

Biographical Sketch

Name : **Mohammad Husain**
Designation : Professor, Department of Biotechnology
: Hony. Director, Multidisciplinary Centre for Advanced Research & Studies
Jamia Millia Islamia, New Delhi 110025
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Education:

1. Ph.D.

Department of Microbiology, All India Institute of Medical Sciences, New Delhi (1997)

2. Postdoctoral Training:

- Dept. of Microbiology & Immunology, College of Medicine, University of Arizona, Tucson AZ (1997-1999)
Field of Research: **“Perinatal Transmission of HIV -1 from mothers to Infants”**.
- Department of Medicine, Mount Sinai School of Medicine, Mount Sinai Medical Center, New York (1999-2003)
Field of Research: **“HIV-associated Nephropathogenesis”**

Fellowships/Awards:

Name of Fellowship/Award	Institution/Organization	Year/Period
Visiting Professor	Feinstein Institute for Medical Research, Manhasset, New York	2010-2012
Postdoctoral Fellowship	National Kidney Foundation of America	2001-2002
Postdoctoral Fellowship	Kidney & Urology Foundation of America	2002-2003
Junior Scientist Best Paper Award	XIX National Congress of Indian Association of Medical Microbiologists at Puducherry, India	1995
Senior Research Fellowship	Indian Council of Medical Research, Ministry of Health New Delhi, India	1995

Academic Positions:

Positions held	Institution/Organization	Year/Period
Professor	Department of Biotechnology, Jamia Millia Islamia (Central University), New Delhi	2014 – to date
Associate Professor	Department of Biotechnology, Jamia Millia Islamia Central University, New Delhi	2009 - 2014
Reader	Department of Biosciences, Jamia Millia	2007-2009
Senior Scientist	Department of Medicine, North Shore – LIJ Health Center, New Hyde Park, New York	2006 - 2007
Assistant Research Professor	Department of Medicine, School of Medicine, Mount Sinai Medical Center, New York	2003 - 2006

Academic Credentials:

Publications:	
Research papers in peer-reviewed journals	82
Review	05
Editorial	01
Book Chapter	03
Invited talks	16
Conferences/Symposia	60
Projects:	
Principal Investigator	04
Co-Investigator	01
Ph.D. Supervision	
Degree Awarded	13
Under Supervision	05
Postdoctoral Supervision/Research Associate	
Completed	02
Working Currently	01
Reviewer:	
J. Clin. Microbiol.	
BMC Journal of Infect. Dis.	
Current HIV Res.	

Administrative position held at the University level

- Head, Department of Biotechnology, JMI (Sept., 2014 – to date)
- Chairman, BOS, Department of Biotechnology, JMI (2014-2017)
- Organizer National Conference on Biotechnology & Environment as Convener & Chairman, 10-11 April, 2017
- Chairman, BOS of Ph.D. programme in Unani Medicine (2016-2017)
- Superintendent of Semester Exams of Department of Biotechnology, JMI
- Observer for Entrance Test(s), JMI, Centre Sec-23, Rohini, New Delhi (July, 2015)
- Observer for Entrance Test(s), JMI, Centre Calicut, Kerala (May, 2016)
- Observer for Entrance Test(s), JMI, Centre Patna, Bihar (May, 2017)
- Subject expert in Institutional Ethics Committee, JMI (2016-2021)
- Member of Anjuman (Court), JMI (2014-2017)
- Director, Centre for Internal Quality Assurance (CIQA), Centre for Distance & Open Learning, JMI, New Delhi, June, 2019 - May, 2020.
- Chief Coordinator (Admissions), Jamia Millia Islamia, New Delhi, 2020-2021.
- Coordinator, Unani Medicine and Allied Sciences, JMI, New Delhi, 2016 - 2023.

- Hon. Director, Multidisciplinary Centre for Advanced Research and Studies (MCARS), Jamia Millia Islamia, New Delhi, June 2024 - to date

Membership of academic and professional bodies outside Jami Millia Islamia

- Member-Expert nominated by MHRD, Govt. of India in the subject field Biotechnology for the selection of candidates for the award of Korean Government Scholarship program offered by Government of Korea, 2016 and 2017
- Member of Advisory Board Committee to organize symposium in the Department of Biotechnology, TERI University, New Delhi (Feb., 2016)
- External expert of BOS of Animal Science, MJP Rohilkhand University, Bareilly, UP (2015-2016).
- NAAC Assessor, National Assessment and Accreditation Council, Bangalore, 2019-to date.
- Member of Unani Sub-Committee under Pharmacopoeia Committee (PC) of PCIM & H (2022 – to date)

Research Publications

Editorial

1. **Husain M**, Singhal PC. HIV-1 Entry into Renal Epithelia. *J Am Soc Nephrol*. 22(3):399-402, 2011.

