

CURRICULUM VITAE

NAME	
SHAHID JAMEEL	
POSITION	WORK CONTACT
<i>Sultan Qaboos bin Said Fellow</i> Principal Investigator, Project on 'Public Health, Science and Technology in Muslim Societies' Oxford Centre for Islamic Studies Research Fellow, Green Templeton College, University of Oxford	Oxford Centre for Islamic Studies Marston Road Oxford, OX3 0EE E: shahid.jameel@oxcis.ac.uk T: +44 1865 618514, 618500 W: www.oxcis.ac.uk
DATE OF BIRTH	
August 08, 1957	

EDUCATION

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR	FIELD OF STUDY
University of Colorado Health Sciences Center, Denver, USA	Postdoctoral	1987	Virology
Washington State University, Pullman, USA	Ph.D.	1984	Biochemistry
Indian Institute of Technology, Kanpur, India	M.Sc.	1979	Chemistry
Aligarh Muslim University, Aligarh, India	B.Sc.	1977	Chemistry

Positions and Employment

2021-	<i>Sultan Qaboos bin Said Fellow and Principal Investigator</i> , Project on Public Health, Science and Technology, Oxford Centre for Islamic Studies, Oxford, UK
2021-	<i>Visiting Professor</i> , Ashoka University, Sonipat, India
2020-2021	<i>Director</i> , Trivedi School of Biosciences, Ashoka University, Sonipat, India
2013-2020	<i>Chief Executive Officer</i> , Wellcome Trust/DBT India Alliance, Hyderabad, India.
2004-2013	<i>Senior Scientist and Group Leader</i> , Virology Group, International Centre for Genetic Engineering and Biotechnology, India.
2000	<i>Visiting Scientist</i> , Vaccine Center, Emory University, Atlanta, USA.
1998-2003	<i>Associate Scientist and Group Leader</i> , Virology Group, International Centre for Genetic Engineering and Biotechnology, India.
1998	<i>Visiting Scientist</i> , Department of Virology II, National Institute for Infectious Diseases, Tokyo, Japan.
1988-1998	<i>Assistant Scientist and Group Leader</i> , Virology Group, International Centre for Genetic Engineering and Biotechnology, New Delhi, India.
1987-1988	<i>Assistant Professor</i> , Division of Rheumatology, Department of Medicine, University of Colorado Health Sciences Center, Denver, CO, USA

Professional Memberships and Academic Experience

2022-23	Co-Chair, "Creating the Framework for Tomorrow's Pathogen Research", Bulletin of Atomic Scientists, USA
2022-23	Member, World Health Organization Global Health Foresight Group, Switzerland
2022-	Member, Scientific Advisory Board, Tata Institute for Genetics and Society, India
2021-22	Member, Covid Strategical Advisory Board, Sanofi Pasteur SA, France
2021-22	Member, Vaccine Advisory Group, Science Museum, London, UK
2021-	Research Fellow, Green Templeton College, University of Oxford, UK
2021	Chair, Scientific Advisory Board, Inter-Ministerial Group for India's SARS-CoV2 Consortium on Genomics (INSACOG), Government of India.
2020	Panel Member for DELTAS 2.0, African Academy of Sciences and The Wellcome Trust, UK.
2020	Co-Chair, STIP Financing Group, Science Technology and Innovation Policy 2020, Government of India.

2020	Member, Scientific Advisory Group, National Biopharma Mission, Biotechnology Industry Research Assistance Council (BIRAC), Department of Biotechnology, Government of India.
2020	Member, Exhibition Committee of Infectious Diseases, Bangalore Science Centre
2020	Member, World Economic Forum Regional Action Group for South Asia
2019-21	Trustee, Oxford Centre for Islamic Studies (A recognized independent Centre of the University of Oxford), Oxford, UK. [First scientist appointed to the OCIS Board].
2019-20	Member, Advisory Committee for WHO on R&D, Innovation and Access Accelerator of the Global Action Plan for Healthy Lives and Well-Being.
2018	Member, External Review Committee, George Institute for Global Health, Australia.
2016-	Member, Sun Pharma Foundation Award Governing Council, India.
2016-	Chair, Glue Grants Committee, Department of Biotechnology, Government of India
2016	Chair, External Review Committee, Vaccine and Infectious Disease Research Centre, Translational Health Science and Technology Institute, India.
2016-2019	Member, Executive Research Board, Indian Immunologicals, Hyderabad, India.
2015-2018	Member, Indo-Dutch Committee on HIV/AIDS Research.
2015-2018	Chair, India-South Africa Committee on HIV/AIDS Research.
2015-2018	Chair, India-East Africa Consortium for Translational Research on HIV/AIDS.
2015-2019	Editorial Board, Scientific Reports (Nature Publications).
2014	Chair, Open Access Committee, Department of Biotechnology, Government of India.
2012-2015	Editorial Board, Antiviral Research (Elsevier).
2012-2015	Editorial Board, Virus Research (Elsevier).
2011-2016	Editorial Board, Gut Pathogens (Biomed Central).
2011-2015	Chair, INSA Committee for International Union for Microbiological Societies.
2011-2014	Chair, Hepeviridae Study Group, International Committee for the Taxonomy of Viruses.
2010-2013	Co-Chair, DBT-NIH Khorana-Nirenberg Scholars Program.
2010-2019	Co-Chair, Indo-US Joint Working Group on HIV and STDs.
2010-2013	Member, Sectional Committee on Medical Sciences, Indian Academy of Sciences.
2010-2013	Member, National Technical Advisory Group on Vaccination, Ministry of Health and Family Welfare, Government of India.
2008-2016	Editor, AIDS (Indian edition); International AIDS Society.
2008-2014	Virology Advisory Board, International Union of Microbiological Societies.
2008-2015	Editorial Board, Proceedings of the Indian National Science Academy.
2008-2010	Member, Medical Sciences Sectional Committee, Indian National Science Academy.
2005-2007	Section Editor, Medical Virology, Indian Journal of Virology.
2004-2014	Member, Scientific Advisory Committee, Indian Immunologicals, Hyderabad, India.
2004-2010	Member, Hepeviridae Study Group, International Committee for the Taxonomy of Viruses
2004-2007	Member, Medical Biotechnology Development Board, DBT, Govt. of India.
2004-2014	Member, Task Force on Infectious Disease Biology, DBT, Govt. of India.
2003-2015	Editorial Board, Journal of Biosciences, India.
2003-2013	Editorial Board, Journal of Biotechnology and Biomedicine, USA.
1998-2008	Member, Cambridge Nehru Fellowship Committee (to select Indian students going on scholarship to the University of Cambridge, UK).

Administrative Experience

2020-21	Director, Trivedi School of Biosciences, Ashoka University, India
2021	Member, Senate of Indian Institute of Technology – Delhi, India
2021	Member, Governing Council, Indian Statistical Institute, Kolkata, India
2017	Chair, University Grants Commission team for Vel's University, Chennai, India
2015	Member, Search Committee for Selection of Vice Chancellor, Maulana Azad National Urdu University (a Central University), India.
2015-2016	Elected Member, Aligarh Muslim University Executive Council, India.
2013-2020	Chief Executive Officer, Wellcome Trust/DBT India Alliance, India.
2012-2020	Elected Member, Aligarh Muslim University Court, India.
2000-2008	Member, Management Board, National Centre for Biological Sciences, India.
1988-2013	Group Leader (Head), Virology Group, International Centre for Genetic Engineering and Biotechnology, India.

Honors and Awards

2022	MS Balayan Medal for Hepatitis E Research, Russian Institute for Poliomyelitis and United States Centers for Disease Control and Prevention.
2020	Professor P Maheshwari Memorial Oration, University of Delhi, India.
2019	Finalist, Nature Awards for Mentoring in Science (Lifetime Achievement).

- 2008 The MR Das Memorial Lecture Award, Indian National Science Academy, New Delhi.
- 2003 Fellow, Indian National Science Academy, India.
- 2001 International Senior Research Fellow in Biomedical Sciences, The Wellcome Trust, UK.
- 2000 Shanti Swarup Bhatnagar Award in Medical Sciences, Council of Scientific and Industrial Research, India. (This is the highest mid-career national science award in India).
- 1998 Research Fellowship Award, Science and Technology Agency, Government of Japan.
- 1996 Fellow, Indian Academy of Sciences, India.
- 1996 Fellow, National Academy of Sciences, India.
- 1995 B.M. Birla Science Prize in Biology, India.
- 1993 Elected Member of Guha Research Conference (a premier body of biologists in India).
- 1991 Biotechnology Career Fellowship, Rockefeller Foundation, New York, USA.
- 1984 Phi Lambda Upsilon Award for Best Graduate Student, Washington State University, USA
- 1979 C. Glenn King Memorial Fellowship, Washington State University, USA
- 1975 National Science Talent Search Award, NCERT, India

Published Work

Peer-Reviewed Publications = 134

Patents = 01

Books (edited) = 02

COVID-19 Public Engagement

- Over 100 authored articles and media interviews
- Over 700 media mentions
- Became a leading international voice for science and Covid-19 control

