CURRICULUM -VITAE

Dr. Namita Ashish Singh Assistant Professor Department of Microbiology, Vigyan Bhawan Block-B Mohanlal Sukhadia University Udaipur 313001, Rajasthan, <u>Website: www.mlsu.ac.in</u> Mob: 7838567287 Email: <u>namitas541@gmail.com</u>



Research and Teaching Exp.:12 years

Citations: 377; h-index: 8, i10-index: 7

Research Paper published: 20

Research Grant: 02; Approx. @Rs. 40 Lakhs (INR) Book Chapters-10

Area of Research: Food quality and safety, Mycotoxin contamination, Antimicrobial Resistance

Academic Qualification:

S. No.	Degree	Year	Subject	University/Institution	% of marks
1.	B.Sc.	2004	Industrial Microbiology, Chemistry, Botany	C.C.S. University, Meerut, U.P.	76.4
2.	M.Sc.	2006	Microbiology	Gurukula Kangri Vishwavidyalaya, Haridwar, Uttarakhand	70.6
3.	Ph.D.	2014	Life Science (Biotechnology)	Punjabi University, Patiala, Punjab	71.8
4.	NET	2014	Agricultural Microbiology	ASRB- ICAR	Qualified

Work experience (in chronological order):

S. No.	Positions held	Name of the Organization	From	То
1	Senior Research	National Dairy Research	June 2008	May 2009
	Fellow	Institute, Karnal, Haryana		
2	Research	National Dairy Research	June 2009	May 2012
	Associate	Institute, Karnal, Haryana		
3	Assistant Professor	IAMR, Ghaziabad	August 2014	July 2016
4	Assistant Professor	IMS, Ghaziabad	August 2016	June 2018
5	Assistant Professor	Mohanlal Sukhadia University, Udaipur, Rajasthan	04.06.2018	Till date

Professional Recognition/Awards

S. No.	Name of Award	Awarding Agency	Year
1	Dr. V. Subrahmanyan Memorial NABS-Best Research Paper Award for the year 2021	National Academy of Biological Science, Chennai, India	2023
2	Dr. C.M. Singh Memorial NABS- Best Research Paper Award for the year 2020	National Academy of Biological Science, Chennai, India	2023
3	Certificate of appreciation for commendable contribution in the field of Science and Technology	DST, Rajasthan	2022
4	Best Inventor award	Microbiologists Society India	2022
5	First prize for oral presentation	Karnataka State Open University & CSIR- CFTRI Mysuru	2021
6	Outstanding Research Paper Award	Novel Research Academy	2021
7	Research Excellence Award 2020	Institute of Scholars (InSc)	2020
8	Academic Pride award 2017	IMS Ghaziabad	2017
9	Second prize for oral presentation	SRM University, Delhi NCR campus Ghaziabad (In International Conference)	2016
10		Scientific Educational Research Society, Meerut	2016
11	Second prize for oral presentation	IMS Engineering College Ghaziabad (In National Conference)	2016
12	Best Paper award	Indian Dairy Association (IDA)	2015

Research Projects: 02

S. No.	Project Title	Amount Sanctioned	Funding Agency	Role (PI/Co-PI)
1.	To study the bacterial flora, their antimicrobial properties and shelf life of goat milk of Udaipur district, Rajasthan	10.00 Lakhs	UGC, New Delhi	PI
2.	Evaluation of neuroprotective effect and its underlying molecular mechanism by <i>Costus speciosus</i> , a traditional medicinal plant of Udaipur district	30.00 Lakhs	RUSA, New Delhi	Co-PI

Professional development (Orientation/Refresher/ FDP):

- Attended Refresher Course at UGC-HRDC Devi Ahilya Vishwavidyalaya, Indore from 14.03.2023 to 27.03.2023
- Attended Refresher Course of UGC HRDC Guru Jambheshwar University of Science & Technology, Hisar, Haryana from to16.09.2021 – 29.09.2021
- Attended Orientation Program at UGC HRDC, University of Rajasthan, Jaipur from 03.06.2019 to 29.06.2019
- Attended one-week online FDP on "Biosafety, Bioethics and IPR" organized by the Department of Microbiology, Ram Lal Anand College, Delhi University from 24th to 28th August, 2020.
- Attended a one-week online FDP on "Research Methodology" organized by the Padm. Dr.
 V.B. Kolte College of Engineering, Malkapur (M.S.) from 26th to 30th May, 2020
- Attended a one-week online FDP on "Recent Development and Pedagogy in Teaching and Research" organized by Amity University Kolkata University from 28th June 2021 to 2nd July 2021.