Reviews

1. Irshad R, Tabassum S, Husain M. Aberrant Lipid Metabolism in Cancer: Current Status and Emerging Therapeutic Perspectives. *Curr Top Med Chem*. 2023;23(12):1090-1103.
2. Rasha Irshad and **Mohammad Husain**. Natural products in the reprogramming of cancer epigenetics. *Toxicology and Applied Pharmacology* 417: 115467, 2021.
3. Arora S, Ahmad S, Irshad R, Goyal Y, Rafat S, Siddiqui N, Dev K, **Husain M**, Ali S, Mohan A and Ali-Syed M. TLRs in pulmonary diseases. *Life Sciences* 23: 116671, 2019.
4. **Mohammad Husain** and Uma Sharma. Revealing the HIV Status to Vertically Infected Children: A Critical Issue with Problems and Benefits. *JSM Bioequiv Bioavailab* 1(1): 1005, 2017.
5. Bharadwaj M, Roy G, Dutta K, Misbah M, **Husain M**, and Hussain S. Tackling hepatitis B virus-associated hepatocellular carcinoma—the future is now. *Cancer Metastasis Rev*. 32(1-2):229-68, 2013.

Book Chapters

1. Sharma K, Husain YS, Das P, **Husain M**, Syed MA. Liver, Lung and Heart regeneration,

stem Cells in clinical representations. Regenerative potential of mesenchymal stem cells: therapeutic applications in lung disorder. Chapter Number 6. 77-117, **2017**. (DOI 10.1007/978-3-319-46693-4_6).

2. **Mohammad Husain** and Poonam Gupta. Recent advances in HIV/AIDS. In A. George, KS Joshy, M Sebastian, OS Oluwafemi and S Thomas eds. Holistic Approaches to Infectious Diseases. Apple Academic Press, Ontario, Canada, NJ, USA; pp. 120-147, **2016** (ISBN: 978-1-77188-312-2. Cat # N11551).
3. Ahmad N, Matala E, Yedavalli VRK, Hahn T and **Husain M**. Characterization of human immunodeficiency virus type-1 involved in maternal-fetal transmission. In S. Jameel and Villarreal eds. Advances in Animal Virology, Science Publishers Inc., Enfield, NH, USA; pp. 351-370, **2000**. (ISBN:978-1578080946).

Research Papers in peer-reviewed Journals

1. Bhat AR, Padder RA, **Husain M**, Patel R. Development of Cholinium-Based API Ionic Liquids with Enhanced Drug Solubility: Biological Evaluation and Interfacial Properties. *Mol Pharmaceutics*. 2024 Feb 5;21(2):535-549.
2. Sharma D, Singh A, Wilson C, Swaroop P, Kumar S, Yadav DK, Jain V, Agarwala S, **Husain M**, Sharawat SK. Exosomal long non-coding RNA MALAT1: a candidate of liquid biopsy in monitoring of Wilms' tumor. *Pediatr Surg Int*. 2024 Feb 14;40(1):57.
3. Alamri MA, Afzal O, Akhtar MJ, Karim S, **Husain M**, Alossaimi MA, Riadi Y. Synthesis, in silico and in vitro studies of novel quinazolinone derivatives as potential SARS-CoV-2 3CLpro inhibitors. *Arabian Journal of Chemistry*. 17 (2024) 105384.
4. Gupta P, Rai A, Hans C, **Husain M**. An Observational Study of Genetic Diversity of HIV-1 *vpu* in Rapid Progressors in India. *Curr HIV Res*. 2023 Feb PMID: 36809950.
5. Irshad R, Raj N, Gabr GA, Manzoor N, **Husain M**. Integrated network pharmacology and experimental analysis unveil multi-targeted effect of 18 α - glycyrrhetic acid against non-small cell lung cancer. *Front Pharmacol*. 2022 Oct 12;13:1018974
6. Misbah M, Gupta P, Roy G, Kumar S, **Husain M**. Drug resistance mutations in protease gene of HIV-1 subtype C infected patient population. *VirusDisease*. Sep; 32(3): 480–491, 2021.
7. Ali R, Tabrez S, Akand SK, Rahman F, Husein A, Arish M, Alqahtani AS, Ahmed MZ, **Husain M** and Abdur Rub. Sesamol Induces Apoptosis-Like Cell Death in Leishmania donovani. *Frontiers in Cellular and Infection Microbiology*. October 2021 | Volume 11 | Article 749420

