

Dr. Naveen Kumar Vishvakarma

M.Sc. (Applied Microbiology), Ph.D. (Biotechnology)

Department of Biotechnology
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Area of Interest

Cancer Biology and Immunology

Experience

20 th Jan, 2014 to till date	Assistant Professor -Biotechnology Guru Ghasidas Vishwavidyalaya, Bilaspur, Chhattisgarh
14 th June, 2013 to 16 th Jan, 2014	Assistant Professor-Microbiology Department of Botany and Microbiology, HNB Garhwal University-Uttarakhand
29 th April 2012 to 11 th June 2013	Post-Doctoral Fellow Cancer Imaging and Metabolism, Moffitt Cancer Center and Research Institute, USA
06 th July, 2011 to 23 rd April 2012	ICMR-Research Associate School of Biotechnology Banaras Hindu University-UP
29 Nov, 2010 to 30 Dec, 2010	Post-Doctoral Fellow Manitoba Institute of Cell Biology, Cancer Care Manitoba, Winnipeg-Manitoba, Canada
01 st July, 2009 - 30 th March 2011	CSIR-Junior Research Fellow School of Biotechnology Banaras Hindu University-UP
28 th Jan, 2008 to 30 th June 2010	UGC –Research Fellow School of Biotechnology Banaras Hindu University, UP
04 th March 2006 to 18 th Jan 2008	Assistant Professor- Microbiology Department of Microbiology VBS Purvanchal University, UP

Awards and Honors

Gold Medal for standing First in order of Merit in **M.Sc.** Applied Microbiology Examination in VBS Purvanchal University in 2005

Best Paper Award-2020, School of Studies in Interdisciplinary Education and Research, Guru Ghasidas Vishwavidyalaya

Best Paper Award-2021, School of Studies in Interdisciplinary Education and Research, Guru Ghasidas Vishwavidyalaya

Research Projects

1. Evaluation of curcumin as modulator of tumor metabolism: implication in antineoplastic therapy. 2015-2017. UGC-BSR-Start-Up Research Grant: PI: 6.00 Lakhs
2. Targeting tumor metabolism by curcumin as a novel antineoplastic approach. 2016-2019. UGC-Major Research Project.: PI: 14.50 Lakhs

Peer Reviewed Publication

H index: 15 Citation: 659

i10 index: 18

* denotes corresponding author

1. Rawat, S.G., Tiwari, R.K., Jaiswara, P.K. Jaiswara, V., Sonkar, P., **Vishvakarma, N.K.**, Kumar, S., Pathak, C., Gautam, V., Kumar, A., Phosphodiesterase 5 inhibitor sildenafil potentiates the antitumor activity of cisplatin by ROS-mediated apoptosis: a role of deregulated glucose metabolism. *Apoptosis* **27**, 606–618 (2022). <https://doi.org/10.1007/s10495-022-01741-0> [**Impact Factor 5.561**]
2. Verma AK, Hossain MS, Ahmed SKF, Hussain N, Ashid M, Upadhyay SK, **Vishvakarma NK**, Bhojiya AA & Srivastava SK. (2022) "In silico identification of ethoxy phthalimide pyrazole derivatives as IL-17A and IL-18 targeted gouty arthritis agents", *Journal of Biomolecular Structure and Dynamics*, DOI: [10.1080/07391102.2022.2071338](https://doi.org/10.1080/07391102.2022.2071338) [**Impact Factor 4.15**]
3. Verma AK, Majid A, Hossain MS, Ahmed SF, Ashid M, Bhojiya AA, Upadhyay SK, **Vishvakarma NK** and Alam M. 2022. Identification of 1, 2, 4-Triazine and Its Derivatives against Lanosterol 14-Demethylase (CYP51) Property of *Candida albicans*: Influence on the Development of New Antifungal Therapeutic Strategies. *Front. Med. Technol.* 4:845322. doi: [10.3389/fmedt.2022.845322](https://doi.org/10.3389/fmedt.2022.845322)
4. Mehta A, Kumar Ratre Y, Sharma K, Soni VK, Tiwari AK, Singh RP, Dwivedi MK, Chandra V, Prajapati SK, Shukla D, **Vishvakarma NK***. 2021. Interplay of Nutrition and Psychoneuroendocrine-immune Modulation: Relevance for COVID-19 in BRICS Nations. *Front Microbiol.* 17;(12):769884. [**Impact Factor 6.064**]
5. Soni VK, Mehta A, Ratre YK, Chandra V, Shukla D, Kumar A, **Vishvakarma NK***. 2021. Counteracting Action of Curcumin on High Glucose-Induced Chemoresistance in Hepatic Carcinoma Cells. *Front Oncol.* 6;(11):738961. doi: [10.3389/fonc.2021.738961](https://doi.org/10.3389/fonc.2021.738961). [**Impact Factor 5.738**]

