

## CURRICULUM VITAE

### **Dr. Umesh Gupta**

(M. Pharm. Pharmaceuticals, PhD, Post Doc. USA)

Associate Professor and Head

Department of Pharmacy

Dean

School of Chemical Sciences and Pharmacy

Head

Department of Health Sciences,

Central University of Rajasthan, India

<https://uguptalab.wixsite.com/nddl>

Email: umeshgupta@curaj.ac.in

-----  
**Objective:** To continuously upgrade my professional attitude and excel in the pharmaceutical arena.

### **Professional Experience**

<b>Designation</b>	<b>Institute/Company</b>	<b>From</b>	<b>To</b>
Associate Professor	Central University of Rajasthan, India	2022	Till date
Assistant Professor	Central University of Rajasthan, India	2013	2022
DAAD, Research Stays for University Academics and Scientists	Leibniz-institut fur Polymerforschung, Dresden, Germany	May 2017	July 2017
Post doc Research Associate	South Dakota State University, Brookings, SD, USA	2012	2013
Research Scientist	Research and Development, Ranbaxy Research Laboratories, Gurgaon, India	2011	2012
Assistant Professor	Guru Ramdas Khalsa Institute of Science and Technology (Pharmacy), Jabalpur, MP, India	2010	2011
Senior Research Fellow (ICMR)	Department of Pharmaceutical Sciences Dr. H. S. Gour University, Sagar, MP, India	2008	2010
Lecturer of Pharmaceutics	Sagar Institute of Pharmaceutical Sciences, Sagar, MP, India	2006	2008

### **Educational Qualifications**

<b>Examination</b>	<b>Examining Board/University</b>	<b>Year of Passing</b>	<b>Division and Rank</b>
<b>B. Pharm.</b>	Dr. H. S. Gour University, Sagar, India	2003	I (III Merit position)
<b>M. Pharm.</b>	Dr. H. S. Gour University, Sagar, India	2006	I (II Merit Position)
<b>Ph. D.</b>	Dr. H. S. Gour University Sagar, India	2010	

**M. Pharm Scholars Supervised/ Under-Supervision:**

**41**

**PhD Scholars Under-Supervision:**

**05 [Awarded] 05 [Ongoing]**

### **Research Grants Received**

1. Research Grant of from Indian Council of Medical Research (ICMR), Government of India, for the research project [Small scheme] entitled "*Poly-ε-Caprolactone/Poly Vinyl Alcohol Nanofiber Mediated Duo Approach of Anti-cancer Drug and Natural Wound Healer for the Effective Treatment of Loco-Regional Recurrent Breast Cancer*" (94.0 Lac).
2. Research Grant from Department of Biotechnology (DBT), Government of India, for the research project entitled "*Development of Novel Formulation for Prevention and Control of Teat and Udder Infection in Cattle*" (53.74 Lac).

3. Indo-Belarus Grant from Department of Science and Technology (DST), Government of India, for the research project entitled "*Exploration of Aptamer Gint4.T based Dendrimeric Carrier for the Brain Delivery of Anticancer Drug Temozolomide*" (10 Lac).
4. Research Grant from DST-SERB, Department of Science and Technology, Government of India, for the research project entitled "*Design, Synthesis and Characterization of Multifunctional Platform for Targeted-Tumor Phototherapy*" (60.9 Lac).
5. Research Grant by Central University of Rajasthan for "Chancellor's Award for Best Faculty-2018" (1.5 Lac).
6. Research & Development Project, Department of Science and Technology (DST Rajasthan), Government of Rajasthan, for the research project entitled "*Dendrimer Mediated Non-Invasive Delivery of Rifampicin and Imipenem for the Effective Treatment of Pulmonary Tuberculosis*" (3.06 Lac).
7. Start-Up Research Grant (Young Scientists Award) from DST-SERB, Department of Science and Technology, Government of India, for the research project entitled "*Multi-functional Nanotherapeutics for the Effective Treatment of Advanced Breast Cancer: A Dual Delivery Approach for siRNA and Anticancer Drug*" (28.5 Lac).
8. University Grants Commission (UGC) Start up grant (6 Lac).