8. Alam S, Taj M, Rayees A. Padder RA, Md. Imtaiyaz Hassan MI, **Husain M**. Thymoquinone and quercetin induce enhanced apoptosis in non-small cell lung cancer in combination through the Bax/Bcl2 cascade. *J Cell Biochem*. 1–16, 2021.
9. Rayees Ahmad Padder, Zafar Iqbal Bhat, Zaki Ahmad, Neetu Singh and **Mohammad Husain**. DRP1 Promotes BRAFV600E-Driven Tumor Progression and Metabolic Reprogramming in Colorectal Cancer. *Frontiers in Oncology*. March 2021 | Volume 10 | Article 592130.
10. Shadab Md, Alhakamy NA, Aldawsari HM, Husain M, Khan N, Alfaleh MA, Asfour HZ, Riadi Y, Bilgrami AL and Akhter Md H. Plumbagin-Loaded Glycerosome Gel as Topical Delivery System for Skin Cancer Therapy. *Polymers*. 2021, 13, 923
11. Supriya Singh, Arbind Kumar, Megha Brijwal, Aashish Choudhary, Kriti Singh, Rishabh Singh, **Mohammad Husain**, Lalit Dar. Intra-Clade C signature polymorphisms in HIV-1 LTR region: The Indian and African lookout. *Virus Research*. 297 (March 2021) 198370.
12. Qureshi MA, Husain GM, Urooj M , Khan MA, **Husain M**, Kazmi MH. Preclinical safety, anxiolytic and antidepressant activity of Sufoof Jawahar Mohra: A Unani formulation. *Advances in Integrative Medicine*. 8(2) 114-121, May 2021.
13. Pathak P. Sharma MC, Jha P, Sarkar C, Jha P, Suri V, Bhatia R, Singh S, Gulati S and **Husain M**. Mutational Spectrum of CAPN3 with Genotype-Phenotype Correlations in Limb Girdle Muscular Dystrophy Type 2A/R1 (LGMD2A/LGMDR1) Patients in India. *Journal of Neuromuscular Diseases*. 8(1):125-136, 2021.
14. Gupta P, Rai A, Hans C and **Husain M**. Analysis of nef gene from HIV-1 Infected Patients Presenting with Rapid and Delayed Disease Progression. *Sustainable Humanosphere*. 16 (1), April 2020.
15. Aldawsari HM, Alhakamy NA, Padder RA, **Husain M** and Shadab Md. Preparation and Characterization of Chitosan Coated PLGA Nanoparticles of Resveratrol: Improved Stability, Antioxidant and Apoptotic Activities in H1299 Lung Cancer Cells. *Coatings* 2020, 10, 439.
16. Wania FA, Beheraa K, Padder RA, **Husain M**, Malik MA, Al-Thabaiti NS, Ahmad R, Rajan Patel R. Micellization, anti-proliferative activity and binding study of cationic gemini surfactants with calf thymus DNA. *Colloid and Interface Science Communications*. Volume 34, 100221, January 2020.
17. Shadab Md, Alhakamy NA, Aldawsari HM, **Husain M**, Kotta S , Abdullah ST, Fahmy UA , Alfaleh MA and Asfour HZ. Formulation Design, Statistical Optimization, and In Vitro Evaluation of a Naringenin Nanoemulsion to Enhance Apoptotic Activity in A549 Lung Cancer Cells. *Pharmaceuticals*. 2020, 13, 152

