

Peer Reviewed Publications:

2018

1. Singh S, Anupriya MG, Modak A, Sreekumar E*. Dengue virus or NS1 protein induces trans-endothelial cell permeability associated with VE-Cadherin and RhoA phosphorylation in HMEC-1 cells preventable by Angiopoietin-1. *J Gen Virol*. 2018 Oct 24. doi: 10.1099/jgv.0.001163
2. M.G. Anupriya, Sneha Singha, Neha Vijay Hulyalkar, Easwaran Sreekumar* (2018). Sphingolipid signaling modulates trans-endothelial cell permeability in dengue virus infected HMEC-1 cells. *Prostaglandins & Other Lipid Mediators* 136: 44–54
3. Abraham R., McPherson R.L., Sreekumar E., Leung A.K.L., Griffin D.E. (2018) Preparation of Recombinant Alphaviruses for Functional Studies of ADP-Ribosylation. In: Chang P. (eds) ADP-ribosylation and NAD⁺ Utilizing Enzymes. *Methods in Molecular Biology*, vol 1813. Humana Press, New York, NY

2017

4. Rachy Abraham, Sneha Singh, Sreeja R Nair, Neha Vijay Hulyalkar, Arun Surendran, Abdul Jaleel, Easwaran Sreekumar* (2017). Nucleophosmin (NPM1) / B23 in the proteome of human astrocytic cells restricts Chikungunya virus replication. *J. Proteome Res.* 16:4144-4155
5. Sreeja R Nair, Rachy Abraham, Sankar Sundaram, Easwaran Sreekumar* (2017). Interferon regulated gene (IRG) expression-1 signature in a mouse model of Chikungunya virus neurovirulence. *J Neuro Virol.* 23:886-902
6. Sneha Singh, M.G. Anupriya, Easwaran Sreekumar* (2017) Comparative whole genome analysis of Dengue virus serotype-2 strains differing in trans-endothelial cell leakage induction *in vitro*. *Infect Gen Evol* 52 : 34–43
7. McPherson RL[#], Abraham R[#], Sreekumar E[#], Ong SE, Cheng SJ, Baxter VK, Kistemaker HA, Filippov DV, Griffin DE, Leung AK. (2017) ADP-ribosylhydrolase activity of Chikungunya virus macrodomain is critical for virus replication and virulence. *Proc Natl Acad Sci U S A.* 114(7):1666-1671. doi: 10.1073/pnas.1621485114.
([#] Equal authorship)

2016

8. Rachy Abraham, Anoop Manakkadan, Prashant Mudaliar, Iype Joseph, Krishnankutty Chandrika Sivakumar, Radhakrishnan Reghunathan Nair, Easwaran Sreekumar* (2016) Correlation of phylogenetic clade diversification and *in vitro* infectivity differences among Cosmopolitan genotype strains of Chikungunya virus *Infect Gen Evol.* 37: 174-184.

2015

9. Sneha Singh, Birendra P Gupta, Anoop Manakkadan, Krishna Das Manandhar, Easwaran Sreekumar* (2015) Phylogenetic study reveals co-circulation of Asian and Cosmopolitan genotypes of Dengue virus serotype 2 in Nepal during 2013. *Infect Gen Evol.* 34: 402-409.
10. Rachy Abraham, Prashant Mudaliar, Abdul Jaleel, Srikanth Jandhyam, Easwaran Sreekumar* (2015). High throughput proteomic analysis and a comparative review identify the nuclear chaperone, Nucleophosmin among the common set of proteins modulated in Chikungunya virus infection. *J Proteomics* 120:126- 141
11. Birendra Prasad Gupta, Sneha Singh, Roshan Kurmi, Rajani Malla, Easwaran

Sreekumar*, Krishna Das Manandhar* (2015). Re-emergence of Dengue virus serotype 2 strains in a 2013 epidemic in Nepal. *Indian J. Med. Res* 142:1-6

2014

12. Vijesh S Kuttiatt, Sanughosh Kalpathodi, Sindhu T Gangadharan, Lalitha Kailas, **Easwaran Sreekumar**, Suja M Sukumaran, Radhakrishnan R Nair (2014) Detection of Measles Virus Genotype B3 in India. *Emerg. Inf. Dis.* 20, 1764-1765
13. Konstantin A. Tssetsarkin, Rubing Chen, Ruimei Yun, Shannan L. Rossi, Kenneth S. Plante, Mathilde Guerbois, Naomi Forrester, Guey Chuen Perng, **Easwaran Sreekumar**, Grace Leal, Jing Huang, Suchetana Mukhopadhyay, Scott C. Weaver (2014) Multi-peaked adaptive landscape for chikungunya virus evolution predicts continued fitness optimization in *Aedes albopictus* mosquitoes. *Nature Commun.* 5:4084 DOI: 10.1038/ncomms5084
14. K Krithiga, Divakaran N Nair, **E Sreekumar**, Mammen J Abraham, Ajith Jacob George, CB Manomohan (2014) Isolation and molecular confirmation of extra-intestinal pathogenic *Escherichia coli* (ExPEC) from domestic pigs. *Indian J Vet. Pathol.* 38 (2), 85-87
15. Sheeba PM, Jose R, **Sreekumar E**, Vimalraj AN, Kurian S, Bai JTR. A Comparative Study of Dengue Syndromes in a Tertiary Care Centre (2014) *Acad. Med. J. India* 2:60–66

