
BIOGRAPHICAL SKETCH

NAME Srinand Sreevatsan		POSITION TITLE Chairperson and Professor		
EDUCATION/TRAINING				
INSTITUTION AND LOCATION	DEGREE (if applicable)	START DATE MM/YYYY	END DATE MM/YYYY	FIELD OF STUDY
University of Agricultural Sciences, Bangalore, Karnataka	DVM	05/1981	04/1986	Veterinary Medicine
University Of Agricultural Sciences, Bagalore, Karnataka	MS	05/1986	04/1988	Master of Veterinary Science (Veterinary Medicine)
University of Minnesota, Minneapolis, MN	MPH	09/1989	08/1991	Epidemiology
University of Minnesota, St Paul, MN	PHD	08/1991	05/1995	Veterinary Medicine (Epidemiology minor)
Baylor College of Medicine, Houston, TX	Postdoctoral Fellow	06/1995	12/1997	Mycobacterial genetics and genomics

Personal Statement: I have dedicated my scientific career to zoonotic disease investigations at the cellular and molecular level. I am interested in the ecology and molecular evolution of infectious agents and how they are modulated by changes in host and environmental niches. My research is highly interdisciplinary and encompasses all aspects of cellular, molecular pathogen-host interactions and epidemiology and ecology of infectious disease and collaborations across the country and the globe. A translational aspect of my studies is the development of novel unambiguous disease detection platforms and applications into immunoprophyllaxis and vaccine development. Thus, my scientific inquiry focuses on world's greatest infectious diseases such as those caused by mycobacteria. My work on development of tools to study pathogenesis of mycobacterial infections in animals and humans and experience with animal studies will greatly aid in the success of the current grant.

Professional Experience:

1986 - 1989	Veterinary Practitioner, Private Practice, Bangalore
1989 - 1995	Research Assistant, University of Minnesota, St Paul, MN
1997 - 2001	Director, Development and Validations, Burstein Technologies and ClinCyte, LLC, San Diego, CA
2001 - 2005	Assistant Professor, The Ohio State University, Wooster, OH
2005 - 2012	Associate Professor, University of Minnesota, St Paul, MN
2010 - 2017	Director of Graduate Studies (VMED Program), University of Minnesota, St Paul, MN

2012 – 2017 Professor, University of Minnesota, St Paul, MN

2017 – 2019 Chairperson and Professor, Department of Pathobiology and Diagnostic Medicine, Michigan State University.

2019-Present Associate Dean for Research and Graduate Studies, CVM, Michigan State University

Selected Honors and Awards/Affiliations:

2011 Pfizer Research Excellence Award, Pfizer and University of Minnesota

Selected Refereed Publications (Since 2016)

1. Hadi SA, Kolte IV, Brenner EP, Cunha EAT, Simonsen V, Ferrazoli L, Villela DAM, Santos RS, Ravi J, Sreevatsan S, Basta PC. Identification of a predominant genotype of *Mycobacterium tuberculosis* in Brazilian indigenous population. *Sci Rep*. 2021 Jan 13;11(1):1224. doi: 10.1038/s41598-020-79621-3. PubMed PMID: 33441660; PubMed Central PMCID: PMC7806709.
2. Paudel S, Sreevatsan S. Tuberculosis in elephants: Origins and evidence of interspecies transmission. *Tuberculosis (Edinb)*. 2020 Jul;123:101962. doi: 10.1016/j.tube.2020.101962. Epub 2020 Jun 28. Review. PubMed PMID: 32741531.
3. Verhagen JH, Poen M, Stallknecht DE, van der Vliet S, Lexmond P, Sreevatsan S, Poulson RL, Fouchier RAM, Lebarbenchon C. Phylogeography and Antigenic Diversity of Low-Pathogenic Avian Influenza H13 and H16 Viruses. *J Virol*. 2020 Jun 16;94(13). doi: 10.1128/JVI.00537-20. Print 2020 Jun 16. PubMed PMID: 32321814; PubMed Central PMCID: PMC7307148.
4. Nirmala J, Bender JB, Lynfield R, Yang M, Rene Culhane M, Nelson MI, Sreevatsan S, Torremorell M. Genetic diversity of influenza A viruses circulating in pigs between winter and summer in a Minnesota live animal market. *Zoonoses Public Health*. 2020 May;67(3):243-250. doi: 10.1111/zph.12679. Epub 2019 Dec 23. PubMed PMID: 31868300.
5. Shoyama FM, Janetanakit T, Bannantine JP, Barletta RG, Sreevatsan S. Elucidating the Regulon of a Fur-like Protein in *Mycobacterium avium* subsp. *paratuberculosis* (MAP). *Front Microbiol*. 2020;11:598. doi: 10.3389/fmicb.2020.00598. eCollection 2020. PubMed PMID: 32390963; PubMed Central PMCID: PMC7192006.
6. Nirmala J, Perez A, Culhane MR, Allerson MW, Sreevatsan S, Torremorell M. Genetic variability of influenza A virus in pigs at weaning in Midwestern United States swine farms. *Transbound Emerg Dis*. 2020 Mar 18. doi: 10.1111/tbed.13529. [Epub ahead of print] PubMed PMID: 32187882.
7. Nirmala J, Bender JB, Lynfield R, Yang M, Rene Culhane M, Nelson MI, Sreevatsan S, Torremorell M. Genetic diversity of influenza A viruses circulating in pigs between winter

and summer in a Minnesota live animal market. *Zoonoses Public Health*. 2019 Dec 23. doi: 10.1111/zph.12679. [Epub ahead of print] PubMed PMID: 31868300.

8. Cochard T, Branger M, Supply P, Sreevatsan S, Biet F. MAC-INMV-SSR: a web application dedicated to genotyping members of *Mycobacterium avium* complex (MAC) including *Mycobacterium avium* subsp. *paratuberculosis* strains. *Infect Genet Evol*. 2020 Jan;77:104075. doi: 10.1016/j.meegid.2019.104075. Epub 2019 Oct 18. PubMed PMID: 31634642.
9. Clavijo MJ, Sreevatsan S, Johnson TJ, Rovira A. Molecular epidemiology of *Mycoplasma hyorhinis* porcine field isolates in the United States. *PLoS One*. 2019 Oct 21;14(10):e0223653. doi: 10.1371/journal.pone.0223653. eCollection 2019. PubMed PMID: 31634349; PubMed Central PMCID: PMC6802821.
10. Wanzala SI, Nakavuma J, Travis D, Kia P, Ogwang S, Waters WR, Thacker T, Johnson T, Hadi SA, Sreevatsan S. Retrospective Analysis of Archived Pyrazinamide Resistant *Mycobacterium tuberculosis* Complex Isolates from Uganda-Evidence of Interspecies Transmission. *Microorganisms*. 2019 Jul 29;7(8). pii: E221. doi:10.3390/microorganisms7080221. PubMed PMID: 31362370; PubMed Central PMCID:PMC6723201.
11. Camargo AC, Moura A, Avillan J, Herman N, McFarland AP, Sreevatsan S, Call DR, Woodward JJ, Lecuit M, Nero LA. Whole-genome sequencing reveals *Listeria monocytogenes* diversity and allows identification of long-term persistent strains in Brazil. *Environ Microbiol*. 2019 Dec;21(12):4478-4487. doi:10.1111/1462-2920.14726. Epub 2019 Jul 15. PubMed PMID: 31251828.
12. Pullen MF, Boulware DR, Sreevatsan S, Bazira J. Tuberculosis at the animal-human interface in the Ugandan cattle corridor using a third-generation sequencing platform: a cross-sectional analysis study. *BMJ Open*. 2019 Apr 8;9(4):e024221. doi: 10.1136/bmjopen-2018-024221. PubMed PMID: 30962227; PubMed Central PMCID: PMC6500349.
13. Schwarz DGG, Shoyama FM, Oliveira LL, Sreevatsan S, Moreira MAS. Rapid baso-apical translocation of *Mycobacterium avium* ssp. *paratuberculosis* in mammary epithelial cells in the presence of *Escherichia coli*. *J Dairy Sci*. 2018 Apr 25.pii: S0022-0302(18)30380-1. doi: 10.3168/jds.2017-13945. [Epub ahead of print]PubMed PMID: 29705415.
14. Lamont EA, Poulin E, Sreevatsan S, Cheeran MC. Major histocompatibility complex I of swine respiratory cells presents conserved regions of influenza proteins. *J Gen Virol*. 2018 Mar;99(3):303-308. doi: 10.1099/jgv.0.001008. Epub2018 Jan 12. PubMed PMID: 29458525.
15. Sun J, Yang M, Sreevatsan S, Bender JB, Singer RS, Knutson TP, Marthaler DG, Davies PR. Longitudinal study of *Staphylococcus aureus* colonization and infection in a cohort of swine veterinarians in the United States. *BMC Infect Dis*. 2017 Oct19;17(1):690. doi:

10.1186/s12879-017-2802-1. PubMed PMID: 29052523; PubMedCentral PMCID: PMC5649086.

16. Diaz A, Marthaler D, Corzo C, Muñoz-Zanzi C, Sreevatsan S, Culhane M, Torremorell M. Multiple Genome Constellations of Similar and Distinct Influenza A Viruses Co-Circulate in Pigs During Epidemic Events. *Sci Rep.* 2017 Sep19;7(1):11886. doi: 10.1038/s41598-017-11272-3. PubMed PMID: 28928365; PubMedCentral PMCID: PMC5605543.
17. Dong H, LV Y, Sreevatsan S, Zhao D, Zhou X. Differences in pathogenicity of three animal isolates of Mycobacterium species in a mouse model. *PLoS One.* 2017Aug 24;12(8):e0183666. doi: 10.1371/journal.pone.0183666. eCollection 2017. PubMed PMID: 28837698; PubMed Central PMCID: PMC5570376.
18. Singhla T, Boonyayatra S, Punyapornwithaya V, VanderWaal KL, Alvarez J, Sreevatsan S, Phornwisetsirikun S, Sankwan J, Srijun M, Wells SJ. Factors Affecting Herd Status for Bovine Tuberculosis in Dairy Cattle in Northern Thailand. *Vet Med Int.* 2017;2017:2964389. doi: 10.1155/2017/2964389. Epub 2017May 3. PubMed PMID: 28553557; PubMed Central PMCID: PMC5434264.
19. Diaz A, Marthaler D, Culhane M, Sreevatsan S, Alkhamis M, Torremorell M. Complete Genome Sequencing of Influenza A Viruses within Swine Farrow-to-Wean Farms Reveals the Emergence, Persistence, and Subsidence of Diverse Viral Genotypes. *J Virol.* 2017 Aug 24;91(18). pii: e00745-17. doi:10.1128/JVI.00745-17. Print 2017 Sep 15. PubMed PMID: 28659482; PubMed Central PMCID: PMC5571239.
20. Lam HC, Bi X, Sreevatsan S, Boley D. Evolution and Vaccination of Influenza Virus. *J Comput Biol.* 2017 Aug;24(8):787-798. doi: 10.1089/cmb.2017.0025. Epub 2017 Jul 7. PubMed PMID: 28686463; PubMed Central PMCID: PMC5563926.
21. Wanzala SI, Palmer MV, Waters WR, Thacker TC, Carstensen M, Travis DA, Sreevatsan S. [Evaluation of pathogen-specific biomarkers for the diagnosis of tuberculosis in white-tailed deer \(Odocoileus virginianus\).](#) *Am J Vet Res.* 2017 Jun;78(6):729-734. doi: 10.2460/ajvr.78.6.729. PubMed PMID: 28541150. [Related citations](#)
22. Murtaugh MP, Steer CJ, Sreevatsan S, Patterson N, Kennedy S, Sriramaraio P. [The science behind One Health: at the interface of humans, animals, and the environment.](#) *Ann N Y Acad Sci.* 2017 May;1395(1):12-32. doi: 10.1111/nyas.13355. PubMed PMID: 28505393. [Related citations](#)
23. Hmila I, Wongphatcharachai M, Laamiri N, Aouini R, Marnissi B, Arbi M, Sreevatsan S, Ghram A. [A novel method for detection of H9N2 influenza viruses by an aptamer-real time-PCR.](#) *J Virol Methods.* 2017 May;243:83-91. doi: 10.1016/j.jviromet.2017.01.024. Epub 2017 Jan 31. PubMed PMID: 28159667. [Related citations](#)
24. Chunfa L, Xin S, Qiang L, Sreevatsan S, Yang L, Zhao D, Zhou X. [The Central Role of IFI204 in IFN- \$\beta\$ Release and Autophagy Activation during Mycobacterium bovis Infection.](#) *Front Cell Infect Microbiol.* 2017 May 5;7:169. doi: 10.3389/fcimb.2017.00169. eCollection 2017.

PubMed PMID: 28529930; PubMed Central PMCID: PMC5418236. [Free full textRelated citations](#)

25. Singhla T, Boonyayatra S, Punyapornwithaya V, VanderWaal KL, Alvarez J, Sreevatsan S, Phornwisetsirikun S, Sankwan J, Srijun M, Wells SJ. [Factors Affecting Herd Status for Bovine Tuberculosis in Dairy Cattle in Northern Thailand.](#) Vet Med Int. 2017;2017:2964389. doi: 10.1155/2017/2964389. Epub 2017 May 3. PubMed PMID: 28553557; PubMed Central PMCID: PMC5434264. [Free full textRelated citations](#)
26. Hussain T, Shah SZ, Zhao D, Sreevatsan S, Zhou X. [The role of IL-10 in Mycobacterium avium subsp. paratuberculosis infection.](#) Cell Commun Signal. 2016 Dec 1;14(1):29. Review. PubMed PMID: 27905994; PubMed Central PMCID: PMC5131435. [Free full textRelated citations](#)
27. Nelson MI, Stucker KM, Schobel SA, Trovão NS, Das SR, Dugan VG, Nelson SW, Sreevatsan S, Killian ML, Nolting JM, Wentworth DE, Bowman AS. [Introduction, Evolution, and Dissemination of Influenza A Viruses in Exhibition Swine in the United States during 2009 to 2013.](#) J Virol. 2016 Nov 14;90(23):10963-10971. Print 2016 Dec 1. PubMed PMID: 27681134; PubMed Central PMCID: PMC5110178. [Free full textRelated citations](#)
28. White SP, Sreevatsan S, Frisbie DC, Dorfman KD. Rapid, selective, label-free aptameric capture and detection of ricin in potable liquids using a printed floating gate transistor. ACS sensors. 2016 September 20.
29. Nonthabenjawan N, Cardona C, Amonsin A, Sreevatsan S. [Time-space analysis of highly pathogenic avian influenza H5N2 outbreak in the US.](#) Virol J. 2016 Aug 30;13(1):147. doi: 10.1186/s12985-016-0605-4. PubMed PMID: 27576782; PubMed Central PMCID: PMC5006563. [Free full textRelated citations](#)
30. Mason MR, Encina C, Sreevatsan S, Muñoz-Zanzi C. [Distribution and Diversity of Pathogenic Leptospira Species in Peri-domestic Surface Waters from South Central Chile.](#) PLoS Negl Trop Dis. 2016 Aug 16;10(8):e0004895. doi: 10.1371/journal.pntd.0004895. eCollection 2016 Aug. PubMed PMID: 27529550; PubMed Central PMCID: PMC4986978. [Free full textCited in PMCRRelated citations](#)
31. Wolf TM, Sreevatsan S, Singer RS, Lipende I, Collins A, Gillespie TR, Lonsdorf EV, Travis DA. [Noninvasive Tuberculosis Screening in Free-Living Primate Populations in Gombe National Park, Tanzania.](#) Ecohealth. 2016 Mar;13(1):139-44. doi: 10.1007/s10393-015-1063-y. Epub 2015 Sep 29. PubMed PMID: 26419483. [Related citations](#)
32. Nelson MI, Wentworth DE, Das SR, Sreevatsan S, Killian ML, Nolting JM, Slemons RD, Bowman AS. [Evolutionary Dynamics of Influenza A Viruses in US Exhibition Swine.](#) J Infect Dis. 2016 Jan 15;213(2):173-82. doi: 10.1093/infdis/jiv399. Epub 2015 Aug 4. PubMed PMID: 26243317; PubMed Central PMCID: PMC4690152. [Free full textCited in PMCRRelated citations](#)
33. Cui Y, Zhao D, Sreevatsan S, Liu C, Yang W, Song Z, Yang L, Barrow P, Zhou X. [Mycobacterium bovis Induces Endoplasmic Reticulum Stress Mediated-Apoptosis by](#)

[Activating IRF3 in a Murine Macrophage Cell Line.](#) Front Cell Infect Microbiol. 2016 Dec 12;6:182. doi: 10.3389/fcimb.2016.00182. eCollection 2016. PubMed PMID: 28018864; PubMed Central PMCID: PMC5149527.