj and Verma, A. 1990. Glomalaceous fungi associated with spineless Cacti, a fodder supplement in deserts. *Trans. Of the Mycological society of Japan.* 32: 225-233.
4. Neeraj; Shankar, A; **Mathew, J.** and Verma, A. 1991. Occurrence of vesicular arbuscular mycorrhizae with Amarantheceae in soils of the Indian semi arid region. *Biology and fertility of soils.* 11: 140-44.

5. **Mathew, J;** Neeraj, Shankar, A; Kaur, A; and Verma, A.K. 1990. VAM fungi from the rhizosphere of desert cacti. Proc. National conference on mycorrhizae. Haryana Agricultural University, Feb. 14-16. Hissar. India. Pp.44-46
6. Shankar, A; **Mathew, J;** Neeraj, Kaur, A; Mehrotra, R.S and Verma, A.K. 1990. Mycorrhizal status of some desert plants and their physiological significance. Proc. National conference on mycorrhizae. Feb.14-16. Haryana Agricultural University. Hissar. India. Pp.160-161.
7. Gupta, **J; Mathew, J;** Mehra. S; Kumar, S. and Sharma, D. 2008. Evaluation of nucleotide diversity in mitochondrial DNA between *gallus gallus murghi*, other *gallus gallus* subspecies and *gallus* species. *Animal Science Reporter*. 2: 4-10
8. Kumar, S. **Mathew, J,** Mehra. S; Shukla, S. Sharma, D. 2008. Genetic Polymorphism in BL B 2 region between guinea fowl and other poultry species". *Indian Journal of Poultry science*. 43 (2) 2008. 135-137.
9. Kumar, S., **Mathew, J,** Mehra. S; Shukla, S., Sharma, D. 2008. PCR-RFLP of BLB2 region in diverse guinea fowl population for antibody response to sheep red blood cell . *Indian Journal of poultry science*. 43(2) . 2008. 139-141.
10. Gupta, J; **Mathew, J;** S.K.Shukla, S.Mehra, M. Mehra , Sharma, A. Sharma, D. 2009. Mitochondrial DNA Variation within and between the *gallus* species. *Asian Journal of Microbiology Biotechnology & Environmental Sciences*. Vol.11,No.(4):2009:719-721.
11. Shukla, S.K; Tiwari, A; Mehra,M; Goyal,G; **Mathew,J;** Sharma,D. 2011. PCR-RFLP in BF2 region between red jungle Fowl and Poultry Species. *Indian Veterinary Journal*. 88(5) : 13-15.
12. Sanjiv K Shukla, Shubra shukla , Shahaj Uddin Ahmad, **Jose Mathew** and Deepak Sharma. 2010. Molecular cloning of Major Histo compatibility Complex Class 1 cDNA from Red Jungle Fowl (*Gallus gallus*). *Biosciences, Biotechnology Research Asia*. 6 (02). 567-576.
13. Singh,S.k., Mehra, S., Kumar, V. Shukla, S.K., Tiwari, A., Goyal., Mehra, M., **Mathew, J.**, Sharma, D. 2010. Sequence variability in the BLB2 region among

guinea fowl and other species. *International Journal of Genetics and Molecular Biology*. 3(3)48-51.

14. S.K.Singh, **Jose Mathew**, J.Gupta, S.Mehra, G.Goyal and D.Sharma 2010. Molecular characterization of MHC class 11 region in guinea fowl. *British Poultry science*.51(6): 769-775.

15. S.K.Singh, S.Mehra, S.K.Sukla, Vinay Kumar, A.Tiwari , M.Mehra, Giriraj Goyal, **Jose Mathew** and Deepak Sharma .2010 . Nucleotide sequence variation in MHC Class 1 region in guinea fowl. *International journal of poultry science*.9.(3)236-239.

