

Curriculum Vitae



Siddhartha Kumar Mishra

Professor

Department of Biochemistry

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Academic Profile:

- **Ph.D. (Biochemistry)** (2009), CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow; awarded by Bundelkhand University, Jhansi (Supervisor: Dr. R. S. Sangwan)
- **M.Sc. (Biochemistry)** (2001), University of Lucknow, Lucknow.
- **B.Sc. (Biology)** (1998), D.D.U. Gorakhpur University, Gorakhpur.

Research/Academic Experience:

2022.05 – onwards	Professor - Biochemistry, University of Lucknow, Lucknow (U.P.)
2020.08 – 2022.05	Associate Professor - Life Sciences, Chhatrapati Shahu Ji Maharaj University, Kanpur (U.P.)
2013.06 – 2020.08	Assistant Professor - Zoology, Dr. Harisingh Gour Central University, Sagar (M.P.)
2012.09 – 2013.06	Research Professor, College of Pharmacy, Gachon University, Incheon, South Korea
2011.03 – 2012.08	Postdoctoral Researcher, Carcinogenesis Branch, National Cancer Center, Goyang-si, Ilsan, South Korea
2010.01 – 2011.03	Postdoctoral Researcher, School of Medicine, Ajou University, Suwon, South Korea
2008.03 – 2010.01	Research Associate, Department of Gastroenterology, G.B. Pant Hospital, New Delhi

Research & Experience: 14 years Ph.D. Guidance: 2 (awarded); **2** (ongoing) **PG Dissertation: 6**
Teaching areas (UG, PG and PhD): Biochemistry, Animal Physiology, Genetics, Molecular & Cell Biology, Virology, Bioinformatics, Tools & Techniques in Biology.

Research areas: Cancer biology, molecular biology & signaling, pharmacology and drug delivery. Investigations on the anticancer efficacy of natural products and synthetic agents for drug development in chronic diseases, and drug delivery using novel nanoparticle drug delivery system.

Publications (SCOPUS)	67	Book Chapters	07
Impact Factor (total, average)	337, 5.02	Patent (USA & Germany*)	02
Citations (June 2022)	1740	Research Projects	09
h and i10 index (June 2022)	23, 34	Awards (International 4; National 7)	11

Academic/Administrative Responsibilities:

1. Coordinator, Internal Quality Assurance Cell (I.Q.A.C.), C.S.J.M. University, Kanpur (2021~22)
2. Nodal Officer - International MOUs, C.S.J.M. University, Kanpur (2021~22)
3. Co-Coordinator – NAAC Steering Committee, C.S.J.M. University, Kanpur (2021~22)
4. Coordinator – NAAC Advisory and Mentorship Committee, C.S.J.M. University, Kanpur (2021~22)
5. Co-Coordinator – NIRF Committee, C.S.J.M. University, Kanpur (2021~22)
6. Member – Executive Council, C.S.J.M. University, Kanpur (2020-2021)
7. Member – Examination Committee, C.S.J.M. University, Kanpur (2020~22)
8. Member – Recruitment Assessment Cell (R.A.C.), C.S.J.M. University, Kanpur (2021)
9. Member – College Development Council (C.D.C.), C.S.J.M. University, Kanpur (2021)
10. Member – Board of Studies, Department of Life Science & Biotechnology, C.S.J.M. University, Kanpur (2022)

Major Awards and Honors:

1. **Best Poster Award** (2020) at the 107th Indian Science Congress, at Bengaluru (by Hon'ble Vice-President of India)
2. **Summer Research Fellowship** (2018) awarded by the Indian Academy of Sciences, Bengaluru.
3. **M.S. Swaminathan Young Botanist Award and Dr. Bahadur Singh Gold Medal** (2014) by the Indian Botanical Society (IBS) in *the 37th Annual Conference* at Mumbai.
4. **Science Communicator Award** (2014) by the Indian Science Congress Association in the 101st ISC at University of Jammu.
5. **Prof. S.N. Dixit Gold Medal (First Recipient)** (2013) by the Indian Botanical Society (IBS) in *the 36th Annual Conference* at Gorakhpur.
6. **Best Poster Award** (2012) at *International Symposium and Annual Meeting of The Korean Association for Laboratory Animal Science (KALAS)*, Buyeo, South Korea.
7. **Best Poster Award** (2010) at *International Symposium on the Strategy for New Drug Development using Omics Technology & Industry-Academy Cooperation Forum*, Annual Meeting of the Korean Society of Applied Pharmacology (KSAP), Seoul, South Korea.
8. **Brain Korea 21 (BK 21) Postdoctoral Fellowship** (2010) from Ministry of Education, Science and Technology (South Korea) at Ajou University, Suwon, South Korea.

