

## Brief CV



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**Name Dr Deepak B. Rawool, Ph.D**

**Present Designation:** Senior Scientist, ICAR-National Research Center on Meat, Hyderabad

### **Educational Qualifications**

Graduation : B.V. Sc and A.H. (Bombay Veterinary College, Parel, Mumbai, India)

Post Graduation: M.V.Sc (Food Hygiene and Veterinary Public Health) - . (Bombay Veterinary College, Parel, Mumbai, India)

Doctorate: Ph.D. (Veterinary Public Health), Division of Veterinary Public Health, ICAR-Indian Veterinary Research Institute, Izatnagar – 243122

### **Research Accomplishments**

#### **Project Handled as Principal Investigator**

- DBT Projects: Two (completed)
- DHR/ICMR funded project: One (completed)

#### **Students Guided:**

- M.V.Sc. – 07 students
- Ph.D – 02 students

### **Publications**

- International Research Papers: 53 Numbers
- National Research Papers: 05 Numbers
- Invited Lead Lecture talks: 45 Numbers

- Abstracts /Presentations in conferences/symposium/workshops: 42 Numbers

### Research Publications :

1. Vergis J, Malik S.V.S., Pathak, R, Kumar M, Sunitha R, Kurkure N. V., Barbuddhe S.B., **Rawool D.B.\*** (2019). Antimicrobial efficacy of Indolicidin against multi-drug resistant Enteroaggregative *Escherichia coli* in a *Galleria mellonella* model. *Frontiers in Microbiology*. 10:2723. doi: 10.3389/fmicb.2019.02723. **(TR: 4.29, NAAS: 10.02)**. **(Involved as Corresponding author)**
2. Girisha,P.S., Barbuddhe, S.B., Kumari, A., **Rawool, D.B.**, Karabasanavar, N., Muthukumar, M., Vaithiyanathan, S. (2019). Rapid detection of pork using alkaline lysis- Loop Mediated Isothermal Amplification (AL-LAMP) technique. **Food Control** (Accepted) **(TR: 4.25, NAAS:9.67)** **(Involved as Co-author)**
3. Vergis J, Malik SVS, Pathak R, Kumar M, Sunitha R, Barbuddhe SB, **Rawool DB.\*** 2019. Efficacy of Indolicidin, Cecropin A (1-7)-Melittin (CAMA) and their combination against biofilm-forming multidrug-resistant Enteroaggregative *Escherichia coli*. *Probiotics and Antimicrobial Proteins*. 1-11 <https://doi.org/10.1007/s12602-019-09589-8> **(TR: 2.91, NAAS:8.35)** **(Involved as Corresponding author)**
4. Yadav, j.p., Malik S.V.S. Dhaka, P., Kumar, M., Bhoomika, S., Gourkhede, D., Kumar, B., Verma, M.R., Barbuddhe, S.B., **Rawool, D.B.\*** (2019). Seasonal variation in occurrence of *Coxiellaburnetii* infection in buffaloes slaughtered in India, *Biological Rhythm Research*, DOI: 10.1080/09291016.2019.1627643 **(TR: 0.773, NAAS: 6.773)** **(Involved as Corresponding author)**
5. Dhaka, P., Malik, S.V.S., Yadav, J.P., Kumar, M., Baranwal, A., Barbuddhe, S.B., **Rawool, D.B.** (2019). Seroprevalence and molecular detection of coxiellosis among cattle and their human contacts in an organized dairy farm. *Journal of Infection and Public Health*, 12(2): 190-194 **(TR: 2.118, NAAS: 8.12)** **(Involved as Co-author)**
6. Manesh Kumar, Satyaveer Singh Malik, Jess Vergis, Sunitha Ramanjeneya, Radhakrishna Sahu, Richa Pathak, Jay Prakash Yadav, Pankaj Dhaka, Sukhadeo B. Barbuddhe and **Deepak B. Rawool\*** (2019). Development of the Com1 synthetic peptide-based Latex Agglutination Test (LAT) and its comparative evaluation with commercial indirect-ELISA for sero-screening of coxiellosis in cattle. *Journal of Microbiological Methods*, 162: 83-85 **(TR- 1.803, NAAS- 7.803)**. **(Involved as Corresponding author)**
7. Manesh Kumar, Satyaveer Singh Malik, Sunitha Ramanjeneya, Radhakrishna Sahu, Jess Vergis, Richa Pathak, Pankaj Dhaka, Jay Prakash Yadav, Sukhadeo Baliram Barbuddhe and **Rawool. D.B.\*** (2019). A cross-sectional Study on the Occurrence of *Coxiella burnetii* Infection in a Dairy Farm, Bareilly, India. *International Journal of Current Microbiology and Applied Sciences*, 8(02): 2102-2107. doi: <https://doi.org/10.20546/ijcmas.2019.802.243> **(NAAS: 5.38)** **(Involved as Corresponding author)**
8. Sunitha R, Sahoo S.C., Pathak R., Kumar M., Vergis J., Malik S.V.S., Barbuddhe S.B., **Rawool D.B.\*** (2018). Virulence potential, biofilm formation and antibiotic susceptibility of *Listeria monocytogenes* isolated from cattle housed in a particular gaushala (cattle shelter) and organized farm. *Foodborne Pathogens and Disease*. 16 (3): 1-7 **(TR: 2.476, NAAS: 8.48)** **(Involved as Corresponding author)**

