Dr Jyoti Kode

PI, Kode Lab, Scientific Officer G Tumor Immunology & Immunotherapy Group ACTREC

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(O): Kode Lab, Tumor Immunology and Immunotherapy Group, Advanced Centre for Treatment, Research, & Education in Cancer, Tata Memorial Centre, Kharghar, Navi Mumbai- 410 210.

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SCOPUS ID: https://scholar.google.com/citations?user=M5fNh5cAAAAJ&hl=en
SERB Qualified Unique Identification Document (SQUID): SQUID-1965-JK-0790

3. Date of Birth: 5th November, 1965.

4. Educational qualifications:

Sr. No.	Institution Place	Degree Awarded	Year	Field of Study
1	University of Mumbai, Mumbai, Cancer Research Institute, Tata Memorial Centre, Parel, Mumbai	Ph.D.	1991	Applied biology Thesis title "Immunoreactivity of leprosy patients and their contacts to antigens of <i>Mycobacterium leprae</i> and ICRC- a cultivable mycobacterium"
2	University of Poona, Pune; Department of Zoology (Department of Biotechnology)	M.Sc.	1987	Biotechnology
3	University of Mumbai, Mumbai; Ramnarain Ruia College, Mumbai	B.Sc.	1985	Microbiology

4. Positions held:

Sr.No	Positions held	Name of the Institute	From	To
1.	Principal Investigator, Kode Lab, Tumor Immunology & Immunotherapy (TII) Group	ACTREC, Tata Memorial Centre	September, 2021	todate
2.	Associate Professor	Homi Bhabha National Institute (HBNI), Mumbai	August 2021	todate
3.	Scientific Officer 'G'	ACTREC, Tata Memorial Centre	July 2020	todate
4.	Assistant Professor	Homi Bhabha National Institute, Mumbai	May 2016	August 2021
5.	Officer In-Charge, Anti-Cancer Drug Screening Facility	ACTREC,Tata Memorial Centre	Dec 2014	todate



6.	Scientific Officer 'F'	ACTREC, Tata Memorial Centre	July 2013	June 2020
7.	Scientific Officer 'E'	ACTREC, Tata Memorial Centre	Feb. 2003	June 2013
8.	Scientific Officer 'D'	Cancer Research Institute, Parel, Mumbai	Jan.1997	Jan. 2003
9.	Scientific Officer 'C'	Cancer Research Institute, Parel, Mumbai	Jan.1994	Jan.1997
10.	Assistant Research Officer, ICMR Project	Cancer Research Institute, Parel, Mumbai	Apr.1992	Dec.1993

5. Current Research Interests:

- *Deciphering Innate immune pathway involvement in various cancers
- *Understanding immune receptor repertoire, secretome and genomic landscape of immune cells in cancer patients on immune checkpoint blockade therapy
- *Evaluation of CD26-adenosine signaling axis in allogeneic transplant donors and recipients
- *Evaluation of soluble immune markers as prognostic biomarker for hematological and solid cancer
- *Understanding mesenchymal stem cells and leukemic blasts cross-talk in management of acute myeloid leukemia.
- *Understanding mechanistic role of medicinal plant extracts in controlling leukemia growth
- *Exploring immunomodulatory properties and biomedical applications of natural extracts/compounds

Publications (Numbers only): 42

Book chapters: 8 Research Paper, report: 23 (international) + 3 (national) General articles: 7+1 Patents: 5 (4 submitted, 1 in draft stage) Others: Abstracts published: 11, Microarray Sequences NCBI-GenBank: 12; NCBI-GEO: 9, NCBI PubChem Substances: 3; NCBI-GEO: 16.

Articles published:

- Shubhankar Gadre, Manikandan M., Prakash Duari, Sushant Chhatar, Astha Sharma, Subhash Khatri, Jyoti Kode, Madan Barkume, Nirmal Kumar Kasinathan, Manasi Nagare, Meena Patkar, Arvind Ingle, Mukesh Kumar, Ullas Kolthur-Seetharam, Malay Patra. A Rationally Designed Bimetallic Platinum (II)-Ferrocene Antitumor Agent Induces Non-Apoptotic Cell Death and Exerts in Vivo Efficacy. Chemistry – A European Journal. https://doi.org/10.1002/chem.202201259 Online publication. e202201259. 31 May, 2022
- Shayanti Mukherjee, Smriti Sharma, Vivek Soni, Amruta Joshi, Amit Gaikwad, Jayesh Bellare, Jyoti Kode. Osteoblast Behavior and Osteocalcin Expression on Titanium Implant Surfaces modified with Electrophoretic Deposition of Apatite-Wollastonite-Chitosan Coating An In-Vitro Study J Mater Sci: Mater Med 33, 25 (2022). https://doi.org/10.1007/s10856-022-06651-w 2022.
- 3. Sachin Punatar,* Shruti Kandekar,* Navin Khattry, Anant Gokarn, Kumar Prabhash, Ashish Bakshi, Pallavi Rane, Libin Mathew, Shubhada Chiplunkar, **Jyoti Kode***. CD26 expression on donor harvest as a risk predictive biomarker for developing Graft-versus-Host Disease post-Allogeneic Hematopoietic Stem Cell Transplantation: A ten-year follow-up study. Cancer Biomarkers DOI: 10.3233/CBM-210137. Published online 23rd July, **2021**; vol. 33, no. 1, pp. 17-28, **2022**.
- 4. Amit Kunwar, Vishwa V. Gandhi, Khushboo Gandhi, Vikram Gota, Jayant Sastri Goda, Jyoti Kode, L.B. Kumbhare, V. K. Jain, K. Indira Priyadarsini. Use of 3, 3'-Diselenodipropionic acid (DSEPA) as an anticancer agent. **US Patent # 11213499**. 4th January, **2022**.
- 5. Shayanti Mukherjee, Manish Agarwal, Ashish Bakshi, Sharada Sawant, Lynda Thomas, Nobutaka Fujii, Prabha Nair, and Jyoti Kode. Chemokine SDF1 Mediated Bone Regeneration Using 2 Biodegradable Poly-(D,L-lactide-co-glycolide) 3D Scaffolds and Bone Marrow-Derived Mesenchymal Stem Cells: Implication for the Development of an "Off-the-Shelf" Pharmacologically Active Construct. Biomacromolecules. 21, 12, 4888–4903; DOI: 10.1021/acs.biomac.0c01134, 2020.
- 6. **Jyoti Kode**, Jeshma Kovvuri, Burri Nagaraju, Shailesh Jadhav, Madan Barkume, Subrata Sen, Nirmal Kumar Kasinathan, Pradip Chaudhari, Bhabani Shankar Mohanty, Jitendra Gour, Dilep Kumar

- Sigalapalli, C. Ganesh Kumar, Trupti Pradhan, Manisha Banerjee and Ahmed Kamal. Synthesis, biological evaluation and molecular docking analysis of phenstatin based indole linked chalcones as anticancer agents and tubulin polymerization inhibitors. Bioorganic Chemistry, 105, 104447, **2020**
- Ramya Tokala, Sravani Sana, Uppu Jaya Lakshmi, Prasanthi Sankarana, Dilep Kumar Sigalapalli, Nikhil Gadewal, **Jyoti Kode**, Nagula Shankaraiah. Design and synthesis of thiadiazolo-carboxamide bridged β-carboline-indole hybrids: DNA intercalative topo-llα inhibition with promising antiproliferative activity. Bioorganic Chemistry 105 (2020) 104357. 8th October, 2020. doi.org/10.1016/j.bioorg.2020.104357. **2020**
- Prafulla Parikh, Satyanshu Kumar, Tuhina Banerjee, Jyoti Kode, Vishwanath Zunjar, Raghuraj Singh, P.S. Nagar and Jinal Patel. Prophylactic potential of Indian medicinal plants in the management of influenza like illness especially COVID-19. Medicinal Plants - International Journal of Phytomedicines and Related Industries Vol. 12 (3), September 2020, 323-337. Dol: 10.5958/0975-6892.2020.00042.8.
 2020
- 9. Faisal Kholiya, Shruti Chatterjee, Gopal Bhojani, Subrata Sen, Madan Barkume, Nirmal Kumar Kasinathan, **Jyoti Kode**, Ramavatar Meena. Seaweed polysachharide derived bioaldehyde nanocomposite: Potential application in anticancer therapeutics. Carbohydrate Polymers. Online published **20.04.2020**; **Vol 240**, **July Issue**. Dol:10.1016/j.carbpol.2020.116282. **2020**
- 10. Sachin Punatar,# Shruti Kandekar,# Navin Khattry, Anant Gokarn, Kumar Prabhash, Pallavi Rane, Libin Mathew, Shubhada Chiplunkar, Jyoti Kode. (Pre-print) CD26 as a Prognostic Marker in Allogeneic Hematopoietic Stem Cell Transplantation. Lancet Group of Journals published on 25th March, 2020. http://dx.doi.org/10.2139/ssrn.3564419; 2020
- Tankeu Nzufo Francine, Pieme Constant Anatole, Jyoti Kode, Trupti Pradhan, Lenta Ndjakou Bruno, Ngogang Yonkeu Jeanne and Shubhada Chiplunkar. Extracts from Syzygium guineense inhibit cervical cancer cells proliferation through cell cycle arrest and triggering apoptosis. Academia Journal of Medicinal Plants 7(2): 042-054, DOI: 10.15413/ajmp.2018.0200; 2019
- 12. Khattry N, Laskar S, Sengar M, Rangarajan V, Shet T, Subramanian P G, Epari S, Bagal B, Goda JS, Agarwal A, Jain H, Tembhare P, Patkar N, Khanna N, Punatar S, Gokarn A, Shetty D, Jain H, Bonda A, Gota V, Hasan S, Kode J, Dutt S, Kulkarni S, Shetty N, Sable N, Deodhar J, Jadhav S, Pawaskar P, Mathew I, Menon H, Nair R, Kannan S, Chiplunkar S, Gujral S. Long term clinical outcomes of adult hematolymphoid malignancies treated at Tata Memorial Hospital: An institutional audit. Indian J Cancer. 55(1): 9-15, 2018.
- 13. **Kode J**, Khattry N, Bakshi A, Amrutkar V, Bagal B, Karandikar R, Rane P, Fujii N, Chiplunkar S. Study of stem cell homing & self-renewal marker gene profile of *ex vivo* expanded human CD34⁺ cells manipulated with a mixture of cytokines & stromal cell-derived factor 1. Indian J Med Res 2017;146:56-70; DOI: 10.4103/ijmr.IJMR_1319_15; **2017**.
- 14. Shaik AB, Rao GK, Kumar GB, Patel N, Reddy VS, Khan I, Routhu SR, Kumar CG, Veena I, Shekar KC, Barkume M, Jadhav S, Juvekar A, Kode J, Pal-Bhadra M, Kamal A. Design, synthesis and biological evaluation of novel pyrazolochalcones as potential modulators of PI3K/Akt/mTOR pathway and inducers of apoptosis in breast cancer cells. Eur J Med Chem. 25;139:305-324. doi: 10.1016/j.eimech.2017.07.056; 2017.
- 15. G. Mirji, J. Bhat, **J. Kode**, S. Banavali, M. Sengar, P. Khadke, O. Sait, and S. Chiplunkar. Risk stratification of T-cell Acute Lymphoblastic Leukemia patients based on gene expression, mutations and copy number variation. Leukemia Research. 45:33-39, **2016**.
- M. Sengar, S. Chorghe, K. Jadhav, S. Singh, S. Ghosh Laskar, P. Pai, J.P. Aggarwal, A. D'Cruz, P. Chaturvedi, M. Deshpande, D. Chaukar, A. Budrukkar, T. Gupta, V. Murthy, S. Kane, M. Thakur, V. Rangarajan, S. Kannan, T. Shet, J. Kode. Cell-free EBV-DNA in patients with Nasopharyngeal Carcinoma: Plasma versus Urine. Head & Neck. e-issue E1666-73; April 2016.
- 17. **J. Kode**, P. Taur, A. Gulia, N. Jambhekar, M. Agarwal, A. Puri. Pasteurization of bone for tumor eradication prior to reimplantation An in vitro and pre-clinical efficacy study. Indian Journal of Medical Research. 139: 138-150, **2014**.
- 18. K. Prabhash, N. Khattry, A. Bakshi, R. Karandikar, A. Joshi, S. Kannan, PSRK Sastry, P. Parikh, J. Kode. CD26 expression in donor stem cell harvest and its correlation with engraftment in human haematopoietic Stem Cell transplantation: Potential predictor of early engraftment. Annals of Oncology 21(3): 582-588, doi:10.1093/annonc/mdp342, **2010**.
- **19. J. Kode**, S. Mukherjee, M. Joglekar and A. Hardikar. Mesenchymal Stem cells: Immunobiology and role in Immunomodulation and Tissue regeneration. Cytotherapy 11(4): 377-391, **2009**
- 20. J. Kode, N. Dudhal, S. Banavali, S. Chiplunkar. T-cell receptor γ and δ junctional gene rearrangements as diagnostic and prognostic biomarker for T-cell Acute Lymphoblastic Leukemia. Leukemia and Lymphoma 47:769-770, 2006.

