

BIOGRAPHICAL SKETCH

NAME Ashutosh Verma		POSITION TITLE Professor and Assoc. Dean of Basic Sc. and Res. College of Veterinary Medicine Lincoln Memorial University, Harrogate, TN	
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
CCS Haryana Agricultural University, India	BVSc & AH	1993-98	Veterinary Science and Animal Husbandry
Tamil Nadu Veterinary and Animal Science University, Chennai, India	MVSc	1999-01	Animal Biotechnology
Dept. of Veterinary Science, University of Kentucky, Lexington, KY, USA	PhD	2002-07	Microbiology / Microbial Pathogenesis
Dept. of Microbiology, Immunology and Molecular Genetics, University of Kentucky College of Medicine, Lexington, KY, USA	Post Doctoral/Research Associate	2008-2012	Microbiology / Microbial Pathogenesis

A. Personal Statement

Dr. Verma has over 25 years' experience researching the infectious properties of pathogens of veterinary importance. His research focuses on defining the mechanisms by which pathogens successfully infect their hosts, persist, and interact with host components. His approach is to use the study of gene expression and host responses during infection to learn about aspects of pathogenesis, host-pathogen interactions, epidemiology, and diagnosis.

B. Positions and Honors

Professional Experience

2024-Present: Associate Dean of Basic Sciences and Research, College of Veterinary Medicine, Lincoln Memorial University, Harrogate, TN.

2022-Present: Professor, College of Veterinary Medicine, Lincoln Memorial University, Harrogate, TN.

2017-2022: Associate Professor, College of Veterinary Medicine, Lincoln Memorial University, Harrogate, TN.

2015-2017: Assistant Professor, College of Veterinary Medicine, Lincoln Memorial University, Harrogate, TN.

2014-2015: Research Scientist, Trudeau Institute, Saranac Lake, NY.

2012-2014: Assistant Professor, Ross University School of Veterinary Medicine, St. Kitts.

2008-2012: Post-doctoral scholar/Research Associate, University of Kentucky, Lexington, KY, USA.

2001-2007: Graduate Research Assistant, University of Kentucky, Lexington, KY, USA.

2001: Research Assistant, Department of Biotechnology, Madras Veterinary College, Chennai, India

Honors

2024: Zoetis Excellence in Research Award

2021-2024: Chair, Budget Committee, American College of Veterinary Microbiologists

2017: Zoetis Excellence in Research Award

2014-2017: Graduate Awards Committee Member, American College of Veterinary Microbiologists

2012-2015: Examination Committee Member, American College of Veterinary Microbiologists

2011: Diplomate, American College of Veterinary Microbiologists

2009-2013: Member, Executive Board of the International Leptospirosis Society

2001-2007: Paul Mellon Fellowship in Equine Studies, University of Kentucky, Lexington, KY
 2001: Gold medal, MVSc (Master of Veterinary Science), Veterinary and Animal Science University, Chennai
 1994: Merit Scholarship, BVSc & AH, CCS Haryana Agricultural University, Hisar, India
 1992: Best outgoing student award, B.S.F. Senior Secondary School, Sriganganagar, Rajasthan, India