2013

16. Rachy Abraham, Prashant Mudaliar, Aiswaria Padmanabhan, **Easwaran Sreekumar*** (2013) Induction of cytopathogenicity in human glioblastoma cells by Chikungunya virus. *PLoS ONE* 8(9):e75854. doi:10.1371/journal.pone.0075854
17. Praveen K. Sobhan, Mahendra Seervi, Lokesh Deb, Saneesh Varghese¹, Anjana Soman, Jeena Joseph¹, Krupa Ann Mathew, Godi Raghu, George Thomas, **Sreekumar E**, Manjula S, Santosh Kumar T. R (2013). Calpain and Reactive Oxygen Species Targets Bax for Mitochondrial Permeabilisation and Caspase Activation in Zerbombone Induced Apoptosis. *PLoS ONE* 8(4): e59350. doi:10.1371/journal.pone.0059350
18. Anoop Manakkadan, Iype Joseph, Raji Rajendran Prasanna, Riaz Ismail kunju , Lalitha Kailas, **Easwaran Sreekumar*** (2013). Lineage shift in Indian strains of Dengue virus serotype-3 (Genotype III), evidenced by detection of lineage IV strains in clinical cases from Kerala. *Virol. J.* 10(1):37

2012

19. Zinia T Nujum, Vijayakumar K, Pradeep Kumar AS, Anoop M, **Sreekumar E**, Ramani Bai JT, Dalus D, Lalitha Kailas, Saritha N, Anitha Abraham, Anto Varghese, Raji RT , Sudheesh Kumar TK(2012). Performance of WHO probable case definition of dengue in Kerala, India, and its implications for surveillance and referral. *Dengue Bulletin* 36: 94-104
20. M. Anoop , Ashish J. Mathew, B. Jayakumar , Aneesh Issac, Sajith Nair, Rachy Abraham, M.G. Anupriya, **E. Sreekumar*** (2012). Complete genome sequencing and evolutionary analysis of Dengue virus serotype 1 isolates from an outbreak in Kerala, South India. *Virus Genes* 45:1-13.

2011

21. Nair S, Arathy DS, Issac A and **Sreekumar E*** (2011). Differential gene expression analysis of *in vitro* duck hepatitis B virus infected primary duck hepatocyte cultures. *Virol. J.* 8:363.

22. C.N. Sreekanth, S.V. Bava, **E. Sreekumar**; R.J. Anto (2011). Molecular evidences for the chemosensitizing efficacy of liposomal curcumin in paclitaxel chemotherapy in mouse models of cervical cancer. *Oncogene* 30(28):3139-52.
23. D.S. Arathy, Sajith Nair, Soja Saghar Soman, Aneesh Issac, **E. Sreekumar*** (2011). Functional characterization of the CC chemokine RANTES from Pekin duck (*Anas platyrhynchos*). *Dev. Comp. Immunol.* 35; 142–150.

2010

24. Niyas KP, Abraham R, Unnikrishnan RN, Mathew T, Nair S, Manakkadan A, Issac A, **Sreekumar E*** (2010). Molecular characterization of Chikungunya virus isolates from clinical samples and adult *Aedes albopictus* mosquitoes emerged from larvae from Kerala, South India. *Viol. J.* 7(1):189.
25. Anoop, M; Aneesh Issac; Thomas Mathew; Sairu Philip; Nabeel Abdul Kareem; Unnikrishnan, R; **Sreekumar, E*** (2010). Genetic characterization of dengue virus serotypes causing concurrent infection in an outbreak in Ernakulam, Kerala, South India. *Ind. J. Exp. Biol.* 48 (08):849-857.
26. Soman SS, Sivakumar KC, **Sreekumar E*** (2010). Molecular dynamics simulation studies and in vitro site directed mutagenesis of avian beta-defensin Apl_AvBD2. *BMC Bioinformatics.* 11 Suppl 1:S7.
27. **Sreekumar E***, Issac A, Nair S, Hariharan R, Janki MB, Arathy DS, Regu R, Mathew T, Anoop M, Niyas KP, Pillai MR (2010). Genetic characterization of 2006-2008 isolates of Chikungunya virus from Kerala, South India, by whole genome sequence analysis. *Virus Genes.* 40(1):14-27.

