Complete bio-data of Prof. Sharmila Bapat

Bapat Sharmila A., Ph.D.	**Group Leader, NCCS, Pune**		
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Pune University, INDIA	B.Sc.	1985	Microbiology
Pune University, INDIA	M.Sc.	1987	Microbiology
NCL, Pune University, INDIA	Ph.D.	1992	Biochemistry

Academic Appointments

2022-2025	Appointed Chairperson, Cancer Disease Biology Program (TEC) of the Department of Biotechnology
2022-present	Appointed Member of the External Advisory Board, Global Cancer Consortium
2022-2024	Re-appointed Member of the Council, Indian Academy of Sciences, Bangalore
2019-2021	Appointed Member of the Council, Indian Academy of Sciences, Bangalore
2019-2022	Appointed Member of the Board of Governors, National Institute of Technology, A.P
2018-present	External Member, Board of Studies, Homi Bhabha National Institute (HBNI University)
2018-present	Member, Rapid Action Plan and Scientific Advisory Committee of the National Institute of Immunology, New Delhi
2016-2018	Invited Member, AACR (American Association of Cancer Research) Advisory Sub-comittee on India
2019-2021	Elected member of Executive Committee of the Indian Association of Cancer Research (***IACR***)
2012-2015	Elected member of Executive Committee of the Indian Association of Cancer Research (***IACR***)
2012-2014	Member, Task Force on Basic Biology of the Department of Biotechnology
2011-2016	Member of Board of Studies in Stem Cells & Regenerative Medicine, D.Y.Patil University, Kolhapur
2010-2011	Member, Rapid Action Plan and Scientific Advisory Committee of the National Institute of Immunology, New Delhi
2009-2015	Member of Board of Studies in Stem Cells & Tissue Engineering, Panjab University, Chandigarh
2009-2012	Elected member of Executive Committee of the Indian Association of Cancer Research (***IACR***)
2009-2012	Member, Task Force on Chronic Disease Biology of the Department of Biotechnology
2007- 2010	Member, Task Force for screening research grants under the call for Indo-German forum of the Indian Council for Medical Research
2001-present	Scientist, National Centre for Cell Science, Pune, INDIA
1997-2000	Post-Doctoral Fellow, National Centre for Cell Science, Pune, INDIA
1994-1996	Deputy Manager (Biotech), Global Environmental Engineering Ltd. Pune, INDIA
1992-1993	Post-Doctoral Fellow, National Facility for Animal Cell and Tissue Culture, Pune, INDIA

Honors and Awards

2023	Shri Ramniklal J. Kinarivala Cancer Research Award, Gujarat Cancer Society
2019–2020	Short Term ICMR-DHR International Fellowship for Senior Indian Biomedical Scientists

2020	Miltenyi Biotech Project Grants 2020
2017-2020	TATA Innovation Fellowship from the Department of Biotechnology
2016	Outreach Lecturing Fund (OLF) Award of the USIEF for travel, lecturing and developing linkages with US Universities
2016	$10,000 virtual cloud credits from the Seven Bridges Cancer Genomics Cloud for continued use of their platforms after return to India on completion of sabbatical
2015	Elected Fellow of the Indian Academy of Sciences, Bangalore
2015	Elected Fellow of the Maharashtra Academy of Sciences, Pune
2015	Group Award from The Cytometry Society, India, for novel applications of flow cytometry
2015	Fullbright (FNAPE) Fellowship
2010	Elected Fellow of the National Academy of Sciences, Allahabad
2010	R.M. Tiwari Research Oration Award
2008	National Woman Bioscientist Award from the Department of Biotechnology
2008	Prem Nath Wahi Award from the Indian Council for Medical Research
2006	Department of Biotechnology Overseas Fellowship availed at Indiana University, Bloomington, Indiana, US
2005	Department of Biotechnology International Travel Award
2000	CSIR Pool Scientist Award
1997-2000	CSIR Research Associate Fellowship
1992-1993	Post-doctoral Fellowship at National Facility for Animal Cell and Tissue Culture
1987-92	Council of Scientific and Industrial Research Fellowship
1980-87	Maharashtra State Fellowship for undergraduate and post-graduate education and research

