

Statement of research achievements, if any, on which any award has already been received by the applicant. Please also upload brief citation(s) on the research work(s) for which the applicant has already received the award(s) (not to exceed 2000 words):

The current research work has not been submitted for any awards; however, the nominee has received the following awards earlier –

(i) National Women Bioscience Award 2008 (Young Category) received from the Department of Biotechnology

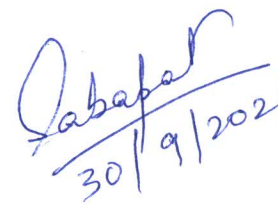
Citation: Dr. Sharmila Bapat has to her credit, the first report on the isolation and identification of ovarian cancer stem cells. She has demonstrated that such cells constitute a small subset within the tumor and are responsible for initiating and maintaining the disease, despite therapeutic intervention. This finding is particularly promising for developing newer approaches in cancer therapy. The National Women Bioscientist Award 2008 (Young Category) is conferred on Dr. Sharmila A. Bapat for her significant contributions in the field of ovarian cancer stem cells.

(ii) ICMR - Dr. Prem Nath Wahi Award 2007

Citation: The significance of isolation and identification of ovarian cancer stem cells lies in the identification of the quiescent, regenerative ovarian cancer stem cells that are responsible for initiating and maintaining the disease, despite therapeutic intervention. Her further contributions leading to the resolution of tumor heterogeneity as a derivative of CSC hierarchies, CSC-recruited endothelial stem cells and CSC-niche interactions that generate aneuploidy, are widely appreciated. Integrating classical approaches with contemporary bioinformatics- and systems- based analysis she works on elucidation of transcriptional network, serous ovarian cancer-specific gene signatures and biomarkers that together identify the novel connectivity(s) between molecular determinatives and functional pathways in cellular subsets. This outlines a paradigm shift towards defining specific next-generation drug-targets.

(iii) TCS (The Cytometry Society) Award – for *Application of flow cytometry for novel applications reported in a recent publication (Basic Research)*. – No citation

Brief Description: We undertook resolution of intra-tumor heterogeneity through the application of multi-colour flow cytometry. This leads to an improved understanding of the coexistence of several cell types within a single tumor vis-à-vis cancer stem cell hierarchies, genetically unstable populations and differentially cycling cells. Such cellular portraits are also useful in analysis of regenerative potential in post-therapy residual tumors during evaluation of efficacies of putative drug candidates.


30/9/2021
Dr. Sharmila Bapat