- 21. **J. A. Kode**, N.V. Dudhal, S.D. Banavali, S. H. Advani, and S.V. Chiplunkar. Clonal T-cell receptor γ and δ gene rearrangements in T-cell acute lymphoblastic leukemia at diagnosis: Predictor of prognosis and response to chemotherapy. Leukemia & Lymphoma, 45: 125-133, **2004.**
- 22. **Kode, J.A.**, Advani, S.H. and Chiplunkar, S.V. T-cell receptor γ and δ gene rearrangements in T-cell acute lymphoblastic leukemia in Indian patients. Leukemia and lymphoma, 36: 331-338, **2000**.
- 23. Chiplunkar, S.V., Deshmukh, M.A., **Kode, J.A.**, Gangal, S.G. and Deo, M.G. Ability of lymphokine-activated killer cells to lyse mycobacteria-infected cells. Acta Leprologica, 10: 203-208, **1997**.
- 24. A.D.Laad, **J.A.Kode**, S.C.Chavan, R.S.Rao, A.R.Fakih and S.V.Chiplunkar. Limiting dilution analysis of proliferating and cytotoxic lymphocytes in the peripheral blood and tumors of oral cancer patients. Eur J Cancer, Oral Oncology, 32B: 337-342, **1996**.

Publications on PhD work

- 1. **J.A.Kode**, S.V.Chiplunkar, P.D.Samson, M.G.Deo and S.G.Gangal. Immunoprecipitation of mycobacterial antigens with sera from patients with leprosy. Acta Leprologica 9: 89-94, 1994.
- 2. S.V.Chiplunkar, **J.L.Kudalkar**, S.G.Gangal and M.G.Deo. Immunoreactivity of mycobacterial strain ICRC and *Mycobacterium leprae* antigens with polyclonal and monoclonal antibodies.Int.J.Lepr.61: 421-427, **1993**.
- 3. S.V.Chiplunkar, **J.L.Kudalkar**, R.Butlin, P.D.Samson, M.G.Deo and S.G.Gangal. Major proteins of mucobacterial strain ICRC and Mycobacterium leprae identified by antibodies in sera from leprosy patients and their contacts. J.Clin.Microbiol.30: 336-341, **1992**.
- S.V.Chiplunkar, J.L.Kudalkar, R.Butlin, M.G.Deo and S.G.Gangal. Recognition of ICRC and Mycobacterium leprae antigens by sera from leprosy patients. Trop. Med.Parasitol.41: 317-318, 1990.

Articles published in books:

- 1. Tanavde V and Kode J. "Mesenchymal Stromal Cell Analysis" Chapter 16 [Invited Chapter] In: Book on "Flow Cytometry Lab Protocols: Protocols from the International Cytometry Workshops" pg 89-91. Ed. Dr Awtar Krishan, Charleston SC Publishers, USA; February, 2011
- Jyoti Kode, Vivek Tanavde. Mesenchymal Stromal Cells and Their clinical applications. In: Applications of Laser Flow Cytometry in Stem Cell Research and Tissue Regeneration, Eds. Awtar Krishan, H Krishnamurthy and Satish Totey, Wiley- Blackwell Publications. Chapter 12, pp. 175-188, August 9, 2010
- 3. Shenoy, C.N., Chiplunkar, S.V. and **Kode, J.A.** Bioassays for cytokines. In: Techniques in Cancer Research: A Laboratory Manual, Ed.Bal Phondke, published by National Institute of Science Communication, New Delhi. pp. 298-303, **1997**.
- **4.** Chiplunkar, S.V. and **Kode, J.A.** Immunoperoxidase staining technique. In: Techniques in Cancer Research: A Laboratory Manual, Ed.Bal Phondke, published by National Institute of Science Communication, New Delhi. pp. 252-253, **1997**.
- Chiplunkar, S.V. and Kode, J.A. Immunoprecipitation. In: Techniques in Cancer Research: A Laboratory Manual, Ed.Bal Phondke, published by National Institute of Science Communication, New Delhi. pp 241-242, 1997.
- 6. Chiplunkar, S.V. and **Kode, J.A.** Radioimmunoassay. In: Techniques in Cancer Research: A Laboratory Manual, Ed.Bal Phondke, published by National Institute of Science Communication, New Delhi. pp. 243-245, **1997**.
- S.V.Chiplunkar and J.A.Kode. Immunoperoxidase staining technique. In: Techniques in Cancer Research - A Laboratory Manual (eds. M.G.Deo, R.Seshadri, R.Mulherkar and R.Mukhopadhyaya). Published by Cancer Research Institute, Tata Memorial Centre, Bombay. pp 258-259, 1995.
- 8. S.V.Chiplunkar, S.R.Shinde, **J.L.Kudalkar**, S.G.Gangal, and M.G.Deo. Cell-mediated immune responses to ICRC and Mycobacterium leprae antigens in lepromatous leprosy patients vaccinated with ICRC bacilli.In "Tropical Diseases: Molecular Biology and Control

Strategies (eds: S.Kumar, A.K.Sen, G.P.Dutta and R.N.Sharma). Published by 'Publications and Information Directorate. New Delhi. India. pp 655-663. 1994.

Other Articles

1. NIH-FDA IIG NEWSLETTER pg. 1. March 2022

Mukherjee S, Sharma S, Soni V, Joshi A, Gaikwad A, Bellare J, Kode J. Improved osteoblast function on titanium implant surfaces coated with nanocomposite Apatite-Wollastonite-Chitosan- an experimental in-vitro study. J Mater Sci Mater Med. 2022 Feb 21;33(3):25. doi: 10.1007/s10856-022-06651-w. PMID: 35190908; PMCID: PMC8860945. https://www.niaid.nih.gov/research/immunology-interest-group.

2. NIH-FDA IIG NEWSLETTER pg. 2. March 2022

Punatar S, Kandekar S, Khattry N, Gokarn A, Prabhash K, Bakshi A, Rane P, Mathew L, Chiplunkar S, Kode J. CD26 expression on donor harvest as a risk predictive biomarker for developing graft-versus-host disease post-allogeneic hematopoietic stem cell transplantation: A ten-year follow-up study. Cancer Biomark. 2022;33(1):17-28. doi: 10.3233/CBM-210137. PMID: 34334382.

https://www.niaid.nih.gov/research/immunology-interest-group.

3. Prabha Sakshi Hindi News Paper online (India Science Wire)

Title: कैंसर उपचार में मददगार हो सकते हैं सम्द्री शैवाल आधारित नैनो कंपोजिट,

http://vigyanprasar.gov.in/isw/Seaweed-based-nano-composites-may-be-helpful-in-cancer-treatment-hindi.html, published on 29th June, 2020.

4. CSIR Press Release

Title: कैंसर उपचार में मददगार हो सकते हैं समुद्री शैवाल आधारित नैनो कंपोजिट, https://pib.gov.in/PressReleseDetailm.aspx?PRID=1634802, published on 27th June, **2020**.

5. Vigyan Prasar News (India Science Wire)

Title: कैंसर उपचार में मददगार हो सकते हैं सम्द्री शैवाल आधारित नैनो कंपोजिट,

http://vigyanprasar.gov.in/isw/Seaweed-based-nano-composites-may-be-helpful-in-cancer-treatment-hindi.html, published on 26th June, 2020.

- Red seaweed polysaccharide inhibits growth of cancer cells, News Article in Nature India, 2020. doi:10.1038/nindia.2020.88 Published online 27 May 2020
- 7. **Jyoti Kode**. Roots and Shoots of Stem Cell therapy in Regenerative Medicine. Proceedings of Platinum Jubilee Conference "Interdisciplinary Strategies in Biology' of Ramnarain Ruia College (pg 12-19), held at Mumbai on 16-17th December, **2011**
- 8. **Jyoti Kode**, Shayanti Mukherjee. Paving way to commercialization of Mesenchymal Stem Cells: The business model of "Off-the-Shelf" products in the stem cells arena is slowly but steadily unfurling. BioSpectrumIndia June **2008** pg38-40.
- 9. **Jyoti Kode**, Winston Pareira. Induced Pluripotent Stem Cells: Roadmap to replace current stem cell models is still a long way before commercialization. BioSpectrumIndia June **2008** pg 84-87.
- S.V.Chiplunkar , A.D.Laad , J.A.Kode ,A.R.Fakih and R.S.Rao. Gamma/delta T cells from oral cancer patients recognize common ligand on Daudi Burkitt's lymphoma and oral tumor cells. Proceedings of the XVI International Cancer Congress at New Delhi, India. Eds. R.S.Rao, M.G.Deo & L.D.Sanghvi. Published by Monduzzi Editore International Proceedings Division, Italy. pp.2599-2602, 1994.

Manuscripts submitted

Journal: ACS Infectious Diseases Manuscript ID: id-2022-005333

Title: "6-Shogaol exhibits anti-viral and anti-inflammatory activity in COVID-19 associated inflammation by regulating NLRP3 inflammasome"

Authors: Kode, Jyoti; Maharana, Jitendra; Dar, Asif; Mukherjee, Shayanti; Gadewal, Nikhil; Sigalapalli, Dilep; Kumar, Satyanshu; Panda, Debashis; Ghosh, Soumyajit; Keshry, Supriya; Mamidi, Prabhudutta; Chattopadhyay, Soma; Pradhan, Trupti; Kailaje, Vaishali; Inamdar, Sunil; Gujjarwar, Vidula

Manuscript Status: Submitted

Manuscript under preparation/ communication

- 2. Shruti Kandekar, Sachin Punatar, Navin Khattry, Anant Gokarn, Prashant Tembhare, Pallavi Rane, Anand Patil, Murari Gurjar, Libin Mathew, Shubhada Chiplunkar, **Jyoti Kode**. Deciphering association of cellular/soluble immune landscape and CD26 signaling network molecules with immune reconstitution post allogeneic hematopoietic stem cell transplantation in hematological disorders. Under preparation. 2022.
- 1. Raajit Chanana, * Shruti Kandekar, *, Hasmukh Jain, Pallavi Rane, Akhilesh Srivastava, Anand Patil, Murari Gurjar, the Adult Hematology Working Group, **Jyoti Kode**, * Manju Sengar*. Deciphering Immune-based soluble marker landscape of prognostic importance in sera of Hodgkin's Lymphoma treated with standard regimen. **2020.**

Patents:

1. US Patent # 11,213,499 B1 dated 04/01/2022 (Application # 17/003,420 dated 08/26/2020)

Title: Use of 3, 3'-Diselenodipropionic acid (DSEPA) as an anticancer agent.

Assignee: Secretary, Department of Atomic Energy, Government of India

Inventors: Dr. Amit Kunwar, Ms. Vishwa V. Gandhi, Dr. Khushboo Gandhi, Dr. Vikram Gota, Dr. Jayant Sastri Goda, **Dr. Jyoti Kode**, Dr. L.B. Kumbhare, Dr V. K. Jain, Dr. K. Indira Priyadarsini

2. Indian Patent Application # 202111001172 dated 11th January, 2021

Patent submitted through CSIR- Unit for Research and Development of Information Products (URDIP)

Title: A synergistic polyherbal formulation exhibiting potential anti-cancer activity. Inventors: Arvind Singh Negi, Rekha Tyagi, Nandini Pathak, Kaneez Fatima, Suaib Luqman, Debabrata Chanda, **Jyoti Kode**, Karuna Shanker, Shashwat Gupta, Dnyaneshwar U. Bawankule, Anil Kumar Gupta

3. Indian Patent Application # 202121059785 dated 21st December, 2021

Title: Extracts and purified phytochemicals from *Garcinia* species exhibiting cytotoxicity against human colon cancer

Applicant: ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi-387310, Anand, Gujarat (India)

Inventors: Dr. Satyanshu Kumar, **Dr. Jyoti Kode**, Dr. Raghuraj Singh.

4. Indian Patent Application # 202221018336 dated 29th March 2022 (Joint patent from DMAPR and ACTREC)

Title: Standardized fruit rind extract of *Garcinia* exhibiting growth inhibition of triplenegative breast cancer in pre-clinical animal model

Assignee: ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi-387310, Anand, Gujarat (India)

Applicant(s):

1] ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi-387310, Anand, Gujarat, India.

2] Advanced Centre for Treatment, Research & Education in Cancer, (ACTREC), Tata Memorial Centre. Kharghar, Navi Mumbai, India.

Inventor: Dr. Satyanshu Kumar, **Dr. Jyoti Kode,** Dr. Anand Kumar Singh, Dr. Raghuraj Singh, Dr. K Nirmal Kumar, Mrs. Trupti N Pradhan, Ms. Meena Patkar, Mr. Madan S Barkume, Mr. Subrata Sen.

5. Indian Patent Application # 202221060383 dated 21st October, 2022 (Joint patent from ACTREC and DMAPR)

Title: Standardized *Garcinia* fruit juice (GI and GX) exhibit efficacy in immunocompetent mice model for treatment of acute graft-versus-host disease by regulating innate immune mechanisms post allogeneic hematopoietic stem cell transplantation

Assignee and applicants: 1] Advanced Centre for Treatment, Research & Education in Cancer, (ACTREC), Tata Memorial Centre. Kharghar, Navi Mumbai, India.

2] ICAR-Directorate of Medicinal and Aromatic Plants Research, Boriavi-387310, Anand, Gujarat, India.

Inventor: Dr. Jyoti Kode, Dr. Satyanshu Kumar, Ms. Shruti Kandekar, Dr Navin Khattry, Dr. Anand Kumar Singh, Dr. Raghuraj Singh, Dr. K Nirmal Kumar, Mrs. Meena Patkar, Dr Arvind Ingle.

6. Patent in submission to CSIR-IPU/ IPD (Joint patent from CSMCRI and ACTREC)
Title: ANTI-CANCER, IMMUNOMODULATORY COMPOSITION AND NANOCELLULOSE
FROM WASTE ROOT BIOMASS

Assignee: Innovation Protection Unit (IPU), Council of Scientific and Industrial Research, New Delhi, 110067, Government of India.

Applicants:

- 1] Central Salt & Marine Chemicals Research Institute (CSMCRI), Bhavnagar, Gujarat 364002 and
- 2] Advanced Centre for Treatment, Research, & Education in Cancer (ACTREC), Tata Memorial Centre, Tata Memorial Centre, Kharghar, Navi Mumbai 410210, India.

Inventors: Ramavatar Meena, **Jyoti Kode**, Faisal Kholiya, Amit Gosai, Kamlesh Prasad, Nirmal Kumar Kasinathan, Trupti Pradhan, Madan Barkume, Subrata Sen, Prakash Jagjivanbhai Dodiya, Meena Rajnikant Rathod

Abstracts published in Medline indexed journals

- Trupti Pradhan, Jitendra Maharana, K. Nirmal Kumar, Vaishali Kailaje, Arvind Ingle, Subrata Sen, Madan Barkume, Meena Patkar, Namitha Thampi, Ankita Patil, Anand Vaibhaw, Jeshma Kovvuri, Ahmed Kamal, Jyoti Kode. Renewed look at cancer immunotherapeutics: Targeting NLRP3 inflammasome pathway in oral cancer. Indian Journal of Medical and Pediatric Oncology. July-August, 2022.
- 2. Manasi Nagare, Naythan Dcunha, Manju Sengar, Monalisa Sahoo, Meena Patkar, Navin Khattry, Sachin Punatar, Anant Gokarn, Sridhar Epari, Tanuja Shet, Jyoti Kode. Remodeling immunosuppressive microenvironment in acute myeloid leukemia for improved therapeutics: Targeting inflammasome pathway. Indian Journal of Medical and Pediatric Oncology. July-August, 2022
- **3. Monalisa Sahoo,** Manasi Nagare, Naythan D'cunha, Meena Patkar, Manju Sengar, Navin Khattry, Sachin Punatar, Anant Gokarn, Sridhar Epari, Tanuja Shet, Jyoti Kode. Deciphering role of NLRP3 inflammasome in acute myeloid leukemia microenvironment, at the 113th Annual Meeting of American

- Association of Cancer Research 2022 at New Orleans, Louisiana as e-poster. Cancer Research 82 (12_Supplement): 5608, 2022
- https://aacrjournals.org/cancerres/article/82/12_Supplement/5608/704521/Abstract-5608-Deciphering-role-of-NLRP3; https://doi.org/10.1158/1538-7445.AM2022-5608
- 4. Jyoti Kode, Jitendra Maharana, K. Nirmal Kumar, Trupti Pradhan, Arvind Ingle, Madan Barkume, Meena Patkar, Namitha Thampi, Ankita Patil, Anand Vaibhaw, Jeshma Kovvuri, Ahmed Kamal. Phenstatin based indole linked chalcone compound 9a exhibits anti-oral cancer activity through regulating NLRP3 inflammasome pathway, at the 113th Annual Meeting of American Association of Cancer Research 2022 at New Orleans, Louisiana as e-poster. Cancer Research 82 (12_Supplement): 4222, 2022
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- 5. Ankita Patil, Trupti Pradhan, Shruti Kandekar, Subrata Sen, Madan Barkume, Nirmal Kumar K., Faisal Kholiya, Ramavatar Meena, Jyoti Kode. Seaweed polysachharide derived bioaldehyde nanocomposite exhibits anti-cancer activity and also acts through regulating anti-cancer immune mechanisms. **Indian Journal of Medical and Pediatric Oncology**. July-August, **2022**.
- J Kode, M Nagare, N Khattry, M Sengar, S Punatar, A Gokarn, S Chiplunkar. Study of stem cell niche favoring drug resistance, immune suppression and maintenance of leukemia supportive microenvironment in acute myeloid leukemia. Eur. J. Immunol. 49 (Supplement 3): 1785-86, October 2019
- Jyoti Kode, Navin Khattry. CD26 and adenosine signaling pathway molecules as predictors of early engraftment in human hematopoietic stem cell transplantation. Eur J Cancer 54(Suppl.1): S66. 2016.
- 8. K. Prabhash, N. Khattry, V. Alai, A. Joshi, A. V. Bakshi, S. Kannan, P. Sastry, P. M. Parikh, **J. Kode** CD26 expression in donor stem cell harvest and its correlation with engraftment in human haematopoietic stem cell transplantation: Potential predictor of early engraftment. J Clin Oncol 28:15s, (suppl; abstr 6544), **2010**
- **9. J.A. Kode,** R Nair, SV Chiplunkar Selective migration of IgVH3+ B-cell chronic lymphocytic leukemia clones in response to chemokine SDF1. British Journal of Haematology, 133 (Suppl 1): 30, **2006.**
- 10. **J.A. Kode**, R. Nair, S.V.Chiplunkar. Distinct IgVH genotype in B-CLL cells migrating against chemokine SDF1. Indian Journal of Medical Research. Vol 121:83 Supplement, February **2005**.
- 11. **J.A.Kode**, S.H.Advani and S.V.Chiplunkar. Prognostic significance of clonal T-cell receptor gamma and delta gene rearrangements in Indian patients with T-cell acute lymphoblastic leukemia. The FASEB Journal, April **2000**.
- 12. **J.A.Kode**, S.H.Advani and S.V.Chiplunkar. TCR gamma-delta gene rearrangements and cytotoxic function of lymphocytes in patients with T-cell acute lymphoblastic leukaemia. The Immunologists Supplement 1: 99, **1998**.
- 13. **J.A.Kode**, S.H.Advani and S.V.Chiplunkar. Interleukin-12 augments cytotoxic potential of gamma-delta T cells from patients with Chronic Myelogenous Leukaemia. British Journal of Haematology, 93: 274, **1996**.
- 14. A.R.Fakih, A.D.Laad, **J.A.Kode**, R.S.Rao and S.V.Chiplunkar. Selective expansion and functional analysis of gamma/delta T cells isolated from oral cancer patients. Head and Neck Supplement 16: 486, **1994**.
- S.V.Chiplunkar, J.L.Kudalkar, S.G.Gangal and M.G.Deo. Recognition of 21- and 14-kilodaltons antigens of Mycobacterium ICRC by anti-Mycobacterium leprae antibodies. International Journal of Leprosy 61: 85A, 1993.
- S.V.Chiplunkar, M.A.Deshmukh, J.L.Kudalkar, P.D.Samson, M.G.Deo and S.G.Gangal. Killing of mycobacteria-infected macrophages by LAK cells from leprosy patients. International Journal of Leprosy 61: 96A, 1993.

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- 2. Faisal Kholiya, Shruti Chatterjee, Gopal Bhojani, Subrata Sen, Madan Barkume, Nirmal Kumar Kasinathan, **Jyoti Kode**, Ramavatar Meena. Two chemicals submitted to NCBI PubChem SID 405234057, https://pubchem.ncbi.nlm.nih.gov/substance/405234057 **2020**.

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- **4. Kode, J.**, Khattry, N., Karandikar, R., Amrutkar, V., Chiplunkar, S. Gene Expression Profiling of Ex-vivo expanded Hematopoietic Stem and Progenitor Cells using SCF+TPO+FLT3L and homing factor SDF1. Array sequences of HSPC (n=9) are deposited in NCBI's Gene Expression Omnibus database, Accession series number **GSE37334**. April, **2012**.
- 5. **Kode J**, Dudhal N, Nair R and Chiplunkar S: Immunoglobulin variable heavy chain 3 (IgVH3) sequences of B-cell clones from Chronic lymphocytic Leukemia patients (n=12) exhibiting transmigration to chemokine SDF1. GenBank-NCBI, a NIH genetic sequence database. Accession numbers: **EF473862**, **EF566901** to **EF566911**: September, **2007**.

Honors/Awards / Recognition

- 1. Panel Member, Board of University Teaching & Research, Amity University of Biotechnology for selection of PhD Topic proposal, Panvel, 17th October, **2022**.
- **2.** Editorial Board Member, Cancer Biomarkers, IOS Press, The Netherlands. http://iospress.com/cancer-biomarkers 13th October, **2022**
- 3. Member at International Union of Immunological Societies (IUIS) General Assembly, Berlin, nominated by National Board, Indian Immunology Society. Term 2022-25. 12th October, **2022**
- **4.** Recipient of SERB POWER Grant (Promoting Opportunities for Women in Exploratory Research), Government of India, May **2022-2025**
- 5. Recipient of Bursary award from Immunology Foundation, New Delhi. Jyoti Kode, Jitendra Maharana, K. Nirmal Kumar, Trupti Pradhan, Arvind Ingle, Madan Barkume, Meena Patkar, Namitha Thampi, Ankita Patil, Anand Vaibhaw, Jeshma Kovvuri, Ahmed Kamal. (e-Poster Presentation). Phenstatin based indole linked chalcone compound 9a exhibits anti-oral cancer activity through regulating NLRP3 inflammasome pathway. 113th Annual Meeting of American Association of Cancer Research 2022 at New Orleans, Louisiana as e-poster. 8-13th April, 2022
- 6. Received "Certificate of Excellence in Reviewing" from Editorial Board of "Journal of Advances in Medicine and Medical Research" 1st March, 2022.
- 7. Invited Editorial Board Member, World Journal of Stem Cells, Baishideng Publishing Group Inc, California, USA for period 2022-2025. 23rd December, **2021**.
- 8. Recognition as "Outstanding Editorial Board Member" and chosen as the cover person for the latest issue of *World Journal of Stem Cells* (WJSC) by Baishideng Publishing Group (BPG) Inc., USA, 17th May, 2021.
- 9. Invited Editorial Board Member, World Journal of Stem Cells, Baishideng Publishing Group Inc, California, USA, April 2018- December 2021; April, 2018.
- 10. Reflection image of "Titanium coated with nanocomposite and seeded with MG63" was shortlisted with good score (40th rank out of 700 images) for EMBO (European Molecular Biology Organization) Journal Cover Contest 2009, February, **2009**.
- 11. ISSCR Travel Award: An emerging technology of Stem Cell and Chemokine therapy for cancer: Ex-vivo expansion of human CD34+ cells manipulated with a mixture of cytokines and Stromal Cell Derived Factor 1 at the 6th Annual Meeting of International Society for Stem Cell Research, Philadelphia, USA: June 10-14, **2008**.
- 12. Recipient of ISSCR Travel Award, International Travel Fellowship from Department of Biotechnology, Government of India and Immunology Foundation, New Delhi to present paper titled "Bone Tissue Engineering using Human Mesenchymal Stem Cells: Role of SDF1-CXCR4 axis (Poster Presentation): 5th Annual Meeting of International Society for Stem Cell Research, Cairns, Australia: June 17-20, 2007

- 13. Recipient of fellowship from British Society of Haematology Trust, Sir Dorabji Tata Trust and Pirozshah Godrej Foundation for presenting a paper entitled, "Selective migration of IgVH3+ B-cell chronic lymphocytic leukemia clones in response to chemokine SDF1" at the 46th Annual Scientific Meeting of British Society of Haematology, Edinburgh, UK. 3-5th April **2006.**
- 14. Recipient of Best poster presentation of the paper entitled "Distinct IgVH genotype in B-CLL cells migrating against chemokine SDF1" at the 24th Annual Convention of Indian Association for Cancer Research, and International Symposium on HPV and cervical cancer at IPCO, Noida, February 9-12, **2005**.
- 15. Recipient of VB Kamat award for the best podium presentation of the paper entitled "Clonal T-cell receptor γ and δ gene rearrangements in T-cell acute lymphoblastic leukemia at diagnosis: Predictor of prognosis and response to chemotherapy, Indian Association for Cancer Research, January 29th-31st **2004**.
- 16. Best Poster Presentation Award: TCR gamma-delta gene rearrangements and cytotoxic function of lymphocytes in patients with T-cell acute lymphoblastic leukemia" in the 24th Annual conference of Indian Immunology Society, Calcutta, 22-24th December **1997**.
- 17. Dr. L.D.Sanghvi Oral Presentation Award: Interleukin-12 augments cytotoxic potential of gamma-delta T cells from patients with Chronic Myelogenous leukemia" in the 21st Annual conference of Bombay Haematology Group, Tata Memorial Centre, 15-16th March 1997.
- 18. Recipient of Amgen Travel grant for Young Scientists: Poster presentation on paper titled, "Interleukin-12 augments cytotoxic potential of gamma-delta T cells from patients with Chronic Myelogenous Leukaemia" at the Second Meeting of European Haematology Association, Paris, France during May 29 to June 1,1996.
- 19. Recipient of R.D. Birla Smarak Kosh Fellowship, Sir Dorabji Tata Trust Fellowship and Sir Ratan Tata fund for presenting a paper entitled, "Killing of mycobacteria-infected macrophages by LAK cells from leprosy patients", at the XIV International Leprosy Congress, Orlando, Florida, USA and a visit to Dr. Peter Gregersen's laboratory, Northshore University Hospital, New York, USA to learn modern molecular immunological techniques on "Analysis of TCR Vβ CDR3 length restriction in population of CD4+ T cells". **1993.**
- 20. Senior Research Fellowship, Council of Scientific and Industrial Research (CSIR), Government of India. **1990 to 1992**.
- 21. Received the Best Poster award for the paper entitled, "Recognition of ICRC, *M.leprae* and other mycobacterial antigens by sera from leprosy patients" at the XVII Annual Conference of Indian Immunology Society, Lucknow, **1990**.
- 22. Department of Biotechnology (previously National Biotechnology Board) Fellowship for training as a part of M.Sc. Biotechnology Course in "Hybridoma Technology" at Immunology Division, Cancer Research Institute, Mumbai: **May-June 1986**.
- 23. Junior/senior Research Fellowship, CSIR, Government of India. 1988 to 1992.
- 24. Department of Biotechnology (previously National Biotechnology Board) Fellowship for studying M.Sc. 1985 to 1987.
- 25. Open Merit Scholarship, Government of India for studying B.Sc. 1982 to 1985.

Honors/Awards / Recognition (received by students/ Dissertation Trainees/ staff)

 Manasi Nagare, Monalisa Sahoo, Manju Sengar, Sachin Punatar, Navin Khattry, Anant Gokarn, Bhausaheb Bagal, Hasmukh Jain, Sridhar Epari, Tanuja Shet, Meena Patkar, Jyoti Kode. (Poster Presenter: Ms Manasi Nagare) 'Understanding immune landscape in Acute Myeloid Leukemia microenvironment: Role of NLRP3 pathway markers in diagnostics and therapeutics' at IMMUNOCON the 48th Annual Meeting of Indian Immunology Society, virtual conference at Banaras Hindu University, 8th-9th July, 2022.

Recipient of Best poster / oral presentation: Ms Manasi Nagare, SRF (Of 112 posters, 20 were shortlisted based on merit and 5 of them were awarded best presentation awards).

- Third Best Poster Award (Poster presenter: Ms. Jashoda Suthar). Jashoda K. Suthar, Shruti Kandekar, Mahitha Harish, Shubhada Chiplunkar, Jyoti Kode. "International Conference on Disease Biology: Diagnostics and Therapeutics (DBDT-2020)" at Savitribai Phule Pune University, Pune. 4-6th March, 2020.
- FIMSA Bursary Award (Poster presenter: Naythan Dcunha) Naythan Dcunha, Navin Khattry, Manju Sengar, Bhausaheb Bagal, Hasmukh Jain, Anant Gokarn, Sachin Punatar, Avinash Bonda, Lingaraj Nayak, Shubhada Chiplunkar, Jyoti Kode. IUIS-IIS-FIMSA Course on "Basic and Advanced Translational Immunology" Rajasthan University of Health Sciences, Jaipur, INDIA October 12-16, 2019.
- 4. Best Poster Award (Presenter: Ms Shruti Kandekar): 'Study of CD26 and adenosine signaling pathway molecules as predictors of clinical outcomes post human hematopoietic stem cell transplantation' at the 14th Indo-Australian Biotechnology Conference on "Emerging modalities to improve cancer outcomes' on 22nd and 23rd October, **2018**.
- Recipient of Student Scholarship by HEMATOCON 2018 (Poster presenter: Ms Shruti Kandekar) for presentation of paper titled, 'Association of CD26 Expression on Donor Stem Cell Harvest with Clinical Outcomes in Allogeneic Hematopoietic Stem Cell Transplantation'. at the 59th Annual Conference of The Indian Society of Haematology and Blood Transfusion (HAEMATOCON 2018), Kochi from 25th to 28th October, 2018.
- ISSCR Travel Award (Poster Presenter: Ms Shayanti Mukherjee): "Mesenchymal Stem Cells: Potential tool for Tissue Regeneration and cellular therapeutics" at the 6th Annual Meeting of International Society for Stem Cell Research, Philadelphia, USA: June 10-14, 2008.
- 7. Best Poster Award (Presenter: Ms Shayanti Mukherjee): "Mesenchymal Stem Cells: Potential Tool for Tissue Regeneration and Cellular Therapeutics" at the Graduate Students Meet 2007- Trends in Life Sciences, ACTREC, Tata Memorial Centre: December 29-30th, **2007**

Ongoing Projects

- 1. Exploring Acute Myeloid Leukemia BM MSC derived conditioned media and phytoextracts for developing AML therapeutics. (Principal Investigator); Institutional funding; October 2022-23.
- 2. Evaluation of mechanistic role of herbal extract as palliative and anti-cancer compound against pre-clinical models of Breast, Oral, Pancreatic, Cervical, and Colon cancer. (Principal Investigator); Pharma funding; October 2022-23.
- 3. Deciphering dynamics of inflammasome innate immune pathways in oral cancer. (Principal Investigator), SERB POWER (Promoting Opportunities for Women in Exploratory Research) Grant; Government of India, 60 lacs, **May 2022-25**
- Understanding mechanistic role of Carctol-S as immunomodulatory and anti-cancer formulation against Ovarian Cancer (Principal Investigator) Funded by Ministry of AYUSH, Government of India, 16 lacs March 2022- 23.
- Understanding mechanistic role of CARAF & CAGHE as immunomodulatory and anti-cancer compounds against pre-clinical models of Leukemia, Lymphoma, Melanoma, Lung and Breast cancer. (Principal Investigator) Funded by Ministry of AYUSH, 39 lacs March 2022-24.
- 6. A phase II trial to study of efficacy, toxicity and immunomodulatory effect of Carctol-S in high grade serous epithelial ovarian cancer at first serological relapse (Co-Principal Investigator), Funding by Ministry of AYUSH, CCRAS, Govt of India, 55 lacs, September 2018 to May 2022.
- A phase III randomized study to compare a risk-stratified and response-adapted strategy to ABVD regimen in adolescents and adults with advanced-stage Hodgkin lymphoma. (Co-Investigator); Jan 2021-24.

- 8. Pilot in vivo study in an animal model to explore the scope of Umbilical cord Wharton's jelly derived mesenchymal stem cells derived (UC-MSC) and conditioned media (MSC-CM) for anticancer potential (Principal Investigator); Institutional funding; 2020-25.
- 9. Understanding mechanistic role of immunoectoenzyme CD26 in regulating GVHD post bone marrow transplantation using inhibitors and plant extracts in mice model. (Principal Investigator); Institutional funding; **2021.**
- 10. Understanding mechanistic role of seaweed nanocomposite formulation FK-59-5 and medicinal plant extract FK-94-1 as immunomodulatory and anti-cancer compounds against Acute Myeloid Leukemia (Principal Investigator); Institutional funding; **2020-23.**
- 11. CD26 and adenosine signaling pathway molecules as regulators of immune reconstitution in human hematopoietic stem cell transplantation (Principal Investigator); Institutional funding; **2018 2022.**
- 12. Study of stem cell niche favoring immune evasion and maintenance of leukemia supportive microenvironment in Acute Myeloid Leukemia. (Principal Investigator); Institutional funding; **2019 24**
- 13. Understanding Drug Resistance in Acute Myeloid Leukemia: Role of Mesenchymal Stem Cells and Immune Cells (Principal Investigator); March 2017 2022.
- 14. Human tumor xenografts as in vivo testing models. (Principal Investigator); April 2019 March 2022.
- 15. Screening of drugs for anti-cancer activity using in vivo animal models. (Principal Investigator); April 2015 March 2020; Service Facility.

Completed projects:

- 16. A study to evaluate the prognostic value of biomarkers in patients with Hodgkin's Lymphoma treated in a standard regimen. (Co-Investigator); **2018 2020, Rs 8 lacs.**
- 17. Understanding the cross talk between mesenchymal stromal cells and leukemic stem cells in Acute Myeloid Leukemia: Implications in disease biology and therapy (Principal Investigator; March 2015 2019; Funded by ICMR, 44 lacs
- 18. Development of Human tumor xenograft models: i) Development of human-mouse xenografts from available cancer cell lines and tumors ii) Establishment of Breast cancer metastasis (Breast Ca Mets) xenograft model, iii) Establish these models for in vivo drug testing in ACDSF, iv) Establish Breast Ca Mets model for pathway analysis in molecular mechanism underlying development of breast cancer v) Molecular Imaging (PET-CT). (Principal Investigator); April 2015 March 2019.
- 19. Affordable Cancer Therapeutics. (Co- Principal Investigator), Funded by CSIR; 79.22 lacs; **2014-2017**.
- 20. Stem Cell and Chemokine therapy for hematological neoplasms (Part I): A pilot study for exvivo expansion of human CD34+ cells manipulated with a mixture of cytokines and Stromal Cell Derived Factor 1; (Principal Investigator) Funding: Indian Council of Medical Research, Govt. of India, 40 lacs; Intramural Grant, TMC; Rs 5 lacs, 2007-2012.
- 21. Efficacy of pasteurization of resected tumor bearing bone and immediate reimplantation in surgical treatment of malignant bone tumors: An in vitro and a pre-clinical study: (Co-Investigator) Funded by Terry Fox Foundation 2010-2012.
- 22. Evaluation of accuracy of urinary EBV DNA estimation, its correlation with plasma EBV DNA and radiological responses in patients with locally advanced Nasopharyngeal Carcinoma undergoing treatment, (Co-Investigator), Funded by Terry Fox Foundation **2009-2014**.
- 23. Evaluation of potential use of nano-biomaterials (nanobiocomposite scaffolds and nano-composite coated titanium implants) for Tissue Engineering of osteochondral defects (Principal Investigator); **2008-2009**.

- 24. Tissue Engineering based on Mesenchymal Stem Cells and controlled release of chemokine in 3D bioresorbable scaffolds: Potential Applications for Tissue Regeneration & Repair, (Principal Investigator); Intramural Grant, TMC; Rs 5 lacs, **2007-2010**.
- 25. CD26 expression in donor stem cell harvest and its correlation with engraftment in human haematopoietic Stem Cell transplantation: Potential predictor of early engraftment Investigators: Jyoti Kode (Co- Principal Investigator) Funding: Indian Co-operative Oncology Network, Rs 2 lacs; 2007-2010.
- 26. Analysis of immunophenotype, IgH chain variable region genes and chemokine SDF-1/CXCR4 interaction in B-Cell Chronic Lymphocytic Leukemia/ Small Lymphocytic Non-Hodgkin's Lymphoma, (Principal Investigator); Funding: Intramural Grant, TMC; Rs 2 lacs, 2002-2005.
- 27. Immunotherapy with an anti-leprosy vaccine ICRC as an adjunct to chemotherapy (Assistant Investigator) Funding: Indian Council of Medical Research, Govt. of India, **1996-2000**.

Professional Experience

- 1. Visit Laboratory of Dr Eleonora Leucci, Katholieke Universiteit, Leuven, Belgium for discussion on conducting workshop on Humanized Mice at ACTREC. November **2022**.
- 2. Visit to laboratory of Dr Rebecca Lim, Deputy Centre Head, The Ritchie Centre, Hudson Institute of Medical Research, Victoria, Australia to discuss study of exosomes and extracellular vesicles in stem cell niche of acute myeloid leukemia, 18-19th June, **2018**
- Visit to Monash Health Translation Precint (MHTP) of Hudson Institute of Medical Research, Victoria, Australia for meeting with Dr Selva Ramasubramanian, Dr Trevor Wilson and Dr Sonika Tyagi to discuss applications of advanced genomic analysis tools. 26th June, 2018
- 4. Visit to Flow Cytometry Core Facility, National Institute of Health, Bethesda, USA: June 9, 2008
- Visit to laboratories of Dr Toh Siew-Lok, Tissue Engineering Program, National University of Singapore and Dr Vivek Tanavde, Bio-Informatics Institute, A*STAR Singapore: 21st June, 2007
- A visit to Prof Dominique Bonnet's laboratory, London, UK to learn "Stem cell Research: a) Isolation of Adult haematopoietic and mesenchymal stem cells, maintenance in vitro. b) Stem cell repopulation/engraftment analysis in NOD-SCID Mice Transplantaton Model." 10-19th April, 2006
- 7. A visit to Prof Freda Stevenson's laboratory, Southampton, UK to learn "Analysis of somatic hypermutations in Immunoglobulin genes of patients with leukaemia and lymphoma", 26th April-4th May, **2006.**
- One day training on "Analysis of Immunoglobulin Junctional Sequences using IMGT/ V-QUEST database (IMGT/GENE-DB, IMGT/LIGM-DB), the IMGT tools and Web resources; Study of IMGT Collier de perles and HOT-SPOT mutations within Ig sequences", Laboratory of Prof Marie-Paule Lefranc, Montpellier, France, 21st April, 2006.
- 9. A visit to Dr JJM van Dongen's Laboratory, Rotterdam, The Netherlands to learn new techniques for "Analysis of T-cell receptor gene rearrangements in leukemia and lymphomas". June, **1996**.
- 10. A visit to Dr. Peter Gregersen's laboratory, Northshore University Hospital, New York, USA to learn modern molecular immunological techniques on 'Analysis of TCR Vβ CDR3 length restriction in population of CD4+ T cells', September, **1993**.

Academic Invited talks

1. Invitation to deliver talk on "A paradigm shift in cancer therapeutics: exploring classical ayurvedic formulations as immunomodulatory anti-cancer agents" under the session of "Lab-Immunology/Zebra Fish/Tissue culture" during the VIth International Conference on "Ayurveda for Cancer" to be held from 9-11th December, at ICTRC, Wagholi, Pune. 11th December 2022.

- Invited talk on "Targeting innate immune inflammasome pathway in oral cancer: Renewed look at cancer immunotherapeutics" during Session on 'Tumour Immunology and Immunotherapy'49th Annual Conference and General Body Meeting of the Indian Immunology Society IMMUNOCON-2022 "Immunology in Health and Disease" Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh, INDIA November 23-26, 2022, 25th November, 2022.
- Invitation to deliver talk on "Targeting innate immune inflammasome pathway in oral cancer: Renewed look at cancer immunotherapeutics" organized by the Department of Molecular Immunology at the Rohr University of Bochum (RUB), Germany on 7th November, 2022.
- 4. Invitation to deliver talk on "Anti-Cancer Drugs Development & Research Facilities for Breast Cancer in Tata Cancer Center (ACTREC) Mumbai" during the 3rd National Conference on Cancer with focus on Integrated Approach in Diagnosis & Management of Breast Cancer, organized by National Institute of Ayurveda, Jaipur . 23rd and 24th September, 2022.
- 5. Invited talk on "Recent advances in Anti-Cancer Research and Immune mechanistic Research in vitro and in vivo" during One-week "Hands-on Training Program on Pre-clinical Drug Screening". organized by Institute of Chemical Technology, Mumbai (PMU) organized by under the scheme of Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI) [an initiative by the Department of Science and Technology, Govt. of India at the SVKM's Dr. Bhanuben Nanavati College of Pharmacy, Mumbai, 4th 10th July 2022. 7th July, 2022
- Invited talk on "Recent advances in AntiCancer Research in vitro and in vivo", as webinar, organized by Centre for Ocean Research & Earth Science and Technology Cell (ESTC) and supported by ESTC, Ministry of Earth Sciences, Govt of India at Sathyabama Institute of Science & Technology, Chennai, 10th June, 2022.
- Invited talk on "Mental Immunity: Concept and role of vaccines" during celebration of the International Day of Immunology as Day of Immunology 2022 ACTREC-MIG event on "Immunology & Vaccines" for students of Madhyamik School at Children's Aid Society, Mankhurd, Mumbai 2nd May, 2022. https://actrec.gov.in/events/day-immunology-2022-actrec-mig-cas
- 8. Invited talk on "Humanized Mice: ACTREC Experience" during Webinar on "Humanized Mice and Applications in Healthcare Research" at ACTREC. 19th August, **2021**.
- Delivered an invited talk on "COVID-19 vaccines: Taming the Beast of Immunity" during a Webinar on "Day of Immunology 2021 ACTREC-MIG" at ACTREC. 29th April, 2021.
- 10. Delivered an invited talk on "Immunology & Informatics" during a Webinar on 'Immunology and Informatics' as a part of online Workshop on "From Biology to Omics" at ACTREC. 12th March, **2021**.
- 11. Invited lecturer on "Cancer Immunology: History, Basics and Advances" for M.Sc. Life Sciences Part II syllabus at St. Xavier's (Autonomous) College, Fort, Mumbai, 22nd Feb, **2021**
- 12. Invited as Resource Person to deliver talk on "CD26 signaling pathway molecules and soluble immune markers as predictors of human hematopoietic allogeneic stem cell transplantation" for International Conference (DBDT-2020). entitled: "Disease Biology: Diagnostics and Therapeutics" (DBDT-2020), at Savitribai Phule Pune University, Pune, Maharashtra INDIA 4 to 6th March, **2020**.
- 13. Invited talk on 'Current Trends in Cancer Immunotherapy' at Lupin Limited, Pune. 12th February, 2020.
- 14. Invited talk on "Standard Procedure of In Vitro and In Vivo Anti Cancer Research for Herbal, Mineral and Herbo-Mineral Ayurvedic Drugs" at National Institute of Ayurveda, Jaipur on 30th March, **2019**.
- 15. Invited talk on "Cancer Immunotherapy: Past, current and future perspectives" at Mahatma Gandhi Medical College at Mahatma Gandhi University of Medical Sciences & Technology, Jaipur, 28th March, 2019.
- 16. Invited Speaker on 'In vitro and in vivo screening assays for anti-cancer drug development' during DBT NER Hands on Training Course on "Medical Imaging: Preclinical Imaging in Drug Discovery" ACTREC from 7th- to 11th January and 10th- 18th January, **2019**.
- 17. Invited Speaker on 'In vitro and in vivo screening assays for anti-cancer drug testing in pre-clinical drug development' during ICAR sponsored Winter School on "Processing Value Addition and Waste Utilization of Medicinal and Aromatic Plants with Advance Techniques" to be organized at ICAR-DMAPR, 10-11th December, 2018.
- Invited speaker on 'Discovery of cancer therapy by inhibition of negative immune regulation' during Symposium on "2018 NOBEL PRIZES" at K J Somaiya College of Science & Commerce, Vidyavihar, Mumbai, 1st November, 2018.
- 19. Delivered an invited talk on "Animal Models in Cancer Research and Drug Development" during the 2nd Hands-on Workshop on "Advanced Techniques in Anti-Cancer Drug Evaluation" at ACTREC. 10th October, **2018**.
- Talk on 'Role of stem cell niche in therapy resistance and role reversal: Cues from leukemia model' during "ACTREC Retreat" with theme "Therapy resistance in Cancer: Challenges and new leads", 1st October, 2018.

- 21. Invited speaker on "Preclinical Screening Assays in Anticancer Drug Discovery" during 5th workshop on "In vivo Preclinical Imaging and Drug Discovery" ACTREC, September 26-28, **2018**.
- 22. Invited Speaker, "Animal Models in Cancer Research & Drug Development' during on 'Basic & Translational Research Methodology' in Pre-Conference Workshop at FHNO 2017, JW Marriott, Mumbai 15th Sept, **2017.**
- 23. Delivered an invited talk on "Immunological Techniques" during MIG Hands on Training Course and DBT –sponsored NER Training Course on "Basic and Advanced Immunological Techniques" at ACTREC. 21st January and 4th March, 2016
- 24. Invited talk on "Mesenchymal stem cell based therapies current status and looking beyond" at Glenmark Research Centre, Mahape, New Mumbai, 25th February, **2013**
- 25. Invited speaker, "Propagation and Maintenance of Stem Cells' in MIG Lecture Series "Cell Culture and Animal Models in Research" organized by Mumbai Immunology Group and Ramnarain Ruia College at RRC, Matunga. 30th January, **2013**.
- 26. Invited speaker, "Applications of Human Stem cells in Medicine and Research" in CME symposium on "Clinical Genetics' organized by Department of Cardiolgy Dr.D.Y.Patil Medical College, Nerul, Navi Mumbai at D.Y Patil Hospital & Research Center, Nerul. 18th January, **2013**.
- 27. Invited speaker, "Ex-vivo Organ Engineering using Stem Cells: Therapeutic revolution in Tissue Regeneration and Organ Transplantation' at the Diamond Jubilee Workshop on 'Nurturing a transplanted organ A Boon to human life" to be held at LT College of Nursing, SNDT Women's University, Marine Lines, Mumbai: 16th -17th January, 2012.
- 28. Invited Speaker: 'Roots and Shoots of Stem Cell Therapy in Regenerative Medicine', at the Platinum Jubilee Conference on 'Interdisciplinary Strategies in Biology', Ramnarain Ruia College, Matunga, December, 16-17, **2011**.
- 29. Invited speaker: 'Role of Mesenchymal Stem Cells in Immunomodulation and Regenerative Medicine', at the 12th Indo-US Cytometry Workshop and Symposium on "Application of Laser Flow Cytometry in Biomedical Research, Dr D.Y.Patil Biotechnology & Bioinformatics Institute, Pune: October, 18-21, 2011.
- 30. Invited to deliver lecture on 'Bone marrow Stromal cells and Clinical Application' as a part of 'Stem Cell Module' in one year fellowship course in Clinical Sciences under the aegis of Department of Biotechnology, Govt. of India, for medical postgraduates at Department of Clinical Pharmacology, KEM: 21st August, 2010.
- Invited to deliver lecture on "Stem cells in Tissue Regeneration and Repair" at the Vacation Creative Science Workshop, Nehru Science Centre, National Council of Science Museums, Mumbai: 8th May, 2010.
- 32. Invited Speaker: 'Mesenchymal Stem Cells: Immunobiology and Potential as Tool for Tissue Regeneration and Cellular Therapeutics' at the 9th Indo-US Cytometry Workshop: Application of Stem Cell Biology and Regenerative Medicine', Manipal Institute of Regenerative Medicine, Banglore: July 21-25th, **2008**.
- 33. Invited speaker: Panel Discussion on the topic "Job Opportunities for Students of Biotechnology in India- A researcher's view" in a two-day annual inter-collegiate biotechnology festival, "GALAZIO'08" organized by Department of Biotechnology, G.N. Khalsa College, Mumbai: December 17, **2008**.
- 34. Invited speaker on 'Stem Cells: Immunobiology, Current Market Trend" for M.Pharm. students, School of Pharmacy and Technology Management, SVKM's NMIMS University, Mumbai: March 21st, **2008**
- Invited lecture on "Bone Tissue Engineering using Human Mesenchymal Stem Cells: Role of SDF1-CXCR4 axis" at Tissue Engineering Program, National University of Singapore, Singapore: 21st June, 2007.
- 36. Invited lecture on 'Immunostimulants and Immunosuppressants for the M.Pharm (1st Year) Pharmacology students, Bharati Vidyapeeth's College of Pharmacy, C.B.D., Navi Mumbai : March 2nd, 2007.
- 37. Developed 'Immune System & Cancer' (Animated powerpoint presentation) as a part of education to Teachers and students for display in National Council of Science Museums, Nehru Science Centre, Mumbai at Science EXPO held in January 2007.
- **38.** (Invited Speaker) 'Tumor Immunology: Effector Mechanisms' in the Symposium on 'Tumor Immunology' TMC, 11th March, **2006**

International conferences/symposia:

1. Anand Vaibhaw, Monalisa Sahoo, Manohar Gundeti, Nirmal Kumar Kasinathan, Dattatray Dighe, Subrata Sen, Jyoti Kode. (Poster Presenter: Mr. Anand Vaibhaw) Scouting action of ayurvedic preparation RM as immunomodulatory and anti-cancer agent using in vitro pre-clinical models" at the VIth International Conference on Ayurved for Cancer" to be hosted by the Bharatiya Sanskriti Darshan

- Trust's Integrated Cancer Treatment and Research Centre, Wagholi, Pune, Maharashtra, India on 9th 11th December, 2022
- Monalisa Sahoo, Anand Vaibhaw, Manohar Gundeti, Nirmal Kumar Kasinathan, Dattatray Dighe, Subrata Sen, Jyoti Kode. (Poster Presenter: Ms Monalisa Sahoo) Ayurvedic formulation CS exhibits potential anti-cancer and immunomodulatory activity in pre-clinical cancer models" at the VIth International Conference on Ayurved for Cancer" to be hosted by the Bharatiya Sanskriti Darshan Trust's Integrated Cancer Treatment and Research Centre, Wagholi, Pune, Maharashtra, India on 9th -11th December, 2022
- 3. Akhila George, Sudhir Nair, Kumar Prabhash, Poonam Gera, Trupti Pradhan, Meena Patkar, Mrunali Padgaonkar, Subrata Sen, Madan Barkume, Vaishali Kailaje, Jyoti Kode. (Poster Presenter: Ms Akhila George) Exploring Dietary Phytochemical in regulating Innate Immune Inflammasome Pathway in Oral Cancer management" at the VIth International Conference on Ayurved for Cancer" to be hosted by the Bharatiya Sanskriti Darshan Trust's Integrated Cancer Treatment and Research Centre, Wagholi, Pune, Maharashtra, India on 9th 11th December, 2022
- **4. Jyoti Kode**, Jitendra Maharana, K. Nirmal Kumar, Trupti Pradhan, Arvind Ingle, Madan Barkume, Meena Patkar, Namitha Thampi, Ankita Patil, Anand Vaibhaw, Jeshma Kovvuri, Ahmed Kamal. (e-Poster Presentation). Phenstatin based indole linked chalcone compound **9a** exhibits anti-oral cancer activity through regulating NLRP3 inflammasome pathway. 113th Annual Meeting of American Association of Cancer Research 2022 at New Orleans, Louisiana as e-poster. **8-13th April, 2022**
- Monalisa Sahoo, Manasi Nagare, Naythan D'cunha, Meena Patkar, Manju Sengar, Navin Khattry, Sachin Punatar, Anant Gokarn, Sridhar Epari, Tanuja Shet, Jyoti Kode. (e-Poster Presenter: Ms Monalisa Sahoo) Deciphering role of NLRP3 inflammasome in acute myeloid leukemia microenvironment. 113th Annual Meeting of American Association of Cancer Research, New Orleans, Louisiana, USA as e-poster. 8-13th April, 2022
- 6. Invited as Resource Person to deliver talk on "CD26 signaling pathway molecules and soluble immune markers as predictors of human hematopoietic allogeneic stem cell transplantation" for International Conference (DBDT-2020). entitled: "Disease Biology: Diagnostics and Therapeutics" (DBDT-2020), at Savitribai Phule Pune University, Pune, Maharashtra INDIA 4 to 6th March, 2020.
- 7. Jashoda K. Suthar, Shruti Kandekar, Mahitha Harish, Shubhada Chiplunkar, Jyoti Kode. "Study of immunomodulatory effects of medicinal plant extracts on healthy peripheral blood leukocytes" (Poster presenter: Ms. Jashoda Suthar) at the "International Conference on Disease Biology: Diagnostics and Therapeutics (DBDT-2020)" at Savitribai Phule Pune University, Pune. 4-6th March, 2020.
- 8. **Jyoti Kode**, Manasi Nagare, Navin Khattry, Manju Sengar, Sachin Punatar, Anant Gokarn, Shubhada Chiplunkar. "Study of stem cell niche favoring drug resistance, immune suppression and maintenance of leukemia supportive microenvironment in Acute Myeloid Leukemia" Oral presentation at the 17th International Immunology Congress IUIS 2019 at the Chinese National Convention Centre, Beijing China, 19-23rd October, **2019**.
- 9. Naythan Dcunha, Navin Khattry, Manju Sengar, Bhausaheb Bagal, Hasmukh Jain, Anant Gokarn, Sachin Punatar, Avinash Bonda, Lingaraj Nayak, Shubhada Chiplunkar, **Jyoti Kode**. "Study of stem cell niche favoring immune evasion and maintenance of leukemia supportive microenvironment in Acute Myeloid Leukemia", (Poster presentation: Naythan Dcunha) IUIS-IIS-FIMSA Course on "Basic and Advanced Translational Immunology" Rajasthan University of Health Sciences, Jaipur, INDIA October 12-16, **2019**.
- 10. Jyoti Kode, Shruti Kandekar, Navin Khattry, Sachin Punatar, Anant Gokarn, Pallavi Rane, Libin Matthew, Shubhada Chiplunkar. Identification of CD26 and adenosine signaling pathway molecules as predictors of clinical outcomes post human hematopoietic stem cell transplantation (Poster presentation) at the Federation of Clinical Immunology Societies (FOCiS)-South-East Asia Advanced Course in Basic and Clinical Immunology, Shiv Vilas Resorts, Jaipur, India, March 26 29, 2019.
- 11. Manasi Nagare, Manju Sengar, Navin Khattry, Sachin Punatar, Anant Gokarn, Shubhada Chiplunkar, **Jyoti Kode**. (Poster Presenter: Ms Manasi Nagare) Role of Mesenchymal Stromal Cells for Therapy: Cues from Bidirectional Cellular Transfer in Leukemia Model. at the 14th Indo-Australian