International Collaborations

1. Prof. Kenneth Patrick Nephew, University School of Medicine, IU Simon Cancer Center, Bloomington, Indiana, INDIA
2. Prof. Tim Hui-Ming Huang, Alice P. McDermott President's Distinguished University Chair in Molecular Medicine, UT Health, San Antonio, US
3. Prof. Matthias Nees, Previously at University of Turku, Finland, Current Affiliation : Medical University of Lublin, Germany
4. Prof. Renu Wadhwa, Prime Senior Researcher,DBT-AIST International Laboratory for Advanced Biomedicine (DAILAB), Tsukuba - 305 8565, Japan
5. Prof. Sunil Kaul, Chief Senior Research Scientist, The AIST Tsukuba Central, National Institute of Advanced Industrial Science and Technology, Tsukuba - 305 8565, Japan
6. Prof. Judith Clements, Faculty of Health, School of Biomedical Sciences, Queensland University of Technology, Brisbane, Australia
7. SB Genomics – for cloud-based computation
8. Prof. Olli Carpén, Precision Cancer Pathology, Department of Pathology, The Faculty of Medicine, University of Helsinki, Finland
9. Prof. Urpo Lamminmäki, InFLAMES Flagship Program, University of Turku, Finland
10. Prof. David Fenyö, Institute for Systems Genetics, Department of Biochemistry and Molecular Pharmacology NYU Langone Medical Center, USA

Professional Memberships

1. Elected Member of the Guha Research Conference
2. Active Member of American Association of Cancer Research (AACR).
3. Life Member of Indian Association of Cancer Research (IACR).
4. Life Member of Indian Society of Cell Biology (ISCB).
5. Member- International Epigenetics Society
6. Life Member of Indian Women Scientists Association.

7. Life Member of International Federation of Head and Neck Oncology (Honorary Membership)
8. Editorial Board Member of the journals –Journal of Ovarian Research , Scientific Reports

Publications

a. ***Publications – as Group Leader at NCCS***

b.

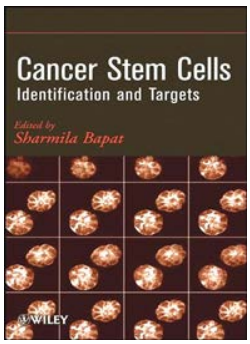
No	Names of the author(s)	Year	Title of the paper	Name of journal	Volume and page	Impact Factor	Citations (Scopus)
1.	Bapat SA, Mishra GC	2004	Stem cell pharmacogenomics	Curr Top Med Chem.	4:1371-83.	3.57	4
2.	Bapat SA, Mali AM, Koppikar CB, Kurrey NK.	2005	Stem and progenitor-like cells contribute to the aggressive behavior of human epithelial ovarian cancer.	Cancer Research	65:3025-3029.	11.2	610
3.	Kurrey NK, Kumar A, Bapat SA.	2005	Snail and Slug are major determinants of ovarian cancer invasiveness at the transcription level.	Gynecologic Oncology	97:155-65.	4.7	233
4.	Bapat S, Galande S.	2005	Association by guilt: identification of DLX5 as a target for MeCP2 provides a molecular link between genomic imprinting and Rett syndrome.	Bioessays	27:676-80.	4.653	6
5.	Bapat SA, Mishra GC.	2005	Stem cell pharmacogenomics: a reality check on stem cell therapy.	Curr Opin Mol Ther.	7:551-6.	3.939	3
6.	Wani AA, Sharma N, Shouche YS, Bapat SA.	2006	Nuclear-mitochondrial genomic profiling reveals a pattern of evolution in epithelial ovarian tumor stem cells.	Oncogene	12; 25:6336-44.	8	29
7.	Bapat SA.	2007	Evolution of cancer stem cells.	Semin Cancer Biol.	17:204-13.	17.017	54
8.	Balch C, Nephew KP, Huang TH, Bapat SA.	2007	Epigenetic "bivalently marked" process of cancer stem cell-driven tumorigenesis.	Bioessays	29:842-5	4.653	36
9	Wani AA, Ahanger SH, Bapat SA, Rangrez AY, Hingankar N, Suresh CG, Barnabas S, Patole MS, Shouche YS.	2007	Analysis of mitochondrial DNA sequences in childhood encephalomyopathies reveals new disease-associated variants.	PLoS One	26; 2:e942.	3.752	11
10	Wani AA, Rangrez AY, Kumar H, Bapat SA, Suresh CG, Barnabas S, Patole MS, Shouche YS.	2008	Analysis of reactive oxygen species and antioxidant defenses in complex I deficient patients revealed a specific increase in superoxide dismutase activity.	Free Radic Res.	42:415-27.	4.288	6
11	Berry NB, Bapat SA.	2008	Ovarian cancer plasticity and epigenomics in the acquisition of a stem-like phenotype.	J Ovarian Res.	24;1:8.	5.506	65
12	Kusumbe AP, Mali AM, Bapat SA.	2009	CD133 expressing Stem Cells associated with Ovarian Metastases establish an	Stem Cells	27(3):498-508. 33.	5.845	75

