



# Curriculum Vitae

## Mohammad Rizwan

### CAREER OBJECTIVE

I am a detail-oriented individual with a doctoral program in Dairy Microbiology and 5 years of research experience in Fermented dairy products and Probiotics development. Additionally, I have 5 years of experience in clinical microbiology. I aim to contribute my expertise to advance scientific research and align with organizational objectives. My recognized intellect and strong work ethic ensure my commitment to making substantial contributions to your company's goals.

**DoB:** 20<sup>th</sup> June 1989

#### Address

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### LANGUAGES

Hindi, English, Urdu

### HOBBIES

Bike Riding, Traveling, Trekking, Photography, Cooking, Badminton, Volleyball, Sketching etc.

### EDUCATIONAL QUALIFICATIONS

#### ❖ Ph.D. Dairy Microbiology (2017-2024)

**University:** National Dairy Research Institute, Karnal

**Research Title:** "Development and assessment of  $\alpha$ -glucosidase and DPP-IV inhibitory peptide-rich fermented camel milk with indigenous Lactobacillus cultures in a rat model."

#### ❖ M.Sc. Microbiology (2010 – 2012)

**University:** Chaudhary Charan Singh University, Meerut.

#### ❖ B.Sc. Life Science (2006– 2009)

**University:** Ch. Charan Singh University, Meerut.

**College:** M.M.H. College, Ghaziabad.

#### ❖ Post Graduate Diploma in Food Safety and Quality Management (PGDFSQM) (2013-2014)

**University:** IGNOU, Delhi.

#### ❖ Diploma on Technology of Fermented Cheese Ice-cream and By-products (2020-2021)

**University:** IGNOU, Delhi.

#### ❖ Diploma in Food Laws and Standards (2020-2021)

**University:** IGNOU, Delhi

#### ❖ Three-month Certificate in Financial Accounting (CFA) (2007)

Dharmendra Institute of Computer Technology, Ghaziabad

## WORK EXPERIENCE

- ❖ Working as a **Senior Research Fellow** at **ICAR-NDRI, Karnal** (2018 to till now)
- ❖ Worked as a **Teaching Assistant** at **ICAR-NDRI, Karnal** (2022-2023)
- ❖ Worked as **Digital Mitra** for 2 years under Food Safety Mitra Scheme of **FSSAI** and Eat Right India (2020-2022)
- ❖ Worked 7 months as **Microbiologist** in Asian institute of Medical Sciences, Faridabad. (2017)
- ❖ Worked 10 months as a **Microbiologist** in Premia Laboratories, Gurugram. (2016)
- ❖ Worked 17 months as **Microbiologist** in Max Healthcare, New Delhi. (2014-16)
- ❖ Worked 11 months as **Scientific Officer-Microbiology** in Metropolis Healthcare Ltd, New Delhi (2013-14).
- ❖ Worked 8 months as **Technician-Microbiology** in Yashoda Hospital, Ghaziabad (2013).

## PROFESSIONAL EXPERIENCE

- **Microbiological Analysis and Laboratory Management:** Over the course of 5 years, I have gained hands-on experience in microbiological analysis of pathogens within a NABL certified healthcare system. My role included managing laboratory operations, ensuring compliance with NABL standards, and overseeing equipment maintenance, supply procurement, and safety protocols.
- **Research Expertise:** During my Ph.D., I dedicated 5 years to research in dairy microbiology. My work focused on probiotic strain isolation and characterization, fermented dairy product development, peptide identification, and in-vitro and in-vivo analysis of its activity. This extensive research experience has honed my analytical skills and data analysis capabilities.
- **Microbiological Techniques:** Proficient in various microbiological techniques, including isolation and identification of bacteria and fungi, biochemical analysis, antimicrobial analysis, and more.
- **Pathogen Handling:** Demonstrated extensive experience in pathogen handling, ensuring adherence to rigorous safety protocols.
- **Fermentation Technology:** Possess expertise in fermentation technology, including hands-on experience with laboratory-scale fermenters.
- **High-End Equipment Proficiency:** Hands-on knowledge of working with high-end equipment such as HPLC, GC-MS, and AAS, showcasing a commitment to precision and accuracy in analytical processes.

