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बीआरआईसी–ट्रांसलेशनल स्वास्थ्य विज्ञान एवं प्रौद्योगिकी संस्थान
BRIC-Translational Health Science and Technology Institute
Biotechnology Research and Innovation Council
Dept. of Biotechnology, Ministry of Science & Technology, Govt. of India

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Prof. G. Karthikeyan,
Executive Director

Dear Search Committee,

It is with great pleasure that I write this letter of support for Dr. Ramandeep Singh's application for the Sun Pharma Science Foundation Research Fellowship under the category of Medical Sciences (Basic Research). Dr. Ramandeep joined THSTI as one of the first faculty members and has contributed to institution building, in addition to establishing his own highly productive and successful research group. His research group is grounded in fundamental TB biology and has immense and direct clinical implications. His ability to collaborate and bring together excellent researchers of complementary expertise is praiseworthy and shows his leadership in the field. At THSTI, his research group is undertaking novel and hypothesis-driven research to (i) understand the regulation and function of a complex network of metabolic pathways and (ii) identify vaccines, novel scaffolds and drug targets for *M. tuberculosis*. His research work on the functional characterization of enzymes involved in novel metabolic pathways, such as toxin-antitoxin systems and inorganic polyphosphate metabolism, has received extramural funding. Another key dimension of his research program is the use of innovative in-house phenotypic and target-based screening approaches for the identification of FDA-approved and novel chemical entities as anti-tubercular compounds. His work clearly demonstrates that these FDA-approved drugs could be repurposed and fast-tracked for TB treatment as they clear the growth of intracellular bacteria in preclinical animal models. This is an attractive proposition as it would significantly reduce development costs and shorten the timelines for clinical development. His postdoctoral work on Pretomanid culminated in a universal regimen (BPaL) for the treatment of drug-resistant TB. Besides this contribution to important translational research, his recent work has also led to the identification of vaccine candidates that impart better protection than BCG in pre-clinical animal models, a finding that may have tremendous potential despite the well-known challenges in TB vaccine development.

Dr. Ramandeep's work has received global recognition, which has enabled him to establish national and international collaborations. He has been invited to present his work at several conferences and institutions. He has established and maintained a consistent record of publishing his cutting-edge research in highly reputed Journals. These journals represent some of the finest publication platforms in his field, demonstrating the significance of his work. The graduate and post-graduate students from his laboratory have published well and successfully achieved postdoctoral positions in top research laboratories in the world. All the facts presented above highlight his pioneering contribution and extraordinary impact in multiple key areas of TB biology. Given the sustained success and potential of his research program to revolutionize TB biology, it is my great pleasure to strongly and wholeheartedly support his candidature for this prestigious fellowship. Please feel free to contact me if you need any other information regarding Dr. Ramandeep's nomination.

Warm Regards,

Prof. G. Karthikeyan
Executive Director, THSTI

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