

INDIAN INSTITUTE OF SCIENCE DEPARTMENT OF BIOCHEMISTRY BANGALORE – 560 012, INDIA

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Dear Dr Jalali,

It is my pleasure to provide a letter of recommendation for Ms. Urbi Roy, who is a 5th year Ph.D. student in my laboratory. Without any hesitation, I can state that she is one of the best research students, I have in my laboratory, currently. Therefore, it is my pleasure to provide her with my highest recommendation.

Urbi has done extremely well throughout her academic career, performing consistently. She was one of the rank holders during her MSc from Boss Institute, and to her credit, she has qualified CSIR-JRF, and GATE.

Ms Urbi's PhD projects revolves around in understanding expression, regulation and functions of few important genes (RAGs, AID, BCL11B) in lymphoid cells (B and T cells). As part of this, research conducted by her helped in elucidating the mechanistic role of AID in inducing deleterious driver mutations in BCL11B gene in T-cell leukaemia. This part of the study is under consideration in the journal, NAR currently (Urbi is a first author in this study). She has observed expression of AID in certain specific stages of T cell development (novel finding) and is currently in the process of exploring the functional relevance of AID in T cells development (unpublished). She has contributed significantly to understand a novel mechanism of RAG1 regulation by miR-29c during B Cell Development. This is published recently in Cell Reports (2021), where she is one of the two first authors. In a related study she has identified a second RAG1-binding microRNA, miR 501 in regulating RAG1 expression (Manuscript is ready for submission, Urbi, will be one of the first authors). Related to this work currently, she focusing on elucidating the mechanistic role of miR-29a in regulation of both T cell and B cell biology (Unpublished). Besides, she helped me writing an interesting review on mechanism of genomic instability associated with T cell leukemia during the lockdown period, in which she was the first author (Int. J of Cancer, 2021).

In addition to this, she has contributed significantly to the progress of few other studies in the lab. In one of the such studies, she and others in the lab have characterized c-MYC Fragility during chromosomal translocation associated to Human Burkitt's Lymphoma (Under revision, JBC; middle author). In a different study, she helped in delineating the mechanism of Fragility at BCL6 gene associated with translocations in Diffuse Large B Cell Lymphoma (manuscript under preparation; middle author). Further, she has contributed to another study in the lab, in which we have tried to explain chromosomal translocations associated to a Nonamer Dependent RAG Cleavage at CpGs in Lymphoid Cancers (under revision, PLOS Genetics; middle author). Needless to stay, Ms Urbi is the best PhD student currently in the laboratory. She is intelligent and smart in thinking. She is a dedicated, focused and hardworking student, who has extraordinary passion and enthusiasm for research. Besides her experimental skills are excellent. Her ability to write manuscript is also very good. In fact, it was very helpful when we were compiling her work for publication.

I have confidence in her and believe that her ongoing PhD training, sound scientific thinking and executing abilities will help her in growing. Urbi has good presentation and communication skills and an outstanding ability to comprehend things in a meaningful way.

Therefore, I do not have any hesitation in recommending Ms Urbi Roy for the Ranbaxy Science Scholar 2021, for young Scientist. I strongly believe that she has the potential to become one of the great scientists in coming years. I rate her within top 0.1% of all PhD students across India, hence, I strongly support her application.

Yours sincerely,

Sathees Raghavan

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