16. S.K.Shukla, Vinay Kumar, S.U.Ahmad, **Jose Mathew** and Deepak Sharma 2010. Structural homology in BF2 gene between red jungle fowl and different poultry species. *Journal of applied animal research*. 37:135-140.

17. Sanjeev Kumar Shukla, Shubra Shukla and **Jose Mathew** .2009. Comparisons of lung structure of fully developed domestic fowl with duck, through orientation to broiler ascites. *Biosciences, Biotechnology Research Asia*. 6(2),709-714.

18. Shubra Shukla, Sanjeev Kumar Shukla, **Jose Mathew** and Deepak Sharma. 2009. Studies of environmental water samples for different parameters for isolation of Legionella spp. *Current world environment*. 4(2)313-320.

19. Vinay Kumar, Sanjeev Shukla, **Jose Mathew**, Deepak Sharma .2015. Genetic diversity and population structure analysis between Indian Red Jungle Fowl and domesticated Chicken using microsatellite markers. *Animal Biotechnology*, 26:201-210.

20. Vinay Kumar, Sanjeev Shukla, Satyendra Singh, Giriraj Goyal, **Jose Mathew** and Deepak Sharma. 2015. Genetic diversity and phylogenetic relationship analysis between red jungle fowl and domestic chicken using AFLP markers. *The Journal of Poultry Science*. 52: 94-100.

21. Kole, P.R. , Saxena,S., **Mathew J.**, and Bhat, K.V. 2013.Genetic relationships among *Vigna mungo*(L.) Hepper and its close wild relatives using microsatellite markers. *African Journal of Biotechnology* 12(4):327-335.
22. Somesh Mehra, Apurwa Dubey, **Jose Mathew** and Manish Mehra. 2015. Comparative assessment of antimicrobial activity of five extract of *P. longum* and *P. nigrum* against *B. brevis*, *P. thailandensis*, *E. aerogenes* and *B. Anthracis*. *Journal of Agri-Food and Applied Sciences*. 3(1), pp.14-21.
23. Somesh Mehra, Swati shukla, Rupali srivastava, **Jose Mathew** and Manish Mehra. 2015. Evaluation of antimicrobial activity of peel and pulp extracts of *C. Paradise*, *C. Medica* & *C. Limon* against *B. Cereus* & *M. Luteus*. *Australian Journal of Basic and Applied Sciences*. 9(1) 174-182.
24. Somesh Mehra, Rupali srivastava, Swati shukla, **Jose Mathew** and Manish Mehra. 2015. In-vitro Comparative study on antimicrobial activity of five extract of few Citrus fruit: Peel & Pulp vs Gentamicin. *Australian Journal of Basic and Applied Sciences*. 9(1) 165-173.
25. Somesh Mehra, Apurwa Dubey, **Jose Mathew** and Manish Mehra. 2015. Comparative assessment of antimicrobial activity of five extract of *P. longum* and *P. nigrum* against *B. brevis*, *P. thailandensis*, *E. aerogenes* and *B. Anthracis*. *Journal of Agri-Food and Applied Sciences*. 3(1), pp.14-21.
26. Somesh Mehra, Rupali srivastava, Swati shukla, **Jose Mathew** and Manish Mehra. 2015. In-vitro Comparative study on antimicrobial activity of five extract of few Citrus fruit: Peel & Pulp vs Gentamicin. *Australian Journal of Basic and Applied Sciences*. 9(1) 165-173.
27. Balwant Singh Paliya , **Jose Mathew**, Sanket Kumar Chaudhari, Brahma N Singh . 2021.. Broad spectrum anti quorum sensing activity of traditional medicinal plant: *Piper betel*. *International journal of Botany studies*. 06 (2). 306-311.
28. B.S. Paliya, **J. Mathew** and B.N. Singh. 2021. Evaluation of Anti quorum sensing potential of *Saraca asoca* (Family Caesalpiniaceae) against

Chromobacterium violaceum and *Pseudomonas aeruginosa* PA01. *Journal of Pharmaceutical Research International* . 33 (24 B) 71-82.