9. Das D.P., Malik S.V.S., Sahu R., Yadav J.P., **Rawool D.B.**, Barbuddhe S.B. (2018). Loop-mediated isothermal amplification assay for detection of *Coxiella burnetii* targeting the com1 gene. *Journal of Microbiological Methods*, 155: 55-58. **(TR- 1.803, NAAS- 7.803) (Involved as Co- author)**
10. Radhakrishna S, Kale S.B., Vergis J., Dhaka P., Kumar M., Choudhary M., Jain L., Choudhary B.K., **Rawool D.B.**, Chaudhari S.P., Kurkure N.V., Malik S.V.S., Barbuddhe S.B. (2018). Apparent prevalence and risk factors associated with occurrence of *Coxiella burnetii* infection in goats and humans in Chhattisgarh and Odisha, India. *Comparative Immunology, Microbiology and Infectious Diseases* 60: 46–51 **(TR: 1.920, NAAS 7.92) (Involved as Co-author)**
11. Doijad, S.P., Poharkar, K.V., Kale, S.B. Kerkar, S., Kalorey, D.R., Kurkure, N.V., **Rawool, D.B.**, Malik, S.V.S., et al., (2018). *Listeria goaensis* sp. nov. *International Journal of Systematic and Evolutionary Microbiology* DOI10.1099/ijsem.0.002980 **(TR: 1.932, NAAS: 7.93) (Involved as Co- author)**
12. Vergis J, Pathak, R, Kumar M, Sunitha R, Malik S.V.S, Barbuddhe S.B., **Rawool D.B.\*** (2018). A comparative study for detection of extended spectrum  $\beta$ -lactamase (ESBL) production by Enteroaggregative *Escherichia coli* (EAEC) strains using double disc, nitrocefin and PCR assays. *Journal of Microbiological Methods*, 151: 57- 61. **(TR- 1.803, NAAS- 7.803) (Involved as Corresponding author)**
13. Kale, S.B., Kurkure, N.V., Doijad, S.P., Poharkar, K.V., Garg, S., **Rawool, D.B.** and Barbuddhe, S.B. 2017. Variations in Stress Tolerance Abilities of Diverse *Listeria monocytogenes* isolates. *International Journal of Current Microbiology and Applied Sciences*, 6(5): 2246-2258. **(NAAS: 5.38) (Involved as Co-author)**
14. Dhaka, P., Malik, S.V.S., Yadav, J.P., Kumar, M., Vergis, J., Sahu, R., John, L., Barbuddhe, S.B. and **Rawool, D.B.** 2017. Seroscreening of lactating cattle for Coxiellosis by Tran-PCR and commercial ELISA in Kerala, India. *Journal of Experimental Biology and Aricultural Science*, 5:3. **(NAAS: 5.07) (Involved as Co-author)**
15. Kale, S.B., Doijad, S.P., Poharkar, K.V., Garg, S., Pathak, A.D., Raorane, A.V., **Rawool, D.B.**, Kurkure, N.V. and Barbuddhe, S.B. 2017. Elucidation of the role of the minC gene in filament formation by *Listeria monocytogenes* under stress conditions. *International Journal of Current Research and Review*, 9(9): 9. **(NAAS: 2.78) (Involved as Co-author)**
16. Mohan, V., Nair, A., Kumar, M., Dhaka, P., Vergis, J., Rawool, D.B. and Malik, S.V.S., 2017. Seropositivity of goats for Coxiellosis in Bareilly region of UP India. *Adv. Anim. Vet. Sci.* 5: 226-228. **(NAAS: 4.04) (Involved as Co-author)**
17. Suryawanshi RD, Malik SVS, Jayarao B, Chaudhari SP, Savage E, Vergis J, Kurkure NV, Barbuddhe SB, **Rawool DB.** (2017). Comparative diagnostic efficacy of recombinant LLO and PI-PLC-based ELISAs for detection of listeriosis in animals. *Journal of Microbiological Methods*, 137: 40- 45 **(TR- 1.803, NAAS- 7.803) (Involved as Co-author)**
18. **Rawool D.B.**, Doijad S.P., Poharkar K.V., Negi M., Kale S.B., Malik S.V.S., Kurkure N.V., Chakraborty T., Barbuddhe S.B.\*(2016). A multiplex PCR for detection of *Listeria monocytogenes* and its lineages. *Journal of Microbiological Methods* 130:144–147. **(TR- 1.803, NAAS- 7.803) (Involved as First author and Corresponding author)**
19. Barbuddhe S.B.\*, **Rawool D.B.**, Malik S.V.S., et al., (2016). Presence of a widely disseminated *Listeria monocytogenes* serotype 4b clone in India. *Emerging Microbes*

