CURRICULUM VITAE

Mr. HOSSAIN MD FARUQUEE, Ph.D.

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EDUCATIONAL BACKGROUND

Aug, 2017-Sept, 2021. **Ph.D. in Life Science** at International Centre for Genetic Engineering and Biotechnology (ICGEB), New Delhi Component, India.

Research title: Drug Metabolic Phenotype and Pharmacogenomics of Multi-Drug Resistant and Drug Susceptible Tuberculosis Patients.

Oct, 2015-Jan, 2016. **Asia Bridge Program,** Graduate School of Integrated Science and Technology, Shizuoka University, Japan

Feb, 2008-Mar, 2010. **Research assistant**, Biotechnology Lab, Bangladesh Sugarcane Research Institute, Ishurdi-, Pabna, Bangladesh.

Feb, 2008 **M.Sc.** in Biotechnology and Genetic Engineering, Islamic University, Khustia-7003, Bangladesh.

June, 2006 **B.Sc.** in Biotechnology and Genetic Engineering, Islamic University, Khustia-7003, Bangladesh.

RESEARCH HIGHLIGHTS

- Discovery of urine metabolome and diurnal variations of TB patients
- Pharmacogenomics of anti-TB drug-metabolizing genes.
- Proteins and small extracellular vesicles interactions in TB patient's immune systems

PROFESSIONAL SKILLS

- Western blotting, PCR, Gene cloning, GeneXpert, Culture of clinical Mtb strains, Mtb DNA, and TB patient's blood DNA extraction and purification. Genetic transformation using *Agrobacterium* and microinjection technique, and mice as an animal model for infecting TB using $H_{37}Rv$ and clinical strain.

- Sound operation of Gas Chromatography-Mass Spectrometry (GC-MS), GC-TOF, FACS, ICP-MS, and UV/Fluorescence spectrophotometer.
- Statistical analysis; MetaboAnalyst 5.0, GraphpadPrism 8.0, Origin 7.0. Biomolecular interaction analysis; PyMOL, and Sequence analysis; MEGA6 and SnapGene.

RESEARCH PUBLICATIONS

- **Faruquee**, **H.M.,** Meitei H. N., Pandey A., Pahwa F.,..& Nanda, R. K. **(2021).**Urine metabolome of tuberculosis patients receiving intensive phase of treatment show diurnal variations. (medRxiv, 2021, doi: https://doi.org/10.1101/2021.03.30.21254606) (Under Review)
- Meitei H. N., Pandey A., **Faruquee**, **H.M.,** Maria Thokchom, Sonia Athokpam, Nanda, R. K…. & Haobam R. **(2021).** Polymorphism of NAT2, PXR, ABCB1, and GSTT1 genes among tuberculosis patients of North Eastern States of India. (medRxiv, 2021, doi: https://doi.org/10.1101/2021.06.09.21258600) (Under Review)
- Arya, R., Dabral, D., **Faruquee, H.M.,** Mazumdar, H., Patgiri, S.J., Deka, T., ..., Nanda, R.K. **(2020).** Serum small extracellular vesicles proteome of tuberculosis patients demonstrated deregulated immune response. *PROTEOMICS–Clinical Applications*, 14(1), 1900062. Cover page article.
- Meher, A., Guha, H., Pemmadi, R.V., Akram, S., **Faruquee, H.M.,** Arya, R., ..., Nanda, R.K. **(2020).** Whole-genome sequence of drug-resistant Mycobacterium tuberculosis strain S7, isolated from a patient with pulmonary tuberculosis. *Microbiology Resource Announcements*, 9: e01567-19.
- Singh, S., Arya, R., Bargaje, R. R., Das, M. K., Akram, S., **Faruquee, H. M.,** ... & Agrawal, A. **(2020).** Anti-inflammatory role of curcumin in Lipopolysaccharide treated A549 cells at global proteome level and on mycobacterial infection. *bioRxiv*, 721100.
- Zhao, H., Zhang, Q., Chen, H., Rahman, M. R., & **Faruquee, H. M. (2021**). Integrated multi-omics approach identified molecular mechanism and pathogenetic processes of COVID-19 that affect patient with Parkinson's disorder. *Saudi Journal of Biological Sciences*, 28(12), 6939-6945.
- Rahman, M., Islam, T., Shahjaman, M., Zaman, T., **Faruquee, H. M.**, Jamal, M. A. H. M., ... and Moni, M. A. **(2019).** Discovering biomarkers and pathways shared by Alzheimer's disease and ischemic stroke to identify novel therapeutic targets. *Medicina*, 55, 191.
- Rahman, M.R., Islam, T., Turanli, B., Zaman, T., **Faruquee, H.M.,** Rahman, M.M., ..., Moni, M.A. **(2019).** Network-based approach to identify molecular signatures and therapeutic agents in Alzheimer's disease. *Computational Biology and Chemistry*, 78, 431-439
- Singh, R., Radhakrishnan, V.S., Kumar, M., Faruquee H.M., Dviwedi, S.P., Nanda, R.K., Prasad, T. Characterization of the cell envelope of virulent and an attenuated H_{37} variant of *Mycobacterium tuberculosis*. (Under preparation)
- Jahan, Q. S., Sultana, Z., Ud.-Daula., A., Ashikuzzaman, M., Reja, M. S., Khaton, A.,Tang, M. A. K., Rahman, M. Safiur., **Faruquee, H. M.,** Rahman, A.T.M. M. Optimization of Green