29. Shreddha Srivastava, Samipta Singh, Shubhini A.Saraf, Manish K. Chourasia, **Jose Mathew**, Avinash C. Pandey. 2021. Encapsulation of Baicalein in Cinnamon Essential oil nanoemulsion for Enhanced anticancer efficacy against MDA-MB-231 Cells. *Bionanoscience* . <https://doi.org/10.1007/s12668-021-00900-y>.

30. Shreddha Srivastava, , Abhiram Kumar, Pavan Kumar Yadav, Madhav Kumar, **Jose Mathew** , Avinash Chandra Panday, Manish Kumar . Chourasia . 2021 Formulation and performance evaluation of polymeric mixed micelles encapsulated with baicalein for breast cancer treatment. *Drug Development and Industrial Pharmacy*. <https://www.tandfonline.com/loi/jiddi20>

31. Protima Pandey, Rajaashree Sahoo, Khushbu Singh, Sanghamitra Pati, **Jose Mathew**, Avinash Chandra Pandey, Rajni Kant, Ihn Han, Eun-Ha Choi, Gaurav Raj Dwivedi and Dharmendra Yadav. 2022. Drug Resistance Reversal Potential of Nanoparticles/ Nanocomposites via Antibiotic's Potentiation in Multi Drug Resistant *P. aeruginosa*. *Nanomaterials* 2022. 12, 117.<https://doi.org/10.3390/nano12010117>.

Review Articles/ Books

1. Johri, B.N. and **Mathew, J.** 1989. Strategies for mass cultivation of Vesicular arbuscular fungi . In: Symposium volume 1. Plant microbe interaction. (K.S. Bilgrami ed). Narendra publishing house, New Delhi.

2. Halotolerant PGPR Bacteria: Amelioration for salinity stress. Brijendra Kumar Kashyap, Roshan Ara, Akansha Singh, Megha Kastwar, Sabiha Aaysha, **Jose Mathew** , and Manoj Kumar Solanki. 2019. In: Singh D., Gupta V., Prabha R. (eds). *Microbial Interventions in Agriculture and Environment*. Springer, Singapore. Pages; 509-530.

3. Shradha Srivastava , **Jose Mathew** and Avinash Chandra Pandey. 2023. Baicalein- A review on its molecular mechanism against breast cancer and delivery strategies. *Medicinal Chemistry Research* (2023) 32: 643-658

Abstracts Presented in Conferences.

1. **Mathew, J;** and Johri, B.N. 1987. Vesicular- arbuscular mycorrhizal inoculum through nutrient film technique (NFT) grown Mung. 11th North American conference on Mycorrhizae. Florida.
2. Neeraj, Shankar, A; **Mathew, J** and Verma, A. 1989. VAM fungi screened from desert dunes and their applications. 5th International symposium on microbial ecology. Aug.27-Sept.01, p.136. Kyoto Japan.
3. **Mathew, j.** 1994. Effects of Diethyl nitrosamine on growth and development of *Dictyostelium discoideum*. 7th All India Cell Biology Conference and symposium. Devi Ahilya Vishva Vidyalyaya. Indore India.
4. Vinay Tomar, A. Tiwari, S.K. Shukla, **Mathew, J;** and Deepak Sharma. 2008. Microsatellite Polymorphism between jungle and domestic fowl. 1X Annual conference of Indian Society of Animal Genetics and Breeding & National Symposium on Live stock Genomics in Productivity Enhancement for food Security. 3rd -4th July, 2008. Indian Society of Animal Genetics and Breeding Noida. U.P. NASC Complex New Delhi.
5. Vinay Tomar, , S.K. Shukla, A. K. Tiwari , S.U.Ahmad, **Mathew, J;** Anupam Dixit and Deepak Sharma. 2009. Allelic diversity and phylogenetic relationship between Red jungle fowl and Domesticated Chicken breeds using molecular Markers. **International conference on Current Trends in Biotechnology and Implications in Agriculture.** Feb.19-21, 2009. Sardar Vallabhai Patel University of Agriculture and Technology .Meerut.
6. Vinay Tomar, S.K. Shukla, A. K. Tiwari , S.U.Ahmad, **Mathew, J;** Anupam Dixit, N.K.Tyagi and Deepak Sharma. 2009. AFLP marker analysis for establishing phylogenetic relationships between Red Jungle Fowl and Domesticated Chicken breeds. **International conference on Current Trends in Biotechnology and Technology .Meerut.**
7. Sanjeev Kumar Shukla, **Jose Mathew,** Deepak Sharma. 2014. Genetic polymorphism in BF2 gene between Red jungle Fowl and different poultry

