

Faculty Profile

Name: Dr. P. Mahesh Kumar

Designation: Associate Professor

Qualification:

- PhD (Pharmacy), Birla Institute of Technology-Mesra, Ranchi, Jharkhand, India, 2019
- M. Pharm (Pharmacology), Birla Institute of Technology-Mesra, Ranchi, Jharkhand, India, 2007
- B. Pharm, Kakatiya University, Warangal, Telangana, India, 2004
- D. Pharm, Christian Medical College and Hospital, Vellore, Tamil Nadu, India, 1999

Research Area:

- Pharmacology
- Drug Delivery
- Diabetes Mellitus, Neuropathic Pain & Diabetic Foot Ulcers
- Neurological Disorders (Stroke, Alzheimer's, Parkinson's)
- Surgical Site Infections, Wound Healing, Psoriasis, Inflammation
- Topical Formulations (Nanogels, Spray, Hydrogels, Creams, Ointments)

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List of Publications:

1. Mahesh Kumar Posa, Jyoti Singh, Sadia Parveen, Subhranshu Panda. CAR-T cell Therapy: A promising novel approach for treatment of cancer. Cancer Treatment and Research Communications. 2026; 47:101125. DOI: <https://doi.org/10.1016/j.ctarc.2026.101125> (Impact Factor:2.4)
2. Sampat Singh Tanwar Mahesh Kumar Posa, Ravi Kumar Kota, V.T.Iswariya, P.Moulika, S.Gejalakshmi, Jagdish Kumar Arun, Seema Sharma. Functional silver and gold nanoparticles in pharmaceutical technology: A deep review of formulation techniques. EJPPS Eur. J. Parenter. Pharm. Sci. 2026, <https://doi.org/10.37521/ejpps31102>.
3. Kishan Singh Praveen Rao , Poorva , M. Mubeen , Arvind Negi , Prateek Pandey , Rudhali Lilhare , Setu Visavadia , Santosh Kumar Bhatted , Divaker Shukla , Neetu Vishwakarma, Mahesh Kumar Posa, Sudhanshu Kumar Jha. Cardio-protective potential of ocimum sanctum (tulsi): a review of experimental and clinical evidence. Chinese Journal of Health Management Volume 20 Issue 3, Year of Publication 2026, Page 525-535 | DoI-10.564220/1674-0815.2026.74.
4. Ruchi Tiwari, Priyanka Shukla, Gaurav Tiwari, Mahesh Kumar Posa, Mallikarjun Mugli, Anurag Mishra. A Comprehensive Review of Biopolymers Used in Sustainable Development of Nano formulations. International Journal of Pharmaceutical Investigation. 2026;16 (1), 66-76. DOI: [10.5530/ijpi.20260447](https://doi.org/10.5530/ijpi.20260447)

5. V.Sandhya, Shaheena Sohi, J. Sangeetha*, Bhushan Muley, Mahesh Kumar Posa, V. Amudhavalli, Jyothi Basini, Kanumaluri Lakshmi Prasanna. Evaluation of Anti-Obesity and Hypolipidemic Effects of Garcinia cambogia Extract in High-Fat Diet-Induced Obese Rats. *Vascular and Endovascular Review*. 2025; 8(9s), 329-340. <https://verjournal.com/index.php/ver/article/view/764>
6. P. Mahesh Kumar; Animesh Ghosh. Development and evaluation of silver sulphadiazine loaded microsp sponge based gel for partial thickness (Second degree) burn wounds. *European Journal of Pharmaceutical Sciences*. 96(2017) 243-254. (Impact Factor: 4.30) (First author)
7. P. Mahesh Kumar; Animesh Ghosh. Development and evaluation of metronidazole loaded microsp sponge based gel for superficial surgical wound infections. *Journal of Drug Delivery Science and Technology*. 30 (2015) 15-29. (Impact Factor: 4.50) (First author)
8. Santanu Kaity;Jinu Isaac; P.Mahesh Kumar; Anirbandeep Bose; Tin Wui Wong. Animesh Ghosh. Microwave assisted synthesis of acrylamide grafted locust bean gum and its application in drug delivery. *Carbohydrate polymers*. 2013;98 (1):1083-1094. (Impact Factor: 10.723)
9. Rabinarayan Parhi; Sumanta Mondal; Posa Mahesh Kumar; Podilama Suresh. Novel penetration enhancers for skin applications: a review. *Current drug delivery*. 2011; 9(2): 219-230. (Impact factor 2.80)
10. Sudhanshu Kumar Jha Abrar Ahmad Zargar, Vipasha Mehta, Rishikesh Gupta, Kishwor Bandari, Mahesh Kumar Posa, T. Sriramya, D. Snigdha, Vijayakumar B, Mukesh Chandra Sharma, P. Balaji. Incretin Hormones: Mechanisms, Therapeutic Implications, and Future Directions in Glucose Regulation and Diabetes Management. *Current Proteomics*.2025;22:100014

Research Patents:

International Patents Granted: 02 (UK Design Patents):

1. Infusion pump apparatus for liposome based encapsulated drug delivery for the treatment of cancer (Design Number:6327950 Registration Date: 22 November 2023 Grant Date: 29 November 2023)
2. Inhaled aerosol apparatus for liposome-encapsulated drugs delivery for lung disease treatment (Design Number:6326056 Registration Date:14 November 2023 Grant Date: 22 November 2023)

International Copyrights Granted: 01 (Canadian Copyright)

1. Silver Nano formulation for Treatment of Diabetic wounds (Canadian Copy Right- Canadian Intellectual Property Office, Copyright number: 1241444, Date of registration: 22/01/2026)

National Patents Granted: 04 (Indian Design Patents):

1. Equipment used for noninvasive monitoring of liver function (Design Number: 400753-001 Registration Date: 28 November 2023 Grant Date: 05 January 2024)
2. Portable medical device for detection of ulcerative colitis (Design Number: 400751-001 Registration Date: 28 November 2023 Grant Date: 19 January 2024)
3. Device for synthesis of chiral pharmaceutical intermediates (Design Number:400570-001 Registration Date: 23 November 2023 Grant Date: 18 January 2024)
4. Microtome apparatus for cutting thin slices of plant tissues (Design Number: 400128-001 Registration Date: 17 November 2023 Grant Date: 28 February 2024)

International Patents Granted: 02 (Germany Process Patents)

1. Nanoparticle delivery system for diabetes medication and composition thereof (Patent Number: 20 2024 100 422 Application Number: G24059DE Registration Date: 29 January 2024 Granted Date: 07-02-2024)
2. Controlled release nose to brain delivery liposomal formulation for neurological disorders (Patent Number: 202024100977 Application Number: G24105DE Registration Date: 29 February 2024 Grant Date: 14 March 2024)

National Patents Published: 04 (Indian Process Patent Publication):

1. Formulation of Phytosomal gel of beta blocker for management of diabetic foot ulcer (Application Number: 202431027742 Filed Date: 03/04/2024 Published Date: 19/04/2024)
2. Surface modified Niosomes based composition for targeted cancer therapy. (Application Number: 202411051861, Filed Date: 05/07/2024 Published Date: 19/07/2024)
3. Apixaban anticoagulant drug exploration with wet granulation and super disintegrant synergy. (Application Number: 202511001106 Filed Date: 06/01/2025 Published date: 17/01/2025)
4. A System and A Method to Intelligently Detect and Localize Cardiac Arrhythmia Sources Using an AI-Augmented Optical Mapping. (Application Number: 202511069986 Publication date: 15/08/2025)
5. Polyherbal Formulation Comprising Eugenol and Capsaicin for the Treatment of Diabetic Neuropathy (Application Number: 202611045710 Publication Date: 22/05/2026)

Text Books Published:

1. A Text Book of Pharmacology-I: ISBN Number: 978-93-6087-684-5 Book ID:SB20913 Dr. Sathish Amirthalingam, Dr. Ashish Manigauha, Dr. Mahesh Kumar Posa, Dr. Mejo Joseph, Dr. Kritika Garg. (2024) Shashwat Publications- India.
2. A Text Book of Pharmacology-II: ISBN Number :978-93-7462-880-5 Book ID: SB21875 Mrs Anamika Kulshrestha, Dr. Mahesh Kumar Posa, Prof. (Dr.) Bhupendra Chauhan, Dr. Pritam Rajkumar Siraskar, Dr. Rekha Tarasingh Rajput. (2025) Shashwat Publications- India
3. A Text Book of Pharmacology-III: ISBN Number :978-93-6087-479-7 Book ID: SB20912 Dr. V. Jaya Sankar Reddy, Mr. P.S. Minhas, Dr. Mahesh Kumar Posa, Dr. Himanshu Mohan Varshney, Dr. C. Balalakshmi. (2024) Shashwat Publications- India
4. Text Book of Advance Pharmacology-I: ISBN Number:978-93-6087-595-4 Book ID:SB21810 Anamika Kulshrestha, Shruti Kumari, Dr. Mahesh Kumar Posa, Mrs. Gangesetty Hema Sree, Amit Yadav (2025) Shashwat Publications- India
5. Text Book of Advance Pharmacology-II: ISBN Number:978-93-6087-595-4 Book ID:SB21810 Anamika Kulshrestha, Shruti Kumari, Dr. Mahesh Kumar Posa, Mrs. Gangesetty Hema Sree, Amit Yadav (2025) Shashwat Publications- India.
6. A Practical Handbook of Experimental Pharmacology. Arnab Chakraborty, Dr. sayan Biswas, Dr. Mahesh Kumar Posa. (2026) S Vikas and Company (Medical Publishers),

Book Chapters Published:

1. Nanostructures in embryo viability and implantation (Book Name: Nanotechnology in the Treatment of Infertility: Publisher Elsevier, Pages: 179-201 Publishing Date:20/04/2026)
2. Nanotechnology in fertility preservation for cancer patients (Book Name: Nanotechnology in the Treatment of Infertility: Publisher Elsevier, Pages: 325-344 Publishing Date:20/04/2026)

Prospective students interested in pursuing research in my laboratory are invited to submit their CVs and a preliminary draft of their proposed research project ideas to the email address provided above.

