Research Associate Professor
Dept. of Infectious Diseases and Immunology
U.F. College of Veterinary Medicine
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Google Scholar data: Citations: 4145; h-index: 25; i10index: 46

PROFESSIONAL QUALIFICATIONS

Training	Year	University/Institute	Research Focus
Research Associate Professor	2021 -	CVM, University of Florida	Gut microbiology, Disease resistance mechanisms, and Vaccine development
Clinical Assistant Professor	2014 - 2021	CVM, University of Florida	Gut microbiology, Disease resistance mechanisms, and Vaccine development
Research Assistant Professor	2012 - 2014	CVM, University of Florida	Gut microbiology and oral vaccine development
Post-doctoral Fellow	2005 -2012	Albany Medical College, Albany, NY, 12208	Host-pathogen interactions (*Borrelia burgdorferi*)
Doctorate (Ph.D.)	2001-2005	Indian Veterinary Research Institute, Izatnagar, U.P., India	Application of RNAi in the control of viral infections
Master of Veterinary Science (MVSc)	1999-2001	Indian Veterinary Research Institute, Izatnagar, U.P., India	Functional genomics of *Salmonella* Abortus *equi* using signature tagged mutagenesis
Bachelor of Veterinary Science and Animal Husbandry (BVSc& A.H.) (DVM equivalent)	1994-1999	Bihar Veterinary College, Rajendra Agricultural University, Pusa, Bihar, India	Veterinary Sciences

AWARDS AND FELLOWSHIPS

- Travel Award for the joint meeting of the Society for Leukocyte Biology and International Endotoxin and the Innate Immunity Society, November 2006.
- ICAR-SRF/NET awarded by the Indian Council of Agricultural Research (ICAR), New Delhi.
- CSIR-SRF extramural funding for Ph.D. research for Scientific and Industrial Research (CSIR), New Delhi.
- IVRI-Senior Research Fellowship during Ph.D.
- IVRI-JRF during the entire duration M.V.Sc.
- CSIR-JRF/NET awarded by the CSIR, New Delhi.
- Merit fellowship for academic excellence during the BVSc & A.H. (DVM equivalent) duration.

CONTRIBUTION TO EDUCATION
Teaching Responsibilities

2009-2012	Lecturer, IMD 609 Microbial Disease (Bacterial Toxins, Toxicogenic bacteria, *Bacillus, Clostridium, Neisseria, Helicobacter*)
2013	Lecturer, VME 6934 (B cell responses at Mucosal Surfaces)
2017-2018	Lecturer, VME 5131 (Recent Advances in Veterinary Molecular Diagnostics)
2020	Course coordinator, VME 6934/4906, Human and animal vaccines for prevention and cure.
2021	Lecturer, VME 5141 (Veterinary Microbiology), VME 5110B (Veterinary Hematology and Immunology)
2022	Lecturer, VME 5141 (Veterinary Microbiology), VME 5110B (Veterinary Hematology and Immunology)
2023	Lecturer, VME 5141 (Veterinary Microbiology), VME 5110B (Veterinary Hematology and Immunology)
2024	Lecturer, VME 5141 (Veterinary Microbiology), VME 5110B (Veterinary Hematology and Immunology); Course coordinator and lecturer for Human and animal vaccines/Immunotherapies, VME 6934
2025	Lecturer, VME 5141 (Veterinary Microbiology), VME 5110B (Veterinary Hematology and Immunology); Large Animal Microbiology

Yearly teaching evaluation for the courses taught (scale 1-5; 1 is worse and 5 is the best)

		Core Instructor Evaluation			***Core Course Evaluation***		
Year	**Course**	**Mean**	**DPT Mean**	**College Mean**	**Mean**	**DPT Mean**	**College Mean**
2021	**VEM5110**	4.27	4.57	N/A	4.16	4.51	N/A
2021	**VEM5141**	3.92	4.08	4.48	3.59	3.4	4.37
2022	**VEM5110**	4.3	4.53	4.54	4.45	4.4	4.34
2022	**VEM5141**	4.43	4.12	4.54	4.23	3.16	4.34
2023	**VEM5110**	4.31	4.55	4.54	4.39	4.41	4.38
2023	**VEM5141**	4.63	4.33	4.54	4.22	3.34	4.38
2024	**VEM5141**	4.6	4.49	4.59	4.31	4.06	4.39
2024	**VME6934**	5	4.39	4.59	5	4.22	4.39
2025	**VEM5110**	4.37	4.18	4.32			
2025	**VEM5141**	4.65	4.38	4.56			

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Member of students'/trainees' committee

Dr. Mathew Cascio	Medical Oncology Resident
Dr. Shana Hutchinson	Veterinary Oncology Resident
Dr. Alexis M. Livaccari	Veterinary Oncology Resident
Dr. Kristen Jackson	Veterinary Oncology Resident
Dr. Jordan C. Ayers	Veterinary Oncology Resident
Dr. Lydia Sixta	Veterinary Oncology Resident
Dr. Chaitanya Gottapu	PhD Student (Graduated in 2025)
Nicole Nazario	PhD Student
Dr. Lopamudra Khare	PhD Student (Current Veterinary Dermatology Resident)
Wanling Liu	PhD Student
Jennifer Zomora	Veterinary Dermatology Resident
Krishni Gunathilaka,	PhD Student
Savitha Saikumar	MS student at Animal Science
Kevin Hall	PhD Student

PROFESSIONAL MEMBERSHIPS AND SERVICES

Assoc. Editor, Frontiers in Cellular and Infection Microbiology
Editor, Frontiers in Immunology
Editor, Immunol
Member, American Association for the Advancement of Science (AAAS)
Member, American Society for Microbiology (ASM)
Member, Indian Society for Veterinary Immunology and Biotechnology (ISVIB)
Member, Society for Immunology and Immuno-pathology (SIIP)
Reviewer, Antibodies
Reviewer, Combinatorial Chemistry & High Throughput Screening
Reviewer, Diagnostics
Reviewer, Environmental Sciences
Reviewer, Frontiers in Cellular and Infection Microbiology
Reviewer, Frontiers in Immunology
Reviewer, Frontiers in Microbiology
Reviewer, Genes
Reviewer, Human Vaccines & Therapeutics
Reviewer, Inflammatory Bowel Disease
Reviewer, International journal of environmental research and public health
Reviewer, International Journal of Molecular Sciences
Reviewer, Journal European Journal of Pharmacology
Reviewer, Journal of Bioterrorism and Biodefense
Reviewer, Journal of Functional Foods
Reviewer, Journal of Leukocyte Biology
Reviewer, Microorganisms
Reviewer, Molecular Biology Reports
Reviewer, Nutrients
Reviewer, Pathogens
Reviewer, Peer J
Reviewer, PLoS group of journals
Reviewer, Scientific Reports
Reviewer, Veterinary Immunology and Immunopathology
Reviewer, Viral genes

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Reviewer, Viruses
Reviewer; Comparative Immunology, Microbiology, and Infectious Diseases
Reviewer; Journal of Virological Methods
Reviewer: Microbial Pathogenesis
Reviewer; iMeta
Reviewer; Journal of Immunotherapy of Cancer

Proposal reviews:

- Invited reviewer for the Special Emphasis Panel (SEP) to review applications received in response to Understanding Persistent Signs and Symptoms Attributed to Post-Treatment Lyme Disease
- Pennsylvania Department of Health Cycle A Formula Performance Review 2025 held from December 10, 2025 – January 28, 2026.
- Invited reviewer for UFHCI - Immuno-Oncology and Microbiome (IOM) Program - innovative, interdisciplinary Pilot and Exploratory Studies internal pilot projects review 2025 held between November and December 2025.

Administrative responsibilities to the college

1. 2015 Veterinary Oncologist Search Committee
2. 2018 Faculty Search Committee
3. 2021 Faculty Search Committee
4. 2020-23 Awards and Scholarship Committee
5. 2023-28 Tenure and Promotion Committee
6. 2024 IDI Chair Search Committee
7. 2023 Research Advisory Council
8. 2024 Faculty Search Committee

PUBLISHED PEER-REVIEWED MANUSCRIPTS

55 Anumanthan, G., Arukha, AP., Mergia, A., **Sahay, B.** (2026). Antiviral Role of Surface Layer Protein A (SlpA) of *Lactobacillus acidophilus*. **Pathogens** 15(1), 103; https://doi.org/10.3390/pathogens15010103 [Impact Factor: 3.3]

54 Chakraborty, A.K., Kroehling, L., Raut, R., Choudhury, C., Choudhury, C., Kukuruzinska, M., Gutkind, S., Varelas, X., **Sahay, B.,** Monti, S., and Bais, M.V. (2026). LSD1 Inhibition Induces MHC-I and Dendritic Cell Activation to Promote Antitumor Immunity in Head and Neck Squamous Cell Carcinoma. **Cancer Research,** DOI: 10.1158/0008-5472.CAN-24-3239 [PMID: 41066547] [Impact Factor: 16.6]

53 Sinha, P., Prevedello, MB., Arukha, AP., Stevenson, V., Keisling, KF., Nycum, TG., Beam, NM., Barras, ED., **Sahay, B.,** Yamamoto, JK. (2025) Pilot Studies Testing Novel Minimized Pan-Coronavirus (CoV) Vaccines in Feline Immunodeficiency Virus-Infected Cats With or Without Feline CoV Serotype-1 (FCoV1) Coinfection and in Specific-Pathogen-Free Cats Against Pathogenic FCoV. **Vaccines** 13(11), 1172; https://doi.org/10.3390/vaccines13111172 [Impact Factor: 3.7]

52 Carrera-Justiz, S., Aghaee, M., Qdaisat, S., Weidert, F., Garcia,GA., Fagman, L., Zhang, D., Stover, B., Moor, R., Xie, C., Goldenberg, E., von Roemeling, C., Doonan, B., Chardon-Robles., J., Elliott, L., Sawyer, WG., Deleyrolle, L**., Sahay, B.,** Foster, TP., Seligson, N., Rahman, M., Ghiaseddin, A., Castillo, P., Lee, JH., Silver, N., Doty, A., Ligon, J., Milner, R., Mitchell, DA., Mendez-Gomez,HR., Moore, H., Sayour, EJ., (2025) Systemic mRNA vaccines elicit rapid oncolytic response in canine brain tumors. **Journal for ImmunoTherapy of Cancer** [Impact Factor: 10.6]

51 Syam Jeepipalli, S., Chairmandurai, A., Duncan, W., Vekariya, KM., **Sahay, B**., Chan, EKL., and Lakshmyya, K. (2025). Exploring the complex interplay between oral *Fusobacterium nucleatum* infection, periodontitis, and robust microRNA induction, including multiple known oncogenic miRNAs. **mSystems** Jul 22;10(7):e0173224. doi: 10.1128/msystems.01732-24. Epub 2025 Jun 25. [PMID: 40558049] [Impact Factor: 5.1]

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50 Chakraborty, A.K., Raut, R., Iqbal, K., Choudhury, C., Alhousami, T., Takada, M., **Sahay, B**., Chogle, S., Kumar, V., and Bais, M.V. (2025). Lysine-specific demethylase 1 controls key OSCC preneoplasia inducer STAT3 through CDK7 phosphorylation during oncogenic progression and immunosuppression. **Int J Oral Sci.** 2025 Apr 17;17(1):31. doi: 10.1038/s41368-025-00363-x**.** PMID: 40246812 [Impact Factor: 10.8]

49 Anumanthan, G., **Sahay, B.,** and Mergia, A. (2025) Current Dengue Virus Vaccine Developments and Future Directions (2025) **Viruses** [Impact Factor: 4]

48 Ackerman, L.; Toonder, M.; Bosch, S., Semenova, V.; Spicer, T., Alas, O., Thorsen, L., Gallastegui, A. M., Stevenson, V., Rao Gutti, J. Vilar, SP., Nance, R., **Sahay, B**., Hery, G., Chan, A., Salute, M., Benslimane, N., Virneliz, VZ., and Milner, R (2025) Multimodal treatment of a peripheral primitive neuroectodermal tumor originating from the thoracic cavity in a dog. **Journal of Veterinary Internal Medicine** DOI: 10.1111/jvim.70050 PMID: 40095239 [Impact Factor: 3.33]

47 Mendez-Gomez, H., DeVries, A., Castillo, P., Stover, BD., Qdaisat, S., Von Roemeling, C., Ogando-Rivas, E., Weidert, F., McGuiness, J., Zhang, D., Chung, MC., Li, D., Zhang, C., Marconi, C., Campaneria, Y., Chardon-Robles, J., Grippin, A., Karachi, A., Thomas, N., Huang, J., Milner, R., **Sahay**, **B.**, Sawyer, GW., Ligon, JA., Silver, N., Simon, E., Cleaver, B., Wynne, K., Hodik, M., Molinaro, A., Guan, J.,Kellish, P., Doty, A., Lee, J., Carrera-Justiz, S., Rahman, M., Gatica, S., Sabine Mueller, S., Prados, M., Ghiaseddin, A., Mitchell, DA., and Sayour, EJ. RNA aggregates harness danger response for potent cancer immunotherapy. **Cell**. 2024 doi: 10.1016/j.cell.2024.04.003. PMID: 38697107 [Impact Factor 66.85]

46 Nair S, **Sahay B**, Arukha AP, Edison LK, Crews CD, Morris JG Jr, Kariyawasam S, Yamamoto JK. Interferon-γ/IL-2 ELISpot and mRNA Responses to the SARS-CoV2, Feline Coronavirus Serotypes 1 (FCoV1), and FCoV2 Receptor Binding Domains by the T Cells from COVID-19-Vaccinated Humans and FCoV1-Infected Cats. **Methods Mol Biol**. 2024; 2768:135-151. doi: 10.1007/978-1-0716-3690-9_9. PMID: 38502392. [Impact Factor 1.4]

45 Yamamoto JK, Edison LK, Rowe-Haas DK, Takano T, Gilor C, Crews CD, Tuanyok A, Arukha AP, Shiomitsu S, Walden HDS, Hohdatsu T, Tompkins SM, Morris JG Jr, **Sahay B**, Kariyawasam S. Both Feline Coronavirus Serotypes 1 and 2 Infected Domestic Cats Develop Cross-Reactive Antibodies to SARS-CoV-2 Receptor Binding Domain: Its Implication to Pan-CoV Vaccine Development **Viruses**. 2023 Mar 31;15(4):914. doi: 10.3390/v15040914. PMID: 37112894 [Impact factor 4.7]

44 Ghasemi, A., Wang, S., **Sahay, B**., Abbott, JR., Roy C. Protective immunity enhanced Salmonella vaccine vectors delivering *Helicobacter pylori* antigens reduce H. pylori stomach colonization in mice. **Front Immunol** 2022. Nov 18;13:1034683. doi: 10.3389/fimmu.2022.1034683. eCollection 2022. PMID: 36466847 [Impact factor 8.786]

43 Arukha, AP., Freguia, CF., Mishra, M., Jha, J., Kariyawasam, S., Fanger, N., Zimmermann, E., Fanger, G., **Sahay, B**. *Lactococcus lactis* delivery of Surface layer protein A protects mice from colitis by re-setting host immune repertoire. **Biomedicines** 2021 https://doi.org/10.3390/biomedicines9091098. PMID: 34572293 [Impact factor 6.081]

42 Yusufu I, Ding K, Smith K, Wankhade UD, **Sahay B**, Patterson GT, Pacholczyk R, Adusumilli S, Hamrick MW, Hill WD, Isales CM, Fulzele S. A Tryptophan-Deficient Diet Induces Gut Microbiota Dysbiosis and Increases Systemic Inflammation in Aged Mice. **Int J Mol Sc**. 2021 May 8;22(9):5005 doi: 10.3390/ijms22095005. PMID: 34066870; [Impact factor 5.923]

41 Ayers J, Milner RJ, Cortés-Hinojosa G, Riva A, Bechtel S, **Sahay B**, Cascio M, Lejeune A, Shiomitsu K, Souza C, Hernandez O, Salute M. Novel application of single-cell next-generation sequencing for determination of intratumoral heterogeneity of canine osteosarcoma cell lines. **J Vet Diagn Invest**. 2021 Jan 15:1040638720985242. doi: 10.1177/1040638720985242. Epub ahead of print. PMID:33446089. [Impact factor 1.522]

40 Cascio MJ, Whitley EM, **Sahay B**, Cortes-Hinojosa G, Chang LJ, Cowart J, Salute M, Sayour E, Dark M, Sandoval Z, Mitchell DA, Milner RJ. Canine osteosarcoma checkpoint expression correlates

with metastasis, and T-cell infiltrate. **Vet Immunol Immunopathol**. 2021 Feb;232:110169. doi: 10.1016/j.vetimm.2020.110169. Epub 2020 Dec 15. PMID: 33387703. [Impact factor 2.046]

39 Jackson K, Milner RJ, Doty A, Hutchison S, Cortes-Hinojosa G, Riva A, **Sahay B**, Lejeune A, Bechtel S. Analysis of canine myeloid-derived suppressor cells (MDSCs) utilizing fluorescence-activated cell sorting, RNA protection mediums to yield quality RNA for single-cell RNA sequencing. **Vet Immunol Immunopathol**. 2021 Jan;231: 110144. doi: 10.1016/j.vetimm.2020.110144. Epub 2020 Nov 7. PMID: 33278779. [Impact factor 2.046]

38 **Sahay B**, Mergia A. The Potential Contribution of Caveolin 1 to HIV Latent Infection. **Pathogens**. 2020 Oct 27;9(11):896. doi: 10.3390/pathogens9110896.PMID: 33121153; PMCID: PMC7692328. [Impact factor 3.492]

37 Guibinga GH, **Sahay B**, Brown H, Cooch N, Chen J, Yan J, Reed C, Mishra M, Yung B, Pugh H, Schultheis K, Esquivel RN, Weiner DB, Humeau LH, Broderick KE, Smith TRF. Protection against *Borreliella burgdorferi* infection mediated by a synthetically engineered DNA vaccine. **Hum Vaccin Immunother**. 2020 Sep 1;16(9):2114-2122. doi: 10.1080/21645515.2020.1789408. Epub 2020 Aug 12. PMID: 32783701; PMCID: PMC7553707.[Impact factor 2.619]

36 Fulzele S, **Sahay B**, Yusufu I, Lee TJ, Sharma A, Kolhe R, Isales CM. COVID-19 Virulence in Aged Patients Might Be Impacted by the Host Cellular MicroRNAs Abundance/Profile. **Aging Dis**. 2020 May 9;11(3):509-522. doi:10.14336/AD.2020.0428. PMID: 32489698; PMCID: PMC7220294. [Impact factor 6.745]

35 Mishra, M., Powers L., Vanhorn, CL, **Sahay, B**. 2020 HDAC6 inhibition aggravates the Lyme disease-associated inflammation. **E.C. Microbiology** Vol 16, Issue 11

34 Hutchison S, **Sahay B**, de Mello SC, Sayour EJ, Lejeune A, Szivek A, Livaccari AM, Fox-Alvarez S, Salute M, Powers L, Milner RJ. Characterization of myeloid-derived suppressor cells and cytokines GM-CSF, IL-10 and MCP-1 in dogs with malignant melanoma receiving a GD3-based immunotherapy. Vet Immunol Immunopathol. 2019 Oct;216:109912. doi: 10.1016/j.vetimm.2019.109912. Epub 2019 Jul 31. PubMed [PMID: 31446208], [Impact Factor 1.846]

33 **Sahay** B, Aranyos AM, Mishra M, McAvoy AC, Martin MM, Pu R, Shiomitsu S, Shiomitsu K, Dark MJ, Sanou MP, Roff SR, Rathore MH, Yamamoto JK. Immunogenicity and Efficacy of a Novel Multi-Antigenic Peptide Vaccine Based on Cross-Reactivity between Feline and Human Immunodeficiency Viruses. **Viruses.** 2019 Feb 3;11(2).pii: E136. doi: 10.3390/v11020136. [PMID: 30717485], [Impact Factor 3.761**]**

32 Sayour EJ, Grippin A, De Leon G, Stover B, Rahman M, Karachi A, Wummer B, Moore G, Castillo-Caro P, Fredenburg K, Sarkisian MR, Huang J, Deleyrolle LP, **Sahay B**, Carrera-Justiz S, Mendez-Gomez HR, Mitchell DA. 2018 Personalized Tumor RNA Loaded Lipid-Nanoparticles Prime the Systemic and Intratumoral Milieu for Response to Cancer Immunotherapy. **Nano Lett**. 2018 Oct 10;18(10):6195-6206. [PMID: 30259750], [Impact factor: 12.08]

31 **Sahay, B.,** Yamamoto, J.K. 2018 Lessons Learned in Developing a Commercial FIV Vaccine: The Immunity Required for an Effective HIV-1 Vaccine**. Viruses** May 22;10(5). pii: E277. doi: 10.3390/v10050277. [PMID: 29956186], [Impact factor: 3.761]

30 **Sahay, B***., Bashant, K., Nelson, N.J., Patsey, R.L., Gadila, S.K., Boohaker, R., Verma, A., Strle, K., Sellati, T.J. 2018 Induction of IL-10 by *Borrelia burgdorferi* is regulated by the action of CD14-dependent p38-MAPK and cAMP-mediated chromatin remodeling. **Infection and Immunity Jan8** doi: 10.1128/IAI.00781-17**. * Corresponding Author** [PMID: 29311239], [Impact factor: 3.731]

29 **Sahay**, **B**., Colliou N., M. Zadeh, J.L. Owen, M. Valletti, C. Jobin, M. Mohamadzadeh. 2017 Dual route vaccine protects efficiently against botulinum neurotoxin complex. **Vaccine** Nov 24. pii: S0264-410X(17)31550-5. doi: 10.1016/j.vaccine.2017.11.008[PMID: 29180028], [Impact factor: 3.235]

28 **Sahay, B.,** C.Q. Nguyen, J.K. Yamamoto 2017. Conserved HIV epitopes for an effective HIV vaccine. **Journal of Clinical and Cellular Immunology** 4:4 [PMID: 29226015]

27 Colliou N., Y. Ge, **B. Sahay**, M. Gong, M. Zadeh, J.L. Owen, J. Neu, W.G. Farmerie, F. Alonzo[III], K., Liu, D.P. Jones, S. Li, M. Mohamadzadeh 2017. Commensal Propionibacterium strain UF1 mitigates

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intestinal inflammation via Th17 cell regulation. **The Journal of Clinical Investigation** 127(11):3970-3986. [PMID: 28945202] [Impact factor: 13.251]

26 J. L. Owen, S. X. Cheng, Y. Ge, **Sahay, B.**, M. Mohamadzadeh 2016. The role of the calcium-sensing receptor in gastrointestinal inflammation. **Seminars in cell & developmental biology** 49: 44-51, [PMID: 26709005], [Impact factor: 6.138]

25 **Sahay, B**., Y. Ge, N. Colliou, M. Zadeh, C. Weiner, A. Mila, J. L. Owen, M. Mohamadzadeh 2015. Advancing the use of *Lactobacillus acidophilus* surface layer protein A for the treatment of intestinal disorders in humans. **Gut Microbes** 6:392-7, [PMID: 26647142], [Impact factor: 4.16]

24 Colliou N., **Sahay, B**. M. Zadeh, J.L. Owen, M. Mohamadzadeh, 2015. Impact of gastrointestinal *Bacillis anthracis* infection on hepatic B cells. **Toxins** 7:3805-3817, [PMID: 26402706], [Impact factor: 3.273]

23 Yang T, M.M. Santisteban, V. Rodriguez, E. Li, N. Ahmari, J.M. Carvajal, M. Zadeh, M. Gong, Y. Qi, J. Zubcevic, **Sahay, B**, C.J. Pepine, M.K. Raizada, M. Mohamadzadeh 2015. Gut dysbiosis is linked to hypertension. **Hypertension** 65(6):1331-40, [PMID:25870193], [Impact factor: 6.857]

22 Lightfoot, Y.L., K., Selle,T. Yang, Y.J. Goh, **B. Sahay**, M. Zadeh, J.L. Owen, N. Colliou, E. Li, T. Johannssen, B. Lepenies, T. R. Klaenhammer, M. Mohamadzadeh 2015. SIGNR3-dependent immune regulation by Lactobacillus acidophilus surface layer protein A in colitis. **EMBO J.** 34(7):881-95, [PMID:25666591], [Impact factor: 9.792]

21 **Sahay, B**., J.L. Owen, M. Zadeh, T. Yang, Y. L. Lightfoot, F. Abed, M. Mohamadzadeh 2014. Impaired colonic B-cell responses by gastrointestinal *Bacillus anthracis* infection. **Journal of Infectious Diseases** pii: jiu280, [PMID: 24829464], [Impact factor: 5.186]

20 Sam X. Cheng, Y. L. Lightfoot, T. Yang, M. Zadeh, L.Tang, **Sahay, B.**, G. P. Wang, J. L. Owen, M. Mohamadzadeh 2014. Epithelial CaSR Deficiency Alters Intestinal Integrity and Immune Responses. **FEBS letters** pii: S0014-5793(14)00368-8. doi: 10.1016/j.febslet.2014.05.007. [PMID: 24842610], [Impact factor: 2.999]

19 Y. L. Lightfoot, T. Yang, **Sahay, B.,** M. Zadeh, Sam X. Cheng, Gary P. Wang, J.L. Owen, M. Mohamadzadeh 2014. Rigid Immune Suppression, Intestinal Barrier Dysfunction, and Dysbiosis by Gastrointestinal *Bacillus anthracis* Infection. **PLos One** 19;9(6):e100532. [PMID: 24945934], [Impact factor: 2.766]

18 **Sahay, B**. J.L. Owen, T. Yang, M. Zadeh, Y. L. Lightfoot, J.W. Ge, M. Mohamadzadeh 2014. Activation of B cells by a dendritic cell targeted vaccine. **Current Pharmaceutical Biotechnology** Nov; 14(10): 867-77. [PMID: 24372255], [Impact factor: 2.14]

17 Owen, J.L., **Sahay, B.**, M. Mohamadzadeh. 2013. New generation of oral mucosal vaccines targeting dendritic cells. 2013 **Current Opinion In Chemical Biology** Jul 5. pii: S1367-5931(13)00115-4. doi: 10.1016/j.cbpa.2013.06.013. [PMID: 23835515], [Impact factor: 7.52]

16 **Sahay, B**., M. Kathania, J.L. Owen, M. Mohamadzadeh 2013. Directional activation of intestinal dendritic cells by oral targeted multivalent vaccine strategy. **Journal of Vaccine and Vaccinology** 4: 5-6 [Impact factor: 1.48]

15 Kathania, M., M. Zadeh, Y. L. Lighfoot, R. Roman, **Sahay, B.**, J. Abbot, M. Mohamadzadeh 2013. Colonic immune stimulation by targeted oral vaccine. **PLoS One** 8(1):e55143. PMID: 23383086; [Impact factor: 2.9]

14 Lightfoot, Y., T.Yang, **Sahay, B.**, M. Mohamadzadeh 2012. Targeting aberrant colon cancer-specific DNA methylation with lipoteichoic acid-deficient *Lactobacillus acidophilus.* **Gut Microbes** 4(1):84-8. [PMID: 23137966], [Impact factor: 4.16]

13 Sellati, T.J., **Sahay, B.,** G. P. Wormser, 2012. The Toll of TLR1 Polymorphism in Lyme Disease: A Tale of Mice and Men, **Arthritis and rheumatism** 64(5):1311. [PMID: 22246662], [Impact factor: 6.918]

12 Shi, C., **B. Sahay,** J. Q. Russell, K. A. Fortner, N. Hardin, T. J. Sellati and R. Budd. 2011. Reduced immune response to *Borrelia burgdorferi* in the absence of gamma delta T cells. **Infection and Immunity** 79(10):3940-6. [PMID: 21768278], [Impact factor: 3.731]

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11 Periasamy, S., A. Singh, **Sahay, B.**, T. Rahman, G. H. Pham, E. J. Gosselin, P. J. Feustel and T. J. Sellati. 2011. Development of tolerogenic dendritic cells and regulatory T cells favors exponential bacterial growth and survival during early respiratory tularemia. **Journal of Leukocyte Biology** 90(3):493-507. [PMID: 21724804], [Impact factor: 4.289]

10 Zarrella, T. M., A. Singh, C. Bitsaktsis, T. Rahman, **Sahay, B.**, P. J. Feustel, E. J. Gosselin, T. J. Sellati, K. R.O Hazlett. 2011. Host adaptation of *Francisella tularensis* induces multiple changes to the bacterium's surface-carbohydrates that hinder effectors of innate and adaptive immunity. **PLoS ONE** 6(7): e22335. doi:10.1371/journal.pone.0022335. [PMID: 21799828], [Impact factor: 2.766]

9 Cervantes, J.L., S. Dunham-Ems, C. La Vake, M. M. Petzke, **Sahay, B.**, T. J. Sellati, J. D. Radolf, and J. C. Salazar. 2011. Phagosomal signaling by *Borrelia burgdorferi* in human monocytes involves TLR2-TLR8 cooperativity and TLR8 mediated transcription of IFN-β. **Proceedings of National Academy of Science** 108: 3683-8. [PMID: 21321205], [Impact factor: 9.661]

8 **Sahay B**., A. Singh, A. Gnanamani, R. L. Patsey, J. E. Blalock, and T. J. Sellati. 2010. CD14 Signaling Reciprocally Controls Collagen Deposition and Turnover to Regulate the Development of Lyme Arthritis. **American Journal of Pathology**. 178: 724-34. [PMID: 21281805], [Impact factor: 4.583]

7 **Sahay B**., R. L. Patsey, C. H. Eggers, J.A. Salazar, J. D. Radolf, and T. J. Sellati. 2009. CD14 signaling restrains chronic inflammation through induction of p38-MAPK/SOCS-dependent tolerance. **PLoS Pathogens**. December 5 (12): e1000687. [PMID: 20011115], [Impact factor: 10.44]

6 Sarkar, J., V. Balamurugan, A. Sen, P. Saravanan, **Sahay, B.**, K.K. Rajak, T.J. Rasool, V. Bhanuprakash, R.K. Singh. 2009. Sequence analysis of morbillivirus CD150 receptor-signaling lymphocyte activation molecule (SLAM) of different animal species. **Virus Genes** 39: 335-41. [PMID: 19669672], [Impact factor: 1.96]

5 Balamurugan, V., R. P. Singh, P. Saravanan, A. Sen, J. Sarkar, **Sahay, B.**, T. J. Rasool, and R. K. Singh. 2007. Development of an indirect ELISA for the detection of antibodies against Peste-des-petits-ruminants virus in small ruminants. **Veterinary Research Communications**. 31: 355-64, [Impact Factor: 0.96]

4 Saravanan, P., V. Balamurugan, A. Sen, J. Sarkar, **Sahay, B.**, K. K. Rajak, M. Hosamani, M. P. Yadav, and R. K. Singh. 2007. Mixed infection of Peste-des-petits-ruminants and orf on a goat farm in Shahjahanpur, India. **Veterinary Records**. 24;160: 410-2. [PMID: 17384295], [Impact factor: 0.57]

3 Saravanan, S., R.P. Singh, V. Balamurugan, P. Saravanan, A. Sen, **Sahay, B.**, J. Sarkar, R.K. Singh. 2007. Production and characterization of neutralizing monoclonal antibodies against haemagglutinin protein of peste des petits ruminants (PPR) vaccine virus. **Journal of Applied Animal Research** 32: 207-210, [Impact factor: 0.2]

2 Malik, M., C. S. Bakshi, **Sahay, B.,** A. Shah, S. A. Lotz, and T. J. Sellati. 2006. Toll-like receptor 2 is required for control of pulmonary infection with *Francisella tularensis*. **Infection and Immunity**. 74: 3657-62. [PMID: 16714598], [Impact factor: 4.1]

1 Mallanna, SK., T. J. Rasool, **Sahay, B**, A. G. Aleyas, H. Ram, B. Mondal, B. Nautiyal, A. Premraj, E. Sreekumar, and M. P. Yadav. 2006. Inhibition of Anatid Herpes Virus-1 replication by small interfering RNAs in cell culture system. **Virus Research**. 115: 192-7. [PMID: 16199105], [Impact factor: 2.89]

Manuscripts Under Review:

1. Silver, NL., Foster, T., Dai, J., Takacs, T., von Roemeling., C., Weidert, F., Chardon-Robles, J., Garg, R., Alban, T., Juric, I., Qdaisat, S., Zhang, D., Marconi, C., Zhao, C., Soni, D., Thomas, N., Moor, R., Stover, B., Goldenberg, E., **Sahay, B.,** Green, G., Fagman, L., Patel, J., Carpenter, S., McGuiness, S., Ogando-Rivas, E., Montomery, D., Ma, X., Duggal, R., DeVries, A., Summers, M., Geiger, J., Deabold, K., Ligon, J., Huang, J., Doty, A., Lee, JH., Hwang, E., Kline, C., Rahman, M., Mueller, S., Prados, M., Brusko, T., Ghiaseddin, A., Haller, M., Schatz, D., Chan, T., Jha, B., McGrail, D., Wasserfall, C., Harrison, J., Milner; R., Castillo, P., Mitchell, D., Mendez-Gomez, H and Sayour, E., (2026) RNA damage mimicry redirects myeloid precursors to restore immune surveillance. The manuscript is under review at Cell [Impact Factor: 66.85]

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2. Choudhury. C., Chakraborty, A., Raut, R., Banks, K., Gustafson, D., Burton, J., Truong, M., Takada, M., **Sahay, B.,** and Bais, M., (2026). LSD1 inhibition epigenetically reprograms OSCC for radiation therapy by suppressing SUMOylation and activating NK cells. The manuscript is under review at Journal of Hematology & Oncology [Impact factor: 34.4]
3. Fukuhara, M., Hang, H.C., **Sahay, B.,** Fanger, G.R., Freguia, C.F. (2026). R-5780, a SagA-engineered Lactococcus lactis, is a safe oral synthetic-biology microbial therapy that potentiates PD-1 blockade. The manuscript is under review at Cancer Immunology, Immunotherapy [Impact factor: 5.1]
4. Gottapu, C., Edison, L.K., Neelawala, R., Bommineni, V., Butcher, G.D., Sahay, B., Havelaar, A., Kariyawasam, S., (2026). Identification and Expression of Immunogenic Mimotopes of *C. hepaticus* Using an *E. coli*-Based Surface Display System. The manuscript is under review at Vaccines [Impact factor: 3.4]
5. Saikumar, Saikumar; Javed, Omar; Alfaro-Diaz, Noelia; Arriola, Kathy; Siregar, Martha; Osorio, Angela; Salvatierra Saavedra, Sebastian; **Sahay, Bikash**; Vargas Alvarado , Andres ; Manzo Cayetano , Alma ; Vaswani, Shalini; Yoon, Ilkyu; Vyas, Diwakar (2026) Effects of a blend of Saccharomyces cerevisiae fermentation-derived postbiotic and essential oil supplementation on the performance of transition dairy cows. The manuscript is under review at Journal of Dairy Science [Impact factor: 4.4]
6. Jeepipalli,S., Gurusamy, P., Martins, A., Reddy, SP., Sahay,B., Chan, ELK., and Lakshmyya, K., (2026). Polymicrobial periodontal bacterial infection-induced gut dysbiotic microbial profiles by enhancing Akkermansia muciniphila and Dubosiella in mice. The manuscript is under review at Gut Microbes

Manuscripts Under Preparation:

1. Goodwin, Z., Arukha, AP., Freguia, C., Castleman, W., Fanger, N., Fanger, G., **Sahay, B**., (2025). Toxicological and Immunological evaluation of a recombinant probiotic strain for its potential use as a therapeutic drug against human colitis. Target Journal: Journal of Toxicology

2. Anumanthan G., Freguia, C., Arukha AP., Fanger N, Mergia, A., Fanger G., **Sahay B**. A recombinant probiotic protects mice against influenza-A infection-induced immunopathology 2025 Target Journal: PNAS

3. Arukha AP., Anumanthan G., Freguia, C., Fanger N, Mergia, A., Fanger G., **Sahay B**. SlpA augments CD8 T cell responses during natural infections and vaccination. 2026 Target Journal: PNAS

4. Arukha AP., Anumanthan G., Freguia, C., Anumanthan G., Fanger N, Mergia, A., Mergia, A., Fanger G., **Sahay B**. SlpA resists immunoaging and age-related muscle loss. 2026 Target Journal: PNAS

5. **Sahay, B**., Ghilzai,U., Mishra, M., Arukha, AP., Smith, K., Khayrullin, A., Awad, ME., Hamrick, MW., Fulzele, S., CD4+CD45RBHi T-Cell Colitis Mouse Model induces bone and muscle loss 2026 Target Journal: Journal of Inflammation

6. Arukha, AP, Goodwin, Z., **Sahay, B.** (2026) A recombinant probiotic expressing a truncated SlpA prevents colitis. Target Journal Biomedicine

Book Chapter

1. **Sahay, B**., Sellati, TJS 2012 Cells of innate immunity: mechanisms of activation, Pathobiology of Human Disease: A Dynamic Encyclopedia of Disease Mechanisms. Publisher **Elsevier Publications**, NY

2. **Sahay, B**., Aranyos, A.M., McAvoy, A., and Yamamoto, J K. 2018. Utilization of Feline ELISpot to Evaluate the Immunogenicity of a T cell-Based FIV MAP Vaccine Publisher **Bio-Techne.** In Handbook of ELISpot: Methods and Protocols. 3rd Ed. (Editor: A.E. Kalyuzhny) Humana Press, Chapt. 18, pp 197-219. Also In: Methods in Molecular Biology. (Ed. JH Walker).

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Invited presentations

1. **Sahay, B.,** "Vaginal and Urethral Microbiomes: Disease implications" Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 22nd Feb 2023
2. **Sahay, B.**, Gut microbes an overview: history and characterization. Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 22nd Feb 2023
3. **Sahay, B.**, Application of gut microbes for prevention of neonatal death. Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 23rd Feb 2023
4. **Sahay, B.**, Gut Microbiota and Their Role in Health and Metabolic Disease of Dairy Cow. Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 23rd Feb 2023
5. **Sahay, B.,** Application of microbial products to treat inflammatory diseases. Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 24th Feb 2023
6. **Sahay, B.**, Induction and resolution of Cancer by microbes. Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 24th Feb 2023
7. **Sahay, B.**, Art of vaccine development: lesson learned from the success of SARS-CoV2 and failure of HIV vaccines. Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 27th Feb 2023
8. **Sahay, B.**, Future of veterinary vaccines. Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 27th Feb 2023
9. **Sahay, B.**, Control of uterine infections, traditional and future. Presented at the Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana, India, on 28th Feb 2023
10. **Sahay, B.**, "Harnessing the gut bacteria for the development of preventive and therapeutic medicine" Organized by Institute for Learning in Retirement at Oak Hammock, held on Oct 17th, 2022
11. **Sahay, B.**, "Harnessing the gut microbiota for therapeutics," organized by the Government of India as a Global Summit of Overseas and resident Indian scientists and academicians in the session titled Immunobiological agents for animal disease management held on Oct 21st 2020
12. **Sahay, B.,** A. Singh, A. Gnanamani, R. L. Patsey and T. J. Sellati. 2009. CD14 signaling reciprocally controls collagen deposition and turnover to regulate the development of Lyme Arthritis. Invited presentation at 12th Annual Upstate New York Immunology Conference. Held at The Sagamore, Bolton Landing, NY, on Oct 25-27.
13. **Sahay, B.,** R. L. Patsey and T. J. Sellati. 2011. cAMP-dependent IL-10 production determines the severity of Lyme disease. Invited presentation at 14th Annual Upstate New York immunology Conference. Held at The Sagamore, Bolton Landing, on Oct 24-26
14. **Sahay, B.** cAMP-mediated epigenetic control of Lyme Disease pathogenesis. Presented at the Department of Physiological Sciences, U.F. College of Veterinary Medicine, Gainesville FL 32608 Nov 29 2016

PATENTS

1. **Sahay, B**., Fanger, G., Jha, J., Freguia, CF. Surface layer protein A (SlpA) as a therapeutic agent for the treatment of Inflammatory diseases. US Patent # US20240262873A1

2. Milner, M., **Sahay, B.,** Salute, M., Cascio, M., Sayour, E., Lagmay, J. GD3-based nanoparticle vaccine against cancer. Web publication: WO2020163875A1

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3. Lightfoot, Y., **Sahay, B**., and Mohamadzadeh, M*. Lactobacillus acidophilus* surface layer protein A (SlpA) as a therapeutic agent for the treatment of inflammatory bowel diseases. US Patent # US20200172582A1

4. **Sahay, B.,** and Mohamadzadeh *Propionibacterium freudenreichii* as a probiotic for infants. US Patent # US20180199611A1

5. Mohamadzadeh, M., **Sahay, B**., Salek-Ardekani, and Tahiliani, V. Lipoteichoic acid from *Lactobacilli* as a potent immune stimulatory adjuvant for vaccine development. Web publication: WO2015164565A1; US Patent # US20170035880A1

6. Yamamoto, JK., Kariyawasam, S., **Sahay, B**., A pan-coronavirus (CoV) vaccine formulation for dogs and cats generates sterilizing immunity and prevents infection by feline and canine coronaviruses. A patent has been filed

ABSTRACTS

1. Chelsea Salmon*, Govindaraj Anumanthan*, Christopher Broxson, Naueen Chaudhry, Ananta P. Arukha, Ellen Zimmermann, **Bikash Sahay** (2025) A Surface Protein Derived from the Commensal Bacteria Lactobacillus acidophilus, Surface Layer Protein A (SlpA), Modulates Immune Cells in a Humanized Mouse Model. It will be presented at Digestive Disease Week at San Diego between May 3rd and 6th 2025

2. Natalie L. Silver; Johnathan Chardon-Robles; Jin Dai; Rekha Garg; John Ligon; Carlos Souza; Paul Castillo; Rowan Milner; **Bikash Sahay**; Timothy Chan; Duane Mitchell; Elias Sayour (2023) Personalized therapeutic mRNA nano-vaccines are effective across multiple preclinical and translational models of head and neck cancer. Clinical Cancer Research, AACR https://aacrjournals.org/clincancerres/article/29/18_Supplement/PR08/728800

3. Chakraborty, AK., Kroehling, L., Wei, G., Iqbal, K., AlHousami, T., Ali, F., Hanna, G., Varelas, X., Kukuruzinska, M., **Sahay, B**., Monti, S., Bais, MV. (2023) LSD1 promotes heterogeneous immune and Oral Stem cells during progressive oral malignancy. Presented at 2023 American Association for Dental, Oral, and Craniofacial Research (AADOCR) Meeting in Portland, Oregon

4. Milner, R J., **Sahay, B**., Cascio, M., Lejeune, A., Souza, C., Shiomitsu, K., 2020. A translational large animal osteosarcoma vaccine trial using a nano-scaled liposomal GD3 Vaccine concurrent with standard of care. Presented at 2020 Southeast Regional Clinical and translational science alliance conference held at Callaway Resort & gardens, 17800 US Hwy 27, Pine Mountains GA 31822 Feb 27-29 2020.

5. Freguia, CF, Mishra, M., Jha, JK., George, J., Vanhorn, CL., Arukha, A., Fanger, NA., Fanger, GR., **Sahay, B**,. A Novel Immunologically Engineered Probiotic for the Treatment of Inflammatory Bowel Disease. 2020 Abstract submitted to Crohn's and Colitis Foundation's IBD Innovate: Product Development for Crohn's and Colitis. Virtual Conference held at Nov 17th and 18th 2020

6. Sahay, B., Cascio, M., Salute, M., Milner, R. **2018** A protective GD3-based vaccine increases NKT cells in C57BL/6 murine model. Presented at American Association for Cancer Research, New York

7. **Sahay, B.,** Bashant K, Nelson NJ, Patsey RL, Gadila SK, Boohaker R, Verma A, Strle K, Sellati TJ. **2018.** Induction of IL-10 by *Borrelia burgdorferi* is regulated by the action of CD14-dependent p38-MAPK and cAMP-mediated chromatin remodeling. Presented at Gordon Research Conference on The Biology of Spirochetes. Held at Ventura Beach CA on Jan 21-26

8. Sahay, B., Hutchinson, S., Cascio, M., Lejeune, A., Boston, S., Souza, C., Szivek, A., Shiomitsu, K., Harding, K., Fox-Alvarez, S., Livaccari, A.M., Powers, P., Milner, M. **2017**. Changes in immune profiles of osteosarcoma dogs receiving a GD3-based vaccine concurrently with carboplatin chemotherapy protocol and surgery. Presented at American Association for Cancer Research, Boston

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9. Milner, R.J., Hutchinson, S., **Sahay, B**., Pei, S., Cascio, M., Bowles, K., Sayour, E., Salute, M., 2016. Immune platforms to monitor GD3 based osteosarcoma vaccine given concurrently with carboplatin chemotherapy protocol and surgery. Presented at Veterinary Cancer Society, Orlando

10. **Sahay, B**., K. Basant, R. L. Patsey, A. Verma, T. Sellati. 2016. cAMP-mediated epigenetic control of Lyme Disease pathogenesis. Presented at Gordon Research Conference on The Biology of Spirochetes. Held at Ventura Beach CA on Jan 10-15

11. **Sahay, B.,** R. L. Patsey and T. J. Sellati. 2012. cAMP-dependent IL-10 production determines the severity of Lyme disease. Presented at Gordon Research Conference on The Biology of Spirochetes. Held at Ventura Beach CA on Jan 23-27

12. **Sahay, B.,** R. L. Patsey and T. J. Sellati. 2011. cAMP-dependent IL-10 production determines the severity of Lyme disease. Presented at Presented at 12th Annual Upstate New York Immunology Conference. Held at The Sagamore, Bolton Landing, NY, on Oct 24-26.

13. **Sahay, B.**, A. Singh, A. Gnanamani, R. L. Patsey and T. J. Sellati. 2010. *B. burgdorferi*-induced matrix metalloproteinase-9 activity is CD14-dependent and attenuates Lyme arthritis. Presented at Gordon Research Conference on The Biology of Spirochetes. Held at Ventura Beach Marriot, Ventura, CA, on Jan 31-Feb 5.

14. **Sahay, B.**, R. L. Patsey, C. H. Eggers, J. A. Salazar, J. D. Radolf and T. J. Sellati 2010. CD14 signaling restrains chronic inflammation through induction of p38-MAPK/SOCS-dependent tolerance. Presented at Gordon Research Conference on The Biology of Spirochetes. Held at Ventura Beach Marriot, Ventura, CA, on Jan 31-Feb 5.

15. **Sahay, B.**, A. Singh, A. Gnanamani, R. L. Patsey and T. J. Sellati. 2009. CD14 signaling reciprocally controls collagen deposition and turnover to regulate the development of Lyme arthritis. Presented at 12th Annual Upstate New York Immunology Conference. Held at The Sagamore, Bolton Landing, NY, on Oct 25-27.

16. **Sahay, B.**, R. L. Patsey, C. H. Eggers, J. A. Salazar, J. D. Radolf and T. J. Sellati. 2009. CD14 signaling restrains chronic inflammation through induction of p38-MAPK/SOCS-dependent tolerance. Presented at 12th Annual Upstate New York Immunology Conference. Held at The Sagamore, Bolton Landing, NY, on Oct 25-27.

17. **Sahay, B.**, R. L. Patsey, N. Whatley, and T. J. Sellati. 2008. CD14 modulates p38-mediated negative regulation of TLR signaling. Presented at Gordon Research Conference on The Biology of Spirochetes. Held at Ventura Beach Marriot, Ventura, CA, on Jan 20-25.

18. **Sahay, B**., M. R. Benhnia, R. L. Patsey and T.J. Sellati. 2008. CD14-dependent modulation of TLR signaling negative regulators. Presented at Joint Conference of Society for Leukocyte Biology and International Endotoxin and Innate Immunity Society. Held at Marriot Riverside, San Antonio, TX, in Nov.

19. **Sahay, B.**, C.S Bakshi, R. K. Singh, M. Malik, K. Jadav and S. K. Das. 2002. Identification of attenuated mutants of *Salmonella* Abortus *equi* by in-vivo screening in guinea pigs. Presented at Xth International Congress of Asian-Australasian Association of Animal Production Societies (AAAP) held in New Delhi in Sept.

20. **Sahay, B**., C. S. Bakshi, R. K. Singh, M. Malik and V. V. S. Suryanarayana. 2001. Generation of mutants gene bank of *Salmonella* Abortus *equi* by signature tagged mutagenesis. Presented at "National

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Symposium on Role of Veterinary Immunology in Livestock Health and Production in India in the 21st century." Organized at IVRI, Izatnagar, India in March.

21. **Sahay, B.**, C. S. Bakshi, R. K. Singh, M. Malik and K. Jadav. 2001. Signature Tagged Mutagenesis- a novel technique to generate insertion mutants by tagged transposons. Presented at the convention of SIIP and National Symposium on Immunomodulation in Health and Disease. Held at Pantnagar, India Dec.

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