species. 10th Asia Pacific Poultry Conference (9th APCC) **Genetic Diversity and Implications in Agriculture**. Feb.19-21,2009. Sardar Vallabhai Patel University of Agriculture and Veterinary Sciences, Meerut, India.

island south korea. 19th-23th Oct, 2014.

8. Satyendra Kumar, Somesh Mehra, Manish Mehra, Anjana Sharma, Sanjeev Shukla, S.U. Ahmad, **J. Mathew** and Deepak Sharma. 2008. Nucleotide sequence variability in BF 2 between Guinea Fowl and other poultry species. 1X Annual conference of Indian Society of Animal Genetics and Breeding & National Symposium on Live stock Genomics in Productivity Enhancement for food Security. 3rd -4th July,2008. Indian Society of Animal Genetics and Breeding Noida. U.P. NASC Complex New Delhi.

9. Satyendra Kumar, Somesh Mehra, Manish Mehra, Anjana Sharma, Sanjeev Shukla, S.U. Ahmad, **J. Mathew** and Deepak Sharma. 2008. Characterization of BF2 gene in Guinea Fowl. 1X Annual conference of Indian Society of Animal Genetics and Breeding & National Symposium on Live stock Genomics in Productivity Enhancement for food Security. 3rd -4th July,2008. Indian Society of Animal Genetics and Breeding Noida. U.P. NASC Complex New Delhi.

10. Somesh Mehra, Satyender Kumar, Manish Mehra, S.K. Shukla, **J. Mathew** and Deepak Sharma. 2008. Nucleotide sequence polymorphism in promoter region of IL-2 and IFN – gamma genes between Red Jungle Fowl and Domestic Chicken. 1X Annual conference of Indian Society of Animal Genetics and Breeding & National Symposium on Live stock Genomics in Productivity Enhancement for food Security. 3rd -4th July,2008. Indian Society of Animal Genetics and Breeding Noida. U.P. NASC Complex New Delhi.

11. Somesh Mehra, Satyender Kumar, Manish Mehra, S.K. Shukla, **J. Mathew** and Deepak Sharma. 2008. Nucleotide sequence polymorphism in promoter region of IFN –gamma gene in Red Jungle Fowl and domestic chicken. 1X Annual conference of Indian Society of Animal Genetics and Breeding & National Symposium on Live stock Genomics in Productivity Enhancement for food Security. 3rd -4th July,2008. Indian Society of Animal Genetics and Breeding Noida. U.P. NASC Complex New Delhi.

Security. 3rd -4th July,2008. Indian Society of Animal Genetics and Breeding Noida. U.P. NASC Complex New Delhi.

12. Somesh Mehra, , Manish Mehra, Swarnima, Sanjeev .K. Shukla, **J. Mathew. 2018.** Comparative assessment of antimicrobial activity of five extract of *P. longum* and *P. nigrum* against *B.cereus* and *M. luteus*. International conference on Science, technology and social Humanities (ICSTSH-2018), 26th-28th february 2018. Department of zoology, School of life Sciences, Dr. Bhim Rao Ambedkar University, Agra. INDIA.

