Dr. Yogesh A. Karpe
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Research Area

- Group studies the molecular mechanisms of virus replication and pathogenesis. Animal viruses currently being studied in laboratory are Chikungunya virus and Hepatitis E virus.
- They are interested in isolation of new bacteriophages, study diversity and genomic characterization of phages and examine them for properties which may be useful for pathogen detection and bio-control purpose on food industry, poultry and environmental applications.

Education & Scientific Career

- Scientist C, Agharkar Research Institute, Pune, Jan 2014 to till date
- DST INSPIRE Faculty, National Institute of Virology, Pune 2012 to 2013
- Postdoctoral Associate, Virginia Tech University, VA, USA 2011 to 2012
- Ph.D., National Institute of Virology, Pune 2006- 2011

Awards

- INSPIRE Faculty Award, Dept. of Science and Technology (DST), New Delhi (2012)
- Junior Research fellowship (2006-2008) and Senior Research fellowship (2008-2011) from Indian Council of Medical Research (ICMR), New Delhi
- Qualified CSIR-NET twice (2005 and 2006), ICMR-JRF exam- 2006 and GATE-2006

Publications

1. Kanade G. D, Pingale K. D, and Karpe Y. A*. 2018. Activities of Thrombin and Factor Xa are essential for replication of Hepatitis E virus and are possibly implicated in the ORF1 polyprotein processing, Journal of virology in press (Published online ahead of print)

2. Sooryanarain H, Rogers AJ, Cao D, Haac MER, Karpe YA and Meng XJ*. 2017. ISG15 modulates type I interferon signaling and the antiviral response during hepatitis E virus replication. Journal of virology 91 (19), e00621-17

3. Tambe P, Kumar P, Karpe YA, Paknikar KM, Gajhabhiye V*. 2017. Triptorelin tethered multifunctional PAMAM-Histidine-PEG nanoconstructs enable specific targeting and efficient gene silencing in LHRH overexpressing cancer cells. ACS Appl Mater Interfaces. 9 (41), pp 35562–35573

4. Karpe Y. A*, Pingale K. D., and Kanade G. D. 2016. Activities of proteasome and m-calpain are essential for Chikungunya virus replication, Virus Genes, 52 (5), 716-721

5. Karpe Y. A*, Kanade G. D., Pingale K. D., Arnakalle V.A., and Banerjee K. 2016. Genomic characterization of Salmonella bacteriophages isolated from India, Virus Genes, 52: 117-126

6. Karpe Y. A. and Meng X. J*. 2012. Hepatitis E virus replication requires an active Ubiquitin Proteasome System, J. Virol, 86:5948-52

7. Karpe Y. A., Aher P. P. and Lole K. S*. 2011. NTPase and RNA 5′ triphospahtase activity associated with Chikungunya virus nsP2 protein, PloSOne, 6:e22336

8. Karpe Y. A. and Lole K. S*. 2011. Deubiquitinating activity associated with Hepatitis E virus putative papain like cysteine protease. J Gen Virol, 92:2088-92

9. Karpe Y. A. and Lole K. S*. 2010. RNA 5′ triphosphatase activity associated with Hepatitis E virus helicase domain. J Virol, 84: 9637–9641

10. Karpe Y. A. and Lole K. S*. 2010. NTPase and 5′ to 3′ RNA duplex-unwinding activities of Hepatitis E virus helicase domain. J Virol, 84:3595-3602