Major Research Projects:

1. **SERB-TARE Grant:** Screening the Combination of Terpenoids and Flavonoids for Targeting Human Malignancies for Enhanced Chemotherapeutic Efficacy. DST-SERB – TARE Grant. Rs. **18 Lakhs** (2021-2024). Status: **Ongoing. (Role: PI)**
2. **UP R&D Research Grant:** A Perspective Observational Study for Seroprevalence Profile of SARS-CoV-2 Infection in Diabetic and Cardiovascular Patients. UPHED. Rs. **4.98 Lakhs** (2022-2024). Status: **Ongoing. (Role: PI)**
3. **DST-SERB Research Grant:** Self-Degradable DNA Nanoclew Based Site Specific Anticancer Drug Delivery. SERB. Rs. 47.8 Lakhs (2018-2021). Status: **Completed (Role: Co-PI)**
4. **MPCOST Research Grant:** Investigations on the Hepatoprotective Effects of Chaga Mushroom on Microcystin Induced Liver Damage. Madhya Pradesh Council of Science and Technology (MPCOST). Rs. 8.2 Lakhs (2018-2020). Status: **Completed (Role: PI)**
5. **UGC Start-Up Research Grant:** Investigations on the anticancer efficacy of compounds from *Andrographis paniculata* and elucidation of their molecular mechanisms. University Grant Commission (UGC), New Delhi. Rs. 6 Lakhs (2014-2016). Status: **Completed. (Role: PI)**

Academic Programs/Projects: (Coordinator)

6. **MHRD-GIAN – Programme in Cancer Biology:** One-week course in cancer research under expertise of foreign faculty Prof. Seung Hyun Oh (South Korea). (Grant: Rs. 5.24 Lakhs) (2016).
7. **MHRD-GIAN – Cancer Genomics and Diagnostics:** One-week course in cancer research under expertise of foreign faculty Prof. Hyung Goo Woo (South Korea). (Grant: Rs. 5.44 Lakhs) (2018).

Major Research Publications: (*Corresponding Author)

1. Das N., Deb P.K., Ali E.S., Das M.C., Sarkar B., **Mishra S.K.** Anti-Proliferative Naphthalene Glucoside from Aerial Part of *Neanotis wightiana*. **Chemistry of Natural Compounds**, 2022; Feb; 58: 21-26. DOI: 10.1007/s10600-022-03591-3. ISSN: 0009-3130 (**I.F. 1.09**)
2. Ishfaq P.M., Mishra A., Mishra S., Zaved A., Gayen S., Jain S.K., Tripathi S., **Mishra S.K.*** Inonotus Obliquus Aqueous Extract Suppresses Carbon Tetrachloride-induced Hepatic Injury through Modulation of Antioxidant Enzyme System and Anti-inflammatory Mechanism. **Clinical Cancer Drugs**, 2021; 8(2): 122-136. DOI: 10.2174/2212697X08666211130130119. ISSN: 2212-6988
3. **Mishra S.K.***, Bae Y.S., Lee Y-M., Oh S.H., Kim M.K. Sesquiterpene Alcohol Cedrol Chemosensitizes Human Cancer Cells and Suppresses Cell Proliferation by Destabilizing Plasma Membrane Lipid Rafts. **Frontiers in Cell and Developmental Biology**, 2021; 8: 571671. DOI: 10.3389/fcell.2020.571676. ISSN: 2296-634X (**I.F. 6.684**).

4. Gao H., Li H., Liu W., **Mishra S.K.**, Li C. Andrographolide Induces Apoptosis in Gastric Cancer Cells through Reactivation of p53 and Inhibition of Mdm-2. **Dokl Biochemistry & Biophysics**, 2021; 500: 393-401. DOI: 10.1134/S1607672921050070. ISSN: 0326-2383 (I.F. 0.78)
5. Ali E.S., Sharker S.M., Islam M.T., Khan I.N., Shaw S., Rahman M.A. Uddin S.J., Shill M.C., Rehman S., Das N., Shilpi J.A., Ahmad S., Tripathi S., **Mishra S.K.***, Mubarak M.S. Targeting cancer cells with nanotherapeutics and nanodiagnostics: Current status and future perspectives. **Seminars in Cancer Biology**, 2021; 69: 52-68. DOI: 10.1016/j.semcancer.2020.01.011. ISSN: 1044-579X (I.F. 15.707)
6. Das N., **Mishra S.K.**, Bishayee A., Ali E.S., Bishayee A. The phytochemical, biological, and medicinal attributes of phytoecdysteroids: An updated review. **Acta Pharmaceutica Sinica B**, 2020; 11(7): 1740-1766. DOI: 10.1016/j.apsb.2020.10.012. ISSN: 2211-3835 (I.F. 11.413)
7. Islam M.T., Nasiruddin N., Khan I.N., **Mishra S.K.**, Zahan M.K., Riaz T.A., Ali E.S., Rahman M.S., Mubarak M.S., Martorell M., Cho W.C., Calina D., Docea A.O. A Perspective on Emerging Therapeutic Interventions for COVID-19. **Frontiers in Public Health**, 2020; 8:281: 1-15. DOI: 10.3389/fpubh.2020.00281. ISSN: 2296-2565 (I.F. 3.709)
8. Lima R.M.T., Reis A.C., Santos J.V.O., Ferreira J.R.O., Filho J.W.G.O, Dias A.C.S., Menezes A.P.M., Mata A.M.O.F., Alencar M.O.V.B, Andrade T.J.A.S., Paz M.F.C.J, Rodrigues D.C.N, Ferreira P.M.P., Sousa J.M.C, **Mishra S.K.***, Islam M.T.I., Cavalcante A.C.C.M. Antitumoral Effects of [6]-Gingerol [(S)-5-hydroxy-1-(4-hydroxy-3-methoxyphenyl)-3-decanone] in Sarcoma 180 Cells through Cytogenetic Mechanisms. **Biomedicine & Pharmacotherapy**, 2020 Jun; 126: 1-10. DOI: 10.1016/j.biopha.2020.110004. ISSN: 0753-3322 (I.F. 6.529)
9. Mandal S.K., Maji A.K., **Mishra S.K.**, Ishfaq P.M., Devkota H.P., Silva A.S., Das N. Goldenseal (*Hydrastis canadensis* L.) and its active constituents: a critical review of their efficacy and toxicological issues. **Pharmacological Research**, 2020; 160: 1-21. DOI: 10.1016/j.phrs.2020.105085. ISSN: 1043-6618 (I.F. 7.658)
10. Islam, M.T., Ali, M.E.S., Khan I.N., Shaw S., Uddin S.J., Rouf R., Dev S., Saravi S.S.S., Das N., Tripathi S., Yele S.U., Das A.K., Shilpi J.A., **Mishra S.K.**, Mubarak M.S. Anticancer Perspectives of the Fungal-Derived Polyphenolic Hispolon. **Anti-Cancer Agents in Medicinal Chemistry**, 2020; 20: 1636-1647. DOI: 10.2174/1871520620666200619164947. ISSN: 1875-5992 (I.F. 2.505)
11. Jain N., Paroha R., Singh R.K., **Mishra S.K.**, Chaurasiya S.K., Singh R.A., Singh J. Synthesis and Rational design of Europium and Lithium Doped Sodium Zinc Molybdate with Red emission for Optical Imaging. **Scientific Reports**, 2019; 9:2472: 1-14. DOI:10.1038/s41598-019-38787-1. ISSN: 2045-2322 (I.F. 4.379)
12. Paz M.F.C.J, Junior A.L.G., Alencar M.V.O.B., Tabrez S., Islam, M.T., Jabir N.R., Oves M., Alam M.Z., Asghar M.N., Ali E.S., Machado K.C., Silva F.C.C., Sobral A.L.P., Sousa J.M.C.C., Moraes G.P., **Mishra S.K.**, Silva J., Melo-Cavalcante A.A.C. Effect of Diets, Familial History, and Alternative Therapies on Genomic Instability of Breast Cancer Patients. **Applied Biochemistry and Biotechnology**, 2019; 188(1): 282-296. DOI: 10.1007/s12010-018-2918-9. ISSN: 0273-2289 (I.F. 2.926)
13. Ishfaq P.M., Shukla A., Beraiya S., Tripathi S., **Mishra S.K.***. Biochemical and Pharmacological Applications of Essential Oils in Human Health especially in Cancer Prevention. **Anti-Cancer Agents in Medicinal Chemistry**, 2018; 18(13): 1815-1827. DOI: 10.2174/1871520618666181002130240. ISSN: 1875-5992 (I.F. 2.505)
14. Alencar M.B.O.V., Islam, M.T., Ali, M.E.S., Santos, J.V.O., Paz, M.F.C.J., Sousa, J.M.C., Dantas, S.M.M.M., **Mishra S.K.***, Cavalcante, A.A.C.M. Association of Phytol with Toxic and Cytotoxic Activities in an Antitumoral Perspective: A Meta-Analysis and Systemic Review. **Anti-Cancer Agents in Medicinal Chemistry**, 2018; 18(13): 1828-1837. DOI: 10.2174/1871520618666180821113830. ISSN: 1875-5992 (I.F. 2.505)
15. Machado K.C., Islam M.T., Ali E.S., Rouf R., Uddin S.J., Dev S., Shilpi J.A., Shill M.C., Reza H.M., Das A.K., Shaw S., Mubarak M.S., **Mishra S.K.**, Melo-Cavalcante A.M.C. A Systematic Review on the Neuroprotective Perspectives of Beta-Caryophyllene. **Phytotherapy Research**, 2018; 32(12): 2376-2388. DOI: 10.1002/ptr.6199. ISSN: 1099-1573 (I.F. 5.878).
16. Lima R.M.T., Reis A.C., Menezes A.P.M., Santos J.V.O., Filho J.W.O., Ferreira J.R.O., Alencar M.V.O.B., Mata M.A.O.F., Khan I.N., Islam M.A., Uddin S.J., Ali E.S., Islam M.T., Tripathi S., **Mishra S.K.**, Mubarak M.S., Melo-Cavalcante A.M.C. Protective and therapeutic potential of ginger (*Zingiber officinale*) extract and [6]-gingerol in cancer: A comprehensive review.