Silver Nanoparticles as Nano-fungicides for In-Vitro Management of Rice Bakanae disease. (Under Review)

- Rahman, R., Islam, T., **Faruquee, H. M.,** Akhter, S., & Haque, M. A. **(2017).** Evaluation of antioxidant, cholinesterase inhibitory properties, and antibacterial potentials of glycomis pentaphylla leaf extract relevant to the treatment of alzheimer's disease. *Journal of Applied Pharmacy***,** 9, 17-30.

Conference Proceedings

- Pahwa, F., Chaudhary, S., **Faruquee, H.M**., Nanda, R.K. (**2021**). Presented a poster titled "**Age-associated changes in tissue-specific amino acids in *Mycobacterium tuberculosis* infected mice**" in EMBO | EMBL Symposium: Multiomics to Mechanisms: Challenges in Data Integration during 15^{th}-17^{th} Sept 2021
- Pahwa F., **Faruquee H.M.,** Khamo, V., Das A., Nanda R.K. (**2019**). Presented a poster titled "**Epigenetic switch of vitamin D binding protein in tuberculosis**" in a Workshop on 'Epigenetics of infectious and non-communicable diseases' in ICGEB Cape Town, South Africa during 16^{th}-19^{th} Sept 2019.
- Attended a meeting on **Expanding frontiers in chemical sciences** (**2018**) organized jointly by ACS Publications Forum, Indian academy of sciences and Banaras Hindu University on 1^{st} Nov 2018.
- Rahman M.R., Tania Islam, Gov E, Turanli B**, Faruquee H. M**.,* Rahman M.M., Mollah N.H., Nanda R.K., Agra K.Y., Ali M. presented an oral talk titled "**Network-based approach to identify molecular signatures and therapeutic agents in Alzheimer's disease**" at 17^{th} International Conference on Bioinformatics at Jawaharlal Nehru University, New Delhi during 26^{th}-28^{th} Sept **2018**. *: Presenting author

SCHOLARSHIPS AND AWARDS

- Awarded Arturo Falaschi Fellowship (ICGEB, Trieste, ITALY) for Ph.D. Degree, 2017-08-01).
- Awarded Asia Bridge Program Fellowship (ABP-SU), for Master's Degree 2015, Graduate School of Integrated Science and Technology, Shizuoka University, Japan.