

## PATENTS

| Granted Patents   |                                                                                                 |                                                                                                                                                                                    |                    |            |
|-------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------|
| S. No.            | Title of the Patent                                                                             | Inventors                                                                                                                                                                          | Granted Patent No. | Date       |
| 1.                | Metal-Free Approach and Method for Synthesis of Polyesters                                      | Piyush Kumar Gupta, Anjaneyulu Kummari, Santosh Gupta, Debashis Chakraborty, Rama Shanker Verma                                                                                    | 351891             | 23.11.2020 |
| 2.                | System and Method for Encoding and Decoding Ethnic Data into Genetic Codes                      | Rama Shanker Verma, V Kamakoti, Piyush Kumar Gupta, Pronama Biswas, Sudha Varadaraj                                                                                                | 475673             | 30.11.2023 |
| 3.                | Metal-Free Polyester-Based Nano-Drug Carrier                                                    | Piyush Kumar Gupta, Anjaneyulu Kummari, Santosh Gupta, Debashis Chakraborty, Rama Shanker Verma                                                                                    | 475521             | 30.11.2023 |
| 4.                | Semi-Aromatic Polyester Nanocomposite and Method for Preparation Thereof                        | Piyush Kumar Gupta, Soumya Pandit, Shaily Chauhan, Rohit Kumar, Rekha Gahtori, Siva Chander Chabattula, Sunny Dholpuria, Sharad Agrawal, Bableen Flora                             | 562117             | 07.03.2025 |
| 5.                | Nanozyme Linked Oligo Probe Sorbent Assay (NLOPSA) for the Detection of Nucleic Acid Biomarkers | Dharanivasan Gunasekaran, Piyush Kumar Gupta, Rama Shanker Verma                                                                                                                   | 568908             | 21.07.2025 |
| Published Patents |                                                                                                 |                                                                                                                                                                                    |                    |            |
| 6.                | Anti-Microbial Chitosan-Based Nanoparticles Composition and Method for Fabrication Thereof      | Piyush Kumar Gupta, Soumya Pandit, Shaily Chauhan, Rekha Gahtori, Siva Chander Chabattula, Hem Chandra Joshi, S Shankara Narayanan, Mohit Sahni, R. Ranjithkumar, P. Senthil Kumar | 2021110403<br>50   | 01.10.2021 |
| 7.                | A Synergistic Anti-Leishmanial Nanodrug Formulation and Method                                  | Piyush Kumar Gupta, Madhu Gupta, Manali Singh, Ashish Dilip Sutar, Rahul Shukla,                                                                                                   | 2025110246<br>33   | 11.04.2025 |

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|  | of Preparation Thereof | Mohit Sahni, Jhalak Singhal,<br>Neha Jha, Shailja Singh |  |  |
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## JOURNAL PUBLICATIONS

| S. No.                                  | Title of the Article                                                                                                                                   | Authors Name                                                                                                                              | Journal Name, Volume, Page/Article No.                               | Year | Impact Factor & Quartile |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------|--------------------------|
| <b>FIRST &amp; CORRESPONDING AUTHOR</b> |                                                                                                                                                        |                                                                                                                                           |                                                                      |      |                          |
| 1.                                      | Next-Generation Nanocarriers from the Ocean: A Perspective on Fucoidan in Precision Medicine                                                           | Sthiti Porna Dutta, Shallu Sharma, Shaily Chauhan, Kalpana Balakrishnan, <b>Piyush Kumar Gupta*</b> , Shikha Singh                        | <b>Nanofabrication</b> , Accepted                                    | 2026 | 1.2, Q4                  |
| 2.                                      | Nanomedicine in Cancer Care: Unmasking the Hidden Toxicological Shadows                                                                                | K. Vandana, Reena Singh, Shaily Chauhan, Devvret Verma, Shikha Singh, Ekta Srivastava, Anjuvan Singh, <b>Piyush Kumar Gupta*</b>          | <b>Journal of Drug Delivery Science and Technology</b> , 124, 108533 | 2026 | 5.2, Q1                  |
| 3.                                      | Nanonizing Bioactives: Precision Chemistry for Next-Gen Therapeutics                                                                                   | Pronama Biswas, Belaguppa Manjunath Ashwin Desai, Suvarna Ghosh, Bhaswati Banerjee, ....., <b>Piyush Kumar Gupta*</b>                     | <b>Discover Materials</b> , 6, 59                                    | 2026 | 5.8, Q2                  |
| 4.                                      | Immunopathology to Nanotherapeutics: Redefining Psoriasis Management in Autoimmune Disease                                                             | Anuja Kamble, Ashish Dilip Sutar, B. Behera, <b>Piyush Kumar Gupta*</b> , Rahul Shukla                                                    | <b>ACS Nano Medicine</b> , 1, 547 - 563                              | 2026 | NA                       |
| 5.                                      | Development of Phytocompounds Decorated Sustainable Aa-ZnO Nanoparticles using Leaf Extract of <i>Agave americana</i> Plant for Anticancer Application | Siva Chander Chabattula, Srishti Rai, Kavitha Govarthanan, Kalpana Balakrishnan, ....., Kavindra Kumar Kesari, <b>Piyush Kumar Gupta*</b> | <b>Waste and Biomass Valorization</b> , 17, 2597 - 2609              | 2026 | 3.1, Q3                  |