Phytotherapy Research, 2018; 32(10): 1885-1907. DOI: 10.1002/ptr.6134. ISSN: 1099-1573 (I.F. 5.878)

17. Islam M.T., **Mishra S.K.**, Tripathi S., Alencar M.V.O.B., Sousa J.M.C., Rolim H.M.L., Medeiros M.G.F., Ferreira P.M.P., Rouf R., Uddin S.J., Mubarak M.S., Melo-Cavalcante A.M.C. Mycotoxin-assisted mitochondrial dysfunction and cytotoxicity: unexploited tools against proliferative disorders. **IUBMB Life**, 2018; 70(11): 1084-1092. DOI: 10.1002/iub.1932. ISSN: 1521-6551 (I.F. 3.885)
18. Islam M.T., Ali E.S., Uddin S.J., Shaw S., Islam M.A., Ahmed M.I., Shill M.C., Karmakar U.K., Yarla N.S., Khan I.N., Billah M.M., Pieczynska M.D., Zengin G., Malainer C., Nicoletti F., Gulei D., Berindan-Neagoe I., Apostolov A., Benach M., Yeung A.W.K., El-Demerdash A., Xiao J., Dey P., Yele S., Jozwik A., Strzałkowska N., Marchewka J., Rengasamy K.R.R., Horbanczuk J., Kamal M.A., Mubarak M.S., **Mishra S.K.**, Shilpi J.A., Atanasov A.G. Phytol: A review of biomedical activities. **Food and Chemical Toxicology**, 2018; 121: 82-94. DOI: 10.1016/j.fct.2018.08.032. ISSN: 0278-6915 (I.F. 6.023).
19. Júnior A.L.G., Tchekalarova J.D., Atanasova M., Machado K.C.M., Rios A.M.S., Jardim M.F.P., Găman M.A., Găman A.M., Yele S., Shill M.C., Khan I.N., Islam M.A., Ali E.S., **Mishra S.K.**, Islam M.T., Mubarak M.S., Lopes L.S., Melo-Cavalcante A.M.C. Anticonvulsant effect of anacardic acid in murine models: putative role of GABAergic and antioxidant mechanism. **Biomedicine & Pharmacotherapy**, 2018; 106: 1686–1695. DOI: 10.1016/j.biopha.2018.07.121. ISSN: 0753-3322 (I.F. 6.529)
20. Braga A.M., Meneses A.P.M., Santos J.V.O., Reis A.C., Lima R.M.T., Mata A.M.O., Paz M.F.C.J., Alves L.B.S., Shaw S., Uddin S.J., Rouf R., Das A.K., Dev S., Shill M.C., Shilpi J.A., Khan I.N., Islam M.T., Ali E.S., Mubarak M.S., **Mishra S.K.***, Sousa J.M.C., Melo-Cavalcante A.M.C. Toxicogenetic study of omeprazole and the modulatory effects of retinol palmitate and ascorbic acid on *Allium cepa*. **Chemosphere**, 2018; 204: 220-226. DOI: 10.1016/j.chemosphere.2018.04.021. ISSN: 0045-6535 (I.F. 7.086)
21. Islam M.T., Ali E.S., Uddin S.J., Ashabuddin M., Shaw S., Sousa J.M.C., Dantas S.M.M.M., Rolim H.M.L., Melo-Cavalcante A.M.C., **Mishra S.K.**, Shilpi J.A., Yarla N.S., Atanasov A.G., Kamal M.A. Andrographolide, a diterpene lactone from *Andrographis paniculata* and its therapeutic promises in cancer. **Cancer Letters**, 2018; 420, 129-145. DOI: 10.1016/j.canlet.2018.01.074. ISSN: 0304-3835 (I.F. 8.679)
