

## Postdoctoral Positions in Vector-borne Diseases and Vaccine Research Laboratory

**Two** postdoctoral positions in studying interactions of *Ixodes scapularis* ticks with tick-borne viruses are available immediately in the Laboratories, directed by Drs. Hameeda Sultana and Girish Neelakanta at Old Dominion University, Norfolk, VA, and USA. The laboratories of Drs. Sultana and Neelakanta are well equipped and use multidisciplinary approaches such as Virology, microbiology, vector biology, genetics, molecular biology, biochemistry, bioinformatics, genomics and cell biology approaches to understand the interactions of human pathogens with vectors and their mammalian hosts.

Highly motivated and interested candidates with a Ph.D., degree in virology, vector-borne diseases, molecular biology, genetics, biochemistry or microbiology are especially encouraged to apply for these advertised positions. Candidates with strong background in murine models, gene regulation, protein purification, protein-protein interactions and cell culture work are also highly encouraged to apply.

Applicants should send the following documents to Drs. Sultana and Neelakanta, at the earliest.

Email: [hsultana@odu.edu](mailto:hsultana@odu.edu) and [gneelaka@odu.edu](mailto:gneelaka@odu.edu)

- a) Complete curriculum vitae
- b) Statement of research interests/research accomplishments (2 pages maximum)
- c) Three potential letters of recommendation
- d) Relevant publications

and apply at employment section of <http://researchfoundation.odu.edu>

### Related publications:

1. Zhou, W., Woodson, M., Neupane, B., Bai, F., Sherman, M.B., Choi, K.H., Neelakanta, G., and **Sultana H<sup>#</sup>** (2018). Exosomes serve as novel modes of tick-borne flavivirus transmission from arthropod to human cells and facilitate dissemination of viral RNA and proteins to the vertebrate neuronal cells. **PLoS pathogens**; 14(1):e1006764. Epub 2018/01/05. doi: 10.1371/journal.ppat.1006764. PubMed PMID: 29300779. **# Corresponding author**,

**Selected as Featured Article (by PLoS Pathogens Editors in Chief)**. This work has been also highlighted by PLOS Pathogens in EurekAlert (the Global Source for Science News). Please see the website [https://www.eurekalert.org/pub\\_releases/2018-01/p-tem122817.php](https://www.eurekalert.org/pub_releases/2018-01/p-tem122817.php).

This work has been also highlighted in the ScienceDaily (<https://www.sciencedaily.com/releases/2018/01/180104153522.htm>), Genetic Engineering & Biotechnology News ([gen.epubxp.com/i/943377/26](http://gen.epubxp.com/i/943377/26)), ExosomeRNA (<https://www.exosome-rna.com/e-xosomes-transmit-tick-viruses-to-humans/>) and summarized in Exosome-Mediated Pathogen Transmission by Arthropod Vectors, FORUM| volume 34, issue 7, p549-552, 2018

2. Vora, A., Zhou, W., Londono-Renteria, B., Woodson, M., Sherman, M.B., Colpitts, M.T., Neelakanta, G., and **Sultana, H<sup>#</sup>** (2018). Arthropod EVs mediate dengue virus transmission through interaction with a tetraspanin domain containing glycoprotein Tsp29Fb. **Proc Natl Acad Sci U S A (PNAS)** 115, E6604-E6613. **# Corresponding author**

3. Neelakanta, G<sup>#</sup>, and **Sultana, H<sup>#</sup>** (2016). Viral receptors of the gut: vector-borne viruses of medical importance. **Curr Opin Insect Sci** 16:44-50. **† Invited review, # Co-Corresponding authors**

4. Neelakanta, G<sup>#</sup>, and **Sultana, H<sup>#</sup>** (2015). Transmission-Blocking Vaccines: Focus on Anti-Vector Vaccines against Tick-Borne Diseases. **Arch Immunol Ther Exp (Warsz)** 63(3):169-179. **† Invited Review, #Co-Corresponding authors**