6. Baghel VS, Shinde S, Sinha V, Pandey SK, Dwivedi S, Singh N, Tiwari AK, Saxena S, **Vishvakarma NK***, 2021 Shukla D, Bhatt P, Post-COVID-19 complication and its effect on acute kidney injury. *J Renal Endocrinol* 7:e18
7. Shinde S, Baghel V, Dlxit A, Dixit V, Tiwari A, Pandey S, Dwivedi S, **Vishvakarma N***, Shukla, D.. 2021. CYP1A1 rs4646903 T>C and rs1048943 A>G polymorphisms and the risk of colorectal cancer: An updated meta-analysis. *Polymorphism*. 8, (1-12).
8. Verma AK, Ahmed SF, Hossain MS, Bhojiya AA, Mathur A, Upadhyay SK, Srivastava AK, **Vishvakarma NK**, Barik M, Rahaman MM, Bahadur NM. 2021. Molecular docking and simulation studies of flavonoid compounds against PBP-2a of methicillin-resistant *Staphylococcus aureus*. *J Biomol Struct Dyn*. 1 9:1-17. **[Impact Factor 4.15]**
9. Sahu T, Mehta A, Ratre YK, Jaiswal A, **Vishvakarma NK**, Bhaskar LVKS, Verma HK. 2021 Current understanding of the impact of COVID-19 on gastrointestinal disease: Challenges and openings. *World J Gastroenterol*. ;27(6):449-469). **[Impact Factor 5.374]**
10. Sinha V, Saxena S, Pandey SK, Dwivedi S, Thakur S, Asea A, Dixit AK, Dixit V, **Vishvakarma NK***, Shukla D. 2021. Current Challenges for the Effective Management of the COVID-19 Pandemic. *Adv Exp Med Biol*. 1353:(131-149). doi: 10.1007/978-3-030-85113-2_8. PMID: 35137372. **[Impact Factor 3.650]**
11. Sinha V, Shinde S, Saxena S, Thakur S, Walia T, Dixit V, Tiwari AK, **Vishvakarma NK**, Dwivedi M, Shukla D. 2020. A Comprehensive Review of Diagnostic and Therapeutic Strategies for the Management of Pancreatic Cancer. *Crit Rev Oncog*. 25(4):381-404).
12. Shinde S, Saxena S, Dixit V, Tiwari AK, **Vishvakarma NK***, Shukla D. Epigenetic Modifiers and Their Potential Application in Colorectal Cancer Diagnosis and Therapy. *Crit Rev Oncog*. 2020;25(2):95-109.
13. Mehta A, Soni VK, Sharma K, Ratre YK, Shukla D, Singh AK, **Vishvakarma NK***. Finding Horcrux of psychiatric symptoms in COVID-19: Deficiencies of amino acids and vitamin D. *Asian J Psychiatr*. 2021 Jan; 55:102523. **[Impact Factor 13.89]**
14. Ratre, Y.K., Sarkar, T., Tiwari, A., Jaiswal, A., Mehta, A., Soni, V.K., Ansari, S.M.S., Shukla, D. and **Vishvakarma, N.K. ***, 2022. Single-cell analysis as a guiding tool to understand drug resistance in cancer: Current opportunities and scope. *Polymorphism*, 8:(37-55).
15. Soni, V.K., Mehta, A., Sharma, K., Ratre, Y.K., Dwivedi, M., Chaturvedi, N., Shukla, D., Dixit, A.K., Singh, A.K. and **Vishvakarma, N.K. ***, 2022. Immunity boosters in COVID-19: Reality or myth?. *Medicine India*, 1.
16. Soni VK, Sharma K, Mehta A, Ratre YK, Kumar S, Shukla D, **Vishvakarma NK***. 2020. A physiological link for psychiatric symptoms in COVID-19: Role of amino acid deficiency. *Asian J Psychiatr*. 53:(102426). **[Impact Factor 13.89]**
17. Ratre YK, **Vishvakarma NK**, Bhaskar LVKS, Verma HK. 2020 Dynamic Propagation and Impact of Pandemic Influenza A (2009 H1N1) in Children: A Detailed Review. *Curr Microbiol.* 77(12):3809-3820). **[Impact Factor 3.89]**
18. Soni VK, Mehta A, Ratre YK, Tiwari AK, Amit A, Singh RP, Sonkar SC, Chaturvedi N, Shukla D, **Vishvakarma NK***. 2020. Curcumin, a traditional spice

