



Mohammed Aejaazur Rahman

36 - 05/12/1976

Laboratory Medicine and Medical Science

aejazmr@gmail.com, Rahman@ukzn.ac.za, M. 0848803764



India

South Africa

I am working on Cell Biology and Immunology of *Mycobacterium tuberculosis* (*M. tb*) infection in mice model. I have completed my PhD in Biotechnology (Protein Biochemistry, Molecular Biology and Cell Biology) from National Centre for Cell Science, India. We have found that a protein, TlyA of *M. tb* helps for the interruption of phagosomal maturation process and responsible to escape *M. tb* from the phagosomal compartment to the cytosol of macrophage. I am mainly motivated by innovative and challenging research problems beneficiary for the human beings. I can independently organize and plan realistically of my work, as well as, work with my collaborators, fetch efficaciously sources of knowledge, and prepare research projects and dossiers.

CURRENT RESEARCH

Topic	Methodology	Application
Study on innate immunity and T-cells response of <i>Mycobacterium tuberculosis</i> (H37Rv) pathogenesis in murine model	<ul style="list-style-type: none"> <i>M. tb</i> infection of mice and estimation of Colony Forming Units (CFU) T cell proliferation assay by thymidine incorporation Flow cytometry: surface and intracellular staining of immune cells Detection of Cytokines by using Luminex microbead- based multiplexed assay Confocal and Electron microscopy Western blot analysis 	<p>Explore the possibility of Tuberculosis treatment by modulating the immune response</p> <p>Targets of TlyA on the surface of infected <i>M. tb</i> used as a sub-unit vaccine against Tuberculosis</p>

UKZN main Publications

- Aejazur Rahman and Gobardhan Das.** *Mycobacterium tuberculosis* within Macrophage: Adapted Life within Killer Host. International Trends in Immunity, 2013 (Invited Review)
- Aejazur Rahman**, Sobia Parveen, Ved Prakash, William R. Bishai, and Gobardhan Das. TlyA of *M.tb* H37Rv is a negative regulator of Th1 and Th17 cell differentiation *in vivo*. (Manuscript)

Past Researches

- Aejazur Rahman**, Saumya S Srivastava, Amita Sneha, Neesar Ahmed and Musti V Krishnasastri. **BMC Biochemistry**. 2010 Sep 20; 11:35.
- Saumya S Srivastava, Satyabrata Pany, Amita Sneha, Neesar Ahmed, **Aejazur Rahman** and Krishnasastri V. Musti **PLoS One**. 2009 July 21;4(7):e6293.
- Neesar Ahmed, Satyabrata Pany, **Aejazur Rahman**, Saumya S Srivastava, Amita Sneha and Musti V Krishnasastri. **Glycoconjugate Journal**. 2010 Oct;27(7-9):723-734.

Future Interests

Research in AIDS and Tuberculosis pathogenesis and their drug discovery,
Drug discovery project in the Company sector, Participation in Research organization

Extra Interests

Sports: Table Tennis, Badminton. Drawing and painting, Photography and Travel