### Travel Grants Received

1. International Travel Award by Department of Science and Technology, New Delhi to attend 2019 AAPS 360, Annual Meeting and Exposition at San Antonio, Texas, USA, 3<sup>rd</sup>-6<sup>th</sup> November, 2019.
2. International Travel Award by Department of Science and Technology, New Delhi to attend 2014 Annual Meeting and Exposition at San Diego USA, 2-6<sup>th</sup> November, 2014.
3. International Travel Award by Center for International Co-operation in Sciences, Indian National Science Academy, Chennai to attend 7th International Dendrimer Symposium at Maryland, USA from 26-06-2011 to 1-07-2011.
4. International Travel Award by Department of Science and Technology New Delhi to attend 7th International Dendrimer Symposium at Maryland, USA from 26-06-2011 to 1-07-2011.
5. International Travel Award by Council of Scientific and Industrial Research New Delhi to attend International Conference on Nano-science and Technology at Beijing China from 04-06-2007 to 06-06-2007.
6. International Travel Award by Department of Science and Technology New Delhi to attend International Conference on Cellular and Molecular Bio-engineering at Singapore from 10-12-2007 to 12-12-2007.
7. International Travel Award by Madhya Pradesh Council of Science and Technology Bhopal (MPCST) attend International Conference on Cellular and Molecular Bio-engineering at Singapore from 10-12-2007 to 12-12-2007.

### Awards and Honors

1. Placed in the list of world's top 2% scientists for six consecutive years (2020, 2021, 2022, 2023, 2024 and 2025) prepared by Stanford University, USA.
2. Best Teacher Award-2024 at Central University of Rajasthan.
3. ACS Publications Peer-reviewer recognition by American Chemical Society.
4. CAS Registry® Innovator (CAS RN® 2306053-26-7) by CAS, A Division of American Chemical Society on 03.09.2020.
5. AAiPS Distinguished Young Educator and Researcher Award-2019 given during AAPS Annual Meeting 2020 at San Antonio Texas USA.
6. "First Chancellor's Award for Best Faculty-2018" at Central University of Rajasthan on dated 02.11.2018.
7. "DAAD, Research Stays for University Academics and Scientists" at Leibniz-institut fur Polymerforschung, Dresden, Germany.
8. CSIR-Nehru Post Doc Fellowship Award in Life Sciences category (2012).
9. Carrier Award for Young Teachers by All India council of Technical Education (AICTE -2012).
10. MP Young Scientist Award 2010, by MP Council of Science and Technology, Government of MP, India.
11. Ranbaxy Science Scholar Award – 2008 by Ranbaxy Science Foundation, Gurgaon, New Delhi.
12. Post-doctoral Fellowship Received from Department of Defense USA and South Dakota State University, USA during 2012-2014.
13. Editorial board membership of Pharmaceutical Nanotechnology, Bentham Publications.
14. Associate Editor in the Pharmaceutical Medicine and Outcomes Research section of Frontiers in Pharmacology (Impact factor: 4.400, Published by Frontiers, Switzerland)
15. Editorial board member of Bio-Med Research International (Impact Factor 2.476; Published by hindawi publishers Pvt. Ltd., USA) and SOJ Pharmacy and Pharmaceutical Sciences (Published by Symbiosis Group USA).
16. Best Poster Award in National Conference "Impact of Molecular Biology on Drug Discovery and Development: Promises and Challenges" on February 17-18, 2015 at Central University of Rajasthan. *Entitled Development and Characterization of Dendrimer-Dug based Conjugates for Improved Stability and Efficacy*, Avinash Gothwal and Umesh Gupta\*.