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| 6.  | Study on the Photocatalytic Activity of Bimetallic-Semi-Aromatic Polyester Nanocomposite                         | Shaily Chauhan, Hussaini Baba Ali, Ashish Kumar Chalana, Piyush Kumar Gupta*                                              | Journal of Scientific and Technical Research, 15(2), 120-123        | 2025 | NA      |
| 7.  | Engineering Trafficking Pathways to Overcome Immunosuppressive Barriers in Solid Tumor Immunotherapy             | Sthiti Porna Dutta, Shaily Chauhan, Piyush Kumar Gupta*                                                                   | Expert Opinion on Drug Delivery, 22(11), 1631 – 1635                | 2025 | 6.0, Q1 |
| 8.  | Synthesis and Characterization of Nanohydroxyapatite from Carbide Lime Waste Through a Green Conversion Approach | Navneet Kaur, Rohit Kumar, Kavindra Kumar Kesari, Piyush Kumar Gupta*, Anjuvan Singh                                      | Nano-Structures & Nano-Objects, 41, 101433                          | 2025 | Q1      |
| 9.  | An Expert Opinion on Phytocompounds Delivery for Leishmaniasis Treatment                                         | Piyush Kumar Gupta*, Harshita Tiwari, Ashutosh Kumar Shukla, Kavindra Kumar Kesari, Shikha Singh                          | Expert Opinion on Drug Delivery, 22(3), 325 - 327                   | 2025 | 6.0, Q1 |
| 10. | Current Advances in the Therapeutic Potential of Nanomedicines for Pulmonary Disorders                           | Mayank Sharma, Rahul Shah, Apeksha Saraf, Rohit Kumar, Rahul Maheshwari, Kalpana Balakrishnan, ....., Piyush Kumar Gupta* | Emergent Materials, 8, 935 - 958                                    | 2025 | 4.0, Q2 |
| 11. | Exploring the Multifaceted Therapeutic Potential of Probiotics: A Review of Current Insights and Applications    | Kashyapi Chakravarty, Smriti Gaur, Rohit Kumar, Niraj Kumar Jha, Piyush Kumar Gupta*                                      | Probiotics and Antimicrobial Proteins, 17, 341 - 363                | 2025 | 5.3, Q1 |
| 12. | Exploring Gedunin's Potential in Cancer Therapy: Current Advances and Future                                     | Deepa Bisht, Dolly Sharma, Shaily Chauhan, Shikha Singh, Puniethaa                                                        | Proceedings of the Indian National Science Academy, 91, 1120 - 1130 | 2025 | 1.3, Q3 |