- component, can hold the promise against COVID-19? *Eur J Pharmacol.* 5;(886:173551). **[Impact Factor 4.432]**
19. Soni VK, Mehta A, Shukla D, Kumar S, **Vishvakarma NK***. 2020. Fight COVID-19 depression with immunity booster: Curcumin for psychoneuroimmunomodulation. *Asian J Psychiatr.* 53:(102378). Doi: doi: 10.1016/j.ajp.2020.102378 **[Impact Factor 13.89]**
 20. Soni VK, Shukla D, Kumar A, **Vishvakarma NK***. 2020. Curcumin circumvent lactate-induced chemoresistance in hepatic cancer cells through modulation of hydroxycarboxylic acid receptor-1. *Int J Biochem Cell Biol.* (123:105752). PMID: 32325281. doi: 10.1016/j.biocel.2020. **[Impact Factor 5.085]**
 21. El-Kenawi A, Gatenbee C, Robertson-Tessi M, Bravo R, Dhillon J, Balagurunathan Y, Berglund A, **Vishvakarma N**, Ibrahim-Hashim A, Choi J, Luddy K, Gatenby R, Pilon-Thomas S, Anderson A, Ruffell B, Gillies R. 2019. Acidity promotes tumour progression by altering macrophage phenotype in prostate cancer. *Br J Cancer.* 121(7):556-566). **[Impact Factor 9.075]**
 22. **Vishvakarma NK***. 2014. Novel antitumor mechanisms of curcumin: implication of altered tumor metabolism, reconstituted tumor microenvironment and augmented myelopoiesis. *Phytochem Rev* (13):717-724). **[Impact Factor 7.741]**
 23. **Vishvakarma NK**, Kumar A, Singh V, Singh SM. 2013. Hyperglycemia of tumor microenvironment modulates stage-dependent tumor progression and multidrug resistance: implication of cell survival regulatory molecules and altered glucose transport. *Mol. Carcinog.* 52:12;(932-945). **[Impact Factor 4.784]**
 24. **Vishvakarma NK**, Kumar A, Kumar A, Kant S, Bharti AC, Singh SM. 2012. Myelopotentiation effect of curcumin in tumor-bearing host: role of bone marrow resident macrophages. *Toxicol. Appl. Pharmacol.* 263:(111- 121). **[Impact Factor 4.219]**
 25. Rai RK, **Vishvakarma NK**, Mohapatra TM, Singh SM. 2012. Augmented macrophage differentiation and polarization of tumor-associated macrophages towards M1 subtype in Listeria-administered tumor-bearing host. 35:7:(544-554); *J. Immunother.* **[Impact Factor 4.912]**
 26. Kumar A, **Vishvakarma NK**, Tyagi A, Bharti AC and Singh SM. Anti-neoplastic action of aspirin against a T cell lymphoma involves alteration in tumor microenvironment and regulation of tumor cell survival. Year of Publication: 2012; Volume: 32; Issue No: 1; Page No from: 91; Page No to: 104; *Bioscience Reports*; ISSN: 1573-4935. **[Impact Factor 3.842]**
 27. Kumar A, **Vishvakarma NK**, Bharti AC and Singh SM. Gender-specific antitumor action of aspirin in a murine model of a T-cell lymphoma bearing host. Year of Publication: 2012; Volume: 48; Issue No: NA; Page No from: 137; Page No to: 144; *Blood Cells, Molecules and Diseases* ISSN:1079-9796. **[Impact Factor 3.039]**
 28. **Vishvakarma NK** and Singh SM. 2011. Augmentation of myelopoiesis in a murine host bearing a T cell lymphoma following in vivo administration of proton pump inhibitor pantoprazole. *Biochimie.* 93:10:(1786-1796) **[Impact Factor 4.372]**

29. **Vishvakarma NK** and Singh SM. 2011. Mechanisms of tumor growth retardation by modulation of pH regulation in tumor microenvironment of a murine T cell lymphoma. *Biomed Pharmacother.* 65:1:(27-39). **[Impact Factor 7.419]**
30. **Vishvakarma NK**, Kumar A and Singh SM. 2011 Role of curcumin-dependent modulation of tumor microenvironment of a murine T cell lymphoma in altered regulation of tumor cell survival. *Toxicol Appl Pharmacol.* 252:3:(298-306); **[Impact Factor 4.46]**
31. **Vishvakarma NK** and Singh SM. 2010. Immunopotentiating effect of proton pump inhibitor pantoprazole in a lymphoma-bearing murine host: implication in antitumor activation of tumor-associated macrophages. *Immunol Lett.* 134:1:(83-92) **[Impact Factor 4.23]**
32. Singh MP, Rastogi PC, Srivastava AK and **Vishvakarma NK**. 2008. Decolorization of Azo-Dye by White Rot Fungi *Pleuroteus* sp. *Pollution Research.* 27:3:(365-379) **[Impact Factor 1.55]**
33. Singh MP, Pandey VK, Pandey AK, Srivastava AK, **Vishvakarma NK** AND Singh VK. 2008. Production of xylanase by white rot fungi on wheat straw. *Asian J. Microbiol Biotechnol Env Sci.* Volume: 10:859-862).
34. Tiwari, A.K. **Vishvakarma NK**, Dixit V, Shukla D. 2017. Seasonal biochemical characterization of muscles, liver and ovary of *M. seenghala* from Vindhya region. *Int. J. Zool. Stud.* 2:4:(14-20).
35. Kumari P, Dixit V, Tiwari AK, Saxena S, **Vishvakarma NK**. Naik, PK and Shukla D. 2018. Computer- assisted drug designing of triazole derivatives of Noscapiene as tubuling binding drug. *Asian J Pharm Clin Res.* 11:(69-75).
36. Mallick SK, Gupta V, Singh MP, **Vishvakarma NK**, Singh N and Singh SM. 2008. Effect of Neem (*Azadirachta indica*) oil on the progressive growth of a spontaneous T cell lymphoma. *Orient Pharm Exp Med.* 7:5:(459-465). **[Impact Factor 0.211]**
37. Singh SK, Naik PK, **Vishwakarma NK**, Dixit V, Tiwari AK, Shukla D. 2015. Identification and ligand-based virtual screening of 1, 4-dihydropyridine analogues as novel calcium channel blockers. *PROC. OF THE IRSMT. Int. J. Res. Stud Biosci.* 1:(107-114).