22. Paz M.F.C.J., Alencar M.B.O.V., Gomes Jr. A.L., Machado K.C., Islam M.T., Ali E.S., Shill M.C., Ahmed M.I., Uddin S.J., Mata A.M.F., Carvalho R.M., Sobral A.P., Silva F.C.C., Souza J.M.C., Melo-Cavalcante A.M.C., **Mishra S.K.***, Silva J. Correlations between risk factors for breast cancer and genetic instability in cancer patients - a clinical perspective study. **Frontiers in Genetics**, 2018; 8:236, 1-9. DOI: 10.3389/fgene.2017.00236. ISSN: 1664-8021 (I.F. 4.6)
23. Paz M.F.C.Z, Gomes A.L., Islam M.T., Tabrez S., Jabir N.R., Ali E.S., Machado K.C., Alencar M.V.O.B., **Mishra S.K.**, Sousa J.M.C., Melo-Cavalcante A.M.C., Silva J. Assessment of chemotherapy on various biochemical markers in breast cancer patients. **J Cellular Biochemistry**, 2018; 119: 2923-2928. DOI: 10.1002/jcb.26487. ISSN: 1097-4644 (I.F. 4.429)
24. Filho J.W.O., Islam M.T., Ali E.S., Uddin S.J., Santos J.V.O., Alencar M.B.O.V., Gomes A.L., Paz M.F.C.J., Brito M.R.M., Sousa J.M.C., Shaw S., Medeiros M.G.F., Dantas S.M.M.M., Rolim H.M.L., Ferreira P.M.P., Kamal M.A., Pieczynska M.D., Das N., Gupta V.K., Mocan A., Andrade T.S.A.S., Singh B.N., **Mishra S.K.***, Atanasov A.G., Melo-Cavalcante A.A.C. A comprehensive review on biological properties of citrinin. **Food and Chemical Toxicology**, 2017; 110: 130-141. DOI: 10.1016/j.fct.2017.10.002. ISSN: 0278-6915 (I.F. 6.023)
25. Sundarammorthy P., Ramasamy, T., **Mishra S.K.**, Jeong K-Y., Kim J.O., Yong C.S., Kim H.M. Engineering of Caveolae-specific Self-micellizing Anticancer Lipid Nanoparticles to Enhance the Chemotherapeutic Efficacy of Oxaliplatin in Colorectal Cancers. **Acta Biomaterialia**, 2016; 42: 220-231. DOI: 10.1016/j.actbio.2016.07.006. ISSN: 1742-7061 (I.F. 8.947)
26. Sundarammorthy P., Rengarajan B., **Mishra S.K.**, Jeong K-Y., Oh S-H., Kim H.M. Novel Self-micellizing Anticancer Lipid Nanoparticles Induce Cell Death of Colorectal Cancer Cells. **Colloids and Surfaces B: Biointerfaces**, 2015; 135(1): 793-801. DOI: 10.1016/j.colsurfb.2015.08.039. ISSN: 0927-7765 (I.F. 5.268)
27. Kang J-H., Jang J-E., **Mishra S.K.**, Lee H-J., Nho C.W., Shim D., Jin M., Kim M.K., Choi C. Ergosterol peroxide from Chaga mushroom (*Inonotus obliquus*) exhibits anti-cancer activity by