Research Publications

134. S. Jameel (2023). Climate change, food systems and the Islamic perspective on alternative proteins. *Trends in Food Science and Technology*, 138:480-490. <https://doi.org/10.1016/j.tifs.2023.06.028>
133. S. Attwood, S. Jameel, A. Fuseini, E. Alkhalawi and C. Hajat (2023). Halal Cultivated Meat: An Untapped Opportunity. *Frontiers in Nutrition*, 10:1196475. doi: 10.3389/fnut.2023.1196475
132. N. Khan, S. Padhi, P. Patel, U. Deva Priyakumar and S. Jameel (2020). The HIV-1 Vpu transmembrane domain topology and formation of a hydrophobic interface with BST-2 are critical for Vpu-mediated BST-2 downregulation. *bioRxiv*; <https://doi.org/10.1101/2020.06.28.176289>
131. S. Jameel (2020). Global Biological Threats: Novel Tools and Multi-Disciplinary Approaches to Sustainable Development. *J Indian Inst Sci* 100: 603–610. <https://doi.org/10.1007/s41745-020-00187-0>
130. D.B. Smith, J. Izopet, F. Nicot, P. Simmonds, S. Jameel, X.J. Meng, H. Norder, H. Okamoto, W.H.M. van der Poel, G. Reuter and M.A. Purdy (2020). Update: proposed reference sequences for subtypes of hepatitis E virus (species Orthohepevirus A). *J Gen Virol*. First Published: 29 May, 2020. <https://doi.org/10.1099/jgv.0.001435>
129. S. Ayyar and S. Jameel (2019). India Research Management Initiative (IRMI) – an initiative for building research capacity in India [version 1; referees: 2 approved with reservations]. *Wellcome Open Res* 4:18 (<https://doi.org/10.12688/wellcomeopenres.15073.1>)
128. M.A. Purdy, T.J. Harrison, S. Jameel, X.J. Meng, H. Okamoto, W.H.M. Van der Poel, D.B. Smith, ICTV Report Consortium (2017). ICTV Virus Taxonomy Profile: Hepeviridae. *J Gen Virol*. 98(11):2645-2646. doi: 10.1099/jgv.0.000940.
127. M.Y. Ansari, H. Imam, N. Kumar, Z. Ahmed, and S. Jameel (2017). Exosomes from Nef expressing monocytic cells restrict HIV-1 replication in infected cells through the assembly of stress granules. *bioRxiv*; <https://doi.org/10.1101/148791>
126. M.C. Montalvo Villalba, D. Cruz Martínez, I. Ahmad, L.A. Rodriguez Lay, M. Bello Corredor, C. Guevara March, L.S. Martínez, L.S. Martínez-Campo and S. Jameel (2017). Hepatitis E virus in bottlenose dolphin *Tursiops truncatus*. *Dis Aquat Organ*. 8;123(1):13-18. doi: 10.3354/dao03085.
125. Z. Ahmed, P. Holla, I. Ahmad and S. Jameel (2016). The ATP synthase subunit β (ATP5B) is an entry factor for the hepatitis E virus. *bioRxiv*; doi: <http://dx.doi.org/10.1101/060434>.

124. D.B. Smith, P. Simmonds, J. Izopet, E.F. Oliveira-Filho, R.G. Ulrich, R. Johne, M. Koenig, S. Jameel, T.J. Harrison, X.J. Meng, H. Okamoto, W.H. Van der Poel and M.A. Purdy (2016). Proposed reference sequences for hepatitis E virus subtypes. *J Gen Virol.* 97(3):537-42. doi: 10.1099/jgv.0.000393.
123. A. Bhaskar, M. Munshi, S.Z. Khan, S. Fatima, R. Arya, S. Jameel and A. Singh A. (2015) Measuring Glutathione Redox Potential of HIV-1 Infected Macrophages. *J Biol Chem.* 290:1020-384.
122. A. Naik, A. Goel, V. Agrawal, A.N. Sarangi, N. Chhavi, V. Singh, S. Jameel and R. Aggarwal (2015). Changes in gene expression in liver tissue from patients with fulminant hepatitis E. *World J Gastroenterol.* 21(26):8032-42. doi: 10.3748/wjg.v21.i26.8032.
121. S. Mehto, C. Anthony, N. Khan, R. Arya, A. Selvakumar, B.K. Tiwari, M. Vashishta, Y. Singh, S. Jameel and K. Natarajan (2015). Mycobacterium tuberculosis and Human Immunodeficiency Virus Type 1 Cooperatively Modulate Macrophage Apoptosis via Toll Like Receptor 2 and Calcium Homeostasis. *PLoS ONE* 10(7): e0131767. doi:10.1371/journal.pone.0131767.
120. H. Imam, A. Shahr-Bano, P. Patel, P. Holla and S. Jameel (2015). The lncRNA NRON modulates HIV-1 replication in a NFAT-dependent manner and is differentially regulated by early and late viral proteins. *Sci Rep.* Mar 2;5:8639. doi: 10.1038/srep08639.
119. R.P. Holla, I. Ahmad, Z. Ahmed and S. Jameel (2015). Hepatitis E Virus enters liver cells through a Dynamin-2, Clathrin and membrane cholesterol dependent pathway. *Traffic* 16(4):398-416. doi: 10.1111/tra.12260.
118. M. Aqil, S. Mallik, S. Bandyopadhyay, U. Maulik, and S. Jameel (2015). Transcriptomic analysis of mRNAs in human monocytic cells expressing the HIV-1 Nef protein and their exosomes. *BioMed Res. Int.* 2015:492395. doi: 10.1155/2015/492395.
117. P. Patel, M.Y. Ansari, S. Bapat, M. Thakar, R. Gangakhedkar and S. Jameel (2014). The microRNA miR-29a is associated with human immunodeficiency virus latency. *Retrovirol.* 11(1):108. PMID: 25486977.
116. A. Bhaskar, M.H. Munshi, S.Z. Khan, S. Fatima, R. Arya, S. Jameel and A. Singh (2014). Measuring Glutathione Redox Potential of HIV-1 Infected Macrophages. *J Biol Chem* 290(2):1020-38. doi: 10.1074/jbc.M114.588913.
115. S. Padhi, R.R. Burri, S. Jameel and U. Deva Priyakumar (2014). Atomistic detailed mechanism and weak cation-conducting activity of HIV-1 Vpu revealed by free energy calculations. *PLoS ONE* 9(11):e112983.
114. D.B. Smith, P. Simmonds, S. Jameel, S.U. Emerson, T.J. Harrison, X.J. Meng, H. Okamoto, W.H. Van der Poel and M.A. Purdy (2014). Consensus proposals for classification of the family Hepeviridae. *J. Gen. Virol.* 95:2223-32. [Erratum in 96:1191-2, 2015].
113. S.U. Munshi, H. Panda, P. Holla, B.B. Rewari and S. Jameel (2014). MicroRNA-150 is a potential biomarker of HIV/AIDS disease progression and therapy. *PLoS ONE* 9(5):e95920.
112. M. Aqil, A.R. Naqvi, S. Mallik, S. Bandyopadhyay, U. Maulik and S. Jameel (2014). The HIV Nef protein modulates cellular and exosomal miRNA profiles in human monocytic cells. *J Extracell Vesicles* 3: 10.3402/jev.v3.23129.
111. D. Gupta, M. Rani, N. Khan and S. Jameel (2014). HIV-1 infected peripheral blood mononuclear cells modulate the fibrogenic activity of hepatic stellate cells through secreted TGF- β and JNK signaling. *PLoS ONE* 9(3):e91569.
110. P. Patel, N. Khan, M. Rani, D. Gupta and S. Jameel (2014). The expression of HIV-1 Vpu in monocytes causes increased secretion of TGF- β that activates profibrogenic genes in hepatic stellate cells. *PLoS ONE* 9(2):e88934.
109. S. Padhi, N. Khan, S. Jameel and U. Deva Priyakumar (2013). Molecular dynamics simulations reveal the HIV-1 Vpu transmembrane protein to form stable pentamers. *PLoS ONE* 8(11): e79779.
108. M. Aqil, A.R. Naqvi, A. Shahr-Bano and S. Jameel (2013). The HIV-1 Nef protein binds Argonaute-2 and functions as a viral suppressor of RNA interference. *PLoS ONE* 8(9):e74472.
107. S.U. Munshi, B.B. Rewari, N.S. Bhavesh and S. Jameel (2013). Nuclear magnetic resonance based profiling of biofluids reveals metabolic dysregulation in HIV-infected persons and those on anti-retroviral therapy. *PLoS ONE* 8(5):e64298.
106. R.P. Holla, I. Ahmad, Z. Ahmad and S. Jameel (2013). Molecular virology of hepatitis E virus. *Semin Liver Dis.* 33:3-14.
105. S. Jameel (2011). Ethics in Biotechnology and Biosecurity. *Indian J Med Microbiol.* 29:331-335.