Guest Editor –Special Issue

1. Regulation of Metabolic Rewiring in T-Cell Malignancies. *Frontiers in Oncology.* **[Impact Factor 5.085]**
2. Cancer Imaging and Metabolism. *Metabolites –MDPI.* **[Impact Factor 5.581]**

Books / Book Chapters

Books Edited

1. Colon Cancer Diagnosis and Therapy. Vol I 2021. Editors Ganji Purnachandra Nagaraju, Dhananjay Shukla, **Naveen Kumar Vishvakarma**. Springer Nature. ISBN: 978-3-030-63369-1
2. Colon Cancer Diagnosis and Therapy. Vol II 2021. Editors **Naveen Kumar Vishvakarma**. Ganji Purnachandra Nagaraju, Dhananjay Shukla, Springer Nature. ISBN: 978-3-030-64667-7

3. Colon Cancer Diagnosis and Therapy. Vol III 2022. Editors Dhananjay Shukla, **Naveen Kumar Vishvakarma**. Ganji Purnachandra Nagaraju, Springer Nature. ISBN: 978-3-030-72702-4

Chapters in Books

1. Ratre YK, Mehta A, Shinde S, Sinha V, Soni VK, Sonkar SC, Shukla D, **Vishvakarma NK***. Molecular Farming and Anticancer Vaccine: Current Opportunities and Openings. In. Microbial Bioreactors for Industrial Molecules. 2023 ISBN: 9781119874065. Wiley
2. Soni VK, Ratre YK, Mehta A, Sonkar SC, Prajapati SK, Chaturvedi N, Shukla D, **Vishvakarma NK***. Mushrooms against Malignancies: From Chemosensitization to Immunopotential. In. Mushrooms: A Wealth of Nutraceuticals and an Agent of Bioremediation, 2023. 9-34. Bentham Books.
3. Mehta A, Rawat SG, Ratre YK, Soni VK, Shukla D, Kumar A, **Vishvakarma NK***. Tumor-associated macrophages in prostate cancer: role in progression and therapy. In. Immunological Implications and Molecular Diagnostics of Genitourinary Cancer. 2023, Pages 153-180
4. Bansal S., Singh K., S. Sarkar, Pandey P. C., Verma J., Yadav M., Chandra L., **Vishwakarma N. K.**, Goswami B., Sonkar S. C. & Koner B. C. Environmental Impact of Sensing Devices. In: Sonker, R.K., Singh, K., Sonkawade, R. (eds) Smart Nanostructure Materials and Sensor Technology. 2022 Springer, Singapore. https://doi.org/10.1007/978-981-19-2685-3_6
5. Baghel VS, Shinde S, Dixit V, **Vishvakarma NK**, Tiwari AK, Tiwari S, Shukla D. (2022) Dysregulated cell-signaling pathways in hepatocellular carcinoma: causes and therapeutic options. Theranostics and Precision Medicine for the Management of Hepatocellular Carcinoma, Volume 2: Diagnosis, Therapeutic Targets, and Molecular Mechanisms. 337-355. <https://doi.org/10.1016/B978-0-323-98807-0.00009-0>
6. Sinha V, Shinde S, Baghel VS, **Vishvakarma NK**, Shukla D, Tiwari AK, Dixit AK, Pandey SK, Dwivedi S, Singh M, Dixit V. (2022) Therapeutic options for the management of hepatocellular carcinoma. Theranostics and Precision Medicine for the Management of Hepatocellular Carcinoma, Volume 3: Translational and Clinical Outcomes. Pages 43-62. <https://doi.org/10.1016/B978-0-323-99283-1.00018-5>
7. Soni VK, Ratre YK, Mehta A, Dixit AK, Dwivedi M, Shukla D, Kumar A, **Vishvakarma NK***. Curcumin: a spice pigment against hepatic cancer. Theranostics and Precision Medicine for the Management of Hepatocellular Carcinoma, Volume 3: Translational and Clinical Outcomes. 141-159
8. Sinha V, Shinde S, Dixit V, Tiwari AK, Dixit AK, **Vishvakarma NK**, Pandey SK, Ekka A, Singh M & Shukla D (2022). Prevention and Management of Colon Cancer by Nutritional Intervention. In: Shukla, D., Vishvakarma, N.K., Nagaraju, G.P. (eds) Colon Cancer Diagnosis and Therapy Vol. 3. Springer, Cham. https://doi.org/10.1007/978-3-030-72702-4_13
9. Ratre YK, Mehta A, Sharma R, Soni VK, Shukla D, Tripathi VN, **Vishvakarma NK***, Chapter 14 – Glutamine metabolism in liver cancer: role in progression and potential therapeutic targeting, Editor(s): Ganji Purnachandra Nagaraju,