- down-regulation of the β -catenin pathway in colorectal cancer. **J Ethnopharmacology**, 2015; 173: 303-312. DOI: 10.1016/j.jep.2015.07.030. ISSN: 0378-8741 (I.F. 4.36)
28. Sundaramoorthy P., Sim J.J., Jang Y-S, **Mishra S.K.**, Jeong K-Y., Mander P., Chul O.B., Shim W-S., Oh S.H., Nam K-Y., Kim H.M. Modulation of intracellular calcium levels by calcium lactate affects colon cancer cell motility through calcium-dependent calpain. **PLoS One**, 2015; 10(1): e0116984. DOI: 10.1371/journal.pone.0116984. ISSN: 1932-6203 (I.F. 3.24)
 29. Kang H-S, Ahn S.H., **Mishra S.K.**, Hong K-M., Lee E.S., Shin K.H., Ro J., Lee K.S., Kim M.K. Association of Polymorphisms and Haplotypes in the Insulin-Like Growth Factor 1 Receptor (IGF1R) Gene with the Risk of Breast Cancer in Korean Women. **PLoS One**, 2014; 9(3): e84532. DOI: 10.1371/journal.pone.0084532. ISSN: 1932-6203 (I.F. 3.24)
 30. **Mishra S.K.**, Sangwan N.S., Srivastava M.K., Mishra B., Sangwan R.S. Proteomic identification of a fucosyltransferase from petals of Milk Thistle, *Silybum marianum*. **Plant Genetic Resources**, 2014; 12(S1): S95-S98. DOI: 10.1017/S1479262114000355. ISSN: 1479-2621 (I.F. 1.08)
 31. **Mishra S.K.**, Sangwan N.S., Sangwan R.S. Physico-kinetic and functional features of a novel β -glucosidase isolated from milk thistle (*Silybum marianum* Gaertn.) flower petals. **J Plant Biochemistry & Biotechnology**, 2014; 23(4): 379-388. DOI: 10.1007/s13562-013-0221-y. ISSN 0971-7811 (I.F. 1.175)
 32. **Mishra S.K.**, Kang J-H., Song K-H., Park M.S., Kim D.K., Park Y-J., Choi C., Kim H.M., Kim M.K., Oh S.H. *Inonotus obliquus* suppresses proliferation of colorectal cancer cells and tumor growth in mice models by downregulation of β -catenin/NF- κ B-signaling pathways. **European J Inflammation**, 2013; 11: 615-629. DOI: 10.1177/1721727X1301100306. ISSN: 1721-727X (I.F. 5.183)
 33. **Mishra S.K.**, Kang J-H., Lee C.W., Oh S.H., Ryu J.S., Bae Y.S., Kim H.M. Midazolam induces cellular apoptosis in human cancer cells and inhibits tumor growth in xenograft mice. **Molecules & Cells**, 2013; 36: 219-236. DOI: 10.1007/s10059-013-0050-9. ISSN: 1016-8478 (I.F. 5.034)
 34. Kim Y.A., Kim M.Y., Yu H.Y., **Mishra S.K.**, Lee J.H., Choi K.S., Kim J.H., Xiang Y.K., Jung Y.S. Gadd45 β is transcriptionally activated by p53 via p38 α -mediated phosphorylation during myocardial ischemic injury. **J Molecular Medicine**, 2013; 91(11): 1303-1313. DOI: 10.1007/s00109-013-1070-9. ISSN: 0946-2716 (I.F. 5.107)
 35. Pande C., Sarin S.K., Patra S., Kumar A., **Mishra S.K.**, Srivastava S., Bhutia K., Gupta E., Mukhopadhyay C.K., Dutta A.K., Trivedi S.S. Hepatitis B vaccination with or without hepatitis B immunoglobulin at birth to babies born of HBsAg-positive mothers prevents overt HBV transmission but may not prevent occult HBV infection in babies: a randomized controlled trial. **J. Viral Hepatitis**, 2013; 20(11): 801-810. DOI: 10.1111/jvh.12102. ISSN: 1365-2893 (I.F. 4.237)
 36. **Mishra S.K.**, Sangwan N.S., Sangwan R.S. Purification and physico-kinetic characterization of a gluconolactone inhibition insensitive β -glucosidase from *Andrographis paniculata* Nees. Leaf. **Preparative Biochemistry & Biotechnology**, 2013; 43(5): 481-499. DOI: 10.1080/10826068.2012.759966. ISSN: 1082-6068 (I.F. 2.162)
 37. **Mishra S.K.**, Sangwan N.S., Sangwan R.S. Functional catalytic kinetics of a homogeneity purified β -glucosidase from *Withania somnifera* leaf. **Acta Physiologiae Plantarum**, 2013; 35(5): 1439-1451. DOI: 10.1007/s11738-012-1183-8. ISSN: 1861-1664 (I.F. 2.354)
 38. **Mishra S.K.**, Kang J-H., Kim D.K., Oh S.H., Kim M.K. Orally administered aqueous extract of *Inonotus obliquus* ameliorates acute inflammation in dextran sulfate sodium (DSS)-induced colitis in mice. **J Ethnopharmacology**, 2012; 143(2): 524-532. DOI: 10.1016/j.jep.2012.07.008. ISSN: 0378-8741 (I.F. 4.36)
 39. Pande C., Sarin S.K., Patra S., Bhutia K., **Mishra S.K.**, Pahuja S., Jain M., Shrivastava S., Dar S.B., Trivedi S.S., Mukhopadhyay C.K., Kumar A. Prevalence, risk factors and virological profile of chronic hepatitis B virus infection in pregnant women in India. **J Medical Virology**, 2011; 83(6): 962-967. DOI: 10.1002/jmv.22017. ISSN: 1096-9071 (I.F. 2.82)
 40. Pati N.T., Kotilil S., Hissar S., Srivastava S., Khanam A., **Mishra S.K.**, Sarin S.K. Circulating Tregs correlate with viral load reduction in chronic HBV-treated patients with tenofovir disoproxil fumarate. **J Clinical Immunology**, 2011; 31(3): 509-520. DOI: 10.1007/s10875-011-9509-7. ISSN: 0271-9142 (I.F. 8.317)
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Book Chapters:

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2. Gupta N. and **Mishra S.K.** Potential Influence of Parasitic Interactions on COVID-19 Pathology and Epidemiology. Delineating Health and Health System: Mechanistic Insights into Covid 19 Complications (Eds: Sobti R.C. et al.). 2021; Chapter 22; 1-19. Springer Nature, Singapore. DOI: 10.1007/978-981-16-5105-2_22. ISBN: 978-981-16-5105-2
3. Ali E.S., Barua D., Saha S.K., Ahmed M.U., **Mishra S.K.**, Mubarak M.S. Targeting Redox Signaling and ROS Metabolism in Cancer Treatment. Handbook of Oxidative Stress in Cancer:

- Mechanistic Aspects. (Eds: Chakraborti S., Ray B.K., Roychowdhury S.). 2021; 1-28. Springer Nature Singapore. DOI: 10.1007/978-981-15-4501-6_119-1. ISBN: 978-981-15-4501-6
4. Tripathi S., **Mishra S.K.**, Varma A. Mycorrhizal Fungi as Control Agents Against Plant Pathogens. Mycorrhiza - Nutrient Uptake, Biocontrol, Ecorestoration (Eds. Varma A., Prasad R., Tuteja N.), 2017; Chapter 8, 161-178. Springer, Cham. DOI: 10.1007/978-3-319-68867-1_8. ISBN: 978-3-319-68866-4
 5. Sangwan N.S., Tiwari P., **Mishra S.K.**, Yadav R.K., Tripathi S., Kushwaha A.K., Sangwan R.S. Plant Metabolomics: An Overview of Technology Platforms for Applications in Metabolism. *PlantOmics: The Omics of Plant Science* (Ed: Barh D, Khan MS, and Davies E.), 2015; 257-298. Springer. DOI: 10.1007/978-81-322-2172-2_9. ISBN: 978-81-322-2171-5
 6. **Mishra S.K.** and Kim M.K. Vitamin A and Cancer Risk. *Vitamin A and Carotenoids: Chemistry, Analysis, Function and Effects* (Ed. Victor R. Preedy), 2012; 28: 485-500. Royal Society of Chemistry (London). DOI: 10.1039/9781849735506-00485. ISBN: 978-1-84973-368-7
 7. Sangwan N.S., Sabir F., Chaurasiya N.D., **Mishra S.K.**, Lal P., Misra L.N, Uniyal G.C., Sangwan R.S. Biochemical and phytochemical investigations on shoot differentiation induced by growth regulator hormones kinetin and BAP (6-benzyl aminopurine) in *Withania somnifera* [L.] Dunal. ***Plant Biotechnology: New Frontiers*** (Eds. Kukreja AK, Mathur AK, Banerjee S, Mathur A, Sharma A and Khanuja SPS), Lucknow, 2005; 379-392. ISBN: 81-86943-05-6