104. R. Aggarwal and S. Jameel (2011). Hepatitis E. *Hepatology*. 54:2218-2226.
103. M.M. Husain, R. Aggarwal, D. Kumar, S. Jameel and S. Naik (2011). Effector T cells immune reactivity among patients with acute hepatitis E. *J Viral Hepat*. 18:e603-608.
102. S.U. Munshi, S. Taneja, N.S. Bhavesh, J. Shastri, R. Aggarwal and S. Jameel (2011). Metabonomic analysis of hepatitis E patients shows deregulated metabolic cycles and abnormalities in amino acid metabolism. *J Viral Hepat*. 18:e591-602.
101. V. Chandra, P. Holla, D. Ghosh, D. Chakrabarti, M. Padigaru and S. Jameel (2011). The hepatitis E virus ORF3 protein regulates the expression of liver-specific genes by modulating localization of hepatocyte nuclear factor 4. *PLoS One*. 6:e22412.
100. I. Ahmad, R.P. Holla and S. Jameel (2011). Molecular virology of hepatitis E virus. *Virus Res*. 161:47-58.
99. R. Srivastava, R. Aggarwal, S. Sachdeva, M.I. Alam, S. Jameel and S. Naik (2011). Adaptive immune responses during acute uncomplicated and fulminant hepatitis E. *J Gastroenterol Hepatol*. 26:306-311.
98. S. Taneja, I. Ahmad, S. Sen, S. Kumar, R. Arora, V.K. Gupta, R. Aggarwal, K. Narayanasamy, V. S. Reddy and S. Jameel (2011). Plasma peptidome profiling of acute hepatitis E by MALDI-TOF/TOF. *Proteome Sci*. 9:5.
97. M.M. Husain, R. Srivastava, R. Akondy, R. Aggarwal, S. Jameel and S. Naik (2011). Evidence of hepatitis E virus exposure among seronegative healthy residents of an endemic area. *Intervirology* 54:139-143.
96. S. Jameel (2010). The 2009 influenza pandemic. *Curr. Sci*. 98:1-6.
95. S.K. Ippagunta, S. Naik, S. Jameel, K.N. Ramana and R. Aggarwal (2010). Viral RNA but no evidence of replication can be detected in the peripheral blood mononuclear cells of hepatitis E virus-infected patients. *J. Viral Hepat*. 18:668-672.
94. V. Chandra, M. Kalia, K. Hajela and S. Jameel (2010). The ORF3 protein of hepatitis E virus delays degradation of activated growth factor receptors by interacting with CIN85 and blocking formation of the Cbl-CIN85 complex. *J. Virol*. 84:3857-3867.
93. R. Minakshi, K. Padhan, M. Rani, N. Khan, F. Ahmad and S. Jameel (2009). The SARS Coronavirus 3a protein causes endoplasmic reticulum stress and induces ligand-independent downregulation of the type 1 interferon receptor. *PLoS ONE* 4(12): e8342. doi:10.1371/journal.pone.0008342
92. S. Taneja, S. Sen, V.K. Gupta, R. Aggarwal and S. Jameel (2009). Plasma and urine biomarkers in acute viral hepatitis E. *Proteome Sci*. 7:39. Published online 2009 October 27. doi: 10.1186/1477-5956-7-39.
91. M. Kalia, V. Chandra, S.A. Rahman, D. Sehgal and S. Jameel (2009). Heparan sulfate proteoglycans are required for cellular binding of the hepatitis E virus ORF2 capsid protein and for viral infection. *J. Virol*. 83:12714-12724.
90. M. Kalia and S. Jameel (2009). Virus entry paradigms. *Amino Acids* Oct 15 [Epub ahead of print]. DOI 10.1007/s00726-009-0363-3.
89. A. Chaudhry, S.R. Das, S. Jameel, A. George, V. Bal, S. Mayor and S. Rath (2009). HIV-1 Nef promotes endocytosis of cell surface MHC class II molecules via a constitutive pathway. *J. Immunol*. 183:2415-2424.
88. S.M. Moin, V. Chandra, R. Arya and S. Jameel (2009). The hepatitis E virus ORF3 protein stabilizes HIF-1 α and enhances HIF-1 mediated transcriptional activity through p300/CBP. *Cell. Microbiol*. 11:1409-1421.
87. A. Chaudhry, S.R. Das, S. Jameel, A. George, V. Bal, S. Mayor and S. Rath (2008). HIV-1 Nef induces a Rab11-dependent routing of endocytosed immune costimulatory proteins CD80 and CD86 to the Golgi. *Traffic* 9:1925-1935.
86. V. Chandra, S. Taneja, M. Kalia and S. Jameel (2008). Molecular biology and pathogenesis of hepatitis E virus. *J. Biosci*. 33:451-464.
85. M.C.M. Villalba, L.A.R. Lay, V. Chandra, M.B. Corredor, S.S. Frometa, A.G. Moreno and S. Jameel (2008). Phylogenetic analysis of hepatitis E isolates from Cuba shows the first presence of genotype 1 in the Americas. *Emerg. Infect. Dis*. 14:1320-1322.
84. V. Chandra, A. Kar-Roy, S. Kumari, S. Mayor and S. Jameel (2008). The HEV ORF3 protein modulates EGFR trafficking, STAT3 translocation and the acute phase response. *J. Virol*. 82:7100-7110.