13. Somesh Mehra#C1, Manish Mehra, Swarnima, Sanjeev Shukla and **Jose Mathew***C2 2018. A rapid Loop-mediated isothermal amplification (LAMP) method for the detection of Escherichia coli from environmental water sample from Lucknow District. International conference on Advances in Forensic DNA Technology. (ICAFDT-2018), 22-24, february 2018. Dr. A.P.J Abdul Kalam Institute of Forensic Science and Criminology, Bundelkhand University,Jhansi. U.P. INDIA.

14. Brijendra Kumar Kashyap, **Jose Mathew**, D.V.Kamboj. 2018. Physicochemical characterization of inoculum for night soil biodegradation. BIOFUTURITY- 2018. A national conference on “ Current Scenario and Future Trends in Biotechnology. 27-28 March. 2018. Organized by Dept. of Biotechnology, Institute of Engineering and Technology, Bundelkhand University. Jhansi.

15. Nano emulsion drug delivery system for topical application 2017.Shradha srivastava, **J. Mathew**, A.C. Pandey. National seminar on current trends in Life sciences. 10 November, 2017. Amity Institute of Biotechnology, Amity University. Gwalior.

16.Synthesis and characterization of gadolinium doped copper ferrite nanoparticles. S. Srivastav, V. Baranwall, M. Kumar, **J. Mathew**, A.C. Pandey. International conference on emerging materials and applications (ICEMA-2017). Dept. of physics, Uni.of Allahabad, Allahabad , India.

17. Reverse phase HPLC method development and validation for quantification of Baicalein. Shraddha srivastava, Abhiram Kumar, Manish Chourasis, **Jose Mathew**, Avinash Chandra Pandey. 42 nd Annual conference of Indian Association of Biomedical Scientists. (IABMS) "Recent-Trents and Advances in Biomedical Sciences-An Intergrated Approach. 25-27. November-2021. CRL-KSHEMA &NUCSER, Nitte. Deralakatl, Mangaluru, India.

SEQUENCE SUBMISSION

Sequence submitted at National Centre of Biotechnology Information (NCBI) database.

(www.ncbi.nlm.nih.gov.)

Accession No. Gene bank E U 430728.1, E U 430727.1

No of Ph D Students Guided as guide and co-guide.

Ph D Theses under supervision 08

1.Molecular mapping of genes conferring disease resistance in urdbean, vigna mungo (L) hepper using RAPD and AFLP markers.

Awarded:

2. Comparative genomic studies in Red Jungle Fowl (*Gallus gallus gallus*) and domesticated chicken (*Gallus domesticus*)

Awarded:

3. Identifying species specific polymorphism in Red Jungle Fowl (*Gallus gallus mughi*) and domesticated chicken (*Gallus gallus domesticus*).

Awarded:

4. Genetic polymorphism in BL B 11 region and its association with immunocompetence and production traits in Guinea Fowl. (*Numida meleagilis*)

Awarded:

5. Characterization and drug susceptibility pattern of enterococcal isolates

Awarded:

6. Fabrication and Characterization of ZnO decorated Chitosan Graphene Nano – composite for Topical antimicrobial application.

Awarded:

7. Development, characterization and biological evaluation of baicalein loaded nanoformulation for breast cancer therapy.

Awarded:

8. Enhancement of anti-quorum sensing property of selected phytochemicals using nanotechnology.

Awarded:

Ph D Theses under co supervision. 03

1. Genetic polymorphism in BF region in Red Jungle Fowl and Domesticated chicken

Awarded:

2. Species specific DNA marker to monitor gene flow between red jungle Fowl (*Gallus gallus murghi*) and domesticated chicken (*Gallus gallus domesticus*)

Awarded:

3. Genetic polymorphism in different interleukin genes in Red jungle Fowl (*Gallus gallus murghi*) and domesticated chicken (*Gallus gallus domesticus*).

Awarded:

