Sapnita Shinde

Ph.D. (Biotechnology) M.Sc. (Biotechnology)

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Area of Research

Clinical Research: Tumour Biomarkers, Diagnostic and Therapeutics.

Worked on identification of potential biomarkers for colorectal cancer in a central region population. The main focus of research is exploring the Diagnostic and Therapeutic aspects of research on colorectal cancer.

Key Skills-

Microbiology techniques, DNA extraction, Nanodrop, PCR, Gel electrophoresis, RFLP, Histopathology, H & E staining, cell, MTT assay, fluorescent microscopy, RNA extraction, Protein extraction, cDNA synthesis, RT-PCR, flow cytometry, western blotting, Microscopic analysis, Biochemistry analysis, Docking.

I. Current Position-

Currently working as a Guest Lecturer in Govt. V.Y.T. P.G. Autonomous college, Durg (C.G.)

II. Experience-

• Worked as ICMR-SRF on project "Identification and characterization of molecular markers for colorectal cancer" in multi-disciplinary research Unit, Shyam Shah Medical College Rewa, M.P. India from August 2022 to July 2024.

III. Academic Qualification-

• Ph.D. in Biotechnology on "Identification of potential biomarkers for colorectal cancer" under the supervision of Dr. Dhananjay Shukla, Assistant Professor, Department of Biotechnology Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) from May 2019 to July 2024.

- UGC-VRET Doctoral Research Fellowship (2019-July, 2022).
- M.Sc. in Biotechnology from Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) in 2016-2018 with aggregate 75.24%.
- B.Sc. in Biotechnology from MATS University, Raipur (C.G.) in 2013-2016 with aggregate 73.67%.
- HSC with (PCB) from B S S Pranvananda Academy, Raipur (C.G.) in 2012 with aggregate 63.6%.
- SSC from Vignan Vidyalayam School, Vishakhapatnam (A.P.) in 2010 with 8.4 CGPA.

IV. Training & Project-

- Completed three months training in "Training on basic animal cell culture and molecular biology techniques including cytotoxicity assays, flow cytometry, fluorescent microscopy and western blotting" under the supervision of Dr. Yogendra S. Padwad, Principal Scientist, Dietetics & Nutrition Technology Division w.e.f. July, 2023 to September, 2023 at CSIR-Institute of Himalayan Bioresource Technology, Palampur (H.P.).
- Completed one month training on "Advance Recombinant DNA Technology" from 1June to 30 June, 2017 at the Division of Biotechnology, CytoGene Research & Development, Lucknow (U.P.).
- Completed the Training Programme on "Study of Liver Function Test for Jaundice" from September, 2015 to October, 2015 in Clinical Path Lab (CPL), Raipur (C.G.).

V. Workshop and Seminar-

- Certificate of Oral Presentation on "Colorectal Cancer molecular profiling and clinicopathological association in Indian population of Central Region" in the two days National seminar on Innovations and Entrepreneurship in Biotechnology (NSIEB-2023) organized by Department of Biotechnology Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.) during December 08-09, 2023.
- Participated in M.P. Council of Science and Technology 38th M.P. Young Scientist Congress held from March 17-19, 2023 and presented on "A Dietary Based Case-Control Study for Colorectal Cancer" also awarded (eligible) for Fellowship for Training of Young Scientists.
- Presented Poster on "Targeted Genomic Profiling of Colorectal Cancer: An Indian Cohort Study" in International Conference on Exploring New Horizons in Biotechnology (ENB-2023) & Mini-Symposium on Recent Advances in Biotechnological Innovations

- (RABI-2023) held from 10th-12th February 2023 organized by the School of Biotechnology, Institute of Science, Banaras Hindu University, Varanasi, U.P. India.
- Certificate of Participation on Hands on Training on "Role of Histotechniques in Diagnosis of Colorectal Cancer" on September 26th, 2022 organized by Multi-Disciplinary Research Unit (MDRU), Shyam Shah Medical College, Rewa (M.P.).
- Certification of participation and poster presentation on Topic entitled: **Anaemia in Patient** with colorectal cancer: A Pilot Study in Rewa District of Madhya Pradesh, India in the 62nd Annual conference of the Indian Society of Hematology & Blood Transfusion (Hematocon 2021) held on 10th-13th November on a virtual platform.
- Certificate of Participation and Certificate of Presentation (Culture Vessels & Substrates) in National Workshop on "Animal Cell Culture Techniques & Applications Organized by Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur, (C.G.)
- Certificate of Participation in "Cancer Health Disparity" Short Term Course Work organized by Department Of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur, (C.G.)
- Entrepreneurship awareness camp organised by Chhattisgarh industrial & technical Consultancy Centre (CITCON), Raipur (C.G.)
- National Seminar on "Innovations and Entrepreneurship in Biotechnology" Organized by Department of Biotechnology, Guru Ghasidas Vishwavidyalaya, Bilaspur (C.G.)
- Certificate of participation in International Seminar on "Emerging trends in information technology and applied science" held at Mats University, Raipur (C.G.)
- Certification of Participation in National Science Day, Model Competition in School of Life Science and Science, MATS University, Raipur (C.G.).

VI. Dissertation-

Dissertation completed on Partial fulfilment of Degree of M.Sc. in Biotechnology on topic
"Study on Anti-Cancer Activity of Curcumin" Under the Supervision of Dr. Naveen
Kumar Vishvakarma (Assistant Professor) in Department of Biotechnology, Guru Ghasidas
Vishwavidyalaya from January to April 2018.