- and Infections* 5, e55; doi:10.1038/emi.2016.55 (TR: 6.03, NAAS: 12.03) (Involved as Co-author)
20. Kumar, M., Dhaka P., Vijay D., Vergis J., Mohan V., Ashok Kumar, Kurkure N.V., Barbuddhe S.B., Malik S.V.S., Rawool D.B.\* (2016). Antimicrobial effects of *Lactobacillus plantarum* and *Lactobacillus acidophilus* against multi-drug resistant Enteroaggregative *Escherichia coli*. *International Journal of Antimicrobial Agents*. 48: 265 – 270 (TR: 4.307, NAAS: 10.307) (Involved as Co-author)
  21. Dhaka, P. Vijay D., Vergis J., Negi M., Kumar M., Mohan V., Doijad S., Poharkar, K.V., Malik S.V.S., Barbuddhe S.B., Rawool D.B\*. (2016). Genetic diversity and antibiogram profile of diarrhoeagenic *Escherichia coli* pathotypes isolated from human, animal, foods and associated environmental sources. *Infection Ecology and Epidemiology*. 6:31055 - <http://dx.doi.org/10.3402/iee.v6.31055> (Involved as Corresponding author)
  22. Sharma R, Rawool DB, Patil RD, Mohan V, Kumar V, Parimoo HA, Pati US, Singh B, Bhat TK. (2016). *Bacillus cereus* infection-associated pneumonia in an African grey parrot (*Psittacus erithacus erithacus*). *Comparative Clinical Pathology*, 25(1); 231-35. 10.1007/s00580-015-2165-1 (TR: 0.530, NAAS: 6.530) (Involved as Corresponding author)
  23. Doijad SP, Barbuddhe SB, Garg S, Poharkar KV, Kalorey DR, Kurkure NV, Rawool DB, Chakraborty T. (2015) Biofilm-Forming Abilities of *Listeria monocytogenes* Serotypes Isolated from Different Sources. *PLoS ONE* 10(9): e0137046. doi:10.1371/journal.pone.0137046 (TR: 2.776, NAAS: 8.77) (Involved as Co-author)
  24. Negi M, Vergis J, Vijay D, Dhaka P, Malik S.V.S., Ashok Kumar, Poharkar KV, Doijad SP, Barbuddhe SB, Ramteke PW and Rawool DB.\* (2015) Genetic diversity, virulence potential and antimicrobial susceptibility of *Listeria monocytogenes* recovered from different sources in India. *FEMS Pathogen & Disease*; 73(9) ; 1-8 doi: 10.1093/femspd/ftv093 (TR: 2.335, NAAS: 8.34) (Involved as Corresponding author)
  25. Nair A, Rawool DB\*, Doijad S, Poharkar K, Mohan V, Barbuddhe SB, Kolhe R, Kurkure NV, Ashok Kumar, Malik S.V.S., Balasaravanan T. (2015). Biofilm formation and genetic diversity of *Salmonella* isolates recovered from clinical, food, poultry and environmental sources. *Infection, Genetics and Evolution*, <http://dx.doi.org/10.1016/j.meegid.2015.08.012> (TR: 2.611, NAAS: 8.55) (Involved as Corresponding author)
  26. Nair A, Balasaravanan T, Malik SVS, Mohan V, Kumar M, Vergis J, Rawool DB\* (2015) Isolation and identification of *Salmonella* from diarrhoeagenic infants and young animals, sewage waste and fresh vegetables, *Veterinary World* 8(5):669-673 (NAAS: 5.77) (Involved as Corresponding author)
  27. Rawool DB\*, Vergis J, Vijay D, Dhaka P, Negi M, Kumar M, Nair A, Poharkar KV, Kurkure NV, Kumar A, Malik SVS, Barbuddhe SB (2015). Evaluation of a PCR targeting fimbrial subunit gene (fimA) for rapid and reliable detection of Enteroaggregative *Escherichia coli* recovered from human and animal diarrhoeal cases *Journal of*