- Biotechnology Conference on "Emerging modalities to improve cancer outcomes' on 22nd -23rd October. 2018.
- 12. Shruti Kandekar, Navin Khattry, Sachin Punatar, Anant Gokarn, Kumar Prabhash, Pallavi Rane, Libin Matthew, Shubhada Chiplunkar, **Jyoti Kode**. 'Association of CD26 Expression on Donor Stem Cell Harvest with Clinical Outcomes in Allogeneic Hematopoietic Stem Cell Transplantation'. (Poster Presenter: Ms Shruti Kandekar) At the 14th Indo-Australian Biotechnology Conference on "Emerging modalities to improve cancer outcomes' on 22nd and 23rd October, **2018**.
- 13. Participant: Symposium on "**Organoids Are Us**" organized by Peter Doherty Institute for Infection and Immunity, University of Melbourne, Melbourne, Australia Institute for Infection and Immunity, at the Peter Doherty Auditorium, Melbourne, Australia, 25th June, **2018**.
- 14. Jyoti Kode, Sharada Subramanian, Manju Sengar, Navin Khattry, Sachin Punatar, Anant Gokarn, Shubhada Chiplunkar. Targeting of mesenchymal stem cells from acute myeloid leukemia using immunomodulatory drugs: a therapeutic option to circumvent drug resistance and survival of leukemic blasts. (Poster presentation). 16th Annual Meeting of International Society for Stem Cell Research, Melbourne, Australia: June 20-23, 2018.
- 15. **Jyoti Kode**, Navin Khattry .CD26 and adenosine signaling pathway molecules as predictors of early engraftment in human haematopoietic stem cell transplantation. Poster presentation at the Platinum Jubilee Tata Conference held at NCPA, Mumbai from 26-28th February, **2016**.
- 16. Kode J, Chorghe S, Singh S, Ghosh Laskar S, Pai P, Aggarwal JP, D Cruz AK, Chaturvedi P, Chaukar D, Budrukkar AN, Murthy V, Kane S, Arya S, Kannan S, Sengar M. Invited speaker, "Development of sensitive technique for prognosis of Nasopharyngeal Carcinoma: comparison of Epstein Barr Virus DNA copies with PET-CT Imaging" at 32nd Convention of Indian Association for Cancer Research on "Emerging Trends in Cancer research: Road to prevention & cure and International Symposium on: Infection and Cancer, Vallabhbhai Patel Chest Institute, University of Delhi, Delhi; 13th-16th February, 2013
- 17. **Kode Jyoti**; Kank Vivek; Sawant Rajesh; Khattry Navin; Prabhash Kumar; Parikh Purvish; Ingle Arvind; Chaudhari Pradip; Bakshi Ashish. An emerging technology of Stem Cell and Chemokine therapy for cancer: *Ex-vivo* expansion of human CD34+ cells manipulated with a mixture of cytokines and Stromal Cell Derived Factor 1 (Poster Presentation): 6th Annual Meeting of International Society for Stem Cell Research, Philadelphia, USA: June 10-14, **2008**.
- 18. Mukherjee, Shayanti, Bakshi, Ashish, Mehta, Hitesh, Bellare, Jayesh, Agarwal, Manish, Kode, Jyoti. Mesenchymal Stem Cells: Potential tool for Tissue Regeneration and cellular therapeutics (Poster Presenter: Ms Shayanti Mukherjee): 6th Annual Meeting of International Society for Stem Cell Research, Philadelphia, USA: June 10-14, **2008**.
- 19. Participant: Pre-Conference workshop on "DNA MicroArray" at the 39th Congress of the International Society of Paediatric Oncology, Reliance Life Sciences, 29th October, **2007.**
- 20. Kode, Jyoti; Dudhal, Navnath; Bakshi, Ashish; Sharma, Smriti; Mehta, Hitesh; Soni, Vivek; Bellare, Jayesh; Agarwal, Manish. Bone Tissue Engineering using Human Mesenchymal Stem Cells: Role of SDF1-CXCR4 axis (Poster Presentation): 5th annual Meeting of International Society for Stem Cell Research, Cairns, Australia: June 17-20, 2007
- **21.** (Participant): 'Issues on Tissues' (Participant) 11th International Conference of Asia Pacific Association of Surgical Tissue Bank, Tata Memorial Hospital, Mumbai: November 24-26th, **2006**
- **22.** (Participant): Molecular Basis of Hematological Malignancies: Pathogenesis, Treatment & Monitoring, Hotel ITC Grand Central, Mumbai: October 7-8th, **2006**
- 23. **J.A. Kode**, R Nair, SV Chiplunkar. Selective migration of IgVH3+ B-cell chronic lymphocytic leukemia clones in response to chemokine SDF1. Poster presentation at the 46th Annual Scientific Meeting of British Society of Haematology, Edinburgh, UK. 3-5th April **2006**.
- 24. Attended the Eighth Congress of Asia-Pacific Bone Marrow Transplantation Group held at Tata Memorial Centre, Parel, October 31-November 3, 2002.
- 25. Attended an international conference conducted by Sero Research Foundation on "Molecular targets in Cancer cells: New paradigms in Research and Treatment" at Mumbai, 24th-25th February, **2001**.
- 26. J.A.Kode, S.H.Advani and S.V.Chiplunkar. TCR gamma-delta gene rearrangements and cytotoxic function of lymphocytes in patients with T-cell acute lymphoblastic leukaemia "International Mini-

- symposium on 'Mechanisms on Tumor Invasion, Metastasis and Host-Tumor Interactions', Cancer Research Institute, Mumbai, Nov 9-10, **1998.**
- 27. **J.A.Kode**, S.H.Advani and S.V.Chiplunkar. TCR gamma-delta gene rearrangements and cytotoxic function of lymphocytes in patients with T-cell acute lymphoblastic leukaemia "Oral and poster presentation at the 10th International Congress of Immunology, New Delhi, Nov 1-6, **1998**.
- 28. J.A.Kode, S.H.Advani and S.V.Chiplunkar. Interleukin-12 augments cytotoxic potential of gammadelta T cells from patients with Chronic Myelogenous Leukaemia. Poster presentation in the Second Meeting of European Haematology Association, Paris, France during May 29 to June 1,1996. S.V.Chiplunkar, M.A.Deshmukh, J.L.Kudalkar, P.D.Samson, M.G.Deo and S.G.Gangal. Killing of mycobacteria-infected macrophages by LAK cells from leprosy patients. Poster presentation at the XIV International Leprosy Congress, Orlando, Florida, USA, 1993.
- 29. Attended Indo-EC symposium on 'Leprosy and Mycobacterial Diseases', Lonavala, 1989.

National conferences/ symposia/meetings/ training

- Monalisa Sahoo, Anand Vaibhaw, Manohar Gundeti, Nirmal Kumar Kasinathan, Dattatray Dighe, Subrata Sen, Jyoti Kode. (Poster Presenter: Ms Monalisa Sahoo) Pre-clinical evaluation of compound RM exhibiting anti-cancer and immunomodulatory potential against in vitro models of leukemia. 49th Annual Conference of Indian Immunology Society (Immunocon-2022)" to be held at the Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India from 24th - 26th November, 2022.
- 2. Shruti Kandekar, Sachin Punatar, Navin Khattry, Anant Gokarn, Prashant Tembhare, Pallavi Rane, Libin Mathew, Shubhada Chiplunkar, Jyoti Kode. (Oral Presenter: Ms Shruti Kandekar). Mapping immune reconstitution and identifying immune markers on donor harvest for predicting GVHD incidence in transplant recipients post Allogeneic Hematopoietic Stem Cell Transplantation. 49th Annual Conference of Indian Immunology Society (Immunocon-2022)" to be held at the Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India from 24th 26th November, 2022.
- 3. Akhila George, Sudhir Nair, Kumar Prabhash, Poonam Gera, Trupti Pradhan, Meena Patkar, Mrunali Padgaonkar, Subrata Sen, Madan Barkume, Vaishali Kailaje, Dhanalaxmi Shetty, Kruti Chaubal, Arpita Ghosh, Sanjeev Kamte, Jyoti Kode. (Poster Presenter: Ms Akhila George). Development of oral cancer pre-clinical model of Indian origin for deciphering innate immune inflammasome pathway dynamics, 49th Annual Conference of Indian Immunology Society (Immunocon-2022)" to be held at the Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh, India from 24th 26th November, **2022.**
- 4. Akhila George, Sudhir Nair, Kumar Prabhash, Poonam Gera, Trupti Pradhan, Meena Patkar, Mrunali Padgaonkar, Subrata Sen, Madan Barkume, Vaishali Kailaje, Jyoti Kode. (Poster Presenter: Ms Akhila George) Exploring Dietary Phytochemical in regulating Innate Immune Inflammasome Pathway in Oral Cancer management. HBNI-im-LS; RRCAT Indore, 7-10 September 2022
- 5. K Nirmal Kumar, Trupti Pradhan, Meena Patkar, S Bharathi Raja, Anand Vaibhaw, Madan Barkume1, Subrata Sen, Niranjali S Devaraj, Jyoti Kode. (Oral Presentation: Dr Nirmal Kumar K.) Aegle marmelos fruit extract as potent immunomodulatory anti-cancer therapeutic agent: Cues from inflammation-associated colon cancer pre-clinical models. IABSCON_SOUTH 2022. University of Mysore, Mysore. September 8-9, 2022.
- 6. Akhila George, Sudhir Nair, Kumar Prabhash, Poonam Gera, Trupti Pradhan, Meena Patkar, Mrunali Padgaonkar, Subrata Sen, Madan Barkume, Jyoti Kode. (Virtual Presentation: Ms Akhila George) Deciphering the dynamics of inflammasome innate immune pathway in oral cancer. IABSCON_SOUTH 2022. University of Mysore, Mysore. September 8-9, 2022.
- 7. Manasi Nagare, Monalisa Sahoo, Manju Sengar, Sachin Punatar, Navin Khattry, Anant Gokarn, Bhausaheb Bagal, Hasmukh Jain, Sridhar Epari, Tanuja Shet, Meena Patkar, Jyoti Kode. (Poster Presenter: Ms Manasi Nagare) 'Understanding immune landscape in Acute Myeloid Leukemia microenvironment: Role of NLRP3 pathway markers in diagnostics and therapeutics' at