Patent:

1. Sangwan N.S., **Mishra S.K.**, Khanuja S.P.S., Srivastava A.K., Sangwan R.S. Beta-Glucosidase and a process for extraction thereof. **USA Patent: Application number: 11/531,032; Publication number: US 2007/0212745 A1; Sept 2007.**
2. MKU, **Mishra S.K. et al.** Composition of Ethnomedical Anti-Depressive Energy Drink. **Patent Application No. G11562DE**, date 21.05.2022. **German Patent & Trademark Office.**

Invited Lectures in Conferences/Seminars: 10

Abstracts Presented/Published in International Conferences: 23

Abstracts Presented/Published in National Conferences/Seminars/Symposia: 45

Academic/Faculty Development Programs Attended: 05

Seminar, Symposia, and Workshops Attended: 12

Conferences/Seminars/Symposia Organized: 14

Membership of Academic Societies: 09

1. International Natural Product Sciences Taskforce (INPST), Poland
2. MHRD – GIAN (Global Initiative of Academic Networks)
3. The Indian Science Congress Association (ISCA), India
4. The Indian Botanical Society (IBS), India
5. Society of Biological Chemists, Lucknow Chapter (India)
6. The Korean Physiological Society (KPS), Seoul (South Korea)
7. The Korean Society of Applied Pharmacology (KSAP), Seoul (South Korea)
8. The Korean Association for Laboratory Animal Science (KALAS), Seoul (South Korea)
9. American Association of Cancer Research (AACR), USA

Journals' Editorial Board:

Academic Editor: Journal of Tropical Medicine (UK), *Associate Editor:* Frontiers in Genetics (USA), *Editorial Board Member:* Frontiers in Biosciences (USA), *Editorial Board Member:* Genomics and Informatics (Korea Genome Organization, South Korea), *Associate Editor:* American Journal of Life Sciences (Science Publication Group, USA), *Associate Editor:* American Journal of BioScience (Science Publication Group, USA), *Associate Editor:* Gastroenterology and Hepatology: Open Access (MedCrave Publishing Group, USA), *Associate Editor:* Advanced Research in Gastroenterology & Hepatology (Juniper Publishers, USA)

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Research Highlights:

- The major research aim is to identify natural and synthetic molecules with novel mechanistic approach in prevention and therapy of cancer, diabetes and neurodegeneration.
- The recent focus is to prepare novel drug delivery system using DNA nanotechnology and using micellar lipids such as Self-Micellizing Anticancer Lipid (SMAL) nanoparticle.
- Investigated the effect of a medicinal mushroom *Inonotus obliquus* against intestinal inflammation and colorectal cancer and in liver toxicity induced by microcystin.
- Investigated the anticancer effects of cedrol (a sesquiterpene lactone from cedar wood oil) against human leukemia and colorectal cancer cell lines.
- Studied the effect of a commonly used anesthesia, midazolam, for its anticancer properties in human leukemia and colorectal cancer cell lines and in mice models.
- Studies the response of chemotherapy on various biochemical markers in breast cancer patients with emphasis on inflammatory cytokines and chemokines, and genotoxicity.
- Explored the frequencies of cytogenetic biomarkers in breast cancer patients with radio and chemotherapy and correlations between the metabolic and immunological parameters.
- Identified the SNPs of IGF1R gene and compare the frequencies of genotypes in associations with breast cancer risk.
- Studied the expression of stress inducible Gadd45 β gene and its transcriptional regulation in hypoxia exposed rat heart-derived cardiac cells.
- Investigated the antioxidant, neuroprotective and anticonvulsant effects of several natural products onion extract, quercetin, β -caryophyllene and anacardic acid.
- Studied the molecular mechanism involved in HBV replication and virus-host interaction in chronic hepatitis B patients. The basic research on HBV DNA genotyping and virus genome mutation was performed.