

LETTER OF RECOMMENDATION

Dear Assessors,

It is a great pleasure to write in support of Ms. Divya who is applying for the prestigious "Sun Pharma Science Foundation Science Scholar Award-2021". I know Divya now since she started as a Ph.D. student under my supervision nearly four years ago, and I have closely cooperated with her in many research lines on delineating the molecular mechanism of DOC2B mediated tumor suppressive functions in cervical cancer. Right from the start of her PhD research, she was quickly learning in the highly interdisciplinary field of cancer biology and has made the impression of being a student with a good understanding of the fundamental concepts in the field.

At a personal level, Divya is a well-disciplined, industrious student with a pleasant personality. She went well beyond the course requirements in the quantity and quality of her project, putting in a lot of extra research and managing different projects simultaneously. Divya has shown to be a hardworking, very innovative researcher who is quite capable to overcome independently many obstacles on the route to success.

On the academic front, Ms. Divya has completed her master's degree in biochemistry with 1st Rank. For her Ph.D., she is working on elucidating molecular mechanisms governed by a methylation regulated tumor suppressor, DOC2B, in the pathophysiology of cervical cancer using different molecular and biochemical approaches. Her research has revealed the significance of the DOC2B-calcium-EMT-senescence axis in modulating metastasis in cervical cancer (Cell Biology and toxicology, 2021). She was also a part of the research project wherein we have investigated the epigenetic regulation, biological functions, and clinical utility of Zincfinger protein 471 (ZNF471) in cervical cancer (Cell Biology and toxicology, 2021). Besides, her work has demonstrated the negative regulation of Wnt signaling by DOC2B and the role of DOC2B-DKK1-β catenin-EMT-senescence axis in cervical cancer progression (Manuscript under preparation). Additionally, she is working on elucidating (i) DOC2B mediated mitochondrial dysfunction in cervical cancer, (ii) DOC2B as a sensitizer of anti-cancer properties of metformin in cervical cancer, (iii) the effect of Bisphenol A (BPA) on the expression of DOC2B and its potential role in cervical cancer progression and (iv) impact of table salt on cervical cancer progression. She has also significantly contributed to review articles in the area of cancer metastasis (Critical Reviews in Oncology/Hematology 2020, Cells Tissues Organs 2020, Wiley Interdisciplinary Reviews: RNA 2020, Frontiers in Bioscience 2020, BBA-Reviews on Cancer 2021, Environmental Science and Pollution Research 2021, and Cell Biology and Toxicology 2021). Through DIALAB STAR Student Program (2019), she has worked as an intern in Biomedical Research Institute, National Institute of Industrial Science and Technology (AIST), Japan. During the program, she has worked on characterizing the anti-Stress, glial-and neuro-differentiation potential of resveratrol (Nutrients 2020). Divya has presented her work in several national and international conferences and has already published 14 research and review articles to her credit in international journals.

She is thoroughly trained in various sensitive scientific techniques such as ELISA, immunofluorescent staining, live imaging, confocal microscopy, western blotting, immunoprecipitation (IP), chromatin immunoprecipitation (ChIP), flow cytometry, mammalian cell culture, microbiology related experiments, cloning, lentiviral-based gene delivery and *in vivo* studies using nude mice model. She is trained to write research grants and can handle B.Sc., M.Sc. and Ph.D. students.

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She has won several recognitions for her academic work. She was awarded Smt. Carmine Lobo gold medal and Prof. J.V. Bhat memorial cash prize in B.Sc. Microbiology by Mangaluru University (2015). She has won the best poster award in the national conference on "Frontiers in Genetics and Genomics" organized by the department of genomic science, Central University of Kerala (2016) and 2nd prize in oral presentation in ICHTR-2018, organized by MAHE, Manipal. She is a recipient of ICMR senior research fellowship, has qualified GATE-2019 (Life Science, Gate score – 483, All India Rank – 1015) and has reviewed research articles for Cell Death and Diseases journal (Springer Nature). She has taken an active part in the organization of conferences, symposia and workshops organized by our institution. She has been of immense help to our various teaching and research programs.

In short, Ms. Divya has an optimistic nature and it has always been a pleasure to work with her. I cordially recommend Ms. Divya for this award and support her application. I believe that Ms. Divya would perform exceptionally well and very much hope that the committee judges her application favourably.

If I can be of any further assistance, or provide you with any further information, please do not hesitate to contact me.

Thank you,

Yours Sincerely,

Shama Prasada K, Ph.D.

your

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