17. Senior Research Fellowship by Indian Council of Medical Research New Delhi India for Ph. D (2008-2010).
18. Junior Research Fellowship by University Grants Commission New Delhi India for P.G. Studies (2004-2006).
19. Best Research Paper Award 2008, on National Science Day, Dr. H. S. Gour University, Sagar M.P.
20. Chief Guest Editor of the Special Issues entitled “Polymeric Nanocarriers in Drug Delivery and Targeting” of Journal of Pharmaceutics <http://www.hindawi.com/journals/jph/> (in process).
21. Reviewer Accreditation by Dove Medical Press New Zealand.
22. Reviewer for the manuscripts of the renowned international Journals like
 

<ul style="list-style-type: none"> <li>✓ ACS Nano</li> <li>✓ Bioconjugate Chemistry</li> <li>✓ Molecular Pharmaceutics</li> <li>✓ Current Drug Delivery</li> <li>✓ International Journal of Nanomedicine</li> <li>✓ Polymer Reviews</li> <li>✓ Drug Discovery Today</li> <li>✓ Expert Opinion in Drug delivery</li> <li>✓ Journal of Microencapsulation</li> <li>✓ Journal of Nanopharmaceutics and Drug Delivery</li> </ul>	<ul style="list-style-type: none"> <li>✓ Journal of Nanoparticle Research</li> <li>✓ Journal of Biomaterials Application</li> <li>✓ Colloids and Surfaces B: Biointerfaces</li> <li>✓ Artificial Cells, Blood Substitutes, and Biotechnology</li> <li>✓ Journal of Colloid Science and Biotechnology</li> <li>✓ Journal of Nanoparticle Research</li> <li>✓ Journal of Biomedical Nanotechnology</li> <li>✓ Drug Development and Industrial Pharmacy</li> </ul>
--	---
23. Merit Position II and III in M. Pharm. (among all branches) and B. Pharm. respectively.

#### Patent:

1. Avinash Gothwal, Umesh Gupta, Amit K. Goyal. “Synthesis and Characterization of a Novel Cored Dendrimer”. Patent no: 476106 (**Patent Granted on 01/12/2023**).

#### Publications

1. Karthikeya Lalitha Siddhartha Pallem, Anjali Jain, Anurag Aswal, Smita Jain, **Umesh Gupta**. Dendrimer-based Therapeutics in Neurological Disorders: Innovations and Clinical Prospects. **Biochimica et Biophysica Acta (BBA) - General Subjects**. 2026; 1870(04): 130903(**Impact Factor: 2.2**)
2. Rakesh K. Sahoo, Kushagra Nagori, Ajazuddin, Biswajit Naik, Dhaneswar Prusty, Rishi Paliwal, **Umesh Gupta**. Poly-l-arginine Grafted PAMAM Dendrimers for the Brain Delivery of Temozolomide in the Management of Glioblastoma Multiforme: *In-vitro* and *In-vivo* Evaluation. **Journal of Drug Delivery Science and Technology**. 2025, (114): 107526. (**Impact Factor: 4.9**)
3. Sarita Rani, Vinay Kumar, Sofiya Tarannum, **Umesh Gupta**. HPMANanomedicine: Targeting Cancer with Precision. **Journal of Materials Chemistry B**. 2025. (**Impact Factor: 5.7**)
4. Mohammed Adnan Raza, Anjila Firdous, **Umesh Gupta**, Umesh Patil, Ambika Singh, Ajazuddin. Emerging Trends in Designing the Dendrimer-Based Drug Delivery for Antineoplastic Therapies. **ACS Applied Bio Materials**. 2025. (**Impact Factor: 4.7**)
5. Sanya Batheja, Rakesh K. Sahoo, Sarita Rani, Shruti Gupta, Kiran K.Tejavath, Sonal Sinha, Ajazuddin, Awesh K. Yadav, Amit K. Goyal, **Umesh Gupta**. Central Composite Design Based Optimization of Carbohydrate Coated Albumin Nanaoparticles for HCC: Synthesis, Extensive Characterization and *in vivo* Pharmacokinetic Evaluation. **Biopolymers**. 2025; (116) (**Impact Factor: 3.2**)
6. Sarita Rani, Shruti Gupta, Kiran Kumar Tejavath, **Umesh Gupta**. Effect of Combination of Polyphenols, Polysaccharide, and Sodium Selenite on Bortezomib Anti-Cancer Action. **International Journal of Biological Macromolecules**. 2024; (**Impact Factor: 8.5**)
7. Klaudi K. Vaiphei, Prabhakaran A, Snigdha Singh, Satyajit Laxman Murkute, Purusottam Mohapatra, Rakesh Kumar Sahoo, Sanya Batheja, **Umesh Gupta**, Anu Puri, Upal Roy, Amit Alexander. Impact of PEGylated liposomes on cytotoxicity of tamoxifen and piperine on MCF-7 human breast carcinoma cells. **Journal of Drug Delivery Science and Technology**. 2024; (**Impact Factor: 4.9**)
8. Mohammad Adnan Raza, Mukesh Kumar Sharma, Kushagra Nagori, Parag Jain, Vijayalakshmi Ghosh, **Umesh Gupta**, and Ajazuddin. Recent Trends on Polycaprolactone as Sustainable Polymer-based Drug Delivery System in the Treatment of Cancer: Biomedical Applications and Nanomedicine. **International Journal of Pharmaceutics**. 2024; (666): 124734: (**Impact Factor: 5.2**)
9. Shikha Jha, A. Prabhakaran, Rakesh K. Sahoo, Sanya Batheja, **Umesh Gupta**, and Amit Alexander. Antiproliferative Activity of Syringic Acid-loaded Nanostructured Lipid Carriers Against MCF-7 Human Breast Carcinoma Cells. **Journal of Drug Delivery Science and Technology**. 2024; 98(105902): 01-11 (**Impact Factor: 4.9**)

10. Tanisha Gupta, Rakesh K. Sahoo, Awesh K. Yadav, and **Umesh Gupta**. Development and Characterization of Temozolomide-PAMAM-siRNA dendriplexes for the Effective Management of Glioblastoma Multiforme. **Journal of Nanoparticle Research**. 2024; 26(131): 01-17. **(Impact Factor: 2.6)**
11. Sanya Batheja, Shruti Gupta, Kiran Kumar Tejavath, and **Umesh Gupta**. TPP-based conjugates: potential targeting ligands. **Drug Discovery Today**. 2024;(29): 103983 **(Impact Factor: 7.5)**
12. Ganesh Phulmogare, Sarita Rani, Santram Lodhi, Umesh K. Patil, Sonal Sinha, Ajazuddin, and **Umesh Gupta**. Fucoidan Loaded PVA/Dextran Blend Electrospun Nanofibers for the Effective Wound Healing. **International Journal of Pharmaceutics**. 2023; (650):123722: 01-12 **(Impact Factor: 5.2)**
13. Vinay Kumar, Monika Rana, Anuj K. Sharma, Sonal Sinha, Ajazuddin, **Umesh Gupta**. Vitamin-C Decorated PEGylated PAMAM Dendrimers for Effective Inhibition of Amyloid Aggregation and Improved In vivo Pharmacokinetics **Journal of Drug Delivery Science and Technology**. 2023; 89(105058): 01-17 **(Impact Factor: 4.9)**
14. Sanya Batheja, Rakesh K. Sahoo, Sofiya Tarannum, Klaudi K Vaiphei, Shikha Jha, Amit Alexander, and **Umesh Gupta**. Hepatocellular Carcinoma: Preclinical and Clinical Applications of Nanotechnology with the Potential Role of Carbohydrate Receptors. **Biochimica et Biophysica Acta (BBA) - General Subjects**. 2023; 1867(10): 130443(01-17) **(Impact Factor: 2.2)**
15. Sarita Rani, Rakesh K Sahoo, Ashutosh Mahale, Kanan Panchal, Akash Chaurasiya, Onkar Kulkarni, Kaushik Kuche, Sanyog Jain, Kartik T. Nakhate, Ajazuddin, and **Umesh Gupta**. Sialic Acid Engineered Prodrug Nanoparticles for Co-delivery of Bortezomib and Selenium in Tumor Bearing Mice. **Bioconjugate Chemistry**. 2023; 34(9): 1528–1552 **(Impact Factor: 3.9)**
16. Rakesh K. Sahoo, Hitesh Kumar, Vikas Jain, Sonal Sinha, Ajazuddin and **Umesh Gupta**. Angiopep-2 Grafted PAMAM Dendrimers for the Targeted Delivery of Temozolomide: In-vitro and In-vivo Effects of PEGylation in the Management of Glioblastoma Multiforme. **ACS Biomaterials Science & Engineering**. 2023; 9(7): 4288–4301 **(Impact Factor: 5.5)**
17. Vinay Kumar and **Umesh Gupta**. Tailor-made nanocargoes as promising tool for brain targeting: Modulated approaches with better therapeutic outcomes. **Journal of Drug Delivery Science and Technology**. 2023; 84: 104466: 01-29 **(Impact Factor: 4.9)**
18. Tanisha Gupta, Rakesh K. Sahoo, Himani Singh, Sumeet Katke, Akash Chaurasiya, and **Umesh Gupta**. Lipid Based Nanocarriers in the Treatment of Glioblastoma Multiforme (GBM): Challenges and Opportunities. **AAPS PharmSciTech**. 2023, 24(102): 01-23 **(Impact Factor: 4.0)**
19. Farhan Mazahir, Rakesh K. Sahoo, **Umesh Gupta**, and Awesh K. Yadav. Chondroitin Sulfate Anchored Biodegradable Nanoparticles: Design, Synthesis, and In-vitro Anti-tubercular Efficacy. **Materials Today Communications**. 2023; 34(105364): 01-11 **(Impact Factor: 4.5)**
20. Sarita Rani, Rakesh Kumar Sahoo, Vinay Kumar, Akash Chaurasiya, Onkar Kulkarni, Ashutosh Mahale, Sumeet Katke, Kaushik Kuche, Vivek Yadav, Sanyog Jain, Kartik Nakhate, Ajazuddin, and **Umesh Gupta**. HPMA-PCL Polymeric Micelles in Co-delivery of Proteasome Inhibitor and Polyphenol: Exploration of Synergism or Antagonism. **Molecular Pharmaceutics**. 2023; 20(1): 524–544. **(Impact Factor: 4.5)**
21. Gunjan Jeswan, Lipika Chablani, **Umesh Gupta**, Rakesh K. Sahoo, Kartik T. Nakhate, Amit G. Taksand, and Ajazuddin. Exploration of Hemocompatibility and Intratumoral Accumulation of Paclitaxel after Loco-regional Administration of Thermoresponsive Hydrogel Composed of Poloxamer and Xanthan Gum: An Application to Dose-dense Chemotherapy. **International Journal of Biological Macromolecules**. 2023; 226: 746–759. **(Impact Factor: 8.5)**
22. Rakesh Kumar Sahoo, Tanisha Gupta, Sanya Batheja, Amit Kumar Goyal, and Umesh Gupta. Surface Engineered Dendrimers: A Potential Nanocarrier for the Effective Management of Glioblastoma Multiforme. **Current Drug Metabolism**. 2022; 23(9): 708-722. **(Impact Factor: 1.8)**
23. Sarita Rani, Ashok K. Sharma, Raghu Kasu, and **Umesh Gupta**. Polymeric Nanoparticles: A Holistic Approach to Combat Tuberculosis. **Critical Reviews™ in Therapeutic Drug Carrier Systems**. 2022; 39(5):83–115. **(Impact Factor: 2.5)**
24. Prabakaran A, Mukta Agrawal, Mithun R. Dethé, Hafiz Ahmed, Awesh Yadav, **Umesh Gupta**, and Amit Alexander. Nose-to-brain drug delivery for the treatment of Alzheimer’s disease: current advancements and challenges. **Expert Opinion on Drug Delivery**. 2022; 19(1):87-102 **(Impact Factor: 5.4)**
25. Rafquat Rana, Sarita Rani, Vipin Kumar, Kartik T. Nakhate, Ajazuddin, and **Umesh Gupta**. Sialic Acid Conjugated Chitosan Nanoparticles: Modulation to Target Tumour Cells and Therapeutic Opportunities **AAPS PharmSciTech**. 2022; 23(10):01-16 **(Impact Factor: 34.0)**
26. Rakesh K. Sahoo, Himani Singh, Kamlesh Thakur, **Umesh Gupta**, and Amit K. Goyal. Theranostic Applications of Nanomaterials in the Field of Cardiovascular Diseases. **Current Pharmaceutical Design**. 2022; 28(2):91-103 **(Impact Factor: 2.8)**
27. Sarita Rani and **Umesh Gupta**. Synthesis, Morphology and Rheological Evaluation of HPMA (N-2 hydroxypropyl methacrylamide)-PCL (Polycaprolactone) Conjugates. **ACS Omega**. 2021; 6:29788–29803 **(Impact Factor: 4.3)**
28. Gunjan Jeswani, Lipika Chablani, **Umesh Gupta**, Rakesh K. Sahoo, Kartik T. Nakhate, and Ajazuddin. Development and optimization of paclitaxel loaded Eudragit/PLGA nanoparticles by simplex lattice mixture design: Exploration of improved hemocompatibility and in vivo kinetics. **Biomedicine & Pharmacotherapy**. 2021; 144(112286):01-18 **(Impact Factor: 7.5)**
29. Iliyas Khan, Bibekananda Sarkar, Gaurav Joshi, Kartik T. Nakhate, Ajazuddin, Anil Mantha, Raj Kumar, Ankur Kaul, Shubhra Chaturvedi, Anil Mishra, and **Umesh Gupta**. Biodegradable Nanoparticulate Co-Delivery of Flavonoid and

- Doxorubicin: Mechanistic Exploration and Evaluation of Anticancer Effect In Vitro and In Vivo. **Biomaterials and Biosystems**. 2021; 3(100022):01-15 (Not declared)
30. Kanan Panchal, Rakesh K. Sahoo, **Umesh Gupta**, and Akash Chaurasiya. Role of Targeted Immunotherapy for Pancreatic Ductal Adenocarcinoma (PDAC) Treatment: An Overview. **International Immunopharmacology**. 2021; 95(107508):01-14 (**Impact factor: 4.7**)
  31. Vinay Kumar, Rakesh K. Sahoo, Trambak Basak, Tanjina Yasmin, **Umesh Gupta**, and Amit K. Goyal. Diagnostic and Therapeutic Applications of Smart Nanocomposite Dendrimers. **Frontiers in Bioscience Landmark**. 2021;26:518-536. (**Impact Factor: 3.1**)
  32. Iliyas Khan, Gaurav Joshi, Bibekananda Sarkar, Kartik T. Nakhate, Ajazuddin, Anil Mantha, Raj Kumar, Ankur Kaul, Shubhra Chaturvedi, Anil Mishra, and **Umesh Gupta**. Doxorubicin and Crocin Co-delivery by Polymeric Nanoparticles for Enhanced Anticancer Potential *In Vitro* and *In Vivo*. **ACS Applied Bio Materials**. 2020;3(11):7789-7799. (**Impact Factor: 4.7**)
  33. Mukta Agrawal, Shailendra Saraf, Swarnlata Saraf, Sunil K. Dubey, Anu Puri, **Umesh Gupta**, Prashant Kesharwani, V. Ravichandiran, Pramod Kumar, V.G.M. Naidu, Upadhyayula S. Murty, Ajazuddin, and Amit Alexander. Stimuli-responsive In situ gelling system for nose-to-brain drug delivery. **Journal of Controlled Release**. 2020;327:235-265 (**Impact Factor: 11.5**)
  34. Vinay Kumar, Iliyas Khan, and **Umesh Gupta**. Lipid-Dendrimer Nanohybrid System or Dendrosomes: Evidences of Enhanced Encapsulation, Solubilization, Cellular Uptake and Cytotoxicity of Bortezomib. **Applied Nanoscience**. 2020; 10:4049-4062 (Not Declared)
  35. Rakesh K. Sahoo, Avinash Gothwal, Sarita Rani, Kartik T. Nakhate, Ajazuddin, and **Umesh Gupta**. PEGylated Dendrimer Mediated Delivery of Bortezomib: Drug Conjugation versus Encapsulation. **International Journal of Pharmaceutics**. 2020; 584:119389 (**Impact Factor: 5.2**)
  36. Sarita Rani and **Umesh Gupta**. HEMA Based Polymeric Conjugates in Anti-cancer Therapeutics. **Drug Discovery Today**. 2020;25(6):997-1012 (**Impact Factor: 7.5**)
  37. Sarita Rani, Rakesh K. Sahoo, Kartik T. Nakhate, Ajazuddin, and **Umesh Gupta**. Biotinylated HEMA Centered Polymeric Nanoparticles for Bortezomib Delivery. **International Journal of Pharmaceutics**. 2020;579:119173. (**Impact Factor: 5.2**)
  38. Avinash Gothwal, Hitesh Kumar, Kartik T. Nakhate, Ajazuddin, Ankumoni Dutta, Anupom Borah, and **Umesh Gupta**. Lactoferrin Coupled Lower Generation PAMAM Dendrimers for Brain Targeted Delivery of Memantine in Aluminum-Chloride-Induced Alzheimer's Disease in Mice. **Bioconjugate Chemistry**. 2019;30(10):2573-2583 (**Impact Factor: 3.9**)
  39. Mukta Agrawal, Amit Alexander, Junaid Khan, Tapan K. Giri, Sabahuddin Siddique, Sunil K. Dubey, Ajazuddin, Ravish J. Patel, **Umesh Gupta**, Swarnlata Saraf and Shailendra Saraf. Recent Biomedical Applications on Stem Cell Therapy: A Brief Overview. **Current Stem Cell Research & Therapy**. 2019; 14[2]: 127-136. (**Impact Factor: 2.2**)
  40. Sudhakar Rajoria, Sarita Rani, Dasharath Chaudhari, Sanyog Jain, and **Umesh Gupta**. Glycine-Poly-L-Lactic Acid Copolymeric Nanoparticles for the Efficient Delivery of Bortezomib. **Pharmaceutical Research**. 2019;36(160):01-15. (**Impact Factor: 4.3**)
  41. Iliyas Khan, Gaurav Joshi, Kartik T. Nakhate, Ajazuddin, Raj Kumar, and **Umesh Gupta**. Nano-Co-Delivery of Berberine and Anticancer Drug using PLGA Nanoparticles: Exploration of Better Anticancer Activity and In Vivo Kinetics. **Pharmaceutical Research**. 2019;36(149):01-17. (**Impact Factor: 4.3**)
  42. Harmanpreet Singh, Jasvinder Singh, Shashank K. Singh, Narpinder Singh, Surinder Paul, Harminder Singh Sohal, **Umesh Gupta**, and Subheet Kumar Jain. Vitamin E TPGS based palatable, oxidatively and physically stable emulsion of microalgae DHA oil for infants, children and food fortification. **Journal of Dispersion Science and Technology**. 2019 (doi: <https://doi.org/10.1080/01932691.2019.1634587>). (**Impact Factor: 1.9**)
  43. Avinash Gothwal, Harmanpreet Singh, Subheet Kumar Jain, Ankumoni Dutta, Anupom Borah, and **Umesh Gupta**. Behavioral and Biochemical Implications of Dendrimeric Rivastigmine in Memory-Deficit and Alzheimer's Induced Rodents. **ACS Chemical Neuroscience**. 2019;10(8):3789-3795. (**Impact Factor: 3.9**)
  44. Anish Chandekar, Dinesh K. Mishra, Sanjay Sharma, Gaurav K. Saraogi, **Umesh Gupta** and Gaurav Gupta. 3D Printing Technology: A New Milestone in the Development of Pharmaceuticals. **Current Pharmaceutical Design**. 2019;25(9):937-945. (**Impact Factor: 2.8**)
  45. Anurag Kumar Singh, Avinash Gothwal, Sarita Rani, Monika Rana, Anuj K. Sharma, Awesh K. Yadav, and **Umesh Gupta**. Dendrimer Donepezil Conjugates for Improved Brain Delivery and Better in Vivo Pharmacokinetics. **ACS Omega**. 2019;4(3):4519-4529. (**Impact Factor: 4.3**)
  46. Sarita Rani, Rafquat Rana, Gaurav K. Saraogi, Vipin Kumar, and **Umesh Gupta**. Self-Emulsifying Oral Lipid Drug Delivery Systems: Advances and Challenges. **AAPS PharmSciTech**. 2019;20(129):01-12. (**Impact Factor: 4.0**)
  47. Sarita Rani, Avinash Gothwal, Pawan K. Pandey, Pravin Pachouri, Umesh D. Gupta, Devendra Singh Chauhan and **Umesh Gupta**. HEMA-PLGA Based Nanoparticles for Effective in Vitro Delivery of Rifampicin. **Pharmaceutical Research**. 2019;36(19):01-12. (**Impact Factor: 4.3**)
  48. Ashish Garg, Sweta Garg, Nitendra K. Sahu, Sarita Rani, **Umesh Gupta**, Awesh K. Yadav. Heparin appended ADH-anionic polysaccharide nanoparticles for site specific delivery of usnic acid. **International Journal of Pharmaceutics**. 2019;557:238-253. (**Impact Factor: 5.2**)

49. Avinash Gothwal, Kartik T. Nakhate, Amit Alexander, Ajazuddin, and **Umesh Gupta**. Boosted Memory and Improved Brain Bio-availability of Rivastigmine: Targeting Effort to Brain using Covalently Tethered Lower Generation PAMAM Dendrimers with Lactoferrin. **Molecular Pharmaceutics**. 2018;15(10):4538-4549. **(Impact Factor: 4.5)**
50. Ilyas Khan, Avinash Gothwal, Ankur Kaul, Rashi Mathur, Anil K. Mishra, and **Umesh Gupta**. Radiolabeled PLGA Nanoparticles for Effective Targeting of Bendamustine in Tumor Bearing Mice. **Pharmaceutical Research**. 2018;35(200):01-11. **(Impact Factor: 4.3)**
51. Sarita Rani, Avinash Gothwal, Ilyas Khan, Pravin Pachouri, Umesh D. Gupta, Devendra Singh Chauhan, and **Umesh Gupta**. Smartly Engineered PEGylated Di-block Nanopolymeric Micelles: Duo Delivery of Isoniazid and Rifampicin against Mycobacterium Tuberculosis. **AAPS PharmSciTech**. 2018;19(7):3237-3248. **(Impact Factor: 4.0)**
52. Pawan Pandey, Ashok Sharma, Sarita Rani, Gaurav Mishra, Gopal Kandasamy, Ajit Patra, Monika Rana, Anuj Sharma, Awesh Yadav, and **Umesh Gupta**. MCM-41 Nanoparticles for Brain Delivery: Better Choline-Esterase and Amyloid Formation Inhibition with Improved Kinetics. **ACS Biomaterials Science