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|     | Perspectives                                                                                                                                                                                                             | Prabhu, Piyush Kumar Gupta*                                                                                              |                                                            |      |         |
| 13. | <i>In-Vivo</i> Toxicological Study of Cysteamine Modified Carbon Dots Derived from <i>Ruellia simplex</i> on Fruit Fly for Potential Bioimaging                                                                          | Pratibha Pansari, Surajita Sahu, Monalisa Mishra, Piyush Kumar Gupta*, Geeta Durga                                       | Biocatalysis and Agricultural Biotechnology, 61, 103359    | 2024 | 4.6, Q2 |
| 14. | An Opinion on Advanced Cancer Immunotherapy through Innovations in PD-1 Inhibitor Delivery Systems                                                                                                                       | Piyush Kumar Gupta*, Harshita Tiwari, Richa Mishra, Kalpana Balakrishnan, ....., Saravanan Krishnan                      | Expert Opinion on Drug Delivery, 21(12), 1693 – 1695       | 2024 | 6.0, Q1 |
| 15. | Nano Cerium Oxide Loaded Magnetic Multi-Walled Carbon Nanotubes Nanocomposite for Anti-Cancer and Anti-Bacterial Applications                                                                                            | Kalpana Balakrishnan, Sreejesh Sreekumar, Karthik Arumugam, Piyush Kumar Gupta*                                          | Biocatalysis and Agricultural Biotechnology, 57(4), 103114 | 2024 | 4.6, Q2 |
| 16. | <i>In vivo</i> Toxicological Analysis of ZnFe <sub>2</sub> O <sub>4</sub> @poly( <i>t</i> BGE- <i>alt</i> -PA) Nanocomposite: A Study on Fruit Fly<br><br><i>Highlighted on the Front Cover Page of Journal Magazine</i> | Shaily Chauhan, Seekha Naik, Rohit Kumar, Janne Ruokolainen, Kavindra Kumar Kesari, Monalisa Mishra, Piyush Kumar Gupta* | ACS Omega, 9(6), 6549 - 6555                               | 2024 | 5.2, Q2 |
| 17. | Revolutionizing Leishmaniasis Treatment with Cutting Edge Drug Delivery Systems and Nanovaccines: An Updated Review                                                                                                      | Srushti Tambe, Sagnik Nag, Shivani R. Pandya, Rohit Kumar, ....., Purnima Amin, Piyush Kumar Gupta*                      | ACS Infectious Diseases, 10(6), 1871-1889                  | 2024 | 4.5, Q1 |
| 18. | Biofilm Inhibition on Medical Devices and Implants Using Carbon                                                                                                                                                          | Eepsita Priyadarshini, Rohit Kumar, Kalpana Balakrishnan, .....,                                                         | ACS Applied Bio Materials, 7(5), 2604 - 2619               | 2024 | 5.6, Q2 |

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|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------|---------|
|     | Dots: An Updated Review                                                                                                                                      | Piyush Kumar Gupta*                                                                                       |                                                                            |      |         |
| 19. | 3D-Printed Nanomedicines for Cancer Therapy                                                                                                                  | Surbhi Bisht, Sweta Kanwal, Balasubramanian Mythili Gnanamangai, Swati Singh, ....., Piyush Kumar Gupta*  | Future Science OA, 10(1), FSO973                                           | 2024 | 2.5, Q3 |
| 20. | Synthesis of Pectin and Eggshells Biowaste Mediated Nanohydroxyapatite (nHAp), Their Physicochemical Characterizations, and Use as An Antibacterial Material | Priyanka Thakur, Arivarasan Vishnu Kirthi, Gaurav Kumar, ....., Piyush Kumar Gupta*                       | Applied Biochemistry and Biotechnology, 196, 491-505                       | 2024 | 3.5, Q2 |
| 21. | Emerging Trends in Zinc Ferrite Nanoparticles for Biomedical and Environmental Applications                                                                  | Jivesh Garg, Mei Nee Chiu, Saravanan Krishnan, Rohit Kumar, ....., Janne Ruokolainen, Piyush Kumar Gupta* | Applied Biochemistry and Biotechnology, 196, 1008 - 1043                   | 2024 | 3.5, Q2 |
| 22. | Advanced Nanomedicine Approach of JAK Inhibitors: Supporting Treatment of Rheumatoid Arthritis                                                               | Radha Rani, Neha Raina, Akhilesh Kumar, Piyush Kumar Gupta*, Madhu Gupta                                  | Nanomedicine, 19(4), 277 - 280                                             | 2024 | 4.6, Q2 |
| 23. | Development of Chemically Synthesized Hydroxyapatite Composite with Reduced Graphene Oxide for Enhanced Mechanical Properties                                | Bableen Flora, Rohit Kumar, Preeti Tiwari, Akhilesh Kumar, ....., Piyush Kumar Gupta*, Anjuvan Singh      | Journal of the Mechanical Behavior of Biomedical Materials, 142(6), 105845 | 2023 | 4.1, Q2 |
| 24. | Polyester Nanomedicines for Visceral Leishmaniasis Treatment                                                                                                 | Mohini Sikarwar, Vaishali Sunil Mishra, Preeti Tiwari, Madhu Gupta, Sunny                                 | Nanomedicine, 18(22), 1515 - 1518                                          | 2023 | 4.6, Q2 |

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|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------|---------|
|     |                                                                                                                                                                                                                                                            | Dholpuria, Piyush Kumar Gupta*                                                                                          |                                                  |      |         |
| 25. | An Update on Lipid-Based Nano Drug Delivery Systems for Leishmaniasis Treatment                                                                                                                                                                            | Vaishali Sunil Mishra, Preeti Tiwari, Madhu Gupta, Piyush Kumar Gupta*                                                  | Nanomedicine, 18(21), 1417 - 1419                | 2023 | 4.6, Q2 |
| 26. | <i>In Vivo</i> Toxicological Analysis of MnFe <sub>2</sub> O <sub>4</sub> @poly( <i>t</i> -BGE- <i>alt</i> -PA) Composite as A Novel Hybrid Nanomaterial for Possible Biomedical Use<br><br><i>Highlighted on the Front Cover Page of Journal Magazine</i> | Rohit Kumar, Samir Bauri, Soumyamitra Sahu, Shaily Chauhan, Kavindra Kumar Kesari, Monalisa Mishra, Piyush Kumar Gupta* | ACS Applied Bio Materials, 6(3), 1122 - 1132     | 2023 | 5.6, Q2 |
| 27. | Nanotechnology-Based Solutions for Anti-Biofouling Applications: An Overview                                                                                                                                                                               | Somya Sinha, Rohit Kumar, Jigisha Anand, ....., Saravanan Krishnan, Kavindra Kumar Kesari, Piyush Kumar Gupta*          | ACS Applied Nano Materials, 6, 14, 12828 - 12848 | 2023 | 5.8, Q2 |
| 28. | Oxygen Generating Nanomaterials for Chronic Wound Management                                                                                                                                                                                               | Neha Raina, Parvaiz Ahmad Shiekh, Akhilesh Kumar, Manu Smriti Singh, Piyush Kumar Gupta*, Madhu Gupta                   | Nanomedicine, 18(11), 845 - 847                  | 2023 | 4.6, Q2 |
| 29. | Recent Updates on Viral Oncogenesis and Their Available Therapeutics                                                                                                                                                                                       | Shivam Chowdhary, Rahul Deka, Kingshuk Panda, Rohit Kumar, ....., Ashish Kumar Gupta, Somya Sinha, Piyush Kumar Gupta*  | ACS Molecular Pharmaceutics, 20(8), 3698-3740    | 2023 | 4.9, Q1 |
| 30. | Current Aspects of Organoid Technology for Biomaterials Toxicity Analysis                                                                                                                                                                                  | Srushti Tambe, Rohit Kumar, Purnima Amin, ....., Ashwin Kumar Narasimhan,                                               | Future Medicinal Chemistry, 15(7), 579 - 582     | 2023 | 3.3, Q3 |

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|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------|---------|
|     |                                                                                                                                                                | Piyush Kumar Gupta*                                                                                                               |                                                                |      |         |
| 31. | Current Trends on the Effects of Metal-Based Nanoparticles on Microbial Ecology                                                                                | Jyoti Rawat, Vikas Kumar, Priyanca Ahlawat, Lokesh Kumar Tripathi, Richa Tomar, Rohit Kumar, Sunny Dholpuria, Piyush Kumar Gupta* | Applied Biochemistry and Biotechnology, 195, 6168 - 6182       | 2023 | 3.5, Q2 |
| 32. | Emerging Trends in Silk Fibroin Based Nanofibers for Impaired Wound Healing                                                                                    | G. Sabarees, V. Velmurugan, G. P. Tamilarasi, V. Alagarsamy, Belay Zeleke Sibuh, Mohini Sikarwar, Piyush Kumar Gupta*             | Journal of Drug Delivery Science and Technology, 79(1) 103994  | 2023 | 5.2, Q1 |
| 33. | Advances and Opportunities of Nano-Imaging Agents for the Diagnosis of Inflammatory Lung Diseases                                                              | Hema Brindha Musandam, Govindaraj Perumal, ....., Piyush Kumar Gupta*, Ashwin Kumar Narasimhan                                    | Nanomedicine, 17(25), 1981-2005                                | 2023 | 4.6, Q2 |
| 34. | Special Issue on Smart Nanomaterials for Cancer Theranostics                                                                                                   | A.K. Narasimhan, P.K. Gupta*, N.K. Jha, K.K. Kesari, Y.K. Mishra                                                                  | Materials Today Chemistry, 32(8), 101631                       | 2023 | 7.4, Q1 |
| 35. | Recent Update on Correlation Between Reactive Oxygen Species and Synbiotics for Effective Management of Ulcerative Colitis                                     | Sumel Ashique, Neeraj Mishra, Ashish Garg, Belay Z. Sibuh, ....., Petr Slama, Shubhadeep Roychoudhury, Piyush Kumar Gupta*        | Frontiers in Nutrition, 10, 1126579                            | 2023 | 5.5, Q1 |
| 36. | Strategies Facilitating the Permeation of Nanoparticles through Blood-Brain Barrier: An Insight Towards the Development of Brain-Targeted Drug Delivery System | Aishaanya Mishra, Rohit Kumar, ....., Ashish Kumar Gupta, Somya Sinha, Dillip Kumar Bishi, Piyush Kumar Gupta*, Sunita Nayak      | Journal of Drug Delivery Science and Technology, 86(9), 104694 | 2023 | 5.2, Q1 |

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|-----|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------|---------|
|     |                                                                                                                          |                                                                                                                                            |                                                                   |      |         |
| 37. | Recent Updates on Metal-Polymer Nanocomposites in 3D Bioprinting for Tissue Engineering Applications                     | Bableen Flora, Rohit Kumar, ....., Anjuvan Singh, Kavindra Kumar Kesari, <a href="#">Piyush Kumar Gupta*</a>                               | <a href="#">Nanofabrication</a> , 8, 1-15                         | 2023 | 1.2, Q4 |
| 38. | Molecular Insights and Therapeutic Implications of Nanoengineered Dietary Polyphenols for Targeting Lung Cancer: Part I  | Sabya Sachi Das, Srushti Tambe, P.R.P. Verma, Purnima Amin, Neeru Singh, Sandeep Kumar Singh, <a href="#">Piyush Kumar Gupta*</a>          | <a href="#">Nanomedicine</a> , 17(23), 1779-1798                  | 2022 | 4.6, Q2 |
| 39. | Molecular Insights and Therapeutic Implications of Nanoengineered Dietary Polyphenols for Targeting Lung Cancer: Part II | Sabya Sachi Das, Srushti Tambe, P.R.P. Verma, Purnima Amin, Neeru Singh, Sandeep Kumar Singh, <a href="#">Piyush Kumar Gupta*</a>          | <a href="#">Nanomedicine</a> , 17(23), 1799-1816                  | 2022 | 4.6, Q2 |
| 40. | Polyester Nanomedicines Targeting Inflammatory Signaling Pathways for Cancer Therapy                                     | Sabya Sachi Das, Sandeep Kumar Singh, P.R.P. Verma, Rekha Gahtori, ....., <a href="#">Piyush Kumar Gupta*</a>                              | <a href="#">Biomedicine and Pharmacotherapy</a> , 154(10), 113654 | 2022 | NA      |
| 41. | Emerging Trends in Immunotoxin Targeting Cancer Stem Cells                                                               | Belay Zeleke Sibuh, Rekha Gahtori, Kumud Pant, Bahareh Farasati Far, Asrar Ahmad Malik, Sushil Dohare, <a href="#">Piyush Kumar Gupta*</a> | <a href="#">Toxicology In Vitro</a> , 83(9), 105417               | 2022 | 2.7, Q3 |
| 42. | Synthesis, Characterization, and Remedial Action of Biogenic <i>p</i> -Ag Nanoparticles                                  | Somya Sinha, Belay Zeleke Sibuh, Abhilasha Mishra, Kumud Pant, Shikha Tomar, Jigisha Anand, <a href="#">Piyush Kumar Gupta*</a>            | <a href="#">Nanofabrication</a> , 7, 1-6                          | 2022 | 1.2, Q4 |
| 43. | Biogenic Preparation, Characterizations, and                                                                             | Devaraj Bharathi, Ranjithkumar                                                                                                             | <a href="#">Journal of Composites</a>                             | 2022 | 4.6, Q2 |