- Sujatha Peela, Theranostics and Precision Medicine for the Management of Hepatocellular Carcinoma, Academic Press, 2022, Pages 199-217,*
10. Srivastava, R., Sonam, S., **Vishvakarma, N.K.**, Sharma, R., Tiwari, S.P. (2022). Bacterial Cancer Therapy: Promising Role in the Treatment of Colon Cancer. In: Shukla, D., Vishvakarma, N.K., Nagaraju, G.P. (eds) *Colon Cancer Diagnosis and Therapy Vol. 3.* Springer, Cham. https://doi.org/10.1007/978-3-030-72702-4_17
 11. Soni, V.K. Mehta A, Ratre YK, Kumar C, Singh RP, Srivastava AK, Chaturvedi N, Shukla D, Pandey SK, **Vishvakarma NK***. (2022). Antineoplastic Effects of Curcumin Against Colorectal Cancer: Application and Mechanisms. In: Shukla, D., Vishvakarma, N.K., Nagaraju, G.P. (eds) *Colon Cancer Diagnosis and Therapy Vol. 3.* Springer, Cham. https://doi.org/10.1007/978-3-030-72702-4_18
 12. Mehta, A. Soni V, Ratre YK, Amit A, Shukla S, Kumar A, **Vishvakarma NK***. (2022). Role of Tumour-Associated Macrophages in Colon Cancer Progression and Its Therapeutic Targeting. In: Shukla, D., Vishvakarma, N.K., Nagaraju, G.P. (eds) *Colon Cancer Diagnosis and Therapy Vol. 3.* Springer, Cham. https://doi.org/10.1007/978-3-030-72702-4_10
 13. Sinha V, Shinde S, Dixit V, Tiwari AK, Dixit AK, **Vishvakarma NK**, Pandey SK, Ekka A, Singh M, Shukla D. (2022). Prevention and Management of Colon Cancer by Nutritional Intervention. In: Shukla, D., Vishvakarma, N.K., Nagaraju, G.P. (eds) *Colon Cancer Diagnosis and Therapy Vol. 3.* Springer, Cham. https://doi.org/10.1007/978-3-030-72702-4_13
 14. Kumar S, **Vishvakarma NK**, Kumar A. Chapter 5 – Clinical applications of noncoding RNAs in lung cancer patients, Editor(s): Subash Chandra Gupta, Kishore B. Challagundla,. *Clinical Applications of Noncoding RNAs in Cancer*, Academic Press, 2022, Pages 141-175,
 15. Rawat, S.G., Tiwari, R.K., Sonker, P., Maurya, R.P., **Vishvakarma, N.K.**, Kumar, A. (2021). EGCG as Anti-Obesity and Anticancer Agent. In: Kumar, S., Gupta, S. (eds) *Obesity and Cancer.* Springer, Singapore. https://doi.org/10.1007/978-981-16-1846-8_11
 16. Gupta, V. Bharmal T, Dixit V, **Vishvakarma NK**, Tiwari AK, Shukla D, Shukla S. (2021). Targeting Angiogenesis for Colorectal Cancer Therapy. In: Nagaraju, G.P., Shukla, D., Vishvakarma, N.K. (eds) *Colon Cancer Diagnosis and Therapy.* Springer, Cham. https://doi.org/10.1007/978-3-030-63369-1_11
 17. Mehta A, Soni VK, Ratre YK, Singh RP, Shukla D, **Vishvakarma NK***. (2021). Short-Chain Fatty Acids as Therapeutic Agents in Colon Malignancies. In: Nagaraju, G.P., Shukla, D., Vishvakarma, N.K. (eds) *Colon Cancer Diagnosis and Therapy.* Springer, Cham. https://doi.org/10.1007/978-3-030-63369-1_10
 18. Shinde S, Sinha V, Dixit V, Dwivedi MK, **Vishvakarma NK**, Tiwari AK, Pandey SK, Shukla D. (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. https://doi.org/10.1007/978-3-030-64668-4_2
 19. Ratre YK, Verma HK, Mehta A, Soni VK, Sonkar SC, Shukla D, Ekka A, Prajapati SK, Mahilkar S, **Vishvakarma NK***. (2021). Therapeutic Targeting of Glutamine Metabolism in Colorectal Cancer. In: Vishvakarma, N.K., Nagaraju, G.P., Shukla, D. (eds) *Colon Cancer Diagnosis and Therapy.* Springer, Cham. https://doi.org/10.1007/978-3-030-64668-4_15