83. K. Padhan, R. Minakshi, M.A.B. Towheed and S. Jameel (2008). The SARS coronavirus 3a protein activates the mitochondrial death pathway through p38 MAP kinase activation. *J. Gen. Virol.* 89:1960-1969.
82. S. Dubey, M. Khalid, C. Wesley, S.A. Khan, A. Wanchu and S. Jameel (2008). Down regulation of CCR5 on activated CD4 T cells in HIV-infected Indians. *J. Clin. Virol.* 43:25-31.
81. R. Aggarwal and S. Jameel (2008). Hepatitis E vaccine. *Hepatol. Intl.* DOI 10.1007/s12072-008-9071-4
80. A. Hussain, C. Wesley, M. Khalid, A. Chaudhry and S. Jameel (2008). The HIV-1 Vpu protein interacts with CD74 and modulates major histocompatibility complex II presentation. *J. Virol.* 82:893-902.
79. V. Sundaravaradan, S.R. Das, R. Ramakrishnan, S. Sehgal, A. Gopalan, N. Ahmad and S. Jameel (2007). Role of HIV-1 subtype C envelope V3 to V5 regions in viral entry, coreceptor utilization and replication efficiency in primary T-lymphocytes and monocyte-derived macrophages. *Virol. J.* 4:126. doi:10.1186/1743-422X-4-126.
78. A. Hussain, S.R. Das, C. Tanwar and S. Jameel (2007). Oligomerization of the human immunodeficiency virus type 1 (HIV-1) Vpu protein – a genetic, biochemical and biophysical analysis. *Virol. J.* 4:81. doi:10.1186/1743-422X-4-81.
77. K. Padhan, C. Tanwar, A. Hussain, P.Y. Hui, M.Y. Lee, C.Y. Cheung, J.S.M. Peiris and S. Jameel (2007). The SARS coronavirus Orf3a protein interacts with caveolin. *J. Gen. Virol.* 88:3067-3077.
76. S.M. Moin, M. Panteva and S. Jameel (2007). The hepatitis E virus (HEV) ORF3 protein protects cells from mitochondrial depolarization and death. *J. Biol. Chem.* 282:21124-21133.
75. M. Surjit, S. Jameel, S.K. Lal (2007). Cytoplasmic localization of the ORF2 protein of hepatitis E virus is dependent on its ability to undergo retrotranslocation from the endoplasmic reticulum. *J. Virol.* 81:3339-3345.
74. A. Chaudhry, S.R. Das, S. Jameel, A. George, V. Bal, S. Mayor and S. Rath (2007). A two-pronged mechanism for HIV-1 Nef-mediated endocytosis of immune costimulatory molecules CD80 and CD86. *Cell Host & Microbe* 1:37-49.
73. R. Srivastava, R. Aggarwal, S. Jameel, P. Puri, V.K. Gupta, V.S. Ramesh, S. Bhatia and S. Naik (2007). Cellular immune responses in acute hepatitis E virus infection to the viral open reading frame 2 protein. *Viral Immunol.* 20:56-65.
72. R. Aggarwal, R. Shukla, S. Jameel, S. Agrawal, P. Puri, V.K. Gupta, AP Patil, S. Naik (2007). T-cell epitope mapping of ORF2 and ORF3 proteins of human hepatitis E virus. *J. Viral Hepatitis* 14:283-292.
71. S. Dubey and S. Jameel (2006). Putting T cells to sleep: a new paradigm for immune evasion by persistent viruses. *J. Biosci.* 31:497-501.
70. D. Sehgal, S. Thomas, M. Chakraborty and S. Jameel (2006). Expression and processing of the hepatitis E virus ORF1 nonstructural polyprotein. *Virol. J.* 3:38 doi:10.1186/1743-422X-3-38.
69. M.K. Parvez, D. Sehgal, S.K. Sarin, S.F. Basir, and S. Jameel (2006). Inhibition of hepatitis B virus DNA replicative intermediate forms by recombinant interferon-g. *World J. Gastroenterol.* 12:3006-3014.
68. R. Sarrami-Forooshani, S.R. Das, F. Sabahi, A. Adeli, R. Esmaeli, B. Wahren, M. Mohraz, M. Haji-Abdolbaghi, M. Rasoolinejad, S. Jameel and F. Mahboudi (2006). Molecular analysis and phylogenetic characterization of HIV in Iran. *J. Med. Virol.* 78:853-863.
67. A. Chaudhary, S.R. Das, A. Hussain, S. Mayor, A. George, V. Bal, S. Jameel and S. Rath (2005). The Nef protein of HIV-1 induces loss of cell surface costimulatory molecules CD80 and CD86 in APCs. *J. Immunol.* 175: 4566-4574.
66. A. Jalota, K. Singh, L. Pavithra, R. Kaul-Ghanekar, S. Jameel and S. Chattopadhyay (2005). Tumor suppressor SMAR1 activates and stabilizes p53 through its arginine-serine-rich motif. *J. Biol. Chem.* 280: 16019-16029.
65. S.R. Das and S. Jameel (2005). Biology of the HIV Nef protein. *Indian J. Med. Res.* 121: 315-332.
64. M. Surjit, L. Boping, S. Jameel, V. Chow and S.K. Lal (2004). The SARS coronavirus nucleocapsid protein (N) induces actin reorganization and apoptosis in COS1 cells. *Biochem. J.* 383: 13-18.
63. S. Tyagi, M. Surjit, A. Kar-Roy, S. Jameel and S.K. Lal (2004). The ORF3 protein of hepatitis E virus interacts with liver-specific α 1-microglobulin and its precursor α 1-microglobulin/bikunin precursor and expedites their export from the hepatocyte. *J. Biol. Chem.* 279: 29308-29319.
62. A. Kar-Roy, H. Korkaya, R. Oberoi, S.K. Lal and S. Jameel (2004). The hepatitis E virus ORF3 protein activates ERK through binding and inhibition of MAPK phosphatase. *J. Biol. Chem.* 279: 28345–28357.