18. Ansari S, Maaz M, Ahmad I, Hasan SK, Bhat SA, Naqui SK and **Husain M**. Quality control, HPTLC analysis, antioxidant and antimicrobial activity of hydroalcoholic extract of roots of qust (*Saussurea lappa*, C.B Clarke). *Drug Metabol Pers Ther* 2020, 20200159
19. Khan NS, Khan P, Inam A, Ahmad K, Yousuf M, Islam A, Ali S, Azam A, **Husain M** and Hassan MI. Discovery of 4-(2-(dimethylamino)ethoxy) benzohydrazide derivatives as prospective microtubule affinity regulating kinase 4 inhibitors. *RSC Adv.*, 2020, 10, 20129.
20. Ali I, Naqshbandi MF and **Husain M**. Cell migration and apoptosis in human lung cancer cells by Clove (*Syzygium aromaticum*) dried flower buds extract. *Journal of Taibah University for Science*. 2019 13:1, 1163-1174.
21. Siddiqui FA, Prakasam G, Chattopadhyay S, Rehman AU, Padder RA, Ansari MA, Irshad R, Mangalhara K, Bamezai RNK, **Husain M**, Ali SM, Iqbal MA. Curcumin decreases Warburg effect in cancer cells by down-regulating pyruvate kinase M2 via mTOR-HIF1 α inhibition. *Scientific Report*. 8(1):8323, 2018.
22. Khan NS, Khan P, Ansari MF, Srivastava S, Hasan GM, **Husain M**, and Hassan MI. Thienopyrimidine–Chalcone Hybrid Molecules Inhibit Fas-Activated Serine/Threonine Kinase: An Approach To Ameliorate Antiproliferation in Human Breast Cancer Cells. *Mol. Pharmaceutics* 15:4173–4189, 2018.
23. Roy G, Roy P, Bhattacharjee A, Shahid M, Misbah M, Gupta S, **Husain M**. Expression signature of lysosomal-associated transmembrane protein 4B in hepatitis C virus-induced hepatocellular carcinoma. *Int. J. Biol. Markers*. 33(3):283-292, 2018.
24. Ganai AA & **Husain M**. Genistein Alleviates Neuroinflammation and Restores Cognitive Function in Rat Model of Hepatic Encephalopathy: Underlying Mechanisms. *Mol. Neurobiol.* 55:1762–1772, 2018.
25. Sharma U, Gupta S, Venkatesh S, Rai A, Dhariwal AC and **Husain M**. Comparative genetic variability in HIV-1 subtype C p24 Gene in early age groups of infants. *Virus Genes* 54:647–661, 2018.
26. Sharma U, Gupta P, Gupta S, Venkatesh S and **Husain M**. Comparative Genetic Variability in HIV-1 Subtype C vpu Gene in Early Age Groups of Infants. *Current HIV Res.* 16:1-13, 2018.
27. Qureshi MA, Abdul-rasheed NM, Husain GM, Kazmi MH, **Husain M**. Standardization and HPTLC fingerprinting of a Unani compound formulation Sufoof Jawahar Mohra with modern analytical techniques. *International Journal of Pharmaceutical Research*. (10)3 July- Sept 2018.

28. Ganai AA & **Husain M**. Genistein attenuates D-GalN induced liver fibrosis/chronic liver damage in rats by blocking the TGF- β /Smad signaling pathways. *Chemico-Biological Interactions* 261:80-85, 2017.
29. Roy G, Bhattacharjee A, Roy N, Dutta K, Shahid M, Misbah M, Gupta S, **Husain M**. A Novel Model to Predict Tumour Recurrence in Hepatitis B Virus Associated Hepatocellular Carcinoma. *J. Clin. Exp. Hepatol.* 17:S84, 2017.
30. Roy G, Bhattacharjee A, Roy N, Dutta K, Shahid M, Misbah M, Gupta S, **Husain M**. A Preliminary Predictive Model of Post-Transplant Tumor Recurrence in Hepatitis B Virus Associated Hepatocellular Carcinoma-Epidemiological and Therapeutic Implications. *Gastroenterology & Hepatology International Journal*. 2017, 2(4): 000133
31. Sharma U, Gupta P, Singhal M, Singh S, Gupta S, Venkatesh S, Rai A, and **Husain M**. Comparative genetic variability in HIV-1 subtype C nef gene in early age groups of infants. *J. Med Virol.* (89):1606–1619, 2017.
32. Rather LJ , Akhter S, Padder RA , Hassan QP, **Husain M**, Khan MA , Mohammad F. Colorful and semi durable antioxidant finish of woolen yarn with tannin rich extract of *Acacia nilotica* natural dye. *Dyes and Pigments*. 139: 812-819, 2017.
33. Sharma U, Singhal M , Singh S, Chaudhary A, Gupta S , Venkatesh S, Rai A , and **Husain M**. Early Screening of HIV-1 from Dried Blood Spots in Infants Born to HIV-1 Positive Mothers from North Indian States. *Clin Res HIV/AIDS* 3(1): 1032, 2016.
34. Nafis S, Ponnusamy K, **Husain M**, Singh RKB and Bamezai RNK. Identification of key regulators and their controlling mechanism in a combinatorial apoptosis network: a systems biology approach. *Mol Biosyst.* 12(11):3357-3369, 2016.
35. Haque S, Lan X, Wen H, Lederman R, Chawla A, Attia M, Bongu RP, **Husain M**, Mikulak J, Saleem MA, Popik W, Malhotra A, Chander PN, Singhal PC. HIV Promotes NLRP3 Inflammasome Complex Activation in Murine HIV-Associated Nephropathy. *Am J Pathol.* 186(2):347-58, 2016.
36. M Misbah, G Roy, M Shahid, N Nag, S Kumar, **M Husain**. Comparative analysis of drug resistance mutations in the human immunodeficiency virus reverse transcriptase gene in patients who are non-responsive, responsive and naive to antiretroviral therapy. *Arch. Virol.* 161 (5), 1101-1113, 2016.
37. Kamesh R Ayasolla, Partab Rai, Shai Rahimipour, **Mohammad Husain**, Ashwani Malhotra, Pravin C Singhal. Tubular cell phenotype in HIV-associated nephropathy: Role of phospholipid lysophosphatidic acid. *Experimental and Mol. Pathol.* 99(1): 109-115, 2015.
38. Singh T, Ayasolla K, Rai P, Chandel N, Haque S, Lederman R, **Husain M**, Vethantham V, Chawla A, Vashistha H, Moin A, Saleem MA, Ding G, Praveen N, Chander PN,