- Microbiological Methods* 110: 45–48. (TR- 1.803, NAAS- 7.803) (Involved as First author and Corresponding author)**
28. Vijay D, Dhaka P, Vergis J, Negi M, Mohan V, Kumar M, Doijad S, Poharkar K, Kumar A, Malik SVS, Barbuddhe SB, **Rawool DB\*** (2015). Characterization and biofilm forming ability of diarrhoeagenic Enteroaggregative *Escherichia coli* isolates recovered from human infants and young animals. ***Comparative Immunology, Microbiology and Infectious Diseases* 38: 21–31. (TR: 1.920, NAAS 7.92) (Involved as Corresponding author)**
29. Sawant PM, Dhama K, **Rawool DB**, Wani MY, Tiwari R, Singh SD, Singh RK (2015). Development of a DNA vaccine for chicken infectious anemia and its immunogenicity studies using high mobility group box 1 protein as a novel immunoadjuvant indicated induction of promising protective immune responses. ***Vaccine* 33(2): 333-40. (TR: 3.29, NAAS 9.29) (Involved as Co- author)**
30. Dhanze H, Bhilegaonkar KN, Ravi Kumar GVPPS, Thomas P, Chethan Kumar HB, Suman Kumar M, Rawat S, Kerketta P, **Rawool DB**, Kumar A (2015). Comparative evaluation of nucleic acid-based assays for detection of Japanese encephalitis virus in swine blood samples, ***Archives of Virology***, doi: 10.1007/s00705-015-2385-3 **(TR: 2.16, NAAS 8.16) (Involved as Co- author)**
31. Kalekar S., Doijad, S., Poharkar, K.V., Rodriguez S., Kalorey DR, Kurkure NV, Rawool DB, D'Costa D, Bhosle S and Barbuddhe SB (2015). Characterization of *Listeria monocytogenes* isolated from human clinical cases. ***International Journal of Medical and Health Sciences***, 4(2): 206-212. **(Involved as Co-author)**
32. Das S, Malik SVS, Shrivastava S, Gandhale P, Kumar S, Shoukat S, Cas DP, Barbuddhe SB, **Rawool DB** (2014). Virulence marker based multiplex PCR for detecting Internalin C (*inlC*), Internalin J (*inlJ*) and Listeriolysin O (*hlyA*) genes in *Listeria* spp. ***Asian Journal of Microbiology, Biotechnology, Environmental Science*. 16(4): 909-915. (NAAS 4.93) (Involved as Co-author)**
33. Negi M, **Rawool DB\***, Vergis J, Dhaka P, Vijay D, Mohan V, Suryavanshi R, Malik SVS, Kumar A, Barbuddhe SB, Ramteke PW (2014). Isolation and Identification of pathogenic *Listeria monocytogenes* from diarrhoeal cases in human infants and young animals. ***Advances in Animal and Veterinary Sciences* 2 (5S): 5 – 10. (NAAS: 4.04) (Involved as Corresponding author)**
34. Suryawanshi RD, Jayarao B, Barbuddhe SB, Chaudhari Sp, **Rawool DB**, Mohan V, Vergis J, Negi M, Malik SVS. (2014). Seropositivity of Field Veterinarians for Listeric Infection by Indirect ELISAs Employing Recombinant and Wild-Type Listeriolysin O. ***Advances in Animal and Veterinary Sciences* 2 (5S): 17 – 21 (NAAS: 4.04) (Involved as Corresponding author)**
35. Vergis J, Das DP, Suryawanshi RD, Negi M, Dhaka P, Vijay D, Mohan V, Nair A, Malik SVS, Barbuddhe SB, **Rawool DB**. (2014). One Health Approach: Veterinary Perspectives in Global and Indian Context. ***Advances in Animal and Veterinary Sciences* 2 (4S): 11 – 16 (NAAS: 4.04) (Involved as Corresponding author)**
36. Das, D.P., Malik, S.V.S., **Rawool, D.B.**, Das, S., Shoukat, S., Gandham, R.K., Saxena, S., Singh, R., Doijad, S.P., Barbuddhe S.B. (2014). Isolation of *Coxiella burnetii* from bovines with history of reproductive disorders in India, and phylogenetic inference