Ph. D. Thesis (Ongoing): 05

- **Ms. Jyoti:** Study on Bacterial diversity, Shelf-life and Aflatoxin M1 level in goat milk
- **Ms. Vidhi Jain**: Unveiling the Diversity, Antimicrobial Resistance Profile and its Genes identification of *Bacillus* species isolated from Lakes of Udaipur
- **Ms. Alka Kumari:** A study on coliform bacteria in cattle erget (*Bubulcus ibis*) and Rednaped ibis (*Pseudibis papillosa*) in and around the Udaipur city and its antimicrobial resistance (Co-Supervisor)

M.Sc. Thesis (Guided): 13

Publications

Patents (Granted)

 Patent entitled "Process of preparing a spore inhibition-based enzyme substrate assay for monitoring aflatoxin M1 in Milk" Dr. Naresh Kumar, Namita Ashish Singh, Vinai Kumar Singh, Dr. Sunil Bhand, Dr. R. K. Malik, Application No. 3064/DEL/2010 Granted, Patent No. 292836

 Patent entitled "Real time detection of *Enterococci* in dairy foods using spore germinationbased bioassay" (Dr. Naresh Kumar, Ms. Gurpreet Kaur, Ms. Geetika Thakur, Mr. Raghu HV, Ms. Namita Ashish Singh, Ms. Nishu Raghav, Mr. Vinai Kumar Singh, Application No.119/DEL/2012, Granted, Patent No. 325986

Research papers published in International/ National Journals: 20

- Jyoti, Namita Ashish Singh (2023) Aflatoxin M1 and shelf-life analysis of goat and cow milk samples. Indian Journal of Dairy Science, UGC CARE
- Singh*N.A., Narang J., Garg D., Jain V., Payasi D., Suleman S., Swami R.K. (2023) Nanoparticles synthesis via microorganisms and their prospective applications in agriculture. Plant Nano Biology. Volume 5, August 2023 <u>https://doi.org/10.1016/j.plana.2023.100047</u> Scopus indexed
- Kumar S., Singh N.A., Jain V., Subramaneyaan M., Kumar P. (2023) Coronavirus disease (COVID-19) possible transmission routes and alleviation strategies. International Journal of Pharmaceutical Research & Allied Sciences, 12(2):23-32 (April 2023)
- Tehri N, Thakur G, Singh NA*, Yadav A, Kumar N, Raghu HV (2022) Protease activity as a marker of Bacillus spore germination and its utility for spore eradication. Indian Journal of Dairy Science, 75 (6) 522-527. NAAS Rating: 5.95 WeS
- Mahato DK, Kamle M, Sharma B, Pandhi S, Devi S, Dhawan K, Selvakumar R, Mishra D, Kumar A, Arora S, Singh NA, Kumar P. (2021) Patulin in food: A mycotoxin concern for human health and its management strategies. Toxicon 198:12-23 I.F. 3.033
- Singh N.A.*, Kumar P., Jyoti, Kumar N. (2021) Spices and Herbs: Potential antiviral preventives and immunity boosters during COVID-19, Phytotherapy Research 35(5):2745-2757 DOI: 10.1002/ptr.7019. I.F. 6.388
- Singh N.A., Kumar N., Raghu H.V., Bhand S., Chandra S., Shrama P.K. (2019) A sporebased miniaturized novel assay for rapid aflatoxin detection in milk. Environmental Chemistry Letters DOI: 10.1007/s10311-018-00834-0 17(2): 1097-1103 I.F.: 13.615
- Tehri N., Kumar N., Yadav A., Raghu H.V., Singh N.A. (2018) Sugars mediated germination in spores of Bacillus megaterium. International Journal of Microbiology Research 10(3): 1058-1061.
- Singh, N.A. (2017) Nanotechnology innovations, industrial applications and patents. Environmental Chemistry Letters 15 (2): 185-191. DOI: 10.1007/s10311-017-0612-8. I.F.:

13.615

- Sharma S. and Singh N.A.* (2017) Isolation and characterization of mesophilic spores in different types of milk during winter. Trends in Biosciences, 10 (2):754-757
- Namita Ashish Singh (2017) Biomolecules for removal of heavy metal. Recent Patents on Biotechnology 11(2):197–203 DOI: 10.2174/1872208311666170223155019.
- Singh N. A. and Saxena J. (2016) Evaluation of E. coli bacteria in different food samples. International Journal on Life science and Bioengineering, 3(1):13-19
- Singh V.K., Singh N.A., Raghu H.V., Kumar N., Singh K.P., Sharma P.K. and Raghav N. (2015) Fluorescence-Based Detection of Aflatoxin M1 in Milk using Immobilized Spores. Journal of Food Safety, 36 (2): 145–152. DOI: 10.1111/jfs.12221 I.F.: 2.449
- Singh V.K., Singh N.A., Kumar N., Raghu H.V., Sharma P.K., Singh K.P. & Avinash (2014) Spore immobilization and its analytical performance for monitoring of aflatoxin M1 in milk. Canadian Journal of Microbiology, 60(12):793-798 DOI 10.1139/cjm-2014-0465 I.F.: 3.226
- 15. Singh N.A., Kumar N., Raghu H.V., Sharma P.K., Singh V.K., Khan A. and Raghav N. (2013) Spore inhibition-based enzyme substrate assay for monitoring of aflatoxin M1 in milk. Toxicological & Environmental Chemistry, 95(5):765-77. I.F.: 1.565
- 16. Kumar S., Raghu H.V., Kumar N., Singh N.A. and Malik R.K. (2013) Spore based chromogenic assay for detection of β-lactam antibiotic in milk. Indian Journal of Dairy Science, 66(6):507-514 NAAS Rating: 5.95
- Verma N., Singh N.A., Kumar N. and Raghu H.V. (2013) Screening of different media for sporulation of *Bacillus megaterium*. International Journal of Microbiology Research and Reviews. 1(4): 68-73
- Verma N., Singh N.A., Kumar N., Singh V.K., Raghu H.V. (2013) Development of "Field Level" Chromogenic Assay for Aflatoxin M1 Detection in Milk. Advances in Dairy Research 1:108.
- 19. Thakur G., Yadav A., Tehri N., Kumar N., Raghu H.V., Singh N. and Singh V.K. (2013) Rapid novel microscopy technique to detect germination initiation and specificity in Bacillus spores. International Journal of Research in Pure and Applied Microbiology,3(4):134-138
- 20. Kumar N., Thakur G., Raghu H.V., Singh N., Sharma P.K. et al. (2013) Bacterial Spore Based Biosensor for Detection of Contaminants in Milk. Journal of Food Processing and Technology 4:277.

