

Winston-Salem State University
FACULTY CURRICULUM VITAE

Personal Data:

Name:	Dinesh K. Singh
Current Academic Rank:	Professor of Microbiology
Department:	Life Sciences
Office Address:	217F WBA Science Bldg., 601 South Martine Luther King, Jr., Winston- Salem, NC 27110
Telephones:	336-750-8616 (Office) 336-750-8775 (Lab)
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Professional Websites	myweb.wssu.edu/singhd http://www.ceehd.com/

Summary of Scholastic Achievements:

Peer Reviewed Research Articles	36
Published Abstracts	60
Invited Reviews	8
Books	1
Total Publications	105

Current Teaching:

Biological Concepts BIO1301	Undergraduate Non-major Students
General Microbiology BIO 1331	Pre-nursing Students
General Microbiology Lab BIO 1131	Pre-nursing Students
Histology BIO 3343	Undergraduate Biology/Biotechnology Major Students
Histology Laboratory BIO 3143	Undergraduate Biology/Biotechnology Major Students
General Virology BIO 4308	Undergraduate Biology/Biotechnology Major Students

PROFESSIONAL DEVELOPMENT

G.B. Pant University of Agriculture and Technology, Pantnagar, INDIA	BVSc & AH (VET. MED.)	1977-82
G.B. Pant University of Agriculture and Technology, Pantnagar, INDIA	MVSc (Vet. Pathology MINOR: Bacteriology)	1982-84

Indian Veterinary Research Institute, Izatnagar, INDIA	PhD (Vet. Pathology MINOR: Immunology & Biochemistry)	1991-97
<u>POSTDOCTORAL & PROFESSIONAL APPOINTMENTS</u>		
Govt. of Madhya Pradesh, INDIA	Veterinary Extension Officer	03/1984-10/1984
G.B. Pant University of Agriculture and Technology, Pantnagar, INDIA	Teaching Associate	10/1984-02/1986
Indian Veterinary Research Institute, Izatnagar, INDIA	Scientist /Assistant Professor	02/1986-11/1999
Indian Veterinary Research Institute, Izatnagar, INDIA	Senior Scientist/ Associate Professor	11/1999-12/1999
The University of Kansas Medical Center, Kansas City, Kansas, USA	Postdoctoral Fellow	12/1999-06/2002
The University of Kansas Medical Center, Kansas City, Kansas, USA	Assistant Professor- Research	07/2002-08/2005
Winston Salem State University, Winston Salem, NC	Assistant Professor	08/2005-08/2009
Wake Forest University School of Medicine, Winston Salem, NC	Adjunct Assistant Professor (Vol.)	08/2005-08/2009
Norfolk State University, Norfolk, VA	Associate Professor	08/2009-07/2010
Wake Forest University School of Medicine, Winston Salem, NC	Adjunct Associate Professor (Vol.)	08/2010-13
Winston Salem State University, Winston Salem, NC	Associate Professor	08/2010- 11
Winston Salem State University, Winston Salem, NC	Professor	07/2011-cont.

<u>PROFESSIONAL REGISTRATION/ LICENSURE</u>		
All India Licensed Veterinary Practitioner (Registration. No. V.C.I./000635 dated 01/12/1995) Indian Veterinary council Act 1984 (52 of 1984), New Delhi, INDIA.		

<u>PROFESSIONAL SOCIETIES AND AFFILIATIONS</u>		
Indian Society of Veterinary Medicine (ISVM)	Life Member	02/1986-
Indian Association of Veterinary Pathologists (IAVP)	Life Member	02/1986-
Veterinary Council of India (VCI)	Life Member	01/1995

<u>HONORS/AWARDS</u>		
College Merit Certificate	College of Veterinary Sciences, GB Pant University of A&T Pantnagar, India	1977
University Merit Certificates for 4 consecutive years	GB Pant University of A&T, Pantnagar, India	1978-81
Best Poultry Project Second Prize	GB Pant University of A&T, Pantnagar, India	1980
Cattle Judging Competition, Third Prize	GB Pant University of A&T, Pantnagar, India	1980
Cattle Judging Competition, Third Prize	GB Pant University of A&T, Pantnagar, India	1981
Best Surgeon Award- Animal Surgery	College of Veterinary Sciences, GB Pant University of A&T Pantnagar, India	1981
<u>Faculty Awards</u>		
Most Valuable Person Award	The University of Kansas Medical Center, Kansas, KS	2002
Wilveria Bass Atkinson Distinguished Research Award	Winston Salem State University	2011
Bill Sheppard Master Teacher Award	Winston Salem State University	2011
Cedric Rodney Distinguished Service Award	Winston Salem State University	2012
<u>FELLOWSHIPS</u>		
Indian Council of Agricultural Research Scholarship	ICAR, New Delhi, India	1977-1982
Indian Council of Agricultural Research Junior Fellowship	ICAR, New Delhi, India	1982-84

Formal Lectures and Seminars:

<u>LIST OF INVITED LECTURES</u>	
1	<u>Maedi – Visna Virus of Sheep: Diagnosis and Pathological Features.</u> Division of Veterinary Pathology Seminar Series, IVRI: May 29, 1986.

2	<u>Ovine Pulmonary Adenomatosis: Its existence in Indian Sheep Flocks.</u> Division of Veterinary Pathology Seminar Series, IVRI: April 20, 1989
3	<u>Pathogenesis of Prion Diseases.</u> Invited lecture at the Center for Animal Disease Research and Diagnosis, IVRI: February 16, 1991.
4	<u>Important Winter Diseases of Dairy Animals and their Prevention.</u> Nov. 8 th , 1994 Television Center, Bhopal, MP, India.
5	<u>Vaccination of Livestock Before Monsoon.</u> May 31 st 1995. All India Radio Bhopal, MP, India.
6	<u>Important Animal Diseases: Prevention and Control.</u> October 8 th , 1997. All India Radio Bhopal, MP, India.
7	<u>Virus Rogon ke Sambhavit Khatre evam Bharatiya Vagyanik Prayas (Hindi).</u> All India Radio Bhopal. September 19, 1998. Bhopal, MP, India.
8	<u>Prevention and Control of Viral Diseases in Indian goats.</u> All India Radio Bhopal. December 22, 1998. Bhopal, MP, India.
9	<u>Caprine Arthritis Encephalitis, a new threat to Indian Goats.</u> Television Center, Bhopal. January 11, 1999. Bhopal, MP, India.
10	<u>Role of Vpu Protein of HIV-1 in the Pathogenesis and a Novel Approach to Analyze its Structure-function Relationships.</u> Department of Anatomy and Cell Biology Research Seminar Series. May 30, 2002.
11	<u>Compromise and Disruption of Blood Brain Barrier: A story of SHIV-neuroinvasion.</u> SNRP and neuroAIDS program, the University of Puerto Rico, San Juan, PR. February, 2003.
12	<u>Immunogenicity of HIV DNA Vaccine in Mice.</u> Biology Department, Western Missouri State University, Saint Joseph, MO. February, 2005.
13	<u>Immunogenicity of a Non-Infectious SHIV DNA in Mice.</u> Department of Life Sciences, Winston-Salem State University, Winston-Salem, North Carolina. April 18, 2005.
14	<u>Using Non-infectious HIV DNA for Protection Against AIDS.</u> Department of Microbiology, Immunology and Genetics, The University of Kansas Medical Center, Kansas City, Kansas. April 26, 2005.
15	<u>Developing a DNA Vaccine for HIV/AIDS.</u> Department of Biology, Old Dominion University, Norfolk, Virginia. August 8, 2005.
16	<u>Prospects of Developing a DNA Vaccine for HIV/ AIDS.</u> Department of Microbiology and Immunology, Wake Forest University Baptist Medical Center, Winston-Salem, North Carolina. September 29, 2005
17	<u>Harnessing Dendritic Cells to Potentiate Immunogenicity of an HIV- DNA Vaccine.</u> Department of Comparative Medicine, Wake Forest University Medical Center-Friedberg Campus Winston-Salem, North Carolina. November 17, 2005.

18	<u>Limitations of Current HIV/DNA Vaccines.</u> 4 th Annual Congress of International Drug Discovery Science and Technology -2006 (IDDST-2006), Dalian, China. May 25-29, 2006.
19	<u>Ralph Johnson Bunche: A Karmayogi.</u> First Ralph Bunch Society Annual Meeting, WSSU, April 25 th , 2007.
20	<u>Prevention of Reservoir Establishment During Early Stages of HIV Transmission.</u> Project Strengthen, Department of Life Sciences, WSSU, February 13, 2008.
21	<u>Efficacy of Silver Nanoparticles in Neutralizing HIV-1 Infectivity.</u> The World Congress of Vaccines, Session 34: Research Progress of HIV Vaccination, Guangzhou, China. December 1-5 2008.
22	Mucosal vaccine for HIV/AIDS-Singh, Dinesh K. http://www.ceehd.com/
23	<u>Trafficking of HIV-1 in Human Dendritic Cells.</u> Faces of a Healthy Future: National Conference to end Health Disparity II. Winton Salem State University, Winston Salem, NC. November 2009.
24	<u>Lentiviral DNA as an HIV-vaccine Candidate.</u> World Vaccine Congress-2010. Beijing International Convention Center, Beijing China. March 2010.
25	<u>Trafficking of HIV-1 in Human Dendritic cells.</u> World Vaccine Congress-2010. Beijing International Convention Center, Beijing China. March, 2010.
26	<u>Potentiating a HIV DNA Vaccine with Flagellin at Vaginal Cervical Mucosa.</u> Winston Salem State University Research Advisory Committee's Luncheon Presentation. Winston Salem, NC. April, 2010.
27	<u>Use of Recombinant Flagellin to Enhance Mucosal Immunogenicity of a Plasmid SHIV-DNA in Mice.</u> World Vaccine Congress-2011. Beijing International Convention Center, Beijing China. March 2011.
28	<u>Why a Vaccine for HIV/ AIDS is Difficult to Develop?</u> Winston Salem State University Scholarship Day-2011, April 12, 2011.
29	<u>Why Body's Defense System always Succumbs to HIV?</u> College of Arts and Sciences General College Meeting. Hall Patterson, WSSU, NC. August 12 th , 2011.
30	<u>Recombinant Salmonella Flagellin Protein as an Adjuvant to plasmid SHIV-DNA Vaccine at the Vaginal Mucosa of BALB/c Mice.</u> 1 st Biotechnology World Congress-2012. Dubai, Feb 14-15 th , 2012.
31	<u>Inhibition of Cell-associated HIV-1 by Silver nanoparticles.</u> 17 th International Symposium on HIV and Emerging Infectious Diseases (ISHEID) Marseilles, France, May 23-25, 2012

Grant Support:

Completed:

1. Host factors involved in SHIV Neuropathogenesis- NIH. Total direct costs: \$1,000,000 Funding period: 4/1/02- 3/31/06. Edward B. Stephens (PI), Nancy E. J. Berman (Co-PI), Dinesh K. Singh (Investigator).
2. The role of Vpu in HIV Pathogenesis- NIH. Total direct costs: \$1,000,000 Funding period: 4/1/02-3/31/06. Edward B. Stephens (PI), Nancy E.J. Berman (Co-PI), Dinesh K Singh (Investigator).
3. Immunogenicity of HIV DNA vaccines and cytokines in mice- NCR-RII (COBRE). Dinesh K. Singh (PI). Total Direct Cost; \$1, 30,000 per year. Funding period: 7/1/2004-7/1/2006.

A new DNA vaccine against HIV disease in macaques- NIH. Opendra Narayan (PI), Dinesh K. Singh (Co-Investigator), Marilyn Smith (Co-Investigator). Total direct cost: \$402,005 per year. Funding Period: 7/1/2004-/1/2009.
4. Potentiating an HIV-DNA Vaccine with Flagellin- WSSU professional development grant. Dinesh K. Singh (PI). Total direct cost: \$3000.00. Funding Period: 6/1/06-5/30/07.

Grant Support at WSSU:

Completed

1. Potentiating an HIV-DNA Vaccine with Flagellin- WSSU professional development grant. Dinesh K. Singh (PI). Total direct cost: \$3000.00. Funding Period: 6/1/06-5/30/07.
2. Title III CCRAA Grant: Enrichment of Department of Life Sciences Instructional/Research Equipment Facilities. Dinesh Singh (PI). Department of Education. Total direct cost: \$272,095.00 Funding period 2008-09.

Current

1. Potentiating an HIV/DNA vaccine with Flagellin at Cervical Vaginal Mucosa- NIH/ NCMHD. Dinesh K. Singh (PI), Steven Mizel (Co-PI). Total Direct Cost: \$3, 21,000.00 Funding Period: 10/1/07- 9/30/10. This is a part of a Center for Minority Health Disparity Grant 1P20MD002303-01, Sylvia Flack PI, total funding \$4.7 Million. We have received a no cost extension of \$115,000.00 in direct cost for the year 2010-2011 and additional \$100,000 in direct cost for 2011-12.

2. Modulation of Dendritic Cells against HIV-1. NIH/ NIGMS. Dinesh K. Singh (PI). 1SC3GM084802-01, Total direct cost: \$300,000. Funding Period: 8/1/08- 6/30/12.

Pending

1. Mucosal Delivery of HIV/DNA Vaccine using Biodegradable Nanoparticles. Dinesh K. Singh (PI), under review at NIMHD/NIH. Total cost requested for my part of the proposal: \$1,280,570.00 for a period of five years. This proposal is a part of CEEHD renewal and has high probability of getting funded.

Editorial office:

1. Member Editorial Board of ISRN Microbiology
2. Member Editorial Board of ISRN Veterinary Sciences
3. Science @ ASU since 2006
4. Indian Journal of Veterinary Pathology

Scientific reviewer:

1. *Indian Journal of Veterinary Pathology*
2. *Indian Journal of Veterinary Medicine*
3. *Livestock Advisor*
4. *Pashudhan*
5. *Journal of Virology*
6. *Virology Journal*
7. *Neuroscience Letters*
8. *Journal of Nanobiotechnology*
9. *Clinical and Vaccine Immunology*
10. *Nanomedicine*
11. *Nanomaterials*
12. ISRN of Veterinary Sciences
13. ISRN of Microbiology
14. Journal of Microscopy

Chair/Co-chair:

1. Co-chair, World Congress of Vaccine-2010
2. Co-chair, World Congress of Vaccine-2011
3. Facilitator, Oral session, WSSU Scholar Day presentation April 12th, 2011

4. Chair, 1st Biotechnology World Congress-2012. Dubai.

NIH Adhoc Grant Reviewer:

1. Reviewer in Special Emphasis Panel/ Initial Review Group 2005/05 ZAI 1 TS-A (M2) I of NIH program project grants in 2005.

International Committees:

1. Member of advisory board of “Worlds AIDS Day China” since 2006

Scientific Conference Judge/ Abstract Reviewer:

1. Judge at Annual Biomedical Research Conference for Minority Students every year since 2006
2. Member organizing committee of Center of Excellence for Elimination of Health Disparity Conference “Faces of Healthy Future: National Conference to End Minority Health Disparity” 2009 at WSSU, <http://www.cee hd.com/>

Inter-institutional committees:

1. Member Bioterrorism and Bio-containment Committee Wake Forest University Baptist Medical Center 2006
2. Member of NC Triangle Virology Forum, Research Triangle Park, NC since 2006
3. Member of NC Triangle Immunology Forum, Research Triangle Park, NC since 2006

WSSU University Committee:

1. Member of Institute Biosafety Committee since 2006-9
2. Member of AUCUC since 2007-9
3. Member of Campus Safety and Health Committee since 2006-9
4. Faculty mentor of Ralph Bunche Society since 2006-9
5. Member of Science and General Office Building Committee since 2007-9
6. Reviewer for research initiative program of WSSU since 2006-9
7. University safety committee 2007-9
8. Faculty preceptor for MARC-U-STAR program since 2007-9.
9. Faculty mentor for SURE program since 2005-9
10. Faculty mentor for Phillip Morris program 2007-8
11. Member of Masters in Integrative Bioscience committee since 2008-9

LIST OF PUBLISHED/ INVITED REVIEWS

1	Singh, D. K. and Paliwal, O.P. (1997). Emergence of Caprine arthritis encephalitis in India. <i>Lead paper</i> . In: Proceedings of National symposium on Advances in veterinary pathology in post independence era. December 4-6 at IVRI, Izatnagar, P 55-61.
2	Singh, D. K. (1997). Molecular pathogenesis of Caprine arthritis encephalitis virus. <i>Lead Paper</i> In: Compendium of lead papers presented at Pune in the Fourth annual conferences on Biotechnology in Animal health and production for economic development in Asia in respect of global scenario. (Ed.: Verma et al.) First edition, pp 85-89.
3	Singh, D. K. (1997). High Security Animal Disease Laboratory in Bhopal: From concept to Establishment (in Hindi). Smarika 49th Central Area Livestock and Poultry Exhibition. Bilaspur (M.P.). 1: 38-42.
4	Chebloune, Y., Karr, B.M., Singh, D. K. , and Narayan O. 1999. Visna Virus . In: Persistent viral infections (ed. Rafi Ahmed and Irvin Chen ©1998) 1st edition. John Wiley and Sons Ltd. Sussex, England , Chapter 15, p347-362.
5	Singh, D. K. , Pacyniak, E., Griffin, D. M. and Stephens, E. B. 2003. The Vpu Protein and its role in HIV-1 Pathogenesis. <i>Current Genomics</i> . 4 . 365-377.
6	Bouzar, A. B., Singh, D.K. , Villet, S., Narayan, O. and Chebloune, Y. Are primate lentivirus accessory genes incidental? 2003. Recent research developments in Virology, 5 , 213-235.
7	Anil Mahapatro and Dinesh K. Singh . Biodegradable Carrier System for Drug and Vaccine Delivery. 2014. Chapter 26, Drug Discovery, Rivers Publishers.
8	Singh, D.K. 2014. Development of a vaccine for HIV: Promises and Pitfalls. Manuscript under preparation for the journal "Current HIV Research".

Book Chapters Contributed: *In the Text Book of Veterinary Pathology (H.V.S. Chauhan Author). New Age International Pvt. Ltd. (Formerly Wiley Eastern India Ltd.), 1999, Lucknow, India.*

- Bovine corona virus infection
- Transmissible Gastro-enteritis in Pigs
- Rift Valley fever
- Borna Disease
- Teschen/Talfan Disease
- Bovine Papular Stomatitis
- Bovine Papilloma
- Shope Fibroma
- Caprine arthritis-encephalitis in goats
- Maedi-Visna in Sheep
- Ovine pulmonary carcinoma (Jaagseikte)
- Canine, Feline and Porcine Parvoviral infections
- Adenovirus Infections

Full Length, Peer- Reviewed Articles in Scientific Journals:

1. **Singh, D.K.**, Singh, N.P. and Singh, G.K. (1985). Pneumo-enteric syndrome in bovine neonates by bovine Corona virus, *Indian Journal of Veterinary Medicine*. **5** (1): 55-57.
2. **Singh, D.K.**, Kumar, M. and Singh, G.K. (1986). Erysipelas in Turkey Tom. *Indian Journal of Veterinary Medicine*. **6** (2): 100.
3. **Singh, D.K.** and Singh, N.P. (1986). Pathological studies of neonatal crossbred bovine calves suffering from Pneumo-enteric syndrome by bovine Corona virus. *Indian Journal of Veterinary Pathology* **10**: 75-79.
4. **Singh, D.K.** and Kumar, M (1987). Save your dairy animals from hepatic distomiasis. *Livestock Advisor*. **9**(1): 33-35.
5. **Singh, D.K.** (1988). Haemato-biochemical and enzymatic studies on Corona virus of Pneumoenteric origin in neonatal bovine calves. *Indian Journal of Veterinary Pathology*. **1**: 2
6. **Singh, D.K.** and Singh, N.P. (1989). Biochemical profile in experimental Corona virus infection in neonatal calves. *Indian Journal of Veterinary Medicine*. **9** (2): 135-138.
7. **Singh, D.K.** and Singh, N.P. (1989). Haematological profile of calves affected with Pneumoenteric syndrome. *International Journal of Animal Sciences*. **4**: 157-160.
8. **Singh, D.K.**, Paliwal, O.P. and Dubey, S.C. (1997). Caprine arthritis encephalitis in Indian goats. *Current Sciences*. **72** (10): 702.
9. Stephens, E.B., Mukherjee, S., Sahni, M., Wu, Z., Raghavan, R, **Singh, D. K.**, Leung K., Atkinson, B., Li, Z., Joag, S. V., Liu, Z. Q., and Narayan, O. (1997). A cell-free stock of Simian-Human Immunodeficiency virus that causes AIDS in pig-tailed macaques has a limited number of amino acid substitution in both SIVmac and HIV-1 regions of the genome and has altered cytotropism. *Virology*. **231**: 313-321.
10. **Singh, D. K.** (1997). Caprine arthritis encephalitis in Indian goats: Epizootiological and pathological studies. *Indian Journal of Veterinary Pathology*. **21**(1): 72-73
11. Chebloune, Y., Karr, B. M., Raghavan R., **Singh, D. K.**, Leung K., Sheffer D., Pinson D., Foresman, L., and Narayan, O. (1998). Neuro-invasion by ovine lentivirus in infected sheep mediate by inflammatory cells associated with experimental allergic encephalomyelitis. *Journal of Neurovirology*. **4**: 38-48.
12. **Singh, D.K.**, Chebloune, Y., Mselli-Lakhal, L., Karr, B.M. and Opendra Narayan. (1999). Ovine lentivirus-infected macrophages mediate productive infection in cell types that are not susceptible to infection with cell free virus. *Journal of General Virology*. **80**: 1437-44.
13. McCormick-Davis, C. Dalton, S.B., Hout, D. R., **Singh, D.K.**, Berman, N.E.J., Yong, C., Pinson, D.M., Foresman, L., and Stephens, E.B. 2000. A molecular clone of simian human immunodeficiency virus ($\Delta vpuSHIV_{KU-1bMC33}$) with a truncated, non-membrane bound Vpu results in rapid CD4⁺ T cell loss and neuroAIDS in pig-tailed macaques. *Virology*. **272**: 112-126.
14. McCormick-Davis, C., Dalton, S.B., **Singh, D.K.**, and Stephens, E.B. 2000. Comparison of the Vpu sequence from diverse geographical isolates of HIV-1 identifies the presence of highly variable domains, additional invariant amino acids and a signature sequence motif

- common to subtype C isolates. *AIDS Research and Human Retroviruses*. **16**(11): 1089-1095.
15. **Singh, D. K.**, Paliwal, O.P. and Dubey, S.C. 2000. Spontaneous Cases of Caprine Arthritis encephalitis in Indian goats. *Indian Journal of Veterinary Pathology*. **24**: 1-4.
 16. Stephens, E.B., **Singh, D.K.**, Pacyniak, E., and McCormick, C. 2001. Comparison of Vif sequences from diverse geographical isolates of HIV-1 and SIV_{cpz} identifies substitutions common to subtype C isolates and extensive variation in a proposed nuclear transport inhibition signal. *AIDS Research and Human Retroviruses*. **17** (2): 169-177.
 17. **Singh, D.K.**, McCormick, C, Pacyniak, E., Lawrence, K., Dalton, S.B., Pinson, D.M., Sun, F., Berman, N.E.J., Calvert, M., Gunderson, R.S., Wong, S.W., and Stephens, E.B., 2001. A simian human immunodeficiency virus with a non-functional Vpu Δvpu SHIV_{KU-1bMC33}) isolated from a macaque with neuroAIDS has selected for compensating mutations in Env and Nef that contributed to its pathogenic phenotype. *Virology*. **282** (1): 123:140.
 18. Stephens, E.B., McCormick, C., Pacyniak, E., Griffin, D., Sun, F., Pinson, D.M., Gunderson, R.S., Wong, S.W., Berman, N.E.J., and **Singh, D.K.** 2002. A chimeric simian human immunodeficiency virus with the *vpu* sequences removed prior to envelope glycoprotein gene (*novpυSHIV_{ku1bMC33}*) results in enhanced Env biosynthesis in lymphocytes but is less pathogenic in pig-tailed macaques. *Virology*. **293** (2): 252-61
 19. **Singh, D.K.**, McCormick, C., Pacyniak, E., Griffin, D., Pinson, D.M., Sun, F., Berman, N.E.J and Stephens, E.B. 2002. Pathogenic and Nef -interrupted Simian-Human Immunodeficiency viruses (SHIV) traffic to the CNS and causes Astrocytosis early after inoculation. *Virology*. **296** (1): 39-51.
 20. **Singh, D. K.**, Chaudhuri, R., Pacyniak, E., Berman, N.E.J. and Stephens, E.B., 2003. Infection of Human Astrocytoma cells with a Simian-Human Immunodeficiency virus resulted in altered cell growth and gene expression. *Neuroscience Letters*. **340** (3): 201-204.
 21. **Singh, D. K.**, Griffin, D.M., Pacyniak, E., Jackson, M., Werle, M. J., Wisdom, B., Sun, F., Hout, D.R., Pinson, D.M., Gunderson, R.S., Powers, M.F., Wong, S.W. and Stephens, E.B., 2003. The presence of casein kinase II phosphorylation sites of Vpu enhances the CD⁺ T cell loss caused by the simian-human immunodeficiency virus SHIV_{ku1bMC33} in pig tailed macaques. *Virology*. **313** (2): 435-51.
 22. Stephens, E.B, **Singh, D. K.**, Koehler, M.E., Jackson, M., Pacyniak, E., and Berman, N. E. J., 2003. The Primary Phase of Infection by Pathogenic Simian-human Immunodeficiency Virus Results in Disruption of the Blood-Brain Barrier. *AIDS Research and Human Retroviruses*. **19** (10): 837-846.
 23. Potula, R., Dhillon, N., Sui, Y., Zien, C.A., Funa, K., Pinson, D., Mayo, M.S., **Singh, D.K.**, Narayan, O. and Buch, S., 2004. Association of Platelet- Derived Growth Factor-B Chain with Simian Human Immunodeficiency Virus Encephalitis. *American Journal of Pathology*. **165** (3): 815-824.
 24. Mackay, G.A., Liu, Z., **Singh, D.K.**, Smith, M.S., Mukherjee, S., Sheffer, D., Jia, F., Adany, I., Sun, K.H., Dhillon, S., Zhuge, W., and Narayan, O. 2004. Protection against late-onset AIDS

- in macaques prophylactically immunized with a live simian HIV vaccine was dependent on persistence of the vaccine virus. *Journal of Immunology*. **173** (6):4100-4107.
25. **Singh, D. K.**, Liu, Z., Sheffer, D., Mackay, G.A., Smith, M.S., Dhillon, S., Hegde, Ramakrishna, Jia, F., Adany, I., and Narayan, O. 2005. A non-infectious SHIV DNA vaccine that protects macaques against AIDS. *Journal of Virology*. **79**(6):3419-3428.
 26. Ramakrishna Hegde, Zhenqian Liu, Glenn Mackay, Opendra Narayan, and **Dinesh K. Singh**, 2005. Antigen expression kinetics and immune responses in mice immunized with non-infectious SHIV DNA. *Journal of Virology*. **79**(23): 14688-97.
 27. Liu, Z., **Singh, D.K.**, Sheffer, D., Smith, M. S., Dhillon, S., Chebloune, Y., Hegde, R., Buch, S., and Narayan, O. (2006). Immunoprophylaxis against AIDS in macaques with a lentiviral DNA vaccine. *Virology*. **351**: 444-454.
 28. Kumar, A., Liu, Z., Sheffer, D., Smith, M., **Singh, D.**, Buch, S., and Narayan, O. (2008). Protection of macaques against AIDS with a live attenuated SHIV vaccine is of finite duration. *Virology*. **371**: 238-245.
 29. Arrode, G., Hegde, R., Jin, Y., **Singh, D.K.** Narayan, O. and Chebloune, Y. (2008). Nef modulates the immunogenicity of Gag encoded in a non-infectious HIV DNA vaccine. *Vaccine*. **26**: 3795-3804.
 30. Lara HH, Garza-Trevino EN, Turrent LI and **Singh DK**. (2011). Silver Nanoparticles are broad-spectrum bactericidal and virucidal Compounds. *Journal of Nanobiotechnology* 2011, **9**:30 (3 August 2011).
 31. Lara HH, Garza-Trevino EN, Turrent LI and **Singh DK**. (2011). Use of Silver Nanoparticles Increased Inhibition of HIV-1 Infection by Neutralizing Antibodies Developed Against HIV-1 Envelop Proteins. *Journal of Nanobiotechnology* 2011. 9:30.
 32. Anil Mahapatro and **Dinesh K Singh** (2011). Biodegradable nanoparticles are excellent vehicle for site directed *in-vivo* delivery of drugs and vaccines. *Journal of Nanobiotechnology* 2011, **9**:55
 33. Dinesh K. Singh and Humberto HH Lara (2012). Inhibition of Cell-associated HIV-1 by Silver Nanoparticles. *Retrovirology*, 2012, 9 (Suppl1)01.
 34. Minardi da Cruz JC, Singh DK, Lamara A, Chebloune Y. 2013. Small ruminant lentiviruses (SRLVs) break the species barrier to acquire new host range. *Viruses*. 2013 Jul 23;5(7):1867- 84. **PMID:23881276**
 35. Singh, S.V., Nguyen, J., Singh, S.R., Flack, S. and **Singh, D.K.** (2014). Silver Nanoparticles Effectively Neutralized Simian Human Immunodeficiency Virus Strain 89.6P *in vitro*. *Journal of Virology*. Under revision.
 36. **Dinesh Singh**, Géraldine Arrode-Brusés, April Hargrove, Maha Moussa, and Yahia Chebloune. (2014). HIV DNA Vaccines: are we there yet? Under submission for "Vaccine".

LIST OF PUBLISHED ABSTRACT

1. **Singh, D.K.** (1989). Outbreak of FMD in Srinagar district of Kashmir valley. In: National symposium on pathology and biotechnology in the diagnosis of livestock and poultry diseases. Izatnagar, India. Sept 7-9, DIE/32, p16.
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