- based on the partial sequencing of *IS 1111* element. *Infection, Genetics and Evolution*. 22: 67–71 (TR: 2.611, NAAS: 8.55) (Involved as Co-author)
37. Malik, S.V.S., Das, D.P., **Rawool, D.B.**, Ashok Kumar, Suryawanshi, R.D., Negi, M., Vergis, J., Doijad, S., Barbuddhe, S.B. (2013). Screening of Foods of Animal Origin for *Coxiella burnetii* in India. *Advances in Animal and Veterinary Sciences*, 1(4):107–110. (NAAS: 4.04) (Involved as Co-author)
  38. Vergis, J., Negi, M., Poharkar, K., Das, D.P., Malik, S.V.S., Kumar, A., Doijad S.P., Barbuddhe, S.B., **Rawool, D.B.\*** (2013). 16S rRNA PCR followed by restriction endonuclease digestion: A rapid approach for genus level identification of important enteric bacterial pathogens *Journal of Microbiological Methods*, 95: 353–356 (TR- 1.803, NAAS- 7.803) (Involved as Corresponding author)
  39. Samir Das, Malik, S.V.S., Shrivastava, S., Gandhale, P., Satish Kumar, Shoukat, S., Das, D.P., Barbuddhe, S.B., **Rawool, D.B.** (2013). Comparative efficacy of Internalin C-based peptide and listeriolysin O-based enzyme linked immunosorbent assays for serodiagnosis of listeric infection in goats. *African Journal Microbiological Research* Vol. 7(48): 5471-5478. (Involved as Co-author)
  40. Shabu Shoukat, Malik SVS, **Rawool DB\***, Ashok Kumar, Kumar S, Shrivastava S, Das DP, Das S, Barbuddhe SB.(2013). Comparison of indirect based ELISA by employing purified LLO and its synthetic peptides and cultural method for diagnosis of ovine listeriosis. *Small Ruminant Research* 113(1): 301–306. (TR- 1.210, NAAS- 6.97) (Involved as Corresponding author)
  41. Sunagar R, Deore S, Deshpande PV, Sannejal AD, Sundareshan S, **Rawool DB**, Barbuddhe SB, Jhala MK, Bannalikar AS, Muglikar DM, Kumari VJ, Dhanalakshmi K, Reddy YN, Rao PP, Babra C, Tiwari JG, Mukkur TK, Costantino P, Wetherall JD, Isloor S and Hegde NR (2012). Differentiation of *Staphylococcus aureus* and *Staphylococcus epidermidis* by PCR for the fibrinogen binding protein gene (*fib*). *Journal of Dairy Science*, (In Press) (TR- 3.082, NAAS- 8.75) (Involved as Co-author)
  42. Mraheil, M.A., Billion, A., Mohamed, W., **Rawool, D.**, Hain, T., Chakraborty, T. (2011). Adaptation of *Listeria monocytogenes* to oxidative and nitrosative stress in IFN- $\gamma$ -activated macrophages. *International Journal of Medical Microbiology*, 307(7) : 547-55. (TR- 3.362, NAAS- 9.30) (Involved as Co-author)
  43. Kalekar, S; Rodrigues, J; D'Costa, D; Doijad, S; Ashok Kumar, J; Malik, S V S; Kalorey, D R; **Rawool, D B**; Hain, T; Chakraborty, T; Barbuddhe, S B. (2011). Genotypic characterization of *Listeria monocytogenes* isolated from humans in India. *Annals of Tropical Medicine and Parasitology*, 105(5): 351-358(8) (TR- 1.70, NAAS- 7.70) (Involved as Co-author)
  44. Bitsaktsis, C\*, **D. B. Rawool\***, Yili Li., N. V. Kurkure, B. Iglesias, and E. J. Gosselin. (2009). Differential requirements for protection against mucosal challenge with *Francisella tularensis* in the presence versus absence of Cholera Toxin B and inactivated *F. tularensis*, *Journal of Immunology* 182(8):4899-4909 \* Equal contributors (TR- 4.718, NAAS- 10.54) (Involved as First author)
  45. **D.B. Rawool**, , Bitsaktsis, C., Y. Li, D. R. Gosselin, Y. Lin, N.V. Kurkure, D.W. Metzger, and E.J. Gosselin (2008). Utilization of Fc Receptors as a Mucosal Vaccine Strategy against an intracellular bacterium, *Francisella tularensis*, *Journal of Immunology* 180: 5548–5557. (TR- 4.718, NAAS- 10.54) (Involved as First author)