C. Selected Publications

1. Shringi, S., D. H. Shah, K. Carney, A. **Verma**. 2025. Pathogen Detection and Resistome Analysis in Healthy Shelter Dogs Using Whole Metagenome Sequencing. *Pathogens*, 14(1), 33. <https://doi.org/10.3390/pathogens14010033>
2. Vroegindewey, G. A., L. C. Wisnieski, M. R. Kolp, A. **Verma**, S. Anderson. 2025. One Health research at Lincoln Memorial University. *Am J Vet Res*, 86(2), ajvr.24.12.0381. <https://doi.org/10.2460/ajvr.24.12.0381>
3. Favale, T. C., D. J. Pulliam Jr, A. **Verma**, J. A. Hunt. 2024. Foundations for success: Professional Life Skills program advances veterinary education. *J Am Vet Med Assoc*, 262(2), 279-279. <https://doi.org/10.2460/javma.23.12.0682>
4. **Verma**, A., J. Hunt. 2024. Novel leptospirosis research at Lincoln Memorial University. *Am J Vet Res*, 85(2), ajvr.23.12.0275. <https://doi.org/10.2460/ajvr.23.12.0275>
5. Vishnubhotla, R. V., P. L. Wood, A. **Verma**, J. E. Cebak, S. Hariri, M. Mudigonda, S. Alankar, R. Maturi, H. Orui, B. Subramaniam, D. Palwale, J. Renschler, S. Sadhasivam. 2022. Advanced Meditation and Vegan Diet Increased Acylglycines and Reduced Lipids Associated with Improved Health: A Prospective Longitudinal Study. *J. Integr. Complement Med*. 28(8):674-682. doi: 10.1089/jicm.2022.0480.
6. **Verma**, A., L. Brandt, S. Runser, K. Gruszynski, K. Gallatin, J. Morgan, H. Barnhart, C. Duke, S. Brovarney, A. Geer, E. Willems, R. Strobel, C. Bryant, E. Pawlowski, A. Thaker. 2022. Detection of pathogenic *Leptospira* spp. in herpetofauna in Central Appalachia. *Zoonoses Public Health* 00, 1–8. <https://doi.org/10.1111/zph.12921>.
7. Bothammal, P., S. Michelraj, G. Venkatachalam, A. **Verma**, K. Natarajaseenivasan. 2021. Electrochemical biosensor for serogroup specific diagnosis of leptospirosis. *Bioelectrochemistry* 144: 108005. <https://doi.org/10.1016/j.bioelechem.2021.108005>.
8. **Verma**, A., K. Carney, K., M. Taylor, K. Amsler, J. Morgan, K. Gruszynski, E. Erol, C. Carter, S. Locke, A. Callipare, D. H. Shah. 2021. Occurrence of Potentially Zoonotic and Cephalosporin Resistant Enteric Bacteria Among Shelter Dogs in the Central and South-Central Appalachia. *BMC Vet Res* 17(1):313.
9. Wells, J., Watson, K., Davis, R. E., Quadri, S. S. A., Mann, J. R., **Verma**, A., Sharma, M., & Nahar, V. K. 2021. Associations among Stress, Anxiety, Depression, and Emotional Intelligence among Veterinary Medicine Students. *Int. J. Environ. Res. Public Health*, 18(8):3934. doi: 10.3390/ijerph18083934.
10. Vanithamani S, C. S. Akino Mercy, M. Kanagavel, K. Sumaiya, P. Bothammal, P. Saranya, M. Prasad, K. Ponmurugan, G. Muralitharan, N. A. Al-Dhabi, A. **Verma**, P. Vijayachari, K. Natarajaseenivasan. 2021. Biochemical analysis of leptospiral LPS explained the difference between pathogenic and non-pathogenic serogroups, *Microb Pathog*, doi: <https://doi.org/10.1016/j.micpath.2021.104738>.
11. Patterson, G. M. Tanhauser, P. Schmidt, D. Spangler, C. Faulkner, V. Faulkner, D. Kish, K. Gruszynski, H. Naikare, M. D. Coarsey, A. **Verma**. 2020. Serosurvey of arthropod-borne diseases among shelter dogs in the Cumberland Gap Region of the United States. *BMV Vet Res* 16(1):221.
12. Spangler, D., D. Kish, B. Beigel, Morgan, J., Gruszynski, K., Naikare, H., Nahar, V., Coarsey, M. D. and A. **Verma**. 2020. Leptospiral Shedding and Seropositivity in Shelter Dogs in the Cumberland Gap Region of Southeastern Appalachia. *PLoS ONE* 15(1): e0228038.
13. **Verma**, A., Beigel, B., Smola, C., Kitts-Morgan, S., Kish, K., Nader, P., Morgan, J., Roberson, J., Christmann, U., Gruszynski, K., Brandt, K., Cho, E., Murphy, K., and Goss, R. 2019. Evidence of Leptospiral Presence in the Cumberland Gap Region. *PLoS Negl Trop Dis* 13(12): e0007990.
14. **Verma**, A. 2019. Leptospirosis. *Blackwell's Five-Minute Veterinary Consult: Equine* - 3e. (Book chapter)
15. Wood, P. L., M. Steinman, E. Erol, C. Carter, U. Christmann, A. **Verma**. 2018. Lipidomic analyses of Immune Activation in Equine Leptospirosis and *Leptospira*-vaccinated Horses. *PLoS ONE* 13(2):e0193424.
16. Sahay, B., K. Bashant, N. Nelson, R. Patsey, S. Gadila, R. Boohaker, A. **Verma**, K. Strle, and T. Sellati. 2018. Induction of IL-10 by *Borrelia burgdorferi* is regulated by the action of CD14-dependent p38-MAPK cAMP-and mediated chromatin remodeling. *Infection and Immunity*, PMID:29311239
17. Beigel, B. and A. **Verma**. 2017. *Leptospira*: Molecular detection of pathogenic species in natural sources. *Current Protocols in Microbiology* 47, 12E.6.1–12E.6.8.