20. Shinde S, **Vishvakarma NK**, Tiwari AK, Dixit V, Saxena S, Shukla D. Chapter 10 – Therapeutic options for the management of cervical cancer, Editor(s): Rama Rao Malla, Ganji Purnachandra Nagaraju, A Theranostic and Precision Medicine Approach for Female-Specific Cancers, Academic Press, 2021, Pages 193-212,
21. Mehta A, Soni VK, Shukla D, **Vishvakarma NK***. Cyanobacteria: a potential source of Anticancer Drugs, In: Advances in Cyanobacterial Biology. Editor: PK Singh, Editor(s): Prashant Kumar Singh, Ajay Kumar, Vipin Kumar Singh, Alok Kumar Shrivastava,. Academic Press, 2020, Pages 369-384,
22. **Vishvakarma NK**. Microbes and cancer: a mutual intimacy. In: Plants and microbes in an ever- changing environment. Editor: Satya Shila Singh. Page No: 365-384; Date of publication: 2017; NOVA Science Publishers, New York, USA. 978-1-53610-3.
23. **Vishvakarma NK**. Glorious past and promising future of Curcumin based antitumor therapeutic strategies. In; Curcumin: Synthesis, Emerging Role In Pain Management And Health Implications, Editor/ Daniel LoïcPouliquen.; Page No: 395-408; Date of publication: 2014; NOVA Science Publishers, New York, USA International level publishers.978-1-63321-3
24. **Vishvakarma NK**, Singh SM. Macrophages: The Versatile Frontline Defenders of Antimicrobial Immunity. Editor: S.P. Tiwari, Rajesh Sharma and Rajeeva Gaur. "Recent advances in microbiology"; Vol- II, Page No: 38-53; Date of publication: 05/2013; NOVA Science Publishers, New York, USA. International level publishers.978-1-62808-6.
25. **Vishvakarma NK**, Srivastava P, Singh SM. Thymic peptides: hormones with biological response modifying potential and multi-utility therapeutic applications in life threatening pathologies. Editor: M.P. Singh, Anju Agrawal, Bechan Sharma. "Recent trends in biotechnology"; Vol-I; Date of publication: 05/2011. Page No: 169-190; NOVA Science Publishers, New York, USA International level publishers. 978-1-60876-1.

Skill Training/Workshop Organized

1. **Convener** –National Workshop on Molecular Diagnostics – Advances and Applications-2022 [**MDAA-2022**] 03-09 Nov, 2022 at Department of Biotechnology, Guru Ghasidas Vishwavidyalaya Supported by: **DST-SERB; DRDO; & Guru Ghasidas Vishwavidyalaya**. Number of Participant: **32**
2. **Organizing Secretary** –National Workshop on Animal Cell Culture: Techniques and Applications-2022 [**ACCTA-2022**] 16-22 Feb, 2022 at Department of Biotechnology, Guru Ghasidas Vishwavidyalaya Supported by: **DST-SERB; & Guru Ghasidas Vishwavidyalaya**. Number of Participant: **30**
3. **Organizing Secretary** –Workshop on Animal Cell Culture: Techniques and Applications-2018 [**ACCTA-2018**] 18-24 Jan, 2018 at Department of Biotechnology, Guru Ghasidas Vishwavidyalaya Supported by: **DST-SERB; ICMR; CCOST, PMKVY** Number of Participant: **30**
4. **Organizing Secretary** –Workshop on Animal Cell Culture: Techniques and Applications-2017 [**ACCTA-2017**] 19-25Jan, 2017 at Department of

Biotechnology, Guru Ghasidas Vishwavidyalaya. Supported by: **PMKVY**. Number of Participant: **20**

5. **Joint Coordinator-GGV-INSPIRE Summer Camp-2014.** 24-28 June, 2014, Guru Ghasidas Vishwavidyalaya. Supported By **DST**. Number of Participant: **50**

Conference/Seminar Organized

1. **Treasurer**-National Seminar on Innovations and Entrepreneurship in Biotechnology-2016 [**NSIEB-2016**] 26-27 Dec, 2016 at Department of Biotechnology, Guru Ghasidas Vishwavidyalaya supported by **GGV**
2. **Member-Organizing Committee.** International Conference on **Bharat Rejuvenation.** 15-17 Oct, 2017. Guru Ghasidas Vishwavidyalaya. Supported by: **AICTE, ICSSR, DST, DBT, IIMC, IIM-R, IGNCA.**