46. Ritu Aurora, Prakash, A., Prakash, S., **Rawool, D.B.** and Barbuddhe, S.B. (2008) Comparison of PI-PLC based assays and PCR along with *in-vivo* pathogenicity tests for rapid detection of pathogenic *Listeria monocytogenes*, *Food Control* **19**:641-647. (TR: 4.25, NAAS:9.67) (Involved as Co-author)
47. D. R. Kalorey, S. R. Warke, N. V. Kurkure, **D.B. Rawool**, and S.B. Barbuddhe. (2008). *Listeria* species in bovine raw milk: a large survey of Central India, *Food Control*. **19**:109-112. (TR: 4.25, NAAS:9.67) (Involved as Co-author)
48. **Rawool, D.B.**, Malik, S.V.S., Barbuddhe S.B. Shakuntala, I. and Aurora, R. (2007). A Multiplex PCR for detection of virulence associated genes of *Listeria monocytogenes*. *Int. J Food Safety* **9** : 56-62. (Involved as First author)
49. **Rawool, D.B.**, Malik, S.V.S., Shakuntala, I., Sahare, A.M. and Barbuddhe S.B. (2006). Detection of multiple virulence associated genes in *Listeria monocytogenes* isolated from bovine mastitis cases, *International Journal of Food Microbiology* **113**(2): 201-207. (TR: 4.006, NAAS:9.45) (Involved as First author)
50. Shakuntala, I., Malik, S.V.S., Barbuddhe, S.B. and **Rawool, D.B.** (2006). Isolation of *Listeria monocytogenes* from buffaloes with reproductive disorders and its confirmation by PCR. *Veterinary Microbiology* **117**(2-4): 229-234 (TR: 2.791, NAAS: 8.52) (Involved as Co-author)
51. Kalorey, D.R., Kurkure, N.V., Warke, S. R., **Rawool, D.B.**, Malik, S.V.S. and Barbuddhe, S.B. (2006). Occurrence of *Listeria* in faeces of captive wild animals. *Comparative Microbiology, Immunology and Infectious Diseases* **29**(5-6):295-300 (TR: 1.920, NAAS 7.92) (Involved as Co-author)
52. Vaidya, V. M. Paturkar, A.M., Waskar, V.S. Zende, R.J. and **Rawool, D.B.** (2004). Study of indicator organisms on Poultry carcass sites in organized slaughterhouse. *J Muscle Food*. **16**: 289-297 (Involved as Co-author)
53. Dubal Z. B., Paturkar, A.M., Waskar, V.S., Zende, R.J., Latha, C., **Rawool, D.B.** and Kadam. M.M. (2004). Effect of Organic acid sprays on *S. aureus*, *L. monocytogenes*, *E.coli* and *S. Typhimurium* artificially inoculated on sheep/goat meat preserved at refrigeration temperature. *Meat Science* **66**: 817 - 821. (TR: 3.843, NAAS 8.82) (Involved as Co-author)
54. Shakuntala, I., Malik, S.V.S., Barbuddhe, S.B. and **Rawool, D.B.** (2007). Isolation of *Listeria monocytogenes* from buffaloes with reproductive disorders and their serological profile against listeriolysin-O. *Indian Journal of Animal Sciences*. **77** (2): 11-00 (NAAS 6.28) (Involved as Co-author)
55. Malik, S.V.S., Rao, J.R., Samanta, S., Barbuddhe, S.B., Shakuntala, I. and **Rawool, D.B.** (2006). Seroprevalence of toxoplasmosis in humans, animals and poultry by modified agglutination test. *Indian Journal of Comparative Microbiology, Immunology and Infectious diseases*. **26**: 86-88. (NAAS 4.49) (Involved as Co-author)
56. Shoukat, S, Malik, S.V.S., **Rawool, D.B.\***, Ashok Kumar, Satish Kumar, Shrivastava, S., Barbuddhe, S.B., Das, D.P., Das, S. (2013). A Study on Detection of Pathogenic *Listeria monocytogenes* in Ovines of Kashmir Region Having Abortion or History of Abortion. *Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci.*, DOI 10.1007/s40011-013-0228-0. (Received: 24 April 2013 / Revised: 16 June 2013 / Accepted: 12 July 2013). (Involved as Corresponding author)
57. Das, D.P., Malik, S.V.S., Mohan, V., **Rawool, D.B.\***, Barbudhe, S.B. (2013). Screening of fecal droppings of wild birds for Coxiellosis by a duplex PCR

targeting Com1 and IS1111 genes of *Coxiella burnetii*. *J. Foodborne Zoon. Dis.* 1(1): 14-20. **(Involved as Corresponding author)**

58. Rajagunalan, S., Kumari, G., Gupta, S.K., Kumar, A., Agarwal, R.K., **Rawool, D.B.** and Singh, D.K. (2013). Molecular characterization of Omp31 gene of Indian field isolates of *Brucella melitensis*. *Indian Journal of Animal Sciences.* 83 (7): 673-677. **(NAAS 6.28)**
59. Bhoomika, S., Hazari, R., Yadav, J.P., Pathak, R., Satyaprakash, K., Gourkhede, D., Malik, S.V.S., Barbuddhe, S.B. and **Rawool, D.B.** (2019). Comparative evaluation of methicillin resistant and methicillin sensitive *Staphylococcus aureus* of livestock origin for antibiotic sensitivity, biofilm formation and virulence in *Galleria mellonella*. *Journal of Animal Research* 9(5): 775-781 **(NAAS: 5.68) (Involved as Co-author)**

### **Datasheets (03) in Animal Health and Production Compendium (AHPC), CAB International, Wallingford, UK:**

- ❖ Malik, S.V.S., Barbuddhe, S.B., **Rawool, D.B.**, Vaidya, V.M. and Sahare, A.M. (2005). Datasheet on Rotaviruses (global status of Rotavirus infections in man and animals). In: Animal Health and Production Compendium, CAB International, Wallingford, UK, [www.cabicompendium.org/ahpc](http://www.cabicompendium.org/ahpc). pp.67.
- ❖ Malik, S.V.S., Barbuddhe, S.B., **Rawool, D.B.**, Sahare, A.M., Fiske, A.V. and Vaidya, V.M. (2006). Datasheet on *Coxiella burnetii* (global status of Q fever in man animals). In: Animal Health and Production Compendium, CAB Int., Wallingford, UK, [www.cabicompendium.org/ahpc](http://www.cabicompendium.org/ahpc), pp.32.
- ❖ Barbuddhe, S.B., Malik, S.V.S., Kalorey, D.R., Sahare, A.M., **Rawool, D.B.**, Vaidya, V.M. and Kurkure, N.V. (2007). Food safety and Quality Enhancement Datasheet on *Coxiella burnetii*. [www.cabicompendium.org/ahpc](http://www.cabicompendium.org/ahpc), pp.27.