- IMMUNOCON the 48th Annual Meeting of Indian Immunology Society, virtual conference at Banaras Hindu University, 8th-9th July, **2022**.
- 8. Trupti Pradhan, Jitendra Maharana, K. Nirmal Kumar, Vaishali Kailaje, Arvind Ingle, Subrata Sen, Madan Barkume, Meena Patkar, Namitha Thampi, Ankita Patil, Anand Vaibhaw, Jeshma Kovvuri, Ahmed Kamal, Jyoti Kode. (Poster Presenter: Mrs Trupti Pradhan) Renewed look at cancer immunotherapeutics: Targeting NLRP3 inflammasome pathway in oral cancer. Poster presentation at the 8th National Annual Conference of ISMPOCON 2022, Mumbai, 28-30th January, 2022.
- 9. Manasi Nagare, Naythan Dcunha, Manju Sengar, Monalisa Sahoo, Meena Patkar, Navin Khattry, Sachin Punatar, Anant Gokarn, Sridhar Epari, Tanuja Shet, Jyoti Kode. (Poster Presenter: Ms Manasi Nagare) Remodeling immunosuppressive microenvironment in acute myeloid leukemia for improved therapeutics: Targeting inflammasome pathway. Poster presentation at the 8th National Annual Conference of ISMPOCON 2022, Mumbai, 28-30th January, 2022.
- 10. Ankita Patil, Trupti Pradhan, Shruti Kandekar, Subrata Sen, Madan Barkume, Nirmal Kumar K., Faisal Kholiya, Ramavatar Meena, Jyoti Kode. (Poster Presenter: Ms Ankita Patil). Seaweed polysachharide derived bioaldehyde nanocomposite exhibits anti-cancer activity and also acts through regulating anti-cancer immune mechanisms. Poster presentation at the 8th National Annual Conference of ISMPOCON 2022, Mumbai, 28-30th January, 2022.
- 11. Dilep Kumar Sigalapalli, Jitendra Maharana, Manisha Banerjee, Madan Barkume, Subrata Sen, Nirmal Kumar Kasinathan, Pradip Chaudhari, Bhabani Shankar Mohanty, Trupti Pradhan, Meena Patkar, Vaishali Kailaje, Jeshma Kovvuri, Ahmed Kamal, Jyoti Kode. (Poster Presenter: Dr Dilep Kumar Sigalapalli) "Biophysical and immunobiological evaluation of phenstatin based indole linked chalcone 9a as anticancer agent" at the 44th Indian Biophysical Society Meeting (IBS2022) on "Conceptual Advances in Biophysics and its Applications, held at ACTREC 30th March, 1st April, 2022.
- 12. Shruti Kandekar, Sachin Punatar, Navin Khattry Anant Gokarn, Prashant Tembhare, Anand Patil, Murari Gurjar, Pallavi Rane, Libin Mathew, Shubhada Chiplunkar, Jyoti Kode. (Poster presenter: Shruti Kandekar). Deciphering association of cellular/soluble immune landscape and CD26 signaling network molecules with immune reconstitution post allogeneic hematopoietic stem cell transplantation in hematological disorders. 2nd Annual national Congress 2020 by Immuno-oncology Society of India (I-OSI), on "Immuno-Oncology towards 2021: Reboot, Resolve and Evolve". 30th October, 1st November, 2020.
- 13. Naythan D'cunha, Manasi Nagare, Manju Sengar, Navin Khattry, Sachin Punatar, Bhausaheb Bagal, Anant Gokarn, Avinash Bonda, Hasmukh Jain, Lingaraj Nayak, Shubhada Chiplunkar, Jyoti Kode (Poster presenter: Naythan Dcunha). Delineating contribution of patient marrow-derived derived Mesenchymal Stem Cells in NK cell impairment and progression of Acute Myeloid Leukemia. 2nd Annual national Congress 2020 by Immuno-oncology Society of India (I-OSI), on "Immuno-Oncology towards 2021: Reboot, Resolve and Evolve". 30th October, 1st November, 2020.
- 14. Jashoda K. Suthar, Shruti Kandekar, Mahitha Harish, Shubhada Chiplunkar, Jyoti Kode. (Poster presenter: Jashoda Suthar). Exploring medicinal plant extracts for potential anti-cancer mechanism, anti-cancer immunity and safety on normal immune cells. 2nd Annual national Congress 2020 by Immuno-oncology Society of India (I-OSI), on "Immuno-Oncology towards 2021: Reboot, Resolve and Evolve". 30th October, 1st November, 2020.
- 15. Manasi Nagare, Manju Sengar, Navin Khattry, Sachin Punatar, Anant Gokarn, Shubhada Chiplunkar, Jyoti Kode. (Poster Presenter: Ms Manasi Nagare) on "Immunobiological characterization of mesenchymal stem cells derived from bone marrow microenvironment of acute myeloid leukemia" at National Research Scholars Meet 2019, ACTREC, Navi Mumbai.15-16th December, 2019.
- 16. Manasi Nagare, Manju Sengar, Navin Khattry, Sachin Punatar, Anant Gokarn, Shubhada Chiplunkar, Jyoti Kode. (Poster Presenter: Ms Manasi Nagare). "Understanding immunosuppressor landscape of mesenchymal stem cells derived from Acute Myeloid Leukemia bone marrow microenvironment and possible therapeutic opportunities" at the IMMUNOCON 2019, 46th Annual conference of Indian Immunology Society, at DAE Convention Centre, Mumbai on 14th-16th November, 2019.
- 17. Shruti Kandekar, Navin Khattry, Sachin Punatar, Anant Gokarn, Kumar Prabhash, Pallavi Rane, Libin Matthew, Shubhada Chiplunkar, **Jyoti Kode**. 'Association of CD26 Expression on Donor Stem Cell Harvest with Clinical Outcomes in Allogeneic Hematopoietic Stem Cell Transplantation'. (Poster Presenter: Ms Shruti Kandekar) at the 59th Annual Conference of The Indian Society of Haematology and Blood Transfusion (HAEMATOCON 2018) to be held at Kochi from 25th to 28th October, **2018**.
- 18. Jyoti Kode, Sharada Subramanian, Manju Sengar, Navin Khattry, Sachin Punatar, Anant Gokarn, Shubhada Chiplunkar. Immunomodulation of stromal cells in acute myeloid leukemia as reversal strategy to circumvent drug resistance and survival of leukemic blasts. Poster presentation. XVI

- Annual Conference on "Evidence Based Management of Cancers in India: Cancer Immunotherapy" at Tata Memorial Centre, Mumbai on 23-25th February, **2018**.
- 19. Jyoti Kode, Sharada Subramanian, Manju Sengar, Navin Khattry, Sachin Punatar, Anant Gokarn, Shubhada Chiplunkar. Characterization and targeting of mesenchymal stem cells from acute myeloid leukemia using immunomodulatory drugs for increasing chemosensitivity: a therapeutic option to circumvent drug resistance and survival of leukemic blasts. Poster presentation (Presenter: Ms Sharada S.) at the National Research Scholars Meet 2017, ACTREC, 14th-15th December, 2017
- 20. **Jyoti Kode**, Vasanti Alai, Amit Joshi, Kumar Prabhash, Ashish Bakshi, Arvind Ingle, Pradip Chaudhari, Sadhana Kannan, Navin Khattry. Stem Cell and Chemokine therapy for cancer: *Ex-vivo* expansion of human CD34+ cells manipulated with a mixture of cytokines and Stromal Cell Derived Factor 1, Oral presentation at the 29th Annual Convention of Indian Association for Cancer Research, Kochi, February 20-23, **2010**.
- Kode JA, Shayanti Mukherjee, Prabhash K, Bakshi A, Parikh P. Isolation and characterization of Mesenchymal Stem Cells from Human Bone Marrow. The first Mid-Term Conference of Mumbai Haematology Group, Tata Memorial Centre: 29th September, 2007
- Kode JA, Dudhal, NV, Nair R, Chiplunkar SV: Molecular and immunoinformatic analysis of IgVH3+ B-cell Chronic Lymphocytic Leukemia clones: Role of SDF1-CXCR4 signaling axis. (Oral presentation): 30th Annual Conference of Mumbai Hematology Group, Tata Memorial Hospital, Mumbai: April 13-14th, 2007
- 23. '(Participant): 1st International Conference of Stem Cell Research Forum of India, Banglore: 29th January to 1st February, **2007**
- 24. Visit to Laboratories of Dr Prabha Nair, Dr H. Varma & Dr Annie George, Sree Chitra Tirunal Medical Institute, Trivandrum to discuss collaborative work on Bone Tissue Engineering using Mesenchymal stem Cells 5-6th October, **2006**
- 25. (Participant): 'Workshop on Bioethics in Clinical Research', Hospital Ethics Committee, Tata Memorial Hospital, Mumbai: July 31- August 2, **2006**
- 26. **Kode JA**, Nair R, Chiplunkar SV: Distinct IgVH genotype in B-CLL cells migrating against chemokine SDF1. (Poster presentation): Symposium on Translational Research in Cancer: Bench to bedside, ACTREC, Mumbai: December 16, **2005**.
- 27. **Kode JA**, Nair R, Chiplunkar SV: "Distinct IgVH genotype in B-CLL cells migrating against chemokine SDF1" at the 24th Annual Convention of Indian Association for Cancer Research, and International Symposium on HPV and cervical cancer at IPCO, Noida, February 9-12, **2005**.
- 28. **Kode JA.** 'Tissue Engineering: Stem cell and chemokine therapeutics for haematological neoplasms' (Oral presentation) at the Pre-meeting on Topic: Technology Vision-Biotechnology for "DAE Collective Vision for the future", BARC, Mumbai, May 5, **2004**.
- **29. Kode JA.** 'Research Management Skills and Effective Communication' (Poster presentation) at the Pre-meeting on Topic: Human Resource Development: Reorientation Strategies for "DAE Collective Vision for the future", BARC, Mumbai, April 24, **2004.**
- 30. **Kode JA**, N.V. Dudhal, S.D. Banavali, S. H. Advani, and S.V. Chiplunkar. 'Clonal T-cell receptor γ and δ gene rearrangements in T-cell acute lymphoblastic leukemia at diagnosis: Predictor of prognosis and response to chemotherapy' Podium presentation in the 23^{rd} Annual Convention of Indian Association for Cancer Research, CRI-ACTREC (ACTREC, Navi Mumbai), January 29-31, **2004**.
- 31. Presentation on 'Tissue Engineering: Stem cell and chemokine therapeutics for haematological neoplasms' at the Pre-meeting on Topic: Technology Vision-Biotechnology for "DAE Collective Vision for the future, BARC, Mumbai, May 5, 2004
- 32. J.A.Kode, P.Pochkhanavala, V.Kattige, W.S.Bhatki and S.V.Chiplunkar. "T-cell receptor repertoire in leprosy patients" Poster presentation in the 26th Annual conference of Indian Immunology Society, Tata Memorial Centre, Mumbai, 13-15th Jan.,2000
- 33. **J.A.Kode**, S.H.Advani and S.V.Chiplunkar. TCR gamma-delta gene rearrangements and cytotoxic function of lymphocytes in patients with T-cell acute lymphoblastic leukemia. Poster presentation in the 24th Annual conference of Indian Immunology Society, Calcutta, 22-24th December **1997**.
- 34. **J.A.Kode**, S.H.Advani and S.V.Chiplunkar. Interleukin-12 augments cytotoxic potential of gammadelta T cells from patients with Chronic Myelogenous leukemia. Podium presentation in the 21st Annual conference of Bombay Haematology Group, Tata Memorial Centre, 15-16th March **1997**.

35. **J.L.Kudalkar**, S.V.Chiplunkar, R.Butlin, M.G.Deo, and S.G.Gangal. Recognition of ICRC, M.leprae and other mycobacterial antigens by sera from leprosy patients Poster presentation at the XVII Annual Conference of Indian Immunology Society, Lucknow, 1990.

Academic contributions:

- 1. Currently mentoring three graduates for their PhD degree in 'Life Sciences' 2016- onwards.
- 2. Supervised Dissertation project of 18 students appearing for M.Sc./ B.Tech./ M.Tech. degree: **2003 onwards.**
- 3. Participate in Orientation Programme on 'Cancer Biology' for Junior Research Fellows Module: 'Tumor Immunology', ACTREC, **1997-todate**.
- 4. Invited Panel Member and External Expert for The Board of University Teaching and Research (BUTR) meeting for PhD Topic Approval at Amity University Mumbai. Amity Institute of Biotechnology. 17th October, **2022**.
- 5. Invited Panel Member and External Expert in Immunology for the selection of Ph.D students at NIIH, Mumbai. 10th and 11th October, **2022**.
- 6. Invited as Expert in Immunology at the Centre of Excellence in Immunology by Dr Jayanthi Shastri, Professor & Head, Department of Microbiology, Viral Research & diagnostic Lab, ICMR, Kasturba hospital for Infectious Diseases, T N Medical College & Nair Hospital, Mumbai. 19th September, 2022.
- 7. As Social Scientific Responsibility (SSR), Part of Event on public awareness lecture on "No Tobacco No smoking" and sharing opportunities in Oral Cancer Immunology Research at ACTREC at CKT college of Arts, Commerce and Science at New Panvel on Friday 26th Aug 2022
- **8.** As Social Scientific Responsibility (SSR), Part of Event on public awareness lecture on "No Tobacco No smoking" and sharing opportunities in Oral Cancer Immunology Research at ACTREC at Sharon English School, Nere Village, Panvel on Friday **26th Aug 2022**
- Invited to visit BKL Walawalkar Rural Medical College and Hospital as expert in field of Immunology. This activity forms part of TMC Rural Outreach Program at Sawarde, Chiplun, Ratnagiri. (19th - 20th August, 2022).
- 10. Invited to review pre-proposal submitted for funding from Rajiv Gandhi Science & Technology Commission, Government of Maharashtra. 23rd June, **2022**.
- 11. Invited to review the pre-proposal submitted for funding top Young Investigators Programme in Biotechnology (YIPB) by the Kerala Biotechnology Commission (KBC), Kerala State Council for Science, Technology and Environment, Thiruvananthapuram. 20th June, **2022**
- 12. Invited co-guide for M.D, Ayurveda student registered for PhD (Ayurveda) degree at National Institute of Ayurveda, Jaipur, June **2022**.
- 13. Invited co-guide for B.A.M.S. student registered for M.D. Ayurveda (Rasashastra Bhaishajyakalpana) degree at YMT Ayurveda College & Hospital, Kharghar, June **2022**.
- 14. Webinar/ Seminar arranged (as Event Organizer) to celebrate International Day of Immunology as Day of Immunology 2022 ACTREC-MIG event on "Vaccines: Fantastic journey from bacteria/ virus based vaccines to cell-based vaccines" and Creative Mind Contest on "Immunology & Vaccines" at ACTREC, 5th May, 2022. https://actrec.gov.in/events/day-immunology-2022-actrec-mig
- 15. Event (grass-root level teaching) arranged (as Event Organizer) to celebrate International Day of Immunology as Day of Immunology 2022 ACTREC-MIG event on "Immunology & Vaccines" and Creative Mind Contest at the Madhyamik School of Children's Aid Society, Mankhurd, Mumbai 2nd May, 2022. https://actrec.gov.in/events/day-immunology-2022-actrec-mig-cas
- 16. Member and Nodal Scientist for CRI Group, BioMedical Waste Management Program at ACTREC, March-September, **2022**; October, **2022-2025**.

