

Dr. Samander Kaushik

M. Sc (Bio-tech), LL. B (Hons) Ph. D (AIIMS)

Assistant Professor

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EDUCATION	DOCTOR OF PHILOSOPHY (Ph. D) MICROBIOLOGY (VIROLOGY)	2010
	Ph. D from Department of Microbiology, All India Institute of Medical Sciences (AIIMS) , Ansari Nagar, New Delhi, 110029, INDIA. Thesis Title “ Antigenic and Molecular Chacterization of Influenza Viruses from Acute Respiratory Infection – A Survillance and Molecular study ”	
	MASTERS OF SCIENCE (M. Sc) BIO-ECHNOLOGY	1999-2001
	Passed with first division from Department of Biosciences, Maharshi Dayanand University, Rohtak, Haryana, India	
	BACHELORS OF LAW -LL. B (Hons)	2013-2015
	Passed with first division from Department of Law, Maharshi Dayanand University, Rohtak, Haryana, India	
	BACHELORS OF SCIENCE (B. Sc)	1996-1999
CURRENT POSITION	Assistant Professor of Biotechnology, Centre for Biotechnology, M.D University, Rohtak (Haryana) Teaching: Virology, Animal-biotechnology and Animal Cell Culture	Aril 2010- Till Date
AWARDS	Senior Research Officer (SRO)	May 2009–Mar 2010
	Senior Research Fellow (ICMR, New Delhi)	Aug 2008 –Apr 2008
	Institute Fellowship (AIIMS, New Delhi)	Feb 2008 - July 2008
	Senior Research Fellow (CSIR/UGC)	Oct 2004 - Sept 2007
	Awarded Senior Research Fellowship from Council of Scientific and Industrial Research, Delhi, India.	
	Junior Research Fellow (CSIR/UGC)	Sept 2002 –Sept 2004
	Awarded Junior Research Fellowship from Council of Scientific and Industrial Research, Delhi, India.	

PROJECT	<ul style="list-style-type: none"> ➤ Rapid Detection and Typing of Influenza A and B Viruses by Reverse Transcriptase- Loop Mediated Isothermal Amplification (RT-LAMP) Funded by University Grant Commission, New Delhi ➤ Development of multiplex RT-PCR for Dengue Viruses Funded by Department of Science and Technology, Haryana (India) ➤ Department of Biotechnology Government Of India (DBT-MDU) interdisciplinary Life Science Programme for advanced research and education ➤ To evaluate Protection of arsenic induced oxidative stress, Mitochondrial oxidative damage and apoptotic cell Death by Hydroxytyrosol in Rat Brain <p>Two more projects are in pipeline.</p>
TRAVEL GRANT	<p>Received “Travel Grant” from “Indian Council of Medical Research, New Delhi” for attending the international conference” Options for Control of Influenza VI” held at Toronto, Ontario Canada in June 2007.</p>
PUBLICATION	<ol style="list-style-type: none"> 1. Vikrant Sharma, Dhruva Chaudhry, Samander Kaushik* (2018) Evaluation of clinical applicability of reverse transcription-loop-mediated isothermal amplification assay for detection and subtyping of Influenza A viruses. Journal of Virological Methods 253, 18–25 2. Vikrant Sharma , Deepak Kumar , Divya Dhull , Sulochana Kaushik Jaya Parkash Yadav, Samander Kaushik Molecular Detection of Hepatitis C Virus (HCV) by Conventional One-step RT-PCR Coupled with Nested PCR, International Blood Research & Reviews 7 (2), 1-6 3. Vikrant Sharma, Deepak Kumar, Divya Dhull, Sulochana Kaushik and Samander Kaushik (2017). Molecular Detection of Hepatitis B Viruses (HBV) International Blood Research & Reviews 7(1): 1-6, 2017; Article no. IBRR.31171 4. Sulochana Kaushik, Vikrant Sharma, Dhruva Chaudhary, Sanjeev Nanda, Jaya Parkash Yadav and Samander Kaushik. Standardization of one-step single tube RT-PCR for rapid detection of all circulating strains of dengue Viruses International Journal of Current Research Vol. 8, Issue, 10, pp.40334-40338, October 2016 5. Vikrant Sharma and Samander Kaushik (2016) Comparative Analysis of Molecular Methods for Detection of Influenza Viruses, British Microbiology Research Journal 17 (3) 1-10, 2016 Article no. BMRJ.28858 6. Panda A, Khalil S, Mirdha BR, Singh Y, Kaushik S (2015) Prevalence of Naegleria fowleri in Environmental Samples from Northern Part of India. PLoS ONE 10(10): e0137736. doi:10.1371/journal.pone.0137736