### **Book Chapters**

1. **Rawool, D.B.**; Barbuddhe, S.B. and Malik, S.V.S. (2013). Diversity among emerging Enterohemorrhagic *Escherichia Coli* In: Microbial Diversity and its applications (Chapter-13), S.B. Barbuddhe, R. Ramesh, N.P. Singh (Editors), New India Publishing Agency, New Delhi, pp. 141-168.
2. Ashok Kumar, **D.B. Rawool** and K.M. Lokesh (2013) Health hazard associated with poultry production in the scenario of emerging zoonotic disease, their prevention and control. In: Rural Poultry Production: The need and strategy for sustainable development (Chapter 9), S. Malik (Editor), Westville Publishing House, New Delhi, pp – 89-113.
3. Barbuddhe S.B. and **Rawool D.B.** (2014). Foodborne Pathogens: A Global and Indian Perspective In: Major Tropical Diseases Public Health Perspectives (Chapter-23), Ashwani Kumar, Savio Rodrigues, Amit Das (Editors), Broadway Publishing House, Goa, pp. 393 - 422.
4. **Rawool D.B.**, S.V.S. Malik, Manesh Kumar, J.P. Yadav, Bhoomika S, R. Pathak, D. Ujjwal, S.B. Barbuddhe, 2018. Newer approaches for poultry processing in disease scarce conditions. **Technological Advances in Value Addition as well as Production of**



**Green and Safe Poultry Products.** pp 42-47 Published by ICAR-CARI, Izatnagar (ISBN no. 978-93-5311-841-9).

5. **Rawool D.B,** S.V.S. Malik, Manesh Kumar, J.P. Yadav, Bhoomika S, R. Pathak, D. Ujjwal, S.B. Barbuddhe, 2018. Assessment of antimicrobial resistance profile of bacterial pathogens of poultry origin: Recent approaches. **Technological Advances in Value Addition as well as Production of Green and Safe Poultry Products.** pp 48-55. Published by ICAR-CARI, Izatnagar (ISBN no. 978-93-5311-841-9).
6. **Rawool D.B,** Bhoomika S, Vergis, J., Pathak, R., Satyaprakash, K., Gourkhede, D., Yadav, J.P., Malik, S.V.S., Barbuddhe, S.B. 2018. Antimicrobial peptides: An alternative approach to tackle antimicrobial resistant pathogens. In: **Current topics in veterinary public health and zoonoses.** pp 13-17 published by Department of Veterinary Public Health and Epidemiology, CVAS, GBPUAT, Pantnagar (ISBN No. 978-93-84970-06-2).
7. S.V.S. Malik, **Rawool D.B,** Jay Prakash Yadav, Satyaprakash Kaushik, 2018. Public health implications of zoonotic pathogens in workers associated with poultry processing. In: **Technological Advances in Value Addition as well as Production of Green and Safe Poultry Products.** pp 331-340 Published by ICAR-CARI, Izatnagar (ISBN no. 978-93-5311-841-9).

### [Training/Laboratory Manual](#)

1. Barbuddhe, S.B., Kalorey, D.R., **Rawool, D.B.**, Doijad, S.P. and Poharkar K. V. (2012) Training manual of workshop on “Techniques for Rapid Detection of *Listeria* from Food and Clinical samples” May 23-25, 2012, sponsored by Dept. of Biotechnology, Govt. of India. pp. 1-26.
2. Barbuddhe, S.B., Kalorey, D.R., Kurkure, N.V., **Rawool, D.B.**, Warke, S. R., Kolhe, R.P. and Poharkar K. V. (2013) Training manual of workshop on “Isolation and characterization of *Listeria monocytogenes* from food and clinical samples” March 4-6, 2013, sponsored by Dept. of Biotechnology, Govt. of India. pp. 1-25.
3. Barbuddhe, S.B., Doijad, S.P., Poharkar, K.V., Kurkure, N.V., **Rawool, D.B.** and Dubal, Z.B. (2013). Manual on Methods for detection of *Listeria* from food and clinical samples. 18th September, 2013, sponsored by Dept. of Biotechnology, Govt. of India. pp. 1-28.
4. **Rawool, D.B,** Barbuddhe, S.B., Malik S.V.S., Doijad, S., Vergis, J., Negi, M. (2014). Manual on Isolation of *Listeria* from food and clinical samples. sponsored by Dept. of Biotechnology, Govt. of India. pp. 1-26.
5. Barbuddhe, S.B., Kurkure, K.V., **Rawool, D.B.**, Chaudhari, S.P., Poharkar, K.V., Raorane A.V. and Kale, S. (2015). Manual on Methods for isolation of *Listeria* from food and clinical samples. sponsored by Dept. of Biotechnology, Govt. of India. pp. 1-28.
6. Barbuddhe, S.B., Vinay Kumar, Lata Jain, **Rawool, D.B.**, Kurkure N.V., Kale, S. and Chatlod L.R. (2016). Manual on “Methods for detection of foodborne pathogens from foods and clinical samples with special reference to *Listeria monocytogenes*”, sponsored by Dept. of Biotechnology, Govt. of India. pp. 1-61

7. Barbuddhe, S.B., Kurkure, K.V., Vinay Kumar, Lata Jain, Kale, S., Bhojar, S., Chaudhari, S.P., and **Rawool, D.B.**, (2017). Manual on "ISO Methods for detection of *Listeria monocytogenes* and introduction to PFGE analysis", sponsored by Dept. of Biotechnology, Govt. of India. pp. 1-68
8. **Rawool D.B.** (2018). Laboratory manual on Environmental Hygiene (BVSc&AH)
9. Himani Dhanze, **D.B. Rawool** and Z.B. Dubal (2018). Laboratory manual on Veterinary Public Health and Food safety (BVSc&AH).