Book Chapters:10

- Jain V., Arya P., Yagnik SM, Raval VH, Singh NA (2023) Microbial diversity of cold-water reservoirs and their prospective applications. In: Current status of Fresh Water Microbiology ISBN 978-981-99-5017-1 Springer
- Sangwan, V., Singh, N.A., Sindhu, M., Ganesh, A.W., Singh, A., Sihag, M.K. (2023). Methods for Measurement of Microbial Diversity. In: Mukhopadhyay, C.S., Choudhary, R.K., Panwar, H., Malik, Y.S. (eds) Biotechnological Interventions Augmenting Livestock Health and Production. Livestock Diseases and Management. Springer, Singapore. <u>https://doi.org/10.1007/978-981-99-2209-3_9</u> pp 171–192, pages 451
- 3. Singh N.A., Jyoti, Jain V. (2023) Aflatoxins in Food and Feed: Occurrence, Detection, and Mitigating Strategies. In: Kumar, P., Kamle, M., Mahato, D.K. (Eds) Mycotoxins in Food and Feed Detection and Management Strategies. CRC Press, Boca Raton ISBN: 9781032113920 478 pp.1-27
- Singh N.A., Tehri N., Vashishth A., Kumar P. (2023) Nano-Biosensors for the Monitoring of Toxic Contaminants in Food and its Products. In: Kumar, P., Kamle, M., Mahato, D.K. (Eds) Mycotoxins in Food and Feed Detection and Management Strategies. CRC Press ISBN: 9781032113920 478 pages
- Sarkar S., Singh N.A., Rai N. (2022). Xerophilic Fungi: Physiology, Genetics and Biotechnology. In: Sahay, S. (eds) Extremophilic Fungi. Springer, Singapore. 253-270 pp. <u>https://doi.org/10.1007/978-981-16-4907-3_13</u>, Print ISBN: 978-981-16-4906-6
- Singh N.A., Jain R. (2022) Diversity and Bioactive Potential of Endophytic Bacteria from High-Value Medicinal Plants. In: Singh A.K., Tripathi V., Shukla A.K., Kumar P. (eds) Bacterial Endophytes for Sustainable Agriculture and Environmental Management. Springer, Singapore. <u>https://doi.org/10.1007/978-981-16-4497-9_3</u> pp. 45-69 ISBN: 978-981-16-4496-2
- Singh N.A.* and Kumar P. (2021) Nanosensors applications in food, medicine & agriculture and nanotoxicology in "Nanotoxicology and Nanoecotoxicology Vol.2." Kumar, V., Guleria, P., Dasgupta, N., Ranjan, S., Lichtfouse, E. (Eds.) Springer Nature Switzerland Pp. 1-24. DOI: 10.1007/978-3-030-69492-0_1 ISBN: 978-3-030-69491-3.
- 8. Singh N.A., Rai N., Marwal A. (2021) Nanosensors for the detection of chemical food adulterants in "Nanotoxicology and Nanoecotoxicology Vol.2." Kumar, V., Guleria, P.,

Dasgupta, N., Ranjan, S., Lichtfouse, E. (Eds.) Springer Nature Switzerland Pp. 25-53. DOI: 10.1007/978-3-030-69492-0_2 ISBN: 978-3-030-69491-3.

- Singh N.A.*, Kumar, N., H.V. Raghu (2018) Microbial aspects of drinking water. In: Microbial research: an overview, (ed) Vinita Katiyar, Anubha Joshi, IK International Publishers, New Delhi, Pp. 109-125. ISBN: 978-93-85909-44-3
- 10. Singh N.A.* (2016) Nanotechnology definitions, research, industry and property rights, In: Nanoscience in Food and Agriculture 1, Sustainable Agriculture Reviews 20 (eds) Shivendu Ranjan, Nandita Dasgupta, Eric Lichtfouse, Springer International Publishing, Switzerland Pp. 43-64. ISBN: 978-3-319-39303-2

Oral/poster presentation in National & International conferences:

- Oral presentation entitled "Microbes and Climate Change: Correlation and Impact" on 24 April, 2023 in "International Conference to Sustain the Mother Earth" organized by Dr. D.S. Kothari Institute For Research and Education, Udaipur, Shri Shankheshwar Puram Vigyan Tirth, Palitan, Gujarat, MLSU, Udaipur etc.
- Shakshi, Jaya, Namita Ashish Singh (2023) Antimicrobial activity of indigenous lactic acid bacteria isolated from goat milk in International Conference on "Reorientation of Zoological Thoughts for Building Capacity of Tribal Populations" organized by Department of Zoology, MLSU Udaipur 24-25 March, 2023 (3rd Prize of poster presentation)
- 3. Namita Ashish Singh (2022) "Incidence of bacterial pathogens from Goat milk and associated risk factors" in 62nd Annual International Conference of AMI entitled "Microbes and Society: Current Trends and Future Prospects" organized by University of Mysore in association with CSIR-CFTRI, DRDO-DFRL, KSTA and JSS AHER during 21-23 September 2022 (Oral presentation)
- 4. Namita Ashish Singh (2021) "Role of spices and herbs as antiviral preventives and immunity boosters during COVID-19" in International Conference entitled "Gut Brain-Health Connections" organized by the Department of Studies in Microbiology, Karnataka State Open University, Mysuru in Collaboration with Microbiology & Fermentation Technology Department, CSIR-CFTRI, Mysuru during 28-29 October 2021 (Got first prize in oral presentation)
- 5. Jyoti and Namita Ashish Singh (2021) Antimicrobial activity of lactic acid bacteria