- Malhotra A, Meggs LG,3 and Singhal PC. AT1R blockade in adverse milieus: role of SMRT and corepressor complexes. *Am J Physiol Renal Physiol* 309: F189–F203, 2015.
39. Zaidi LS, Mittal S, Rajala MS, Avecilla F, **Husain M**, Azam A. Synthesis, characterization and antiamoebic activity of chalcones bearing N-substituted ethanamine tail. *Eur. J. Med. Chem.* 2015 98:179-89, 2015.
40. Shazia Nafis, Ponnusamy Kalaiarasan, R. K. Brojen Singh, **Mohammad Husain** and Rameshwar N. K. Bamezai. Apoptosis regulatory protein-protein interaction demonstrates hierarchical scale-free fractal network. *Briefings in Bioinformatics*. 13(1):17-34, 2015.
41. Poonam Gupta, **Mohammad Husain**, Charoo Hans, Hanu Ram, Supriya Singh Verma, Mohammad Misbah, LS Chauhan, Arvind Rai. Sequence heterogeneity in human immunodeficiency virus type 1 nef in patients presenting with rapid progression and delayed progression to AIDS. *Arch. of virol.* 1-18, 2014.
42. Nirupama Chandel, Kamesh Ayasolla, Xiqian Lan, Partab Rai, Joanna Mikulak, **Mohammad Husain**, Ashwani Malhotra, Joseph McGowan, Pravin C Singhal. Renin modulates HIV replication in T cells. *J. Leukocyte Biol.* 2A0414-192R, 2014.
43. Nirupama Chandel, Bipin Sharma, **Mohammad Husain**, Divya Salhan, Tejinder Singh, Partab Rai, Peter W Mathieson, Moin A Saleem, Ashwani Malhotra, Pravin C Singhal. HIV compromises integrity of the podocyte actin cytoskeleton through downregulation of the vitamin D receptor. *Am J Physiol Renal Physiol.* 304 (11) F1347-F1357, 2013.
44. Tan R, Patni H, Tandon P, Luan L, Sharma B, Salhan D, Saleem MA, Mathieson PW, Malhotra A, **Husain M**, Upadhyay P, Singhal PC. Nef interaction with actin compromises human podocyte actin cytoskeletal integrity. *Experimental and Molecular Pathology*. 94 (2013) 51–57.
45. Lan X, Cheng K, Chandel N, Lederman R, Jhaveri A, **Husain M**, Malhotra A, Singhal PC. High glucose enhances HIV entry into T cells through upregulation of CXCR4. *J. Leukoc. Biol.* Aug. 2013.
46. Lan X, Rai P, Chandel N, Cheng K, Lederman R, Saleem MA, Mathieson PW, **Husain M**, Crosson JT, Gupta K, Malhotra A, Singhal PC. Morphine induces albuminuria by compromising podocyte integrity. *PLoS One.* 2013;8(3):e55748.
47. Cheng K, Rai P, Plagov A, Lan X, Mathieson PW, Saleem MA, **Husain M**, Malhotra A, Singhal PC. Rapamycin-induced modulation of miRNA expression is associated with amelioration of HIV-associated nephropathy (HIVAN). *Exp. Cell Res.* Aug 1;319(13):2073-80, 2013.
48. Chandel N, **Husain M**, Goel H, Salhan D, Lan X, Malhotra A, McGowan J, Singhal PC. VDR hypermethylation and HIV-induced T cell loss. *J Leukoc. Biol.* Feb. 2013.