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|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------|---------|
|     | Biomedical Applications of Chitosan Functionalized Iron Oxide Nanocomposite                                                                                                                                              | Rajamani, Belay Zeleke Sibuh, Soumya Pandit, ....., <a href="#">Piyush Kumar Gupta*</a>                                                        | <a href="#">Science</a> , 6(5), 120                                                        |      |         |
| 44. | Current Trends in Bio-Waste Mediated Metal/Metal Oxide Nanoparticles for Drug Delivery                                                                                                                                   | B. H. Jaswanth Gowda, Mohammed Gulzar Ahmed, Sampath Chinnam, Karthika Paul, ....., Kavindra Kumar Kesari, <a href="#">Piyush Kumar Gupta*</a> | <a href="#">Journal of Drug Delivery Science and Technology</a> , 71(5), 103305            | 2022 | 5.2, Q1 |
| 45. | Applications of Lignin Nanoparticles for Cancer Drug Delivery: An Update                                                                                                                                                 | Jivesh Garg, Mei Nee Chiu, Saravanan Krishnan, ....., Vikas Tripathi, Sadanand Pandey, <a href="#">Piyush Kumar Gupta*</a>                     | <a href="#">Materials Letters</a> , 311(3), 131573                                         | 2022 | 2.6, Q3 |
| 46. | Enhanced Photocatalytic Activity of <i>St</i> -ZnO Nanorods for Methylene Blue Dye Degradation                                                                                                                           | Devaraj Bharathi, Thiruvengadam Nandagopal Jaya Ganesh, ....., Sadanand Pandey, <a href="#">Piyush Kumar Gupta*</a>                            | <a href="#">Materials Letters</a> , 311(3), 131637                                         | 2022 | 2.6, Q3 |
| 47. | Synthesis, Characterization and Remedial Action of Biogenic Silver Nanoparticles and Chitosan Silver Nanoparticles against Bacterial Pathogens<br><br><i>Highlighted on the Front Cover Page of the Journal Magazine</i> | <a href="#">Piyush Kumar Gupta*</a> , D. Karthik Kumar, M. Thaveena, Soumya Pandit, Somya Sinha, R. Ranjithkumar, Vijay Kumar Thakur           | <a href="#">Journal of Renewable Materials</a> , 10(12), 3093 - 3105                       | 2022 | NA      |
| 48. | Synthesis and Characterization of Biocompatible Bimetallic-Semi-Aromatic Polyester                                                                                                                                       | Rohit Kumar, <a href="#">Piyush Kumar Gupta*</a> , Soumya Pandit, Niraj Kumar Jha, Kavindra Kumar Kesari                                       | <a href="#">Colloids and Surfaces A: Physicochemical and Engineering Aspects</a> , 633(1), | 2022 | 5.4, Q2 |

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|-----|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------|---------|
|     | Hybrid Nanocomposite                                                                                                       |                                                                                                                                    | 127845                                                      |      |         |
| 49. | Synthesis and Characterization of Novel Bimetallic-Semi-Aromatic Polyester Nanocomposite for Possible Biomedical Use       | Shaily Chauhan, Noura Al-Dayana, Rohit Kumar, ....., Piyush Kumar Gupta*                                                           | Materials Letters, 306(1), 130943                           | 2022 | 2.6, Q3 |
| 50. | Novel EPR-Enhanced Strategies for Targeted Drug Delivery in Pancreatic Cancer: An Update                                   | Mohammadzadeh, Niloufar Rahiman, ....., Ashish Gupta, Vijay Kumar Thakur, Belay Zeleke Sibuh, Piyush Kumar Gupta*                  | Journal of Drug Delivery Science and Technology, 73, 103459 | 2022 | 5.2, Q1 |
| 51. | Aptameric Nanobiosensors for the Diagnosis of COVID-19: An Update                                                          | Saravanan Krishnan, Ashwin Kumar Narasimhan, Niraj Kumar Jha, Kamal Dua, Vijay Kumar Thakur, Piyush Kumar Gupta*                   | Materials Letters, 308, 131237                              | 2022 | 2.6, Q3 |
| 52. | Nanotechnology-Based Therapeutic Formulations in the Battle against Animal Coronaviruses -An Update                        | Saravanan Krishnan, Ashok Kumar Thirunavukkarsu, Niraj Kumar Jha, Rekha Gahtori, Ayush Singha Roy, ....., Piyush Kumar Gupta*      | Journal of Nanoparticle Research, 23(10), 229               | 2021 | 3.5, Q2 |
| 53. | Synthesis and Characterization of PCU@C-Ag/AgCl Nanoparticles as An Antimicrobial Material for Respiratory Tract Infection | P. Senthilkumar, S. Kalaivani, B. Lerince Godrina, A. Janani, G. Aganiya, B. Sudhagar, R. Ranjithkumar, ....., Piyush Kumar Gupta* | Nanofabrication, 6(1), 68 - 78                              | 2021 | 1.2, Q4 |
| 54. | Anti-Cancer Therapeutic Efficacy of Biogenic Am-ZnO Nanoparticles on 2D and 3D Tumor Models                                | Siva Chander Chabattula, Piyush Kumar Gupta*, Surya Kant Tripathi, Rekha Gahtori, .....,                                           | Materials Today Chemistry, 22(12), 100618                   | 2021 | 7.4, Q1 |