7. Dhakad S, Mali PC, **Kaushik S**, Lal AA, Broor S. Comparison of multiplex RT-PCR with virus isolation for detection, typing and sub-typing of influenza virus from influenza-like illness cases. *Ind J Med Microbiol.* Jan-Mar;33(1):73-7, 2015
8. **Samander Kaushik**, Kiran Sharma, Vikrant Sharma, Divya Dhull, Dhruv Chaudhary and Sanjiv Nanda. Multiplex polymerase chain reaction for the detection of herpes simplex Viruses (hsv1 and hsv2) *International Journal of Current Research* Vol. 6, Issue, 02, pp.4896-4899, February 2014
9. Broor S, Krishnan A, Roy DS, Dhakad S, **Kaushik S**, Mir MA, Singh Y, Moen A, Chadha M, Mishra AC, Lal RB. Dynamic patterns of circulating seasonal and pandemic A(H1N1) pdm09 influenza viruses from 2007-2010 in and around Delhi, India. *PLoS One.* 2012;7(1): e29129.
10. Shobha Broor, Swati Gupta, Sarita Mohapatra, **Samander Kaushik**, Muneer A. Mir, Priti Jain, Lalit Dar, Renu B. Lal Emergence of 2009A/H1N1 cases in a tertiary care hospital in New Delhi, India, Accepted 19 May 2011. Published Online 4 August 2011. *Influenza and Other Respiratory Viruses* 2011; 1-6
11. Parvaiz A. Koul, Muneer A. Mir, Nargis K. Bali, Mamta Chawla-Sarkar, Mehuli Sarkarc, **Samander Kaushik**, U.H. Khan, Feroze Ahmad, Rebecca Garten, Renu B. Lal, Shobha Broor Pandemic and seasonal influenza viruses among patients with acute respiratory illness in Kashmir (India); *Influenza and Other Respiratory Viruses* May 16; 2011; 1-7
12. Das RR, Sami A, Lodha R, Jain R, Broor S, **Kaushik S**, Singh BB, Ahmed M, Seth R, Kabra SK. Clinical Profile and Outcome of Swine Flu in Indian Children. *Indian Pediatr.* 2011 May 7; 48 (5):373-8.
13. Gupta S, Mahaptra S, Kaushik S, Broor, S et al" Emergence of 2009A/H1N1 Cases in a Tertiary Care Hospital in New Delhi; *Plos one* 2010; 21-25
14. Shobha Broor Harendra Singh Chahar · **Samander Kaushik**. Diagnosis of influenza viruses with special reference to novel H1N1 2009 influenza virus. *Indian J Microbiol* (December 2009) 49:301–307
15. Bharaj P, Sullender WM, Kabra SK, Mani K, Cherian J, Tyagi V, Chahar HS, **Kaushik S**, Dar L, Broor S. Respiratory viral infections detected by multiplex PCR among pediatric patients with lower respiratory tract infections seen at an urban hospital in Delhi from 2005 to 2007. *Virol J.* 2009 Jun 26; 6: 89-92

	<p>16. Kaushik S, Bharaj P, Dhakad S, Jain P, Kumar R, Broor S. Influenza virus strains circulating in and around New Delhi during Dec 2004-Sept 2008 Indian Journal of Virology 20 (1), 32-32</p> <p>17. Bharaj P, Chahar HS, Kaushik S, Jain P, Kabra SK, Sullender W, Broor S. Development of mutiplex RT-PCR for detection of viruses in acute lower respiratory tract infections in children. Indian Jou of Virology 20 (1), 20-21</p> <p>18. Diddi K, Kaushik S, Dar L, Broor S. Concomitant outbreak of chikungunya and dengue fever, India. Indian Journal of Virology 20 (1), 36-36</p> <p>19. Booklet “Standardize Avian Influenza Diagnosis in referral Laboratories in India publish by WHO, Dec 2007.</p> <p>2-3 Paper in the processing with the various journals may be published after some time.</p>
BOOKLET	Standardize Avian Influenza Diagnosis in referral Laboratories in India Published by WHO.
TECHNICAL CAPABILITIES	<p>Sample Collection:</p> <ul style="list-style-type: none"> ❖ Hands-on experience in sample collection for respiratory viruses from hospitals as well as field studies. ❖ Filling the questionnaire and data management related to the recruited patients as well as community population. <p>Virological:</p> <ul style="list-style-type: none"> ❖ Influenza Virus Isolation. ❖ Dengue and other falvivirus isolation ❖ Hemagglutinin Assay (HA) ❖ Hemagglutinin Inhibition Assay (HI) ❖ IFA & DFA <p>Spectroscopic Techniques:</p> <ul style="list-style-type: none"> ❖ UV-vis, Fluorescence. <p>Molecular Biology:</p> <ul style="list-style-type: none"> ❖ DNA, RNA, isolation from Clinical sample. ❖ RNA isolation by GT Method, Compact MegnaPure Roche, Commercial kits ❖ Polymerase Chain Reaction (Simple, Multiplex) ❖ Cloning, Plasmid Isolation ❖ Restriction Digestion analysis. ❖ DNA Purification from agarose gel as well as from PCR Product. ❖ Real-Time RT –PCR. ❖ RT-LAMP ❖ Other medical diagnostic techniques

	<p>Animal Cell Culture:</p> <ul style="list-style-type: none"> ❖ Media Preparation. ❖ Maintenance of various cell lines (MDCK, HEP-II). ❖ Virus Isolation ❖ Virus characterization
<p>WORKSHOPS, SYMPOSIAS AND PRESENTATION</p>	<ul style="list-style-type: none"> ❖ Dr Samander Kaushik organizing as organizing secretary for one-day National Conference & Workshop on the “Emerging Infectious Diseases” on 27th Nov 2017 sponsored by Dr Radha Krishan Foundation at Central for Biotechnology, Maharshi Dayanand University, Rohtak ❖ Participate in the Workshop on “Molecular Virological Techniques for Dengue and Chikungunya” being held at National Institute of Virology (NIV), Pune during June 22 - July 10, 2015 ❖ Attend the 12th Workshop on ‘Molecular Virology’ being held during March 20 to March 31, 2015 at Indian Institute of Science, Bangalore India. ❖ International Research colloquium on Advances in Microbial Biotechnology: Prospects (AMBF-2012) Department of Microbiology, MDU, Rohtak 20th Nov. 2012 Pune ❖ Participated in National Symposium” Fight against Malaria: Prospects and Perspectives” organized by Centre for Medical Biotechnology, M.D. University (09.03.2013) ❖ Advance in Electron Microscopy in Virology Research & 3D Imaging workshop 20-21 October 2012 NIV, Pune ❖ National Seminar on Recent advancement in Application of Genetics organized on March 20, 2012 by Dept. of Genetics, MDU Rohtak ❖ Participate in the five days DST-Inspire programme from April 28-May2, 2012 organized by the Centre for Biotechnology, MDU Rohtak ❖ Participate in the CME on “Arboviral Infections of Public Health Concern “organized 3-5 September 2012 by PGIMER Chandigarh. ❖ Samander kaushik, shivram Dhakad, Muneer Renu lal, AC Mishra, Manpreet Chadha Shobha Broor: Real time RT-PCR for the Detection and typing of Seasonal influenza viruses and its comparison with Virus Isolation IAMM, MICROCON 2009 organized on Nov 5-8, 2009 by JSS MC, Mysore. ❖ Shivram Dhakad, Samander kaushik Muneer Shobha Broor: Comparison of Influenza virus detection and typing by virus isolation and RT-PCR IAMM, MICROCON 2009 organized on Nov 5-8, 2009 by JSS MC, Mysore. ❖ Samander Kaushik, Preeti Bharaj, Shivram Dhakad, Priti Jain, Rajender Kumar Shobha Broor; Influenza Virus Strains Circulating in and around New Delhi During Dec 2004-Sept 2008. XVIII National Conference of Indian Virological Society, Chandigarh, India, Dec 2008. ❖ Bharaj, P.; Broor, S.; Dhakad, S.; Kaushik, S.; Jain, P.; Kabra, S.K. Multiplex RT-PCR for typing and subtyping of human influenza virus during a

surveillance study. Third European Influenza Conference 14-17 September 2008 at the Tivoli Marina Vilamoura hotel, Vilamoura, Portugal.