			Endothelial Hierarchy and contribute to Tumor Vasculature.				
13.	Kurrey NK, Jalgaonkar SP, Joglekar AV, Ghanate AD, Chaskar PD, Doiphode RY, Bapat SA.	2009	Snail and Slug mediate radio- and chemo-resistance by antagonizing p53-mediated apoptosis and acquiring a stem-like phenotype in ovarian cancer cells.	Stem Cells	27(9): 2059-2068.	5.845	531
14	Kusumbe AP, Bapat SA.	2009	Cancer stem cells and aneuploid populations within developing tumors are the major determinants of tumor dormancy.	Cancer Research	69(24):9245-53.	11.2	148
15.	Bapat SA	2010	Modulation of Gene Expression in Ovarian Cancer by Active and Repressive Histone Marks.	Epigenomics	2(1), 39–51.	4.357	5
16	Sharma N, Jadhav SP, Bapat SA.	2010	CREBBP Re-Arrangements affect Protein Function and lead to aberrant Neuronal Differentiation.	Differentiation	79(4-5):218-31.	3.533	13
17	Sharma N, Mali AM, Bapat SA.	2010	Spectrum of CREBBP mutations in Indian Rubinstein- Taybi Syndrome patients.	J. Biosci.	35(2):187-202.	2.9	16
18	Bapat SA, Jin V, Berry N, Balch C, Sharma N, Kurrey N, Zhang S, Fang F, Lan X, Li M, Kennedy B, Bigsby RM, Huang T H-M, Nephew KP.	2010	Multivalent Epigenetic Marks Confer Microenvironment-Responsive Epigenetic Plasticity to Ovarian Cancer Cells.	Epigenetics	5(8):1-14.	4.861	41
19	Bapat SA.	2010	Ovarian Cancer Stem Cells.	Reproduction	140(1):33-41	3.923	86
20	Bapat SA, Krishnan A, Ghanate AD, Kusumbe AP, Kalra RS.	2010	Gene Expression - Protein Interaction Systems Network Modeling identifies Transformation Associated Molecules and Pathways in Ovarian Cancer.	Cancer Research	70(12):4809-19.	11.2	35
21	Krishnaprasad H, Khadilkar A, Sharma N, Khadilkar V, Pfäffle R, Blum W, Bapat S.	2011	Entire prophet of Pit-1 (PROP-1) gene deletion in an Indian girl with combined pituitary hormone deficiencies.	J Pediatr Endocr Met	24(7-8):579–580.	1.52	NA
22	Kalra RS, Bapat SA.	2013	Expression Proteomics Predicts Loss of RXR-g during Progression of Epithelial Ovarian Cancer.	PLoS One.	8, e70398.	3.752	13
23	Kalra RS, Bapat SA.	2013	Enhanced levels of double-strand DNA break repair proteins protect ovarian cancer cells against genotoxic stress-induced apoptosis.	J Ovarian Research	6, 66.	5.506	21
24	Gardi NL, Deshpande TU, Kamble SC, Budhe SR, Bapat SA.	2014	Discrete molecular classes of ovarian cancer suggestive of unique mechanisms of	Clinical Cancer Research	20:87-99.	11.5	30