49. Cheng K, Rai P, Plagov A, Lan X, Subrati A, **Husain M**, Malhotra A, Singhal PC. MicroRNAs in HIV-associated nephropathy (HIVAN). *Exp Mol Pathol.* 94(1):65-72, 2013.
50. Rai P, Plagov A, Kumar D, Pathak S, Ayasolla KR, Chawla AK, Mathieson PW, Saleem MA, **Husain M**, Malhotra A, Singhal PC. Rapamycin-induced modulation of HIV gene transcription attenuates progression of HIVAN. *Exp Mol Pathol.* 94(1):255-61, 2013.
51. Rai P, Plagov A, Lan X, Chandel N, Singh T, Lederman R, Ayasolla KR, Mathieson PW, Saleem MA, **Husain M**, Malhotra AK, Chander PN, Singhal PC. mTOR plays a critical role in p53-induced oxidative kidney cell injury in HIVAN. *Am J Physiol Renal Physiol.* 305 (3) F343-F354, 2013.
52. Vashistha H, Singhal PC, Malhotra A, **Husain M**, Mathieson P, Saleem MA, Kuriakose C, Seshan S, Wilk A, Delvalle L, Peruzzi F, Giorgio M, Pelicci PG, Smithies O, Kim HS, Kakoki M, Reiss K, Meggs LG. Null mutations at the p66 and bradykinin 2 receptor loci induce divergent phenotypes in the diabetic kidney. *Am J Physiol Renal Physiol.* 303(12):F1629-40, 2012.
53. Singh P, Goel H, **Husain M**, Lan X, Mikulak J, Malhotra A, Teichberg S, Schmidtmayerova H, Singhal PC. Tubular cell HIV-entry through apoptosed CD4 T cells: A novel pathway. *Virology.* 434(1):68-77, 2012.
54. Salhan D, **Husain M**, Subrati A, Goyal R, Singh T, Rai P, Malhotra A, Singhal PC. HIV-induced kidney cell injury: role of ROS-induced downregulated vitamin D receptor. *Am J Physiol Renal Physiol.* 303: F503–F514, 2012.
55. Chandel N, Sharma B, Salhan D, **Husain M**, Malhotra A, Buch S, and Singhal PC. Vitamin D receptor activation and downregulation of renin-angiotensin system attenuate morphine-induced T cell apoptosis. *Am J Physiol Cell Physiol* 303: C607–C615, 2012.
56. Rehman S, **Husain M**, Yadav A, Kasinath BS, Malhotra A, Singhal PC. HIV-1 promotes renal tubular epithelial cell protein synthesis: role of mTOR pathway. *PLoS One.* 2012;7(1):e30071.
57. Rehman S, Chandel N, Salhan D, Rai P, Sharma B, Singh T, **Husain M**, Malhotra A, Singhal PC. Ethanol and Vitamin D Receptor in T Cell Apoptosis. *J Neuroimmune Pharmacol.* Oct 6, 2012.
58. Salhan D, Pathak S, **Husain M**, Tandon P, Kumar D, Malhotra A, Meggs LG, Singhal PC. HIV gene expression deactivates redox-sensitive stress response program in mouse tubular cells both in vitro and in vivo. *Am. J Physiol Renal Physiol.* Oct. 12, 2011.