- 17. Invited Editorial Board Member, World Journal of Stem Cells, Baishideng Publishing Group Inc, California, USA for period 2022-2025. 23rd December, **2021.**
- 18. Invited to visit BKL Walawalkar Rural Medical College and Hospital as expert in field of Immunology. This activity forms part of TMC Rural Outreach Program at Sawarde, Chiplun, Ratnagiri. (18th-19th December, **2021**).
- 19. Invited reviewer for Core Research Grants submitted to Scientific & Industrial Research Board (SERB), Government of India. September, 2021
- 20. Webinar conducted (as Event Organizer) on "Humanized Mice and Applications in Healthcare Research" at ACTREC, 19th August, **2021**https://actrec.gov.in/events/webinar-humanized-mice-applications-healthcare-research
- 21. Received title as Associate Professor in Life Sciences by Homi Bhabha National University, Mumbai. August **2021**.
- **22.** Invited reviewer for project completion report submitted to Scientific & Industrial Research Board (SERB), Government of India. 19th July, **2021**
- 23. Webinar arranged (as Event Organizer) to celebrate International Day of Immunology as Day of Immunology 2021 ACTREC-MIG event on "Taming the Beast of Inflammation: COVID-19" and Creative Mind Contest on "COVID-19 and Life" at ACTREC, 29th April, **2021**. https://www.actrec.gov.in/events/day-immunology-2021
- 24. Webinar arranged (as Event Organizer) on "Global Health Issues and Drug Development Challenges" during ACTREC Alumni Association Third Annual Meet on 30th March, 2021. https://actrec.gov.in/events/actrec-alumni-association-third-annual-meet-2021
- 25. Webinar Course Co-organizer on 'Immunology and Informatics' on 12th March, 2020 during online Workshop on "From Biology to Omics" at ACTREC from 10th-12th March, **2021.** https://www.actrec.gov.in/events/biology-omics
- 26. Invited Reviewer for National Journals: Indian Journal of Med Res (2010- onwards), Indian Journal of Medical Sciences (2015) Reviewer for International Journals: Cytotherapy (2010 onwards), Future Medicinal Chemistry (2014), Therapeutic Delivery (2011 onwards), Journal of Biosciences (2012onwards), Journal of Materials Science: Materials in Medicine JMSM (2013- onwards), Leukemia Research (2014), BMC Cancer (2015), Cancer Biotherapy Radiopharmaceuticals (2015 onwards), Sarcoma (2015), Invited Reviewer for International Journals: Cancer Biomarkers (June 2016 onwards), Biomedical Research Journal (2017), International Journal of Blood Disorders & Diseases (2017), OncoTargets and Therapy, Cancer Communications, Cancer Research & Therapy, JSM Biochemistry and Molecular Biology, World Journal of Stem cells (2018), Current Science, Asian Pacific Journal of Reproduction, Interface Focus, Drug Design, Development and Therapy, World Journal of Gastroenterology (2019): World Journal of Experimental Medicine (Mar 2020), Cells Tissues Organs (Oct 2020). Journal of Biosciences, World Journal of Diabetes, Chemistry & Biodiversity, Bioorganic Chemistry, Journal of Taibah University of Science, Cell and Tissue Banking, World Journal of Gastrointestinal Oncology (2021), Bioorganic Chemistry, Journal of Advances in Medicine and Medical Research, World Journal of Hepatology, Cell Journal (Yakhteh), International Journal of Cancer, Journal of Gynaecologic Oncology, Bioscience Reports, Advanced Healthcare Materials (2022)
- 27. Invited reviewer for Article Tracking Quality of articles accepted for publication in World Journal of Stem Cells. **2018** onwards.
- 28. Invited as Expert at IPCA labs Pvt Ltd., Kandivali, Mumbai, 19th February, 2020
- 29. Invited as Academic Coordinator for session on "CAR-T cell therapeutics" during 2nd Annual national Congress 2020 by Immuno-oncology Society of India (I-OSI), on "Immuno-Oncology towards 2021: Reboot, Resolve and Evolve". 30th October, 1st November, **2020.**
- 30. Invited Member, Board, Seth GS Medical College and KEM Hospital Institutional Committee for Stem Cell Research [IC-SCR]. 16th June, **2020**. 22nd March, **2021**, **2020-2023**.

- 31. External Expert on Doctoral Committee of PhD student, at ICMR-NIRRH, Parel, Mumbai. 25th November, **2019**.
- 32. External Referee for evaluation of Thesis and conducting viva voce for PhD degree in Applied Biology and examiner for conducting viva-voce, Mumbai University. April, December **2019**.
- 33. Member, Scientific and Organizing Committee, and chairperson for sessions Keynote talk on "CD1- and MR1-restricted T cells in anti-tumor immunity" and Session VIII, Oral presentations by faculty, Oral presentations by students during IMMUNOCON 2019 46th Annual conference of Indian Immunology Society, at DAE Convention Centre, Mumbai on 14th-16th November, 2019
- Member, Organizing Committee, Mumbai Immunology Group-Lecture Series' or "Fundamentals of Immunology" at TSH, Anushakti Nagar, Mumbai.13th November, 2019.
- 35. Invited Member, Board of Studies for Microbiology at Sophia College (Autonomous), Mumbai, September, **2018-21.**
- 36. Member, Scientific Committee; Chairperson for session on 'The science and art of Cancer Immunotherapy' and Faculty Discussant during session "Meet the professor" during the 1st Immuno-Oncology India Congress I-OSICON 2019 on 'Immunotherapies in Cancer: Challenges in translating from bench to bedside', Tata Memorial Hospital, 15-17th March, 2019
- 37. Organizing Secretary, Advanced Techniques in Anti-Cancer Drug Evaluation, 2nd Hands-on Workshop organized by ACTREC, Navi Mumbai, 8-12th October, **2018**. http://www.actrec.gov.in/data%20files/Meetings/2018/ACDSF18/ACDSF-Oct2018.html
- 38. Treasurer and Member, Organizing Committee for the 14th Indo-Australian Biotechnology Conference on "Emerging modalities to improve cancer outcomes' on 22nd -23rd October, **2018.**
- 39. Member, Data Safety and Monitoring Unit, IEC-III, ACTREC-TMC 2018-2020.
- 40. Invited Editorial Board Member, World Journal of Stem Cells, Baishideng Publishing Group Inc, California, USA, April 2018- December 2021
- 41. Member, International Society for Stem Cell Research (ISSCR) 2006 to 2009, 2018.
- 42. Member, Institute Annual Report Committee, **2017-19**.
- 43. Received title as Assistant Professor and Faculty for mentoring research scholars for their Doctorate Degree in Life Sciences by Homi Bhabha National University, Mumbai. May **2016**.
- 44. External Referee for evaluation of Thesis for PhD degree in Applied Biology, Mumbai University. **August, 2014; November 2015, June 2016**
- 45. Invited Reviewer for Projects received under EMR scheme of Ministry of AYUSH, Central Council for Research in Ayurvedic Sciences (CCRAS), New Delhi. June **2016**.
- 46. Course coordinator for MIG Hands on Training Course and DBT –sponsored NER Training Course on "Basic and Advanced Immunological Techniques" at ACTREC from 1st to 5th March (for students); 18th January to 22nd January (for faculty and corporate participants) 2016
- 47. Local Organizing committee,16th Indo-US Cytometry Workshop on 'Flow Cytometry: translating Laboratories Discoveries to Clinics' at ACTREC: 27-28th October, **2015**.
- 48. Invited Editorial Board Member of International Journal of Hematology Research, **November 2014.**
- 49. Joint Organizing Secretary, Advanced Techniques in Anti-Cancer Drug Evaluation, a Handson Workshop organized by ACTREC, Navi Mumbai, 3rd-7th November, **2014.** http://www.actrec.gov.in/data%20files/Meetings/2018/ACDSF18/ACDSF-Oct2018-mem.html
- 50. Organizing Secretary, Basic Course in Flow Cytometry-II, a Hands-on Workshop organized by Mumbai Immunology Group, ACTREC, Navi Mumbai, 10th-11th July, **2014**
- 51. Chairperson, Cancer Biology Session at the 33rd Annual Convention of Indian Association for Cancer Research, Trivandrum, 15th February, **2014**
- 52. Member- Event coordinator: Mumbai Immunology Group lecture series on "B cell Immunity and Autoimmunity", at NIIH, Parel,31st **May, 2013**.

- **53.** Faculty for Clinician Course on 'Introduction to translational research' to deliver lecture on 'Immune-dysfunctions in cancer and immunotherapeutic strategies'. **2012 2015.**
- 54. Treasurer, Indian Association for Cancer Research, 2012-2014.
- 55. Member Organizing Committee at the 12th Indo-US Cytometry Workshop and Symposium on "Application of Laser Flow Cytometry in Biomedical Research, Dr D.Y.Patil Biotechnology & Bioinformatics Institute, Pune: October, 18-21, **2011**
- 56. Invited Member, Board, Reliance Life Sciences Institutional Committee for Stem Cell Research & Therapy, Dhirubhai Ambani Life Sciences, Rabale, Navi Mumbai. **2011-2020**.
- 57. Member, Abstract and proceeding publication, Platinum Jubilee Conference on 'Interdisciplinary Strategies in Biology', Ramnarain Ruia College, Matunga, December, 16-17, **2011**.
- 58. Faculty and Organizing Committee Member, Workshop on "Basic Course in Flow Cytometry", organized by Mumbai Immunology Group, ACTREC, Navi Mumbai. 30th June-1st July, **2011**.
- 59. Invited to participate in development of Exhibit on "Stem Cell" in project "Human and Machine" at Nehru Science Centre, National Council of Science Museums, Mumbai, **2008-09**
- 60. Faculty to conduct lectures and practical on "Stem Cells" during Advance (P.G.) Diploma in Animal Biotechnology: Cell culture, Stem cells and Cell Engineering". This course is conducted by University of Pune and supported by DBT, Gov. of India under the Human Resources Development Program in Biotechnology: March 17-18th, 2008
- 61. Secretary, ACTREC Alumni Association 2006-2017, 2019- onwards.
- 62. Executive Committee Member, Mumbai Immunology Group **2009-todate**.
- 63. Executive Committee Member, Mumbai Hematology Group **2002-2009**.
- 64. Member-External Examiner for Annual Progress Seminar (APS) Committee of PhD student at Chemical Engineering Department, IIT-Bombay. The topic of his research is "Biomaterials and their assessment as scaffold for Bone Tissue Engineering": 25th January, 2008.
- 65. Paper examiner for M.Sc. theory Semester III (Medical Biotechnology): Subjects-Immunology, Animal Tissue Culture, & Paper Setter & Examiner for M.Sc. Semester 1st (Biotechnology) Subject Animal Tissue Culture, Pravara Institute of Medical Sciences (Deemed University), Loni: 2005-2008.
- 66. National Faculty at the 9th Indo-US Cytometry Workshop: Application of Stem Cell Biology and Regenerative Medicine', Manipal Institute of Regenerative Medicine, Banglore: July 21-25th, **2008**
- 67. Member, Scientific Committee, 31st Annual Meeting of Mumbai Haematology Group, at TMH, Mumbai. 10th Feb, **2008**
- 68. Invited to give a lecture on "Monoclonal antibodies: Development, Therapeutics and Current Market Trends" for students of PGDM (Biotechnology Business Management) at Pillai's Institute of Management Studies and Research, New Panvel: 2nd November, **2007**
- 69. Member, Staff Selection Committee –Nominated by University Authority, Pravara Rural University, Loni, Ahmednagar: 28th July, **2007**
- 70. Member, Board of Studies in Medical Biotechnology- Nominated by University Authority, Pravara Rural University, Loni, Ahmednagar: 13th October, **2007**
- 71. Member, Participant Institutional Committee, Science Expo2007, National Council of Science Museums, Nehru Science Centre, Mumbai: January 13-17th, **2007**
- 72. Member, Participant Institutional Committee, Mumbai University's Science and Society exhibition University of Mumbai, Kalina campus: January 22nd -24th, **2007**
- 73. Examiner for Powerpoint presentations on' Nuclear Energy in India' by School and Junior College teachers at Science-EXPO 2007, National Council of Science Museums, Nehru Science Centre, Mumbai: January15, **2007**
- 74. Member, JRF Academic Committee of ACTREC: 2007
- 75. Member, Scientific Programme Committee, 4th Indo-US Cytometry Workshop, ACTREC, Navi Mumbai, 2nd-6th February, **2004**

- 76. Member, Organizing Committee for conducting "Training Course for Technicians / Scientific Assistants", ACTREC, **2003-06**.
- 77. Life member of national societies: Immuno-Oncology Society of India, February, 2019; Society for Tissue Engineering and Regenerative Medicine (India) STERMI 2010; Mumbai Immunology Group, 2009; Society for Tissue Engineering and Artificial Organs of India, 2008; Indian Association of Cancer Research, 1993; Mumbai Hematology Group (previously Bombay Hematology Group), 1993; Indian Immunology Society, 1990.

Place: Navi Mumbai Date: 22nd October, 2022