61. M. Surjit, S. Jameel and S.K. Lal (2004). The ORF2 protein of hepatitis E virus binds the 5' region of viral RNA. *J. Virol.* 78 : 320-328.
60. A.N. Singh, D. Gupta and S. Jameel (2004). Bioinformatic analysis of the SARS virus X1 protein shows it to be a calcium-binding protein. *Curr. Sci.* 86: 842-844.
59. M.Zafrullah, Z. Khursheed, S.Yadav, D. Sehgal, S. Jameel and F. Ahmad (2003). Acidic pH enhances structure and structural stability of the capsid protein of hepatitis E virus. *Biochem. Biophys. Res. Comm.* 313 : 67-73.
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Competitive Extramural Research Funding

Department of Biotechnology, Government of India

03/2012 – 03/2015

The role of miRNAs in the pathogenesis of HIV/AIDS and their utility as biomarkers of disease progression and therapy failure.

This project aimed to understand the role of the HIV-1 Nef protein in modulating miRNA populations in cells and exosomes towards intercellular communication and viral pathogenesis. It further aimed to validate miR-150 and miR-146b as biomarkers of disease progression and therapy failure in HIV/AIDS patients.

Role: Principal Investigator

Department of Biotechnology, Government of India

11/2010 – 07/2013

Characterization of receptor binding and early cellular events during hepatitis E virus infection.

This project aimed to identify and characterize the cellular receptor for the hepatitis E virus, and to study the early events in virus infection of cells in culture.

Role: Principal Investigator

Department of Biotechnology, Government of India and National Institutes of Health, USA; Indo-US Vaccine Action Program 08/2010 – 05/2013

Design and testing of a CD40 ligand adjuvanted HIV virus-like particle (VLP) as a candidate vaccine against HIV/AIDS.

This Indo-US collaborative study aimed to carry out the design of a HIV VLP that expressed CD40L on its surface and testing of an identical SIV VLP in macaques. This study was in collaboration with the Vaccine Center at Emory University, Atlanta, USA.

Role: Principal Investigator (Indian side)

Indian Council of Medical Research and Indo-German Science Center for Infectious Diseases 06/2009 - 12/2012

Hepatitis C Virus – Human Immunodeficiency Virus Coinfection: Immune Mechanisms, Viral Interactions and Pathogenesis.

This Indo-German collaborative study aimed to delineate some of the mechanisms that direct innate and adaptive immunity in human patients coinfecting with HCV and HIV, and to understand the role of select viral proteins in pathogenesis.

Role: Investigator

Department of Biotechnology, Government of India. 09/2008 - 08/2012

Novel Roles for the HIV-1 Vpu Protein in Viral Pathogenesis.

This project aimed to study the effects of the Vpu protein of HIV-1 on cytokine signaling and host cell translation.

Role: Principal Investigator

National Institutes of Health, USA 1R01AI07619201 08/2007 - 07/2011

Immune events, transcriptomics and biomarkers in hepatitis E pathogenesis.

The major goals of this project were to understand the mechanisms of liver injury in hepatitis E and to attempt discovery of useful biomarkers to guide clinical care of hepatitis E patients.

Role: Principal Investigator

Department of Biotechnology and Indian Council of Medical Research, Govt of India. 01/07 - 12/10.

Development of a murine model of HIV-1 subtype C infection and its application to studies on viral pathogenesis and drug discovery.

The major goals of this project were to develop a murine leukemia virus gp80 pseudotyped HIV-1 subtype C, to create nef gene mutants in this background and to test these viruses in a murine infection system. The work also involved mapping of Nef-CD80/CD86 interactions and screening of peptide/peptidomimetics to disrupt this interaction.

Role: Principal Investigator

Department of Biotechnology, Government of India. 04/2005 - 03/2009

Establishment of a core immunology/clinical laboratory to evaluate vaccine-elicited immune responses.

This project aimed to establish an Immunology Core for studying T cell responses in HIV-infected persons.

Role: Principal Investigator

International Senior Research Fellowship, Wellcome Trust, UK. 07/2001 - 12/2006

Analysis of protein-protein interactions, signaling pathways and host factors towards understanding the pathogenesis of hepatitis E virus.

The major goals of this project were to understand the role of the hepatitis E virus ORF3 protein in viral pathogenesis using cell culture models and human peripheral immune responses.

Role: Principal Investigator

Department of Biotechnology, Government of India. 03/2004 - 02/2007

The role of Vpu protein in HIV-1 pathogenesis: identification and the functional relevance of Vpu- interacting cellular proteins.

The major goals of this project were to discover HIV-1 Vpu-binding cellular proteins and to understand their functional relevance to HIV pathogenesis.

Role: Principal Investigator

Department of Biotechnology, Government of India. 03/2004 - 02/2007

Functional analysis of SARS virus proteins towards understanding pathogenesis.

This project aimed to study the role of the SARS-CoV X1(or orf3a) and N proteins in pathogenesis.

Role: Principal Investigator

National Institutes of Health, USA RO3 TW01345-01

09/2000 - 08/2003

Evaluation of the biological properties of HIV-1 subtype C isolates from India.

This project aimed to characterize the env gene sequences from primary HIV-1 subtype Indian isolates and to make recombinant viruses to study infectivity and co-receptor use.

Role: Foreign collaborator on AIDS-FIRCA

Dabur Research Foundation, India.

09/2001 - 08/2004

Development of an in vitro system for testing anti-hepatitis B virus activity.

This project aimed to develop a baculovirus-based hepatocyte transduction system for studying HBV replication and its inhibition by antiviral compounds.

Role: Principal Investigator

Summary of Professional Career

Training and Research: After my basic training in Chemistry from India and a PhD in Biochemistry from Washington State University (Pullman, USA), I did my postdoctoral research in Virology at the University of Colorado Health Sciences Center (Denver, USA). In 1988 I set up an independent research group at the International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi, India. Here I chose to work on the poorly understood enteric non-A non-B hepatitis virus, later named as the hepatitis E virus (HEV), which was a big problem in the developing world. Over the next 25 years we carried out many seminal studies on its biology, natural history, transmission, animal models and vaccine development. Adding HIV to our research portfolio in the mid-1990s, my group studied the HIV-1 variants infecting people in India and focused on how the viral accessory proteins modulate host immune responses. Our work on immunomodulation by the HIV-1 Nef protein is now being translated into a novel drug development strategy.

My contributions to biomedical research have been recognized through fellowships to all science academies in India, and the Shanti Swarup Bhatnagar Prize in Medical Sciences, which is the most prestigious mid-career award given by the Government of India. My research was funded through competitive extramural grants from The Wellcome Trust, UK, the National Institutes of Health, USA, and Government of India. I have also served on grants funding committees and journal editorial boards as an expert reviewer for over 20 years.

Research Administration: In 2013 I was appointed Chief Executive Officer at The Wellcome Trust/DBT India Alliance. This is a co-funded partnership between The Wellcome Trust, UK and the Department of Biotechnology, Government of India. Its Phase 1 for 10 years (2008-09 to 2018-19) was valued at £160 million (~ \$200 million) and I negotiated a 5-year Phase 2 (2018-19 to 2023-24) for £120 million (~ \$150 million). Over my term of 7.5 years, India Alliance was strengthened by placing a premium on quality, supporting the awardees build meaningful professional careers and providing efficient and transparent administration. My team and I promoted India Alliance through outreach events and raised its visibility through public engagement activities. I am especially proud of my work to promote clinical and public health research, address gender parity, advocate openly accessible science and build international networks such as links with the European Molecular Biology Organization (EMBO), Cancer Research UK, the African Academy of Sciences and other organizations.

Leadership: I was tasked with setting up the Virology Group at ICGEB, New Delhi when I was 31 years old. Under my leadership over the next 25 years, it became the foremost Molecular Virology Programme in India, which did interesting work, published important papers, trained many young scientists, received competitive extramural funding, and was rated highly in external reviews. I brought that leadership and experience to India Alliance, where my focus was to develop soft skills and leadership in our awardees. For this, we negotiated partnerships with EMBO that allowed us to impart internationally benchmarked academic leadership training and fund high quality science meetings in India. The setting up of the India Research Management Initiative (IRMI) to improve institutional research ecosystems, and the India Science Media Fellowships (ISMF) to strengthen the reporting of science in mainstream Indian media, are other novel strategies we developed to build core competence in India's biomedical research ecosystem, while extending the public understanding of science. To leverage our complementary strengths and expertise in biomedical research, I set up a "catalytic partnership" between India Alliance and Research Triangle Institute (RTI) International, India to understand the impact of Covid-19 on health programmes, delivery, and systems.

During the COVID-19 pandemic, I assumed the role of an independent thought leader by writing opinion pieces and policy papers and being available to journalists to simplify complex details on the virus and disease. I have given many invited lectures on COVID-19 to national and international audiences, and have appeared in both print and visual media, including international ones such as BBC, CNN, Voice of America, Al Jazeera, etc.

In October 2020, I took over as Director, Trivedi School of Biosciences at Ashoka University – the best private, liberal arts university in India. My brief was to set up the School of Biosciences with high-quality faculty and

students, who would carry out fundamental and translational research in focused areas of disease, inflammation and synthetic biology. During my one-year tenure at Ashoka, I hired five young faculty members in the School of Biosciences and started a Distinguished Lecture Series.

In September 2021, I joined the Oxford Centre for Islamic Studies as Sultan Qaboos bin Said Fellow and Principal Investigator, Project on “Public Health, Science and Technology in Muslim Societies”. The project is studying the impacts of disruptive and emerging technologies, and climate change on Muslim societies. I also coordinate the Centre’s Visiting Fellowships Programme.