			transformation and metastases.				
25	Dong Y, Batra J, Kamal A, Bapat S, Clements JA.	2014	Transforming the Future of Treatment for Ovarian Cancer.,	Clinical Experimental Pharmacology	4:2-9	2.963	6
26	Singh AK, Chandra N, Bapat SA.	2015	Evaluation of epigenetic drug targeting of heterogenous tumor cell fractions using potential biomarkers of response in ovarian cancer.	Clinical Cancer Research	21, 5151–63.	11.5	13
27	Khirade MF, Lal G, Bapat SA.	2015	Derivation of a fifteen gene prognostic panel for six cancers	Scientific Reports	5:13248	4.997	23
28	Kumar B, Uppuladinne MVN, Jani V, Sonavane U, Joshi RR, Bapat SA.	2015	Auto-regulation of SNAI2 mediates its activity during epithelial to mesenchymal transition.	Biochimica et Biophysica Acta (BBA) - Gene Reg. Mech.	1849:1209-1219	4.7	11
29	Naik RR, Singh AK, Mali AM, Khirade MF, Bapat SA.	2016	A tumor deconstruction platform identifies definitive end-points in the evaluation of drug responses,	Oncogene	35:727-37.	8	9
30	Naik RR, Gardi NL, Bapat SA.	2016	Elucidation of molecular and functional heterogeneity through differential expression network analyses of discrete tumor subsets.	Scientific Reports	6,25261.	4.997	7
31	Naik RR, Luo T, Kohandel M, Bapat SA.	2016	Tumor deconstruction as a tool for advanced drug screening and repositioning.	Pharmacol Res.	111: 815-9.	10.334	2
32.	Varankar SS, Bapat SA.	2018	Migratory Metrics of Wound Healing: A Quantification Approach for *in vitro* Scratch Assays.	Front Oncol.	8: 633	6.244	16
33.	Kamble SC, Sen A, Dhake RD, Joshi AN, Midha D, Bapat SA.	2019	Clinical Stratification of High-Grade Ovarian Serous Carcinoma Using a Panel of Six Biomarkers	Journal of Clinical Medicine	8: E330	4.964	5
34	Jolly MK, Somarelli JA, Sheth M, Biddle A, Tripathi SC, Armstrong AJ, Hanash SM, Bapat SA, Rangarajan A, Levine H.	2019	Hybrid epithelial/mesenchymal phenotypes promote metastasis and therapy resistance across carcinomas.	Pharmacol Ther.;	194:161-184.	13.4	181
35.	Varankar SS, Bapat SA.	2019	Uncoupling Traditional Functionalities of Metastasis: The Parting of Ways with Real-Time Assays.	Journal of Clinical Medicine	8: 941	4.964	2
36.	Varankar SS, More M, Abraham A, Pansare K, Kumar B, Narayanan NJ, Jolly MK, Mali AM, Bapat SA.	2020	Functional balance between Tcf21-Slug defines cellular plasticity and migratory modalities in high grade serous ovarian cancer cell lines	Carcinogenesis	41:515-526	4.741	9
37.	Shivalingappa PKM, Sharma V, Shiras A, Bapat SA.	2021	RNA Binding Motif 47 (RBM47): Emerging Roles in Vertebrate Development,	Mol. Cell. Biochem.	476(12): 4493-450	3.842	8

			RNA Editing and Cancer.				
38.	Kalra RS, Soman GS, Parab PB, Mali AM, Varankar SS, Naik RR, Kamble SC, Dhanjal JK, Bapat SA.	2022	A Monoclonal Antibody against Annexin A2 targets stem and progenitor cell fractions in tumors.	Translational Oncology	15 (1): 101257.	4.803	1
39	Varankar SS, Hari K, Bapat SA*, Jolly MK*. * co-communicating authors	2022	Cell Geometry Distinguishes Migration-Associated Heterogeneity in Two-Dimensional Systems	Comput Syst Oncol	2:e1041	NA	0
40	Singh DK, Shivalingappa PKM, Sharma A, Mondal A, Muzumdar D, Shiras A, Bapat SA	2022	NSG-70, a new glioblastoma cell line with mixed proneural-mesenchymal features associates NOTCH1-WNT5A signaling with stem cell maintenance and angiogenesis.	J Neuro-Oncology .	157(3):575-591	4.506	0
41	Mishra P, Jadhav AR, Bapat SA.	2022	Single-cell sequencing: A cutting edge tool in molecular medical research	Medical Journa Armed Forces	78(Suppl 1):S7-S13	0.497	0
42	Shivalingappa PVM, Singh DK, Sharma V, Arora V, Shiras A, Bapat SA.	2023	RBM47 is an important regulator of mouse embryonic stem cell differentiation.,.	Stem Cell Reviews and Reports	19(2):475-490	4.79	0
43	More MH, Varankar SS, Naik RR, Dhake RD, Ray P, Bankar RM, Mali AM, Subbalakshmi AR, Chakraborty P, Jolly MK, Bapat SA	2022	A Multistep Growth Model of High Grade Serous Ovarian Carcinoma Identifies Hypoxia Associated Signatures.	Cells, Tissues, Organs - Accepted	doi: 10.1159/000526432. Online ahead of print.	2.208	0

b. Book - Edited a book – "Cancer Stem Cells" released in November, 2008 (Publishers: John Wiley & Sons, Hoboken).



