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Justification for sponsoring the nomination of Dr Madhura Kulkarni

I am writing this email as my nomination letter with strong recommendations for Dr Madhura Kulkarni, who is applying for the prestigious Sun Pharma Science Foundation Research Fellowship. Dr Kulkarni is leading translational researcher at the Centre for Translational Cancer Research (CTCR; https://www.ctcr.in/). She is also a DBT- Ramalingaswami Fellow. Because of Madhura's expertise in translational research in breast cancer and her excellent leadership quality, she has made a substantial contribution since her return to understanding India-specific ethnic differences in breast cancer presentation and its biology. Within 6 years of returning to India, she established a program on Triple Negative Breast Cancer (TNBC), which is the most aggressive subset of breast cancer. Its prevalence is higher, and the prognosis is poor among the Indian cohort. She has published 13 papers in this short time, which have provided insights that are expected to help better prognosis and, thereby, better clinical outcomes.

Her work on the meta-analysis of TNBC in India is published in JCO-GO; a leading global clinical oncology journal, where she systematically highlights the high incidence rate of TNBC in India and at a significantly younger age than in the West. This work has been cited over 50 times within just three years of publishing (Kulkarni et al. 202, explaining the timely importance of putting together this data. Further, she goes on to highlight salient differences that matter for the prognosis of TNBC patients with Indian ethnicity as compared to those of the West (Vaid et al. 2020), published in the Diagnostic Pathology Journal. In this work, she reports the prognostic relevance of immune cell infiltration in different aggressive breast cancer subtypes, for the first time from India.

Since then, Madhura has introduced state-of-the-art technologies like multiplex immunohistochemistry and RNAseq from tumor FFPE samples to India. With this technology, she has identified a unique presentation of cell heterogeneity in TNBC patients from an Indian cohort that will help develop India-specific precision medicine targets. The concurrent work is submitted to Molecular Oncology and npj Breast Cancer.

Her work is well appreciated at international scientific forums as well. Madhura is now considered a lead in the research, at the clinical, cellular, and molecular level, on triple-negative breast cancer in India.

L S Shashidhara