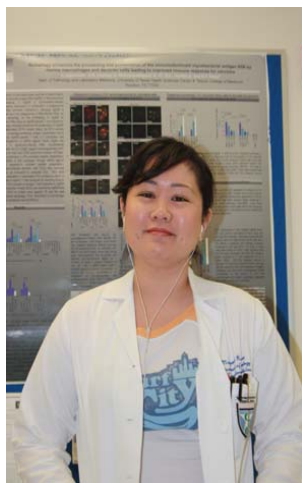


Jagannath Laboratory Researchers



ARSHAD KHAN. Ph.D. (University of Pune, India) Post-Doctoral Fellow. The focus of my research is on antigen processing mechanisms in macrophages and dendritic cells. I use the latest techniques of imaging, trafficking & cell culture to study the phagosome associated antigen processing events and identify bacterial factors that modulate processing. These are likely to lead to methods to improve vaccine efficacy. I also use mouse model to validate my *in vitro* findings and routinely use an aerosol infection model to test tuberculosis vaccines.

CHRISTOPHER R.SINGH. B.A. M.S. (B.A., Boston University 2000. M.S., GSBS & UTHSC at Houston) Pre-doctoral Student. The focus of my research is on investigating tuberculosis vaccine efficacy and determining the mechanisms by which vaccine and wild type strains are processed by the antigen presenting cells, particularly dendritic cells. I work with a variety of vaccine strains and utilize techniques such as phagosome isolation, western blots, immunofluorescence and antigen presentation assays to determine vaccine efficacy and molecular mechanisms of autophagic or phagolysosomal fusion and related cell biology events.



JAYMIE ESTRELLA. B.S. (California State University). Pre-doctoral Student. The focus of my research is the survival of *Mycobacterium tuberculosis* in human macrophages. I have analyzed and developed novel models of *in vitro* macrophage culture to study persistent *M. tuberculosis*. I am now investigating mechanisms of dormancy and persistence in *M. tuberculosis* and trying to develop methods to prevent reactivation of tuberculosis. Recent research involves TLR signaling as a means to control tuberculosis.

PEARL BAKHRU. M.S. (University of Pune, India) Pre-doctoral Student. The focus of my research is on understanding the function of CD8 T cells in tuberculosis and vaccine induced memory responses. I am using *in vitro* cell culture models to understand the proteasome mediated mechanisms of CD8 epitope generation and presentation. I am validating CD8 responses in mice after vaccination with BCG and *M. tuberculosis* vaccine candidates.



Jagannath Lab Teaching & Research Awards

STUDENT AWARDS

- **2009** Robert W. and Pearl Wallis Knox Charitable Foundation Scholarship
- **2007** Molecular Basis of Infectious Disease Institutional Training Grant-stipend
- **2006** The Changing Landscape of Vaccine Development Symposium Poster Award
- **2006** Annual Graduate Student Award in Science and Engineering for the Rice/TMC Chapter of Sigma Xi-*Best thesis*
- **2006** Academy of Medicine, Engineering and Science of Texas Poster Award for Vaccine Category
- **2006** Bugs, Drugs and Vaccines: Securing Our Future Symposium Tanox, Inc. Travel Award and Platform Presentation
- **2006** AAI FASEB-MARC Travel Award
- **2005** L.D. Mehta Achievement Award
- **2005** McGovern Award Pre-Candidacy
- **2005** McLaughlin Travel Award, Galveston National Meeting on Bioterrorism

FACULTY AWARDS

- **2006** Minority mentee-Faculty Mentor award-sponsored by the AAI-FASEB-NIH