isolated from goat milk against it's indigenous pathogens presented poster in International e-Symposium on "Probiotics, Prebiotics & Gut Microbiome: Key Regulators for Human & Animal Health" on Nov. 11, 2021 by GADVASU, Ludhiana

- Namita Ashish Singh (2020) Home remedies during COVID-19: A survey-based study published in International conference on "Emerging strategies in antimicrobial agents and bio-innovations" held on 18th-19th Dec. 2020 organized by RK University, Rajkot (oral presentation).
- Jyoti*, Minali Tanwar and Namita Ashish Singh (2019) Isolation of coliform bacteria from cow milk and its antibiotic susceptibility published in "Current scenario in Science and Technology: Facing the Challenges and Creating Opportunities" (VII-Rajasthan Science Congress) from 14-16th October organized by University college of Science, Mohanlal Sukhadia University, Udaipur pp. 149 (poster presentation).
- 8. Namita Ashish Singh*, Naresh Kumar and Raghu HV (2017) "Development of fluorogenic assay for detection of aflatoxin M1 in milk" published in "58th Annual Conference of Association of Microbiologists of India (AMI 2017) & International Symposium on "Microbes for Sustainable Development: Scope & Applications" from November 16-19, 2017 at Babasaheb Bhimrao Ambedkar University (A Central University) Lucknow.
- Sonia Sharma and Namita Ashish Singh (2016) "Isolation and Characterization of mesophilic Bacillus spores in milk" published in National Conference entitled "Recent Trends and Advances of Biotechnology" held on November 26, 2016 at IMS UC campus Ghaziabad pp. 42 ISBN: 978-93- 84052-83-6 (Got Second prize in poster presentation).
- 10. Namita Ashish Singh (2016) "Bacillus spore immobilization and its performance for analysis of aflatoxin M1 in milk" published in International Conference entitled "Global Initiatives in Applied Sciences and Green Technologies" held on 9-11 Sep 2016 at SRM University, Delhi NCR campus Ghaziabad pp. 56 ISBN: 978-93-83774-08-4 (Got Second prize for oral presentation)
- 11. Namita Ashish Singh (2016) "Spore based bio-sensing for detection of Aflatoxin M1 in milk" published in National conference entitled "Biotechnological Perspectives in Healthcare" held on 16th July, 2016 at IMS EC Ghaziabad pp. 25-26 (Got Second prize for oral presentation)
- 12. Namita Ashish Singh, Neelam Verma, Naresh Kumar, and HV Raghu (2014) A chromogenic assay for aflatoxin m1 detection in milk published in an International

Conference entitled "Life Science and Bioengineering" held during 22-23rd Nov. 2014 at Institute of applied medicine and research (IAMR), Ghaziabad, U.P. pp 45

- 13. Singh N.A., Kumar N., Chandra S., Raghu H.V., Singh V.K., Sharma P.K. (2012) "Spore based biosensor as an innovative approach for monitoring aflatoxin M1 in milk" published in Conference entitled XXI Indian Convention of Food Scientists & Technologists held during 20-21 January 2012 in Pune, Maharashtra.
- 14. N.A., Kumar N., Chandra S., Raghu H.V., Singh V.K. and Sharma P.K. (2012) "An innovative Spore based biosensing for monitoring aflatoxin M1 in milk" published in Conference entitled XL Dairy Industry held during 2-5 February 2012 in New Delhi
- 15. Kumar N., Manju G., Namita S., Gagan C. and Malik R.K. (2009) "β-lactam group in milk and its monitoring using iodometric assay" published in national symposium/workshop on new trends of biosensor technology (17-19th January 2009) organized By Department of Physics, Hindustan College of Science and Technology, Farah, Mathura pp. 3

Extension Activities (Invited Talks/Judge of event):

- Delivered an invited talk entitled "An innovative approach for Aflatoxin M1 detection in milk and Intellectual Property Rights (IPR)" on 30 September, 2023 at Kanoria PG Mahila Mahavidyalaya, Jaipur (Raj.) India
- Delivered an invited talk entitled "Aflatoxin M1 and antibiotics residues in milk: A Global Concern" on 17 May, 2023 at College of Dairy and Food Technology, MPUAT, Udaipur (Raj.) India
- Delivered an invited talk entitled "Spices and herbs as antiviral preventives and immunity boosters during COVID-19" on 20 February 2023 at Deptt. of Chemistry, DAVPG College Gorakhpur affiliated with DDU Gorakhpur.
- Acted as a resource person for a workshop on "Preparing the powerpoint presentations for the NAAC Accreditation" at University College of Law on 10 January, 2023
- Delivered an invited talk entitled "Career Opportunities in Microbiology/ Biotechnology" on 08.01.2023 at Jawahar Navodaya Vidyalaya, Mavli under the Vigyan Jyoti Mission of Department of Science & Technology (DST), New Delhi
- Delivered an invited talk entitled "Spore-based innovative approach for the detection of mycotoxins in milk" on 24 September, 2022 at Deptt. of Botany, MLSU.
- > Judged a poster competition organized by the UCOS on the occasion of Science Day 2022.

Conferences /webinars organized:

- Organized a DST and NASI sponsored National Conference on "Recent trends in Biotechnology" on 3-4 March, 2023 at MLSU as committee member.
- Department of Microbiology & Biotechnology have jointly organized a National webinar on "Role of technology in Higher Education" on August 10th, 2021 as Organizing Secretary
- Organized an International Virtual Conference on "Recent trends and innovations in Microbiology" on 15 July, 2021 at MLSU as Organizing Secretary
- Department of Microbiology & Biotechnology have jointly organized a National webinar on "COVID-19: Key Perspective on Food & Neurosciences" on May 19th, 2021
- 5. Organized a National Webinar on "National Education Policy 2020: Research Aspects and Key Proposals" on November 11th, 2020 under the aegis of Mahatma Gandhi National Council of Rural Education and Department of Higher Education, Ministry of Education at MLSU as Organizing Secretary.
- Organized an International Webinar entitled "Career Prospects in Life sciences: Let's explore" on 7th June 2020 at MLSU as Organizing Secretary.
- Organized a National conference VII- Rajasthan Science Congress entitled "Current scenario in Science and Technology: Facing the Challenges and Creating Opportunities" held during 14-16 October, 2019 at MLSU, Udaipur as member of college council.
- Organized a National Conference entitled "Recent Trends and Advances of Biotechnology" held on November 26, 2016 at IMS UC campus Ghaziabad ISBN: 978-93-84052-83-6 as Co-convenor.

Reviewer for International Journals:

- Sensors International (Elsevier)
- ➢ 3 Biotech (Springer)
- Journal of Food Processing and Preservation (Wiley)
- Vegetos (Springer)

Professional association/ Membership: 05

Indian Science Congress Association (Life Member) 2022

- National Academy of Biological Sciences (Life Member) 2020
- Microbiologists Society, India (Life Member) 2020
- Association of Microbiologists of India (Life Member) 2018
- Scientific Educational Research society, Meerut (Life Member) 2016

Personal Data

Father's Name :	Sh. Ram Ashish Singh
Date of Birth :	10 th July, 1984
Marital Status :	Married
Languages Known :	Hindi, English, Punjabi
Permanent Address:	Flat No.805, Shankheshwar Enclave, Sector 5, Hiran Magri, Udaipur, Rajasthan-313001

DECALARATION

I hereby declare that the information given above is true & correct to the best of my knowledge & belief.

(Dr. Namita Ashish Singh)