### Extension leaflets

1. **Vector borne zoonoses leaflets** (Dual language – Hindi and English)
2. **Awareness on Zoonoses** (Dual language – Hindi and English)
3. **Rabies** (Dual language – Hindi and English)
4. **Awareness on Antimicrobial Resistance AMR** (Dual language – Hindi and English)
5. **Hand Hygiene** (Dual language – Hindi and English)

### Awards and Recognisations

- Overseas Postdoctoral Research Fellowship at Dept of Immunology and Microbial Disease, Albany Medical College, Albany, NY, USA. (July , 2005 to August, 2007)
- Overseas Postdoctoral Research Fellowship at Institute for Medical Microbiology, Justus-Liebig University, Giessen, Germany (April, 2008 to Oct., 2009)
- Visiting Professor at School of Veterinary Medicine, St. George University, Grenada, West Indies (Sept. 24, 2007 to Oct. 6, 2007)
- Associate Editor Member for Frontiers of Microbiology (Host Pathogen Interaction)
- Best Research paper award with highest impact factor at ICAR-IVRI for the financial year 2016-17
- ICMR International Fellowship awarded under young Biomedical Scientist category 2017-18
- Expert Member for ICMR Task Force on Epidemiology of Rickettsial Diseases
- Expert Invitee for Expert consultation on brucellosis
- Invitee by Department of Science and Technology (DST), India to attend the 6th Indo-German Frontiers of Engineering Symposium 2014 during 22-25 May, 2014 in Germany
- Nominee by FSSAI in the year 2013 as Group Leader (WG\_VS7\_MP2) to work for harmonization and development of FSSAI standards for meat and meat products
- Editorial Member for Journal Foodborne and Zoonotic diseases
- **Two best oral presentation awards** to my M.V.Sc. students (Dr. Jess Vergis, Dr. Deepthi Vijay) at International IAVMI conference held by DUVASU, Mathura on 31<sup>st</sup> Oct. – 1<sup>st</sup> Nov, 2014

- Best Poster presentation award to my M.V.Sc. student (Dr. Pankaj Dhaka) at International IAVMI conference held by DUVASU, Mathura on 31<sup>st</sup> Oct. – 1<sup>st</sup> Nov, 2014
- Two Best Poster presentation award to my M.V.Sc. students (Dr. Pankaj Dhaka and Dr Manesh Kumar) at XIV NAVS Convocation-cum-Conference on Antimicrobial resistance in Livestock Health and Production jointly organized by NAVS, ICAR-IVRI and ANA, India at ICAR-IVRI, Izatnagar on 4th Nov., 2015.
- Best Poster presentation award: to my student Dr J.P. Yadav *In*: FSSAI-ICMSF-CHIFSS International Symposium on “Microbiological Food Safety Sampling and Testing in Food Safety Management”
- Best Oral Presentation award: to my student Dr Jess Vergis *In*: International Conference on “Advanced Functional Materials for Energy, Environment and Health Care (AFMEEHC – 2019)
- Best Oral Presentation award: to my student Dr Shumaila *In*: National conference on “Challenges and Opportunities for tackling Veterinary Public Health Issues at the Human, Animal & Environment Interface.
- I.V.R.I. Senior Research Fellowship for Ph.D. Programme 2001 – 2004

### Technologies developed:

- Latex agglutination test (LAT) for detection of Enterogaagragtive E. coli
- Latex agglutination test (LAT) for rapid detection of *Listeria monocytogenes* in food and clinical samples from enrichment broth.
- Latex agglutination test (LAT) for serodiagnosis of listeriosis in animals.
- Latex agglutination test (LAT) for serodiagnosis of coxiellosis in animals
- Synthetic LLO peptide based indirect ELISA for serodiagnosis of listeriosis in caprine, ovine and bovine.
- A diagnostic kit (Multiplex PCR kit) for rapid and reliable detection of virulent *Listeria monocytogenes* in food and clinical samples.
- Multiplex PCR for identifying lineages of *L. monocytogenes*: an important tool for epidemiological studies.

### Life Member of

- ❖ Indian Association of Veterinary Public Health Specialists
- ❖ Indian Society for Veterinary Medicine
- ❖ Karnataka Veterinary Association
- ❖ American Society for Microbiologists
- ❖ Society for Research on *Listeria*
- ❖ Agricultural Research Service Scientists Forum