

**Dr. Sandip B. Bharate**

- g) Citation (summary) on the outstanding research work on which the award is claimed in about 250 words signed by the nominator.**

Dr. Bharate has significantly contributed to the new drug discovery through his research efforts in natural products chemistry and medicinal chemistry. His specific research areas include the discovery of small-molecule kinase inhibitors for cancer and multi-targeted drug ligands for Alzheimer's disease. The small molecule CDK9 inhibitor, IIIIM-290, discovered by his group has reached the clinical trial. The DCGI permission has been received for conducting a phase I/II clinical trial in metastatic pancreatic cancer patients. Recently his group has discovered another follow-on CDK9/T1 inhibitor from rohitukine scaffold (rohitukine-N-oxide derivative) with an efficacy in pancreatic cancer. His group has also discovered isoform-selective PI3K-alpha inhibitor for the treatment of breast cancer, which is now under IND enabling studies for triple-negative breast cancer (TNBC). His group is also working on discovering multitargeted lead compounds for Alzheimer's disease. Recently, he has discovered an orally bioavailable, blood-brain barrier permeable small molecule, SB-1448 that shows multi-targeted effect against cholinesterases, beta-secretase, amyloid-beta aggregation and shows in vivo anti-dementia activity in mice model.



**(D. Srinivasa Reddy)**  
**Director, ICT**  
Nominator