- **Animal Handling:** Experienced in the ethical handling of small animals, specifically rats and mice, for research purposes.
- **NABL Compliances:** Sound knowledge and experience in adhering to NABL compliances, ensuring the highest standards of quality in laboratory practices.
- **Grant Proposals and Research Funding:** Successfully wrote research grant proposals and secured funding, including an ICMR-SRF grant, demonstrating a proactive approach to funding research initiatives.
- **Teaching Assistant:** Taught M. Tech students of Dairy Microbiology and Food safety for one semester as a Teaching Assistant.

## PROJECTS

Ph.D. Research work under the supervision of Dr. Shilpa Vij, Principal Scientist, Dairy Microbiology Division, ICAR-NDRI, Karnal, on the topic entitled “**Development and assessment of  $\alpha$ -glucosidase and DPP-IV inhibitory peptide-rich fermented camel milk with indigenous *Lactobacillus* cultures in a rat model.**” Funded by ICAR-NDRI.

## NATIONAL AWARDS/FELLOWSHIP

- **UGC-NET 2022**
- **Indian Council of Medical Research- Senior Research Fellow (ICMR-SRF)- 2022**
- **Indian Council of Agriculture Research- National Eligibility Test (ICAR-NET) Agriculture Microbiology- 2018**
- **Indian Council of Agriculture Research- National Dairy Research Institute Ph.D. Fellowship- 2017**
- **GATE - Life Science 2017**

## MEMBERSHIP

- **Indian Dairy Association membership 2023-2024**

## PUBLICATIONS

- Published a review article on the title, ‘**Mucormycosis defence strategies: Insights from cow colostrum whey lactoferrin and peptides**’ in The Pharma Innovation Journal 2023; SP-12(11): 1795-1800 Authors Thakur N, Dhillon HS, Kaura R, Sain M, **Rizwan M**, Vij S.
- Published a Hindi article on the title, “**दही के लैक्टोफेरिन और पेप्टाइड्स: मुकुरमिकोसिस की रक्षा के लिए**” in “**National dairy Mela Samarika-2023**”, Mohammad Rizwan, Nishchal Thakur and Shilpa Vij, Page no 107-108.
- Published a Hindi article on the title, “**दही के लैक्टोफेरिन और पेप्टाइड्स: मुकुरमिकोसिस की रक्षा के लिए**” in “**National dairy Mela Samarika-2023**”, Dipti A. Waghmode, Mohammad Rizwan, and Shilpa Vij, Page no 7-10.
- Published a chapter on the title “**Plant-derived natural bioactive compounds as potential therapies for corona viruses and other SARS-related infections: future perspectives**”, Ajeet Singh<sup>1,2</sup>, Nalini Trivedi<sup>3\*</sup>, Prashant Goel<sup>4</sup>, **Mohammad Rizwan**<sup>4</sup>, Neha Patwa<sup>5</sup>, And Nikhil Mehta<sup>5</sup>.
- Published a chapter on the title “**Antiviral activities of medicinal plants and bioactive compounds against human viral pathogens: update on preclinical and clinical trial**”, Ajeet Singh<sup>1,2\*</sup>, Nikhil Mehta<sup>3</sup>, Neha Patwa<sup>3</sup>, Shivani Kumari<sup>4</sup>, Poonam Bangia<sup>5</sup>, Prashant Goel<sup>6</sup>, **Mohammad Rizwan**<sup>6</sup>, And Navneet Bithel<sup>1</sup>
- Editing and compilation of Training Compendium of 10-Days Hands-on Training on “**Preparation of Functional Fermented Dairy Products**”, sponsored by the Govt. of India’s SCSP (Scheduled Caste Sub Plan) Scheme at Dairy Microbiology Division, ICAR-NDRI, Karnal on 12-21<sup>st</sup> July 2023, Pages 136 Nos.
- Published Training Chapter on the title “**Functional Fermented Dairy Foods: An overview**”, at page no 01-05, in training compendium of 10-Days Hands-on Training on “**Preparation of Functional Fermented Dairy Products**”, sponsored by the Govt. of India’s SCSP (Scheduled Caste Sub Plan) Scheme at Dairy Microbiology Division, ICAR-NDRI, Karnal on 12-21<sup>st</sup> July 2023.
- Published Training Chapter on the title “**Preparation of Bio-functional yoghurt and sensory evaluation**” at page no 84-90, in training compendium of 10-Days Hands-on Training on “**Preparation of Functional Fermented Dairy Products**”, sponsored by the Govt. of India’s SCSP (Scheduled Caste Sub Plan) Scheme at Dairy Microbiology Division, ICAR-NDRI, Karnal on 12-21<sup>st</sup> July 2023.
- Published Training Chapter on the title “**Preparation of functional Dairy and whey beverages**”, at page no 113-119, in training compendium of 10-Days Hands-on Training on “**Preparation of Functional Fermented Dairy and whey beverages**”, sponsored by the Govt. of India’s SCSP (Scheduled Caste Sub Plan) Scheme at Dairy Microbiology Division, ICAR-NDRI, Karnal on 12-21<sup>st</sup> July 2023.