59. Salhan D, Sagar A, Kumar D, Rattanavich R, Rai P, Maheshwari S, Adabala M, **Husain M**, Ding G, Malhotra A, Chander PN, Singhal PC. HIV-associated nephropathy: Role of AT(2)R. *Cell Signal.* Nov 13, 2011
60. Pathak P, Sharma MC, Sarkar C, Jha P, Suri V, **Mohd. H**, Singh S, Bhatia R, Gulati S. Limb girdle muscular dystrophy type 2A in India: a study based on semi-quantitative protein analysis, with clinical and histopathological correlation. *Neurol India.* Jul-Aug; 58(4):549-54. 2010.
61. Arora S, **Husain M**, Patni H, Luan L, Batliwala F, Mehrotra D, Reddy VK, Reddy LR, Salhan D, Kumar D, Yadav A, Mathieson PW, Saleem MA, Chander PN, And Singhal PC. Human immunodeficiency virus down regulates podocytes ApoE expression. *Am. J. Physiol. Renal Physiol.* 297:F653-61, 2009.
62. **Mohammad Husain**, Meggs LG, Vashistha H, Simoes S, Griffiths KO, Kumar D, Mathieson PW, Saleem MA, Malhotra A, DelValle L, Pina-Oviedo S, Krzysztof Reiss K, Seshan SV and Singhal PC. Inhibition of p66ShcA Longevity Gene Rescues Podocytes from HIV-1-induced Oxidative Stress and Apoptosis. *J. Biol. Chem.* 284:16648 – 16658, 2009.
63. Vashishtha H, **Husain M**, Kumar D, Singhal PC. Tubular cell HIV-1 gp120 expression induces caspase 8 activation and apoptosis. *Renal Failure.* 31:303-312, 2009.
64. Rosenstiel P, Tina Gruosso T, Letourneau A, Chan J, **Husain M**, Planelles V, Vivette D'Agati V, Klotman M, and Klotman PE. HIV-1 Vpr inhibits cytokinesis in human proximal tubule cells. *Kid. Intl.* 74(8):1049-58, 2008.
65. Vashist H, **Husain M**, Kumar D, Yadav A, Arora S, and Singhal PC. HIV-1 expression induces tubular cell G2/M arrest and apoptosis. *Ren. Failure.* 30:655-64, 2008.
66. He JC, Lu TC, Fleet M, Sunamoto M, **Husain M**, Fang W, Neves S, Chen Y, Shankland S, Iyengar R, Klotman PE. Retinoic Acid Inhibits HIV-1-Induced Podocyte Proliferation through the cAMP Pathway. *J Am Soc Nephrol.* 18:93-102, 2007.
67. Zerhouni-Layachi B, **Husain M**, Ross MJ, Marras D, Sunamoto M, Liu X, Klotman PE, and Klotman ME. Dual tropism of HIV-1 envelopes derived from renal tubular epithelial cells of patients with HIV-associated nephropathy. *AIDS.* 20:621-4, 2006.
68. Ross MJ, Wosnitzer MS, Ross MD, Granelli B, Gusella GL, **Husain M**, Kaufman L, Vasievich M, D'Agati VD, Wilson PD, Klotman, ME, Klotman PE. Role of ubiquitin-like protein FAT10 in epithelial apoptosis in renal disease. *J. Am. Soc. Nephrol.* 17:996-1006, 2006.
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71. He JC*, **Husain M***, Sunamoto M, D'Agati VD, Klotman ME, Iyengar R, and Klotman P. Nef stimulates proliferation of glomerular podocytes through activation of Src-dependent Stat3 and MAPK1, 2 pathways. *J. Clin. Invest.* 114:643-651, 2004 (*equal contribution and authorship).
72. Sunamoto M, **Husain M**, Gelman IH, Schwartz EJ, and Klotman PE. Podocyte dedifferentiation in a mouse model of HIV-associated nephropathy: Role of HIV-1 accessory genes. *Kidney Intnl.* 64:1695-1701, 2003.
73. **Husain M**, Gusella GL, Klotman ME, Gelman IH, Ross MD, Schwartz EJ, Cara A, and Klotman PE. HIV-1 Nef induces proliferation anchorage-independent growth in podocytes. *J. Am. Soc. Nephrol.* 13:1806-1815, 2002.
74. Nelson PJ, Sunamoto M, **Husain M**, and Gelman IH. HIV-1 expression induces cyclin D1 expression and pRb phosphorylation in infected podocytes: cell cycle mechanisms contributing to the proliferative phenotype in HIV-associated nephropathy. **BMC Microbiology** 2:26, 2002.
75. **Husain M**, Hahn T, Yedavalli RK, and Ahmad N. Characterization of HIV Type-1 *tat* sequences associated with perinatal transmission. *AIDS Res. Hum. Retroviruses*. 17:765-773; 2001.
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