VII. Publications-

Mondal, D., Shinde, S., Paul, S., Thakur, S., Velu, G.S.K., Tiwari, A.K., Dixit, V., Amit, A., Vishvakarma, N.K. and Shukla, D., 2023. Diagnostic significance of dysregulated miRNAs in T-cell malignancies and their metabolic roles. *Frontiers in Oncology*, 13, p.1230273.

- Shinde, S., Saxena, S., Dixit, V., Tiwari, A.K., Vishvakarma, N.K. and Shukla, D., 2020. Epigenetic modifiers and their potential application in colorectal cancer diagnosis and therapy. *Critical Reviews* TM *in Oncogenesis*, 25(2).
- Shinde, S. *et al.* (2021). Dietary Habits and Global Incidence of Colon Cancer. In: Vishvakarma, N.K., Nagaraju, G.P., Shukla, D. (eds) Colon Cancer Diagnosis and Therapy. Springer, Cham.
- Shinde, S., Baghel, V.S., DIxit, A.K., Dixit, V., Tiwari, A.K., Pandey, S.K., Dwivedi, S., Vishvakarma, N.K. and Shukla, D., 2022. CYP1A1 rs4646903 T> C and rs1048943 A> G polymorphisms and the risk of colorectal cancer: An updated meta-analysis. *Polymorphism*, 8, pp.1-12.
- Sinha, V., Shinde, S., Saxena, S., Thakur, S., Walia, T., Dixit, V., Tiwari, A.K., Vishvakarma, N.K., Dwivedi, M. and Shukla, D., 2020. A comprehensive review of diagnostic and therapeutic strategies for the management of pancreatic cancer. *Critical Reviews*[™] *in Oncogenesis*, 25(4).
- Shinde, S., Vishvakarma, N.K., Tiwari, A.K., Dixit, V., Saxena, S. and Shukla, D., 2021. Therapeutic options for the management of cervical cancer. In *A Theranostic and Precision Medicine Approach for Female-Specific Cancers* (pp. 193-212). Academic Press.
- Ratre, Y.K., Mehta, A., Shinde, S., Sinha, V., Soni, V.K., Sonkar, S.C., Shukla, D. and Vishvakarma, N.K., 2023. Molecular Farming and Anticancer Vaccine: Current Opportunities and Openings. *Microbial Bioreactors for Industrial Molecules*, pp.355-373.
- Pandey, S., Kunder, S., Bajaj, N., Dwivedi, S., Singh, J., Shinde, S., Pandey, D. and Pandey, S.K., 2022. Genotypic Effect of IVS4+ 44C> A and c. 2044T> C DMT1 Gene Mutations on Pathophysiology of Iron-Deficiency Anemia. *Indian Journal of Pediatrics*, 89(9), pp.946-946.
- Sinha, V., Shinde, S., Dixit, V., Tiwari, A.K., Dixit, A.K., Vishvakarma, N.K., Pandey, S.K., Ekka, A., Singh, M. and Shukla, D., 2022. Prevention and Management of Colon Cancer by Nutritional Intervention. *Colon Cancer Diagnosis and Therapy Vol. 3*, p.277.
- Vinit Singh Baghel, Sapnita Shinde, Vineeta Dixit, Naveen Kumar Vishvakarma, Atul Kumar Tiwari, Soumitra Tiwari, Dhananjay Shukla, Chapter 21 Dysregulated cell-signaling pathways in hepatocellular carcinoma: causes and therapeutic options, Theranostics and Precision Medicine for the Management of Hepatocellular Carcinoma, Volume 2, Academic Press, 2022, Pages 337-355,
- Vibha Sinha, Sapnita Shinde, Vinit Singh Baghel, Naveen Kumar Vishvakarma, Dhananjay Shukla, Atul Kumar Tiwari, Ashwini Kumar Dixit, Sanjay Kumar Pandey, Sudhakar Dwivedi, Mrinalini Singh, Vineeta Dixit, Chapter 4 Therapeutic options for the management

- of hepatocellular carcinoma Theranostics and Precision Medicine for the Management of Hepatocellular Carcinoma, Volume 3, Academic Press, 2022, Pages 43-62.
- Singh Baghel, V., Shinde, S., Sinha, V., Pandey, S.K., Dwivedi, S., Singh, N., Tiwari, A.K., Saxena, S., Vishvakarma, N.K., Shukla, D. and Bhatt, P., 2021. Post-COVID–19 complication and its effect on acute kidney injury. *J Renal Endocrinol*, 7, p.e18.
- Mondal, D., Shinde, S., Sinha, V., Dixit, V., Vishavakarma, N.K., Kumar, A., Tiwari, S.S., Pandey, S.K., Bhatt, P., Dwivedi, M. and Shukla, D., Molecular biomarkers for diagnosis, prognosis and clinical management of colorectal cancer. 2020

VIII. Membership of Societies-

• Life member of Indian Science Congress Association (Membership No.-L42056)

IX. Extra-Curricular Achievements-

- Played East Zone Inter University Chess Tournament & Inter-Zone all India Tournament.
- Best Student award in graduation.
- School Level state champion and National level chess player.

Declaration:

I certify that the foregoing information is correct and complete to the best of my knowledge and belief and nothing has been concealed/ distorted.

Thanking You

Sapnita Shinde