Membership in Societies

Life Member-Association of Microbiologist of India [Since 2013]

Research Supervision

Ph.D. Awarded

Dr. Vivek Kumar Soni, 2015-2021

Currently working at Trivitron Healthcare, Vishakhapatnam, AP, India

Thesis Title: Investigation on modulation of tumor metabolism by curcumin

Ph.D. Ongoing

Ms. Arundhati Mehta, 2019-onwards;

Working on Mechanisms of anticancer activity of Eugenol

Mr. Yashwant Kumar Ratre, 2019-onwards

Working on Glutamine metabolism in Cancer

PG Research/Master Dissertation: 39

Invited Talks

1. *Curcumin and Cancer Metabolism: Benefits with a New Story.* At. International Conference on Exploring New Horizons in Biotechnology (ENB-2023) 10-12 Jan, 2023. School of Biotechnology, Banaras Hindu University. Varanasi. 2023-01-12
2. *Lateral Flow Assays: Rapid Diagnosis for Early Decision Making.* . At: National Workshop on Molecular Diagnostics: Advances and application [MDAA-2022] 3-9 Nov 2022. Department of Biotechnology, Guru Ghasidas Vishwavidyalaya. 2022-11-04
3. *Analysis of cultured animal cell: strategies and assays.* At: National Workshop on Animal Cell Culture: Techniques and Applications [ACCTA-2022] 16-22 Feb 2022. Department of Biotechnology, Guru Ghasidas Vishwavidyalaya. 2022-02-17
4. *Innovations in Life Sciences: Past to present.* At: Innovations and Opportunities in Life Sciences. Department of Microbiology and Bioinformatics. Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur 28 Feb -2021. 2021-02-28

5. *Molecular insights for Drug Repurposing in Emerging Diseases*. At: *Advanced Bioinformatics Training Organized by Department of Biotechnology*. Bansal institute of Engineering and Technology, Lucknow 13Jul-07Aug, 2020. 2020-07-15
6. *Research on COVID-19*. At: *COVID-19: Insights into research*. Department of Microbiology and Bioinformatics. Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur 13 Jul-2022. 2020-07-13
7. *Anti-inflammatory drugs for immunopotential in cancer*. At: *8th International Translational Cancer Research Conference on Role of inflammation & Immune System for cancer prevention & Treatment; Department of Biochemistry; BHU* 13-16Feb 2020. 2020-02-14 [International]
8. *Immunological Disorders*. VBS Purvanchal University, UP Date From: 15-06-2019; Date To: 16-6-2019. 2019-06-16
9. *Immune Response and Apoptotic cell death* VBS Purvanchal University, UP Date From: 15-06-2019; Date To: 16-6-2019. 16-6-2019
10. *Applications Cell Culture in Cancer Research*. National Workshop on Hands on training on working with cancer cell lines for preliminary screening of chemopreventive agents Date From: 20-08-2018; Date To: 21-08-2018 Columbia Institute of Pharmacy, Raipur, CG; 2018-08-20
11. *Application of Cell Culture in Cancer Biology*. National Workshop on Animal Cell Culture: Techniques And Applications [ACCTA-2018] Date From: 17-01-2018; Date To: 23-01-2018; Department of Biotechnology, Guru Ghasidas Vishwavidyalaya; 2018-01-22
12. *Cell Culture Applications in Cancer Biology*. National Workshop on In Vitro Cell Lines Study for Drug Discovery and Development Date From: 08-09-2017; Date To: 09-09-2017 Columbia Institute of Pharmacy, Raipur, CG. 2017-09-09
13. *Acidic tumor microenvironment: Potential target for antineoplastic strategies*. Xth National conference on frontier discoveries and emerging opportunities on medicinal plants, environment, biotechnology, ayush and biomedicine for human health and sustainable development, Govt. New Science College, Rewa (MP). 2017-03-26
14. *Antibody Diversity*. Department of Biotechnology, APS University, Rewa-MP. 2017-03-25
15. *Agarose gel electrophoresis*. National Workshop on Advances in Molecular Biology Date From: 19-2-2017; Date To: 25-02-2017; Bilaspur University; 2017-02-25
16. *Application of Flowcytometry*. Workshop on Animal Cell Culture: Techniques and Applications [ACCTA-2017] 19-01-2017; Date To: 25-01-2017. Department of Biotechnology, Guru Ghasidas Vishwavidyalaya; 2017-01-25
17. *Innovations in Medical Biotechnology*. National seminar on Role of CST, UP in Promotion of Science and Technology & Facilitation of IPR Protection Date From: 08-12-2016; Date To: 09-12-2016; VBS Purvanchal University; 2016-12-08