18. Grevemeyer, B., M. Vandenplas, B. Beigel, E. Cho, A. L. Willingham, and A. **Verma**. 2017. Detection of leptospiral DNA in the urine of donkeys on the Caribbean Island of Saint Kitts. *Vet. Sci.* 4(1), 2.
19. **Verma**, A., E. Soto, O. Illanes, S. Ghosh and C. Fuentealba. 2015. Detection and genotyping of *Leptospira* spp. from the kidneys of a seemingly healthy pig slaughtered for human consumption. *J. Infect. Dev. Ctries* 9(5):530-532.
20. Ketzis, J. K., A. **Verma**, G. Burgess. 2015. Molecular characterization of *Trichuris serrata*. *Parasitol. Res.* 114(5):1993-1995.
21. Loftis, A., F. Castillo-Alcala, L. Bogdanovic and A. **Verma**. 2014. Fatal canine leptospirosis on St. Kitts. *Vet. Sci.* 1(3):150-158.
22. Rawlins, J., A. Portanova, I. Zuckerman, A. Loftis, P. Ceccato, A. L. Willingham, A., **Verma**. 2014. Molecular detection of leptospiral DNA in environmental water on St. Kitts. *Int. J. Environ. Res. Public Health* 11:7953-7960.
23. Peda, A., L. Betance, E. Soto, T. Fraites, A. **Verma**. 2014. Dermatophytosis in a Dog Seropositive for *Ehrlichia* spp. *J Vet Sci Anim Husb* 1(5): 501.
24. Xu, C, A. Loftis, S. K. Ahluwalia, D. Gao, A. **Verma**, et al. 2014. Diagnosis of Canine Leptospirosis by a Highly Sensitive FRET-PCR Targeting the *lig* Genes. *PLoS ONE* 9(2): e89507.
25. **Verma**, A., B. Stevenson and B. Adler. 2013. Leptospirosis in horses. *Vet. Microbiol.* 167(1-2):61-66.
26. Jutras, B. L., G. S. Jones, A. **Verma**, N. A. Brown, A. D. Antonicello, A. M. Chenail, B. Stevenson. 2013. Post-transcriptional autoregulation of the Lyme disease bacterium's Bpur DNA/RNA-binding protein. *J Bacteriol.* 195(21):4915-4923.
27. Soto, E., M. Griffin, A. **Verma**, et. al. 2013. An Outbreak of *Yersinia enterocolitica* in a captive colony of African Green Monkeys (*Chlorocebus aethiops sabaeus*) in the Caribbean. *Comp. Med.* 63(5):439-444.
28. **Verma**, A. and B. Stevenson. 2012. Leptospiral uveitis- there is more to it than meets the eye! *Zoonoses Public Health* 59 (Suppl. 2) 132-141. Review.
29. **Verma**, A., J. Matsunaga, S. Artiushin, M. Pinne, D. J. Houwers, D. A. Haake, B. Stevenson and J. F. Timoney. 2012. Antibodies to a novel leptospiral protein LruC, in eye fluids and sera of horses with leptospiral uveitis. *Clin. Vac. Immunol.* 19:452-456.
30. Jutras, B. L., A. **Verma**, C. A. Adams, C. A. Brissette, L. H. Burns, C. R. Whetstine, A. Bowman, A. M. Chenail, W. R. Zückert, and B. Stevenson. 2012. BpaB and EbfC DNA-binding proteins regulate production of the Lyme disease spirochete's infection-associated Erp surface proteins. *J. Bacteriol.* 194:778-786.
31. Jutras, B. L., Bowman, A., Brissette, C. A., Adams, C. A., **Verma**, A., Chenail, A. M., and B. Stevenson. 2012. EbfC (YbaB) is a new type of bacterial nucleoid-associated protein, and a global regulator of gene expression in the Lyme disease spirochete. *J. Bacteriol.* 194:3395-3406.
32. Chenail, A. M., Jutras, B. L., Adams, C., Burns, L., Bowman, A., **Verma**, A., and B. Stevenson. 2012. *Borrelia burgdorferi* cp32 BpaB modulates expression of the prophage NucP nuclease and SsbP single-stranded DNA-binding proteins. *J. Bacteriol.* 194:4570-4578.
33. Jutras, B. L., A. **Verma** and B. Stevenson. 2012. Identification of bacterial DNA-binding proteins by DNA-affinity chromatography. *Current Protocols in Microbiology* Chapter 1:Unit1F.1.
34. Bykowski, T., A. **Verma**, C. A. Brissette and B. Stevenson. 2012. Aseptic techniques. *Current Protocols Essential Laboratory Techniques* 4.1.1-4.1.12.
35. **Verma**, A., P. Kumar, K. Babb, J. Timoney and B. Stevenson. 2010. Cross-reactivity of antibodies against leptospiral recurrent uveitis-associated proteins A and B (LruA and LruB) with eye proteins. *PLoS Neglected Tropical Diseases* 4(8):e778.
36. **Verma**, A., Brissette, C. A., A. Bowman, S. T. Shah, P. F. Zipfel, and B. Stevenson. 2010. Leptospiral endostatin-like protein A (LenA) is a bacterial cell-surface receptor for human plasminogen. *Infect. Immun.* 78: 2053-2059.
37. **Verma**, A., Brissette, C. A., A. Bowman and B. Stevenson. 2009. *Borrelia burgdorferi* BmpA is a laminin-binding protein. *Infect. Immun.* 77: 4940-4946.
38. Brissette, C. A., A. **Verma**, A. Bowman, A. E. Cooley and B. Stevenson. 2009. The *Borrelia burgdorferi* outer-surface protein ErpX binds mammalian laminin. *Microbiology* 155: 863-872.
39. **Verma**, A., S. R. Rathinam, C. G. Priya, V. R. Muthukkaruppan, B. Stevenson, and J. F. Timoney. 2008. LruA and LruB antibodies in sera of cases of human leptospiral uveitis. *Clin. Vac. Immunol.* 15(6): 1019-1023.
40. Stevenson, B., H. A. Choy, M. Pinne, M. L. Rotondi, M. C. Miller, E. DeMoll, P. Kraiczy, A. E. Cooley, T. P. Creamer, C. A. Brissette, A. **Verma**, and D. A. Haake. 2007. *Leptospira interrogans* endostatin-like outer membrane proteins bind host fibronectin, laminin and complement regulatory factors. *PLoS ONE* 2: e1188

41. Brissette, C. A., A. E. Cooley, L. H. Burns, S. P. Riley, A. **Verma**, M. E. Woodman, T. Bykowski and B. Stevenson. 2007. Lyme borreliosis spirochete Erp proteins, their known host ligands, and potential roles in mammalian infection. *Int. J. Med. Microbiol.* 298 (Suppl. 1): 257-267. Review.
42. **Verma**, A., J. Hellwage, S.C. Artiushin, P. Zipfel, P. Kraiczy, J.F. Timoney and B. Stevenson. 2006. LfhA, a novel factor H binding protein of *Leptospira interrogans*. *Infect. Immun.* 74: 2659-2666.
43. **Verma**, A., S.C. Artiushin, J. Matsunaga, D.A. Haake, and J.F. Timoney. 2005. LruA and LruB, novel lipoproteins of pathogenic *Leptospira interrogans* associated with equine recurrent uveitis. *Infect. Immun.* 73: 7259-7266.
44. **Verma**, A. and P. Ramadass. 2005. Latex-based test for the diagnosis of leptospirosis. *Indian Vet. J.* 82: 591-593.
45. Artiushin, S.C., J.F. Timoney, J. Nally and A. **Verma**. 2004. Host-inducible immunogenic sphingomyelinase-like protein, Lk73.5, of *Leptospira interrogans*. *Infect. Immun.* 72: 742-749.