



thsti

ट्रांसलेशनल स्वास्थ्य विज्ञान
एवं प्रौद्योगिकी संस्थान
TRANSLATIONAL HEALTH SCIENCE
AND TECHNOLOGY INSTITUTE

An autonomous institute of the Dept. of Biotechnology, Ministry of Science & Technology, Govt. of India

NCR Biotech Science Cluster
3rd Milestone, Faridabad-Gurgaon Expressway
PO Box No. 04, Faridabad-121001
Haryana, India

Dear Screening Committee,

I declare that I have not been selected for any of the fellowship for the research work mentioned in my nomination form.

Please find enclosed the author contributions for the two research papers

Research Article 1: Chugh S, Tiwari P, Suri C, Gupta SK, Singh P, Bouzeyne R, Kidwai S, Srivastava M, Rameshwaram NR, Kumar Y, Asthana S and **Singh R***. Polyphosphate Kinase -1 regulates bacterial and host metabolic pathways involved in pathogenesis of *Mycobacterium tuberculosis*. **Proceedings of the National Academy of Sciences**, 2024, 121(2), e2309664121.

Ramandeep Singh conceived the idea and supervised the *M. tuberculosis* experiments. Saurabh Chugh performed the *M. tuberculosis* microbiology, biochemical and RNA-seq experiments. Prabhakar Tiwari performed target-based screening assays. SC and PS conducted the mice and macrophage experiments. Sonu Kumar Gupta and Yashwant Kumar performed metabolomics experiments. Rania Bouzeyne performed the cytokine measurement assays and helped with the analysis of host RNA-seq data. Nagender Rao helped in MST experiments. Charu Suri, Mitul Srivastava and Shailendra Asthana performed *in silico* experiments and analysis. Saurabh Chugh and Ramandeep Singh analyzed the data and wrote the manuscripts with inputs from other authors.

Research Article 2: Gosain TP, Chugh S, Rizvi ZA, Chauhan NK, Kidwai S, Thakur KG, Awasthi A and **Singh R***. *Mycobacterium tuberculosis* strain with deletions in *menT3* and *menT4* is attenuated and confers protection in mice and guinea pigs. **Nature Communications**, 2024, 15 (1): 5467.

Ramandeep Singh conceived the idea and supervised the experiments. Tannu Priya Gosain, Saurabh Chugh, Neeraj Kumar Chauhan and Saqib Kidwai performed *in vitro* and stress experiments. TPG, SC and NKC performed animal virulence studies. Tannu Priya Gosain and Saurabh Chugh performed animal protection studies. Tannu Priya Gosain and Saurabh Chugh analysed bacterial and host RNA-seq data. Zaigham Abbas Rizvi, Saurabh Chugh and Tannu Priya Gosain performed immune response studies. Krishan Gopal Thakur supervised growth inhibition experiments, Amit Awasthi supervised immune response studies. Ramandeep Singh and Tannu Priya Gosain wrote the manuscript with inputs from other authors.

Ramandeep Singh
Professor (THSTI)