18. *Immunopathology*. Invited Lecture VBS Purvanchal University, 2016-03-14
19. *Immune Response in Pathology*. Invited Lecture VBS Purvanchal University, UP 2016-03-13
20. *Genomics and Proteomics*. Invited Lecture at Department of Botany, DLS PG College, Bilaspur 03-12-2015.
21. *Basics of Immunology*. Invited Lecture at VBS Purvanchal University, 2015-01-21
22. *Role of immunity in tumor biology*. Invited Lecture at VBS Purvanchal University, 2015-01-22
23. *Repolarization and augmented antitumor activation of tumor –associated macrophages in Listeria administered tumor - bearing host*. Symposium on Recent Advances in Biochemistry and Biotechnology Applications in Health, Environment & Agriculture.: 29-10-2013; To: 31-10-2013. Department of Biochemistry, Lucknow University, Lucknow, UP. 2013-10-29

Presentation at Seminar/Conference/Symposia

1. *Novel antitumor mechanism of curcumin through potentiation of myelopoiesis: Involvement of Bone marrow resident macrophages*. National Seminar on Innovations and Prospects in Biotechnology. Date From: 02-01-2016; Date To: 04-01-2016; PRS UNIVERSITY, RAIPUR. 2016-01-02
2. *Retarded progression of ascitic growth of lymphoma in Listeria-administered tumor-bearing host*. National Conference on 'Microbes in extreme environments: Diversity and Translational Applications (MEEDTA 2015) Oct 30-31, 2015 HNB GARHWAL UNIVERSITY, UK., 2015-10-30
3. *Targeting tumor acidosis for antineoplastic therapy*. National Seminar on "Innovation and Research in Sciences, Management and Technology (IRSMT 2015)": 29-30 Mar, 2015 Bilaspur University, CG. 2015-03-29
4. *Effect of hypoxia preconditioning on gene expression profiling in bronchopulmonary dysplasia induced edema*. National Seminar on "Innovation and Research in Sciences, Management and Technology (IRSMT 2015)": 29-30 Mar, 2015 Bilaspur University, CG. 2015-03-29
5. *Identification and Ligand-based Virtual screening of 1, 4- Dihydropyridine Analogues as Novel Calcium Channel Blockers*. National Seminar on "Innovation and Research in Sciences, Management and Technology (IRSMT 2015)": 29-30 Mar, 2015 Bilaspur University, CG. 2015-03-29
6. *Targeting tumor proton pumps cause alleviated differentiation and activation of antitumor M1 macrophages*. National Conference on 'Biotechnology and Human Welfare: New Vistas' 21-22 Mar, 2015 VBS Purvanchal University, UP. 2015-03-22
7. *Modulation of pH regulation in the tumor microenvironment: A novel strategy to retard tumor progression*. II National Conference on Advances in Biological Sciences Date From: 25-11-2013; Date To: 27-11-2013 PRS University, Raipur, Chhattisgarh. 2013-11-25

8. *Validating B7 - H4 as a prostate cancer imaging marker in a tumor mouse model. 2013 Moffitt Research Day Symposium; 09-03-2013; To: 09-03-2013; Moffitt Cancer Center, FL, USA 2013-03-09*
9. *Prostate Cancer: B7-H4 Imaging. Molecular Imaging and Nanomedicine Retreat. 24-01-2013; To: 24-01-2013. Moffitt Cancer Center, FL, USA. 2013-01-24*

Administrative Responsibilities

1. *Member-Board of Studies [BOS] (2022-onwards) Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
 2. *Member-Incubator Cell (2016-2021) Guru Ghasidas Vishwavidyalaya*
 3. *Assistant Centre Superintendent-End Semester Examination. (2015-2019) Centers: Physics Building, Biotech Building*
 4. *Assistant Centre Superintendent-CRPF Recruitment Exam. (2017) Center: Biotech Building*
 5. *Member-Departmental Research Committee [DRC] (2014-2021) Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
 6. *Member-Departmental Purchase Committee [DPC] (2014-2021) Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
 7. *Member-Departmental Disciplinary Committee (2014-2021) Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
 8. *Teacher Coordinator-Biotech Club, (2022-onwards) Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
 9. *Teacher Coordinator-Science-Fest Convergence (2017) Schools of Studies-Life Sciences, Physical Science, Mathematical and Computational Sciences, Natural Sciences.*
 10. *Teacher Coordinator-Science-Fest Convergence Espektro (2018), Schools of Studies-Life Sciences, Physical Science, Mathematical and Computational Sciences, Natural Sciences.*
 11. *Departmental Sports Coordinator - Sports Selection (2015-2016 to 2017-2018) for GGV Foundation Day. Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
 12. *Departmental Cultural Coordinator- (2015-2016 to 2018-2019). Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
 13. *Member - Admission Committee (2014-2015 to 2022-2023), Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
 14. *Faculty In-charge-Seminar Hall, (2019-onwards) Department of Biotechnology, Guru Ghasidas Vishwavidyalaya*
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