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c. Book Chapters

1. **Bapat SA**, Mishra GC. Pharmacogenomics Based Emerging Drug Discovery Strategies. In: *Advances in Biochemistry and Biotechnology*; Volume 1 Pages 245-280; 2005, Chakraborty C (Ed), Daya Publishing House, India.
2. **Sharmila Bapat**, Anne Collins, Michael Dean, Kenneth Nephew, Suraiya Rasheed. Cancer Stem Cells (CSCs): Similarities and Variation of the Theme of Normal Stem Cells In : *Cancer Stem Cells: Identification and targets;* Pages 1-26; 2008, Bapat SA (Ed), John Wiley & Sons (Publishers)
3. **Sharmila Bapat**. Leukemic Stem Cells. In: *Cancer Stem Cells: Identification and targets;* Pages 1-26; 2008, Bapat SA (Ed), John Wiley & Sons (Publishers).
4. Anjali Kusumbe, **Sharmila Bapat**. Ovarian Stem Cell Biology and the emergence of Ovarian Cancer Stem Cells. In: *Cancer Stem Cells: Identification and targets;* Pages 1-26; 2008, Bapat SA (Ed), John Wiley & Sons (Publishers).
5. **Bapat SA**. Stem Cells in Human Epithelial Ovarian Cancer. In: Stem cells: organogenesis and cancer, S.R. Singh & P.K. Mishra(Eds.), Research Signpost/ Transworld Research Network (Publishers), 2010.
6. Balla MM, Kusumbe AP, Vemuganti GK, **Bapat SA**. Cancer Stem Cells. In: Regenerative Medicine, 2011, Gustav Steinhoff (Ed.), Springer Verlag Publishers.
7. **Bapat SA.** Epigenetic Regulation of Cancer Stem Cells. In: Epigenetics: Development And Disease, 2011, Tapas. Kundu (Ed). Springer Verlag Publishers.
8. **Bapat S.A.** (2013) Epigenetic Regulation of Cancer Stem Cell Gene Expression. In: Kundu T. (eds) Epigenetics: Development and Disease. Subcellular Biochemistry, vol 61. Springer, Dordrecht
9. **Bapat SA.** Cancer Stem Cells. In: Regenerative Medicine, 2016, Gustav Steinhoff (Ed.), Springer Verlag Publishers.
10. **Bapat SA.** (2016) Cancer Stem Cells: Perspectives Beyond Immunophenotypes and Markers. In: Steinhoff G. (eds) Regenerative Medicine - from Protocol to Patient. Springer, Cham.
11. Panda Suchismita, Shiras A, **Bapat SA**. Long Noncoding RNAs: Insights into their roles in normal and Cancer Stem Cells, In: Cancer and Non-coding RNAs, 2016, Chakrabarti (Ed.), Elsevier Publishers.
12. Suresh A., Naik R.R., **Bapat S.A.** (2017) Role of Cancer Stem Cells in Oral Cancer. In: Kuriakose M. (eds) Contemporary Oral Oncology, Springer, Cham.
13. **Bapat SA.** (2018) Tumor-Initiating Cells in Ovarian Cancer. In: Katabuchi H., Ohba T., Motohara T. (eds) Cell Biology of the Ovary. Springer, Singapore.
14. Kalra Rajkumar S, **Bapat SA (2019).** Proteomics to Predict Loss of RXR-γ During Progression of Epithelial Ovarian Cancer. In: Ray Swapan K. (eds) Methods Molecular Biology. 978-1-4939-9584-4.

d. Patents

1. US Patent # 20170067901 (Granted) **–** "A Tumor Deconstruction Platform for the analysis of Intra-Tumor Heterogeneity".
2. Indian Patent # 358225 (Granted) - "A Tumor Deconstruction Platform for the analysis of Intra-Tumor Heterogeneity".
3. PCT: PCT/IB2015/050358 application filed "Identification, quantification, monitoring and analysis of intra-tumor heterogeneity".
4. Indian Patent # 374150 (Granted) - "A Monoclonal Antibody Targeting the Tumor Regenerative Hierarchy".

Sharmila A. Bapat, Ph.D, NCCS