2005-2009

28. Soman SS, Nair S, Issac A, Arathy DS, Niyas KP, Anoop M, **Sreekumar E***. (2009) Immunomodulation by duck defensin, Apl_AvBD2: in vitro dendritic cell immunoreceptor (DCIR) mRNA suppression, and B- and T-lymphocyte chemotaxis. *Mol. Immunol.* 46(15):3070-5
29. Soman SS, Arathy DS, **Sreekumar E*** (2009). Discovery of *Anas platyrhynchos* avian beta-defensin 2 (Apl_AvBD2) with antibacterial and chemotactic functions. *Mol. Immunol.* 46(10):2029-38.
30. B. M. Viola, T. E. Abraham, D. S. Arathi, **E. Sreekumar**, M. R. Pillai, T. J. Thomas, C. K. S. Pillai (2008) Synthesis and characterization of novel water-soluble polyamide based on spermine and aspartic acid as a potential gene delivery vehicle *eXPRESS Polymer Lett.* 2 (5): 330–338
31. **Sreekumar E***, Janki MB, Arathy DS, Hariharan R, Premraj CA, Rasool TJ. (2007) Molecular characterization and expression of Interferon - gamma of Asian elephant (*Elephas maximus*). *Vet. Immunol. Immunopathol.* 118: 75-83
32. T J Rasool, M Hosamani, A Premraj, **E Sreekumar** and R K Singh (2006) Ovine interferon-gamma gene of indigenous sheep: Cloning, sequencing and expression studies in *Escherichia coli*. *Indian J. Biotechnol* 5: 486-490
33. Avinash Premraj, **E.Sreekumar**, Mamta Jain & T.J. Rasool (2006) Buffalo (*Bubalus bubalis*) Interleukin-12: analysis of expression profiles and functional cross-reactivity with bovine system. *Mol. Immunol* 43 (7): 822-9
34. Sunil Kumar, M., Bikash Sahay, Abi George Aleyas, Hira Ram, Bimalendu Mondal, Binita Nautiyal, Avinash Premraj, **E. Sreekumar**, M.P.Yadav & T.J.Rasool (2006).

- Inhibition of Anatid Herpes Virus-1 replication by small interfering RNAs in cell culture system. *Virus Res.* 115(2):192-7
35. Avinash Premraj, **E.Sreekumar** & T. J. Rasool (2006). Cloning and biological characterization of buffalo (*Bubalus bubalis*) interferon- gamma. *Mol. Immunol.* 43 (6):717-24
 36. Avinash Premraj, **E. Sreekumar**, Binita Nautiyal and T.J.Rasool (2006) Molecular characterization and prokaryotic expression of Buffalo (*Bubalus bubalis*) Interleukin-6 *Mol. Immunol.* 43 (3):202-9
 37. **E.Sreekumar**, Avinash Premraj & T.J. Rasool (2005) Duck (*Anas platyrhynchos*), Japanese quail (*Coturnix coturnix japonica*) and other avian Interleukin-2 reveal significant conservation of gene organization, promoter elements and functional residues. *Int. J. Immunogenetics* 32 (6):355-365
 38. **E.Sreekumar**, Avinash Premraj, Arathy D.S & T. J. Rasool (2005). Identification, sequence characterization and analysis of expression profiles of three novel CC chemokines from domestic duck (*Anas platyrhynchos*). *Immunogenetics* 57: 364-373
 39. Avinash Premraj, **E. Sreekumar**, Binita Nautiyal and T.J. Rasool (2005). Molecular cloning and expression profile analysis of interleukin-10 and interleukin-18 cDNA of Indian water buffalo (*Bubalus bubalis*). *Vet. Immunol. Immunopathol.* 107:337-347
 40. Aviansh Premraj, **Sreekumar E** , Binita Nautiyal and Rasool, T.J. (2005). Interleukin-12 subunits p35 and p40 of Indian water buffalo (*Bubalus bubalis*) maintain high sequence homology with that of other ruminants. *Int. J. Immunogenetics* 32: 179-186

2002-1999

41. **Sreekumar, E**, Avinash Premraj, Saravanakumar, M. and Rasool, T.J. (2002). Buffalo interleukin-2: Sequence analysis reveals high nucleotide and amino acid identity with interleukin-2 of cattle and other ruminants. *Eur. J. Immunogenetics* 29 (4): 341-345.
42. **Sreekumar, E** and Das, S.K. (2001). Mycobacterium phlei as an oral immunomodulator with Newcastle disease vaccine. *Indian J. Exp. Biol.* 39: 989-992.
43. Rasool, T.J., Dechamma, H.J. and **Sreekumar.E** (2000). A common method for MHC typing of farm animals using PCR-RFLP. *Indian J. Animal Sci.* 70: 716-717.
44. **Sreekumar.E** and Das, S.K. (2000). Activation of chicken intestinal Intraepithelial lymphocytes by oral administration of *M.phlei*. *Indian J. Animal Sci.* 70: 1204-1207
45. Sivarama, K.R.P., **Sreekumar.E** and Rasool, T.J. (1999). Cloning and sequencing of truncated gIV glycoprotein gene of an Indian isolate of BHV-1. *Acta Virologica* 43: 387-389.

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