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|     |                                                                                                                                                           | Kavindra Kumar Kesari                                                                                                                           |                                                           |      |         |
| 55. | Nanomaterials in Alzheimer's Disease Treatment: A Comprehensive Review                                                                                    | Maryam Faiyaz, Mohd. Azhardin Ganayee, ....., Poonam Negi, Kamal Dua, Kavindra Kumar Kesari, <b>Piyush Kumar Gupta*</b>                         | <b>Frontiers in Bioscience-Landmark</b> , 26(10), 851-865 | 2021 | 4.1, Q2 |
| 56. | Nanomaterials in The Management of Gram-Negative Bacterial Infections                                                                                     | Mahmood Barani, Mahira Zeeshan, ....., Saman Sargazi, <b>Piyush Kumar Gupta*</b> , Vijay Kumar Thakur                                           | <b>Nanomaterials</b> , 11(10), 2535                       | 2021 | 4.8, Q2 |
| 57. | Theranostic Advances of Bio-nanomaterials against Gestational Diabetes Mellitus: A Preliminary Review                                                     | Mahmood Barani, Saman Sargazi, ....., Niraj Kumar Jha, <b>Piyush Kumar Gupta*</b> , Vijay Kumar Thakur                                          | <b>Journal of Functional Biomaterials</b> , 12(4), 54     | 2021 | 5.9, Q1 |
| 58. | Synthesis and Characterization of Novel Fe <sub>3</sub> O <sub>4</sub> /PVA/Eggshell Hybrid Nanocomposite for Photodegradation and Antibacterial Activity | <b>Piyush Kumar Gupta*</b> , Senthilkumar P., Tamilarasi G., R. Ranjithkumar, Soumya Pandit, Somya Sinha, Vijay Kumar Thakur                    | <b>Journal of Composites Science</b> , 5(10), 267         | 2021 | 4.6, Q2 |
| 59. | Mitigating Inflammation Using Advance Drug Delivery by Targeting Tumour Necrosis Factor-Alpha in Lung Diseases                                            | Sabya Sachi Das, Sandeep Kumar Singh, P.R.P Verma, <b>Piyush Kumar Gupta*</b> , Kamal Dua                                                       | <b>Future Medicinal Chemistry</b> , 14(2), 57-60          | 2021 | 3.3, Q3 |
| 60. | Phytomedicines Targeting Cancer Stem Cells: Therapeutic Opportunities and Prospects for Pharmaceutical Development                                        | <b>Piyush Kumar Gupta*</b> , Mrunmayee Saraff, Rekha Gahtori, Nidhi Negi, Surya Kant Tripathi, Jatin Kumar, ....., Shreesh Ojha, Kavindra Kumar | <b>Pharmaceuticals</b> , 14(7), 676                       | 2021 | 5.7, Q1 |

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|     |                                                                                                                                          | Kesari                                                                                                                                                 |                                                                                            |      |         |
| 61. | Recent Advances in Cardiac Tissue Engineering for the Management of Myocardium Infarction                                                | Vineeta Sharma, Sanat Kumar Dash, Kavitha Govarthanan, Rekha Gahtori, ....., Kavindra Kumar Kesari, Niraj Kumar Jha, Piyush Kumar Gupta*, Shreesh Ojha | Cells, 10(10), 2538                                                                        | 2021 | 6.0, Q2 |
| 62. | Delineating The Role of Phytocompounds against Anti-Bacterial Drug Resistance–An Update                                                  | Rekha Gahtori, Nidhi Negi, Saravanan Krishnan, Sugapriya Dhanasekaran, Soumya Pandit, Kanu Priya, Dillip Kumar Bishi, Ram Prasad, Piyush Kumar Gupta*  | Biocell, 45(6), 1465-1477                                                                  | 2021 | 1.8, Q3 |
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| 84. | Designing of Smart Nanogels Based on Tragacanth Gum for Cisplatin Delivery                                                                                     | Chetna Verma, Deepak Pathania, Poonam Negi, Piyush Kumar Gupta, Rama Shanker Verma, Bhuvanesh Gupta                                               | Polymer International, 72(2), 158-165                              | 2023 | 3.0, Q3 |
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| 130. | Current Prospects and Challenges of Nanomedicine Delivery in Prostate Cancer Therapy                                                                         | Santosh Gupta, Piyush Kumar Gupta, Gunasekharan Dharanivasan, Rama Shanker Verma                                                        | Nanomedicine, 12(23), 2675 – 2692              | 2017 | 4.6, Q2 |

### CONFERENCE PROCEEDINGS

| S. No. | Book Name                                                                               | Editors                                                               | ISBN No.      | Year/Publisher               |
|--------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------|------------------------------|
| 1.     | Abstract Book on “Two Days National Symposium cum Workshop on Green Nanomedicine”       | Piyush Kumar Gupta, Shikha Singh                                      | 9788199666153 | 2025<br>SAAR<br>Publications |
| 2.     | Abstract Book on “Two Days National Symposium on Next Generation Drug Delivery Systems” | Piyush Kumar Gupta, Ashwini Kumar, Shikha Singh, Santosh Kumar Mishra | 9788198322401 | 2024<br>SAAR<br>Publications |

### BOOKS

| S. No. | Book Name                                                                                     | Editors                                                       | ISBN No.      | Year/Publisher               |
|--------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------|------------------------------|
| 1.     | Development and Characterization of Bionanomaterials for Drug Delivery and Tissue Engineering | Piyush Kumar Gupta, Shikha Singh, Rohit Kumar, Shaily Chauhan | 9788197935077 | 2024<br>SAAR<br>Publications |

### BOOK CHAPTERS

| S. No. | Title                                            | Author's Name                                                                                           | Book Name                            | ISBN No.      | Year/Publisher               |
|--------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------|---------------|------------------------------|
| 1.     | Nanotechnology and Animal Reproductive Disorders | Dinisha, Yashika Thakran, Khushi, Piyush Kumar Gupta, Ashima Sharma, Sandeep Kumar, Sunny Dholpuria     | Nanobiomaterials in Animal Husbandry | 9789819545421 | 2026<br>Springer<br>Nature   |
| 2.     | Nanotechnology in Animal Disease Detection       | Khushboo, Harshita Sharma, Deepti Akansha Rohilla, Piyush Kumar Gupta, Deepansh Sharma, Sunny Dholpuria | Nanobiomaterials in Animal Husbandry | 9789819545421 | 2026<br>Springer<br>Nature   |
| 3.     | Antimicrobial Properties of Green                | Bableen Flora, Anurag Kumar Singh, Rohit                                                                | Green Biomaterials in Tissue         | 9780841296589 | 2025<br>American<br>Chemical |

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|    | Biomaterials                                                                                       | Kumar, .....,<br>Piyush Kumar<br>Gupta*                                                             | Engineering                                                                               |               | Society                    |
| 4. | Lignin for<br>Nanoparticle<br>Synthesis                                                            | Kiran Khandare,<br>Rohit Kumar,<br>Manali Singh,<br>Hamisu Shuaibu<br>Idris, Piyush<br>Kumar Gupta* | Handbook of<br>Lignin                                                                     | 9789819726646 | 2025<br>Springer<br>Nature |
| 5. | Nanotechnology<br>for Cancer<br>Imaging                                                            | Smruti Sudha<br>Biswal, Rohit<br>Kumar, .....,<br>Piyush Kumar<br>Gupta*, Monalisa<br>Mishra        | IoT-WSN-DT-<br>based Medical<br>Systems and<br>Nanotechnology<br>for Smart Cancer<br>Care | 9780443339844 | 2025<br>Elsevier           |
| 6. | Nano-Drug<br>Carriers for<br>Chemotherapeutic<br>Agents Delivery<br>in Cancer Disease<br>Treatment | Priyanca<br>Ahlawat, Rohit<br>Kumar, Akhilesh<br>Kumar, Piyush<br>Kumar Gupta*                      | Nano Drug<br>Delivery for<br>Cancer Therapy:<br>Principles and<br>Practices               | 9789819969395 | 2024<br>Springer<br>Nature |
| 7. | Molecular<br>Signature of Stem<br>Cells Undergoing<br>Cardiomyogenic<br>Differentiation            | Kavitha<br>Govarthanan,<br>Piyush Kumar<br>Gupta, .....,<br>Khawaja Husnain<br>Haider               | Handbook of<br>Stem Cell<br>Therapy                                                       | 9789811660160 | 2022<br>Springer<br>Nature |
| 8. | Stem Cell<br>Applications in<br>Cardiac Tissue<br>Regeneration                                     | Vineeta Sharma,<br>Sanat Kumar<br>Dash, Piyush<br>Kumar Gupta,<br>....., Kavitha<br>Govarthanan     | Handbook of<br>Stem Cell<br>Therapy                                                       | 9789811660160 | 2022<br>Springer<br>Nature |
| 9. | Nanomedicine in<br>Cancer Stem Cell<br>Therapy                                                     | Piyush Kumar<br>Gupta*,<br>Gunasekaran<br>Dharanivasan,<br>Ranjita Misra,<br>Santosh Gupta,         | Nano<br>Biomedicine                                                                       | 9789813298972 | 2020<br>Springer<br>Nature |

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- Mohini Sikarwar, [Piyush Kumar Gupta\\*](#). (2024). Quercetin – A Super Food for Therapeutic Interventions. **Magazine:** [Pharma Focus Asia](#).