- **Pamphlet and Awareness article Publication** on the topic “**Stubble Burning**” in Hindi at **Agriculture academy of Haryana** in 2020.

## AWARDS & ACHIEVEMENTS

- **Consolation prize winner of 3000/-** as a **Young Investigator** for poster presentation on title “**Development and assessment of  $\alpha$ -glucosidase and DPP-IV inhibitory peptide-rich fermented camel milk with indigenous Lactobacillus cultures**” in the **13<sup>th</sup> India Probiotics Symposium, “Science Based Evidence on the Benefits of Probiotics for Human Health”** organised by the Gut Microbiota and Probiotic Science Foundation (India), on 25<sup>th</sup> & 26<sup>th</sup> March 2023.
- **First Prize Winner** for the product **Raagi Amra-khand and Raagi Mango Lassi** in the Milk millet based functional food category of the Innovative Millet Food Competition organised by the Dairy Technology Division of the ICAR-NDRI, Karnal on 4<sup>th</sup> March 2023.
- **Consolation Prize** in Poster presentation in Hindi titled as “**ग्लूकोसिडेस और डीपी-IV निरोधक पेप्टाइड-समृद्ध फेर्मेंट केली दूध में स्थितिजन्य लैक्टोबैसिलस संस्कृतियों का विकास और मूल्यांकन (ग्लूकोसिडेस-डीपी-IV निरोधक पेप्टाइड-समृद्ध फेर्मेंट केली दूध में स्थितिजन्य लैक्टोबैसिलस संस्कृतियों का विकास और मूल्यांकन)**” at NDRI, on 22<sup>nd</sup> Sept 2023.
- **Consolation Prize** in Poster presentation in Hindi titled as “**ग्लूकोसिडेस और डीपी-IV निरोधक पेप्टाइड-समृद्ध फेर्मेंट केली दूध में स्थितिजन्य लैक्टोबैसिलस संस्कृतियों का विकास और मूल्यांकन**” at NDRI, on 22<sup>nd</sup> Sept 2023.
- **First prize for Gene  $\alpha$  Meme**, organised by **Microbiologists Society, India (Delhi Unit)** in collaboration with Sookshma, held on 9<sup>th</sup> January 2022.
- **Third prize** for poster presentation on topic “**Isolation of Lactobacillus strain with  $\alpha$ -glucosidase inhibitory and DPP-IV inhibitory activities from camel milk**” in 27<sup>th</sup> International Conference of International Academy of physical sciences (CONIAPS XXVII) on “**Advances in Food Science and Technology**” 26<sup>th</sup> -28<sup>th</sup> Oct 2021.
- **First Prize** winner in **DuPont Nutri-Scholar Award-2020 (National level competition)** for making “**Nutri-Poi with Soymus**” in Quick Style Lunch Category for Academic year 220-2021, Conducted by Danisco, PlanIt and DuPont India.

## EXTRA-CURRICULAR ACTIVITIES

- **Training Co-ordinator** for 10-Days Hands-on Training on “**Preparation of Functional Fermented Dairy Products**”, sponsored by the Govt. of India’s SCSP (Scheduled Caste Sub Plan) Scheme at Dairy Microbiology Division, ICAR-NDRI, Karnal on 12-21<sup>st</sup> July 2023.
- **Co-ordinator** of the **Dairy Mela-2023** stall for Dairy Microbiology Division (ICAR-NDRI)
- **Co-ordinator** of the **Dairy Mela-2020** stall for Dairy Microbiology Division (ICAR-NDRI).
- Participated as an **Organising Committee Member** in **NDRI Global Alumni Scientific Meet** held on 15-17<sup>th</sup> March 2019.
- **Participated** in the ‘**Debate Competition (General Cleanliness Awareness)**’ held during “**Swachhata Pakhwada**” on 29<sup>th</sup> Dec, 2018 under Swachh Bharat Abhiyan Organized by Dairy Microbiology Division, ICAR-NDRI.

## SEMINARS AND CONFERENCE PARTICIPATIONS

- Poster presentation at 50<sup>th</sup> Dairy Industry Conference on “**Development of antidiabetic bioactive peptides through the production purification process in camel milk, utilizing an indigenous proteolytic lactobacillus strain**” organised by **Indian Dairy Association** (South zone) and IDA Telangana chapter during **04-06 March, 2024** at HITEX Exhibition Center, Izzat Nagar, Hyderabad.
- Participation in the 10<sup>th</sup> National Seminar on “**Indian Dairy & Food Industry in the Amrit Kaal: Opportunities and Challenges**” organised by NDRI Graduate Association & ICAR-National Dairy Research Institute, Karnal, Held on 29-30<sup>th</sup> Sept 2023.
- Poster Presentation at NGASM for innovative Idea competition, titled as “**Waste to fuel: Ethanol production for its application as boiler fuel**” at NDRI, 2023.
- Poster Presentation at 10<sup>th</sup> National Seminar on “**Indian Dairy & Food Industry in the Amrit Kaal: Opportunities and Challenges**” organised by NDRI Graduate Association, titled as “**Development of Fermented Camel Milk with Anti-diabetic Properties**” at NDRI, Held on 29-30<sup>th</sup> Sept 2023.
- **Poster presentation** on topic “**LC-MS Identification of Antimicrobial Bioactive Peptides Derived from Camel Milk by Microbial Fermentation**” in **11<sup>th</sup> Annual Meeting of Proteomics Society, India, 2019 and International Conference on Proteomics for System Integrated Bio-Omics, One Health, and Food Safety** 2<sup>nd</sup> – 4<sup>th</sup> Dec 2019.

## WORKSHOPS

- One day workshop on **“CME on Good Laboratory Practice (GLP)”** under IDP-NAHEP held on 09<sup>th</sup> Aug 2023 at ICAR-NDRI, Karnal.
- National Workshop on **“Drafting of Patent Application & Patent Filling Procedure”** held on 26<sup>th</sup> Aug 2022, at ICAR-NDRI, Karnal.
- International Web-Workshop on **“Innovative and Emerging Technologies for Food Safety & Nutritional Quality”** held on 12<sup>th</sup> May, 13<sup>th</sup> May and 25<sup>th</sup> May 2021, at ICAR-NDRI, Karnal.
- Online Workshop on **“Molecular Dynamics Simulations and In-Silico Drug Designing”** conducted by CytoGene, held on 12-13<sup>th</sup> June 2021.
- Workshop on **“Genome Editing in Farm Animals for Improved Productivity and Health”** held on 3<sup>rd</sup> March 2020 at ICAR-NDRI, Karnal.
- Workshop on **“Advances in Starter Culture Technology”** held on 14<sup>th</sup> Jan 2020 at ICAR-NDRI, Karnal, and Sponsored by IDP-NAHEP.
- Workshop on **“Mammalian Genome Editing by CRISPR Technique”** held on 14<sup>th</sup> Jan 2020 at ICAR-NDRI, Karnal, and Sponsored by IDP-NAHEP.
- Workshop on **“Advances in Starter Culture Technology”** held on 12<sup>th</sup> Dec, 2019 at ICAR-NDRI, Karnal, and Sponsored by IDP-NAHEP.

## TRAININGS

- Workshop cum Training on **Basic Food Microbiology and Microbial Diseases** by the collaboration of **ICAR-NDRI and Purdue University**, and Sponsored by IDP-NAHEP (1010209), during 4-15<sup>th</sup> Sept 2023 at ICAR-NDRI, Karnal.
- **Operation and Software application** training for **Vitek 2 Compact** by **Biomerieux** at **Metropolis Healthcare Ltd, New Delhi**, in 2014.
- **Operation and maintenance of Urine Analyzer, of Laura M**, by **Transasia** at **Metropolis Healthcare Ltd, New Delhi**, in 2014.

## WEBINARS

- National Webinar on **“Recent Advances in Dairy Process Engineering”** held on 24<sup>th</sup> to 28<sup>th</sup> Aug 2020, organised by Dept of Food Process Engineering, College of Food and Dairy Technology, Kodivalli in association of Food Scientists & Technologists (India), Chennai Chapter.
- Webinar on **“Why IPR?”** on Intellectual Property Rights organised by S.B. Jain Institute of Technology, Management & Research, Nagpur held on 26<sup>th</sup> June, 2020.
- Webinar on **“Importance of Rheology in the Development of Nano-packaging Materials”** on 28<sup>th</sup> Aug 2020, organised by Department of Food Engineering, NIFTEM.
- International Webinar on **“Process-driven Organic Contaminants in Food and Mitigation Strategies”** on 10<sup>th</sup> Sept 2020, organised by Department of Agriculture and Environmental Sciences, NIFTEM.
- National Webinar on **“Licensing System in Dairy and Food Industry”** held on 3<sup>rd</sup> Oct, 2020, organised by College of Dairy Science & Food Technology, Raipur.
- National Webinar on **“Trends in Detection of Adulterants in Milk and Ghee”** held on 15<sup>th</sup> Sept 2021, organised by Dairy Chemistry Department SMC College of Dairy Science, Kamdhenu University, Anand, Gujrat.
- Webinar on **“Aflatoxin & Antibiotic Residues in Milk”** held on 15<sup>th</sup> May, 2021, organised by Indian Dairy Association, Tamil Nadu Chapter.
- International Webinar on **“Impact of Climate Change and Heat Stress on Dairy Cattle and Mitigation Strategies”** held on 20<sup>th</sup> June, 2020, organised by Animal Physiology Division of ICAR-NDRI, Karnal.
- National Webinar on “Pharmacological Potential of A1 and A2 Milk: Myths and Facts” held on 11<sup>th</sup> July 2020, by ISVPT.
- Online National Conference on **“Implementing Strategies to Achieve Food Security and Food Sustainable Partnership: Progress and Challenges”** conducted on 29 – 30<sup>th</sup> July 2021, organised by College of Food and Dairy Technology, Koduvelli, Chennai.

## SKILLS

### TECHNICAL SKILLS

- MS office utilities

### SOFT SKILLS

- Effective Communication

### INSTRUMENT

- HPLC



- General internet tools
- Adobe Photoshop
- ZOOM
- Microsoft Team
- Leadership
- Self-motivating
- Positive attitude
- Ultrafiltration
- PCR
- Spectrophotometer
- GCMS

## REFERENCES

### Dr. Shilpa Vij

Principal Scientist  
Dairy Microbiology Division  
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### Dr. D. C. Sharma

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## Declaration

I hereby declare that the above-mentioned information is true to the best of my knowledge and belief.

Place:

Date:



(Signature)