- ❖ Preeti Bharaj, Harender Singh Chahar, **Samander Kaushik** Priti Jain, S.K Kabra, WayneSullender, Shobha Broor; Development of Multiplex RT-PCR For Detection of Viruses in Acute Lower Respiratory Tract Infections in Children at XVIII National Conf of Indian Viro Society, Chandigarh, India, Dec 2008.
- ❖ Diddi K, **Samander Kaushik**, Shobha Broor; Concomitant outbreak of Chikungunya and Dengue Fever, India. at XVIII National Conference of Indian Virological Society, Chandigarh, India, Dec 2008.
- ❖ **Samander Kaushik**, Preeti Bharaj, Shobha Broor; Surveillance of Human Influenza Virus Strains Circulating in New Delhi. **Options for Control of Influenza VI**” held at Toronto, Ontario Canada in June 2007.
- ❖ **Samander Kaushik**, Preeti Bharaj, Shobha Broor; Surveillance of Human Influenza Virus Strains Circulating in National Capital of India. At Asia Pacific Congress of Medical Virology, New Delhi, India.
- ❖ Broor S Bharaj, P. and **Kaushik S.** 2007. Comparison of Influenza Virus Typing by Hemagglutinin Inhibition Assay and RT-PCR Options for the Control of Influenza VI. Toronto, Canada
- ❖ **Samander Kaushik**, Preeti Bharaj, Shobha Broor; Influenza Virus Surveillance in New Delhi. At XXIX National Congress of Indian Association of Medical Microbiologists, Chennai, India.
- ❖ Attended the “**Training Program to Control AIDS**” at department of Microbiology, All India Institute of Medical Sciences, New Delhi, and February 2009.
- ❖ Attended a workshop organized by NIV-ICMR-CDC on “**Real-time RT-PCR for detection of Human and Avian Influenza Viruses**” at National Institute of Virology, Pune, October 2007.
- ❖ Attended a workshop organized by NIV-ICMR-CDC on “**Influenza Viruses Strain Surveillance**” at National Institute of Virology, Pune, January 2007
- ❖ Attended a National Symposium on “Nano-technology in Medicine” at All India Institute of Medical Sciences, New Delhi, and January 2007.
- ❖ Attended CME on Stem Cell Therapy; All India Institute of Medical Sciences, New Delhi, November 2006.
- ❖ Participated in the **WHO Meeting “Expert Group Meeting to standardize Avian Influenza Diagnosis in referral Laboratories in India**” at National Institute of Virology, Pune, April 2006.
- ❖ Participated in the **AIIMS Golden Jubilee celebrations conference on “HIV/AIDS and TB**” held at AIIMS, New Delhi, India. In January 2006.
- ❖ Attended a workshop organized by NIV-ICMR-CDC on “**Influenza Viruses Strain Surveillance**” at National Institute of Virology, Pune, July 2004

	<ul style="list-style-type: none"> ❖ Attended symposia “<i>How to write a paper</i>”; All India Institute of Medical Sciences, New Delhi. ❖ INDO- US SYMPOSIUM- 2006 on Viral Diagnostics, Epidemiology and Pathogenesis, AIIMS, New Delhi, India, Nov. 2006. ❖ Attended National Symposium on “IMUNITY TO INFECTION” organized by Society of Young Scientists, AIIMS, New Delhi, India. ❖ Attended Symposium on Stem Cell Applications organized at AIIMS, New Delhi, India (August 2008).
<p>PERSONAL DETAILS</p>	<p>Name : Dr Samander Kaushik</p> <p>Date of Birth : August 10, 1975</p> <p>Nationality : Indian</p> <p>Sex : Male</p> <p>Marital Status : Married</p> <p>Language Know : English & Hindi</p> <p>Present Designation : Assistant Professor</p> <p>Department : Centre for Biotechnology</p> <p>Room Number : Room No 217, CBT, 1st floor</p> <p>Institute : M. D University, Rohtak (Haryana)</p> <p>Contact number : 09017733717</p>
<p>REFERENCES</p>	<p>Prof. Shobha Broor Department of Microbiology, All India Institute of Medical Sciences, New Delhi-110029, INDIA Phone: +91-9958968787 Fax: +91-11-2658-8663 e-mail: shobhabroor@gmail.com</p> <p>Dr Lalit Dar Department of Microbiology All India Institute of Medical Sciences New Delhi-110029, INDIA Phone: +91-11-2659-4926 Fax: +91-11-2658-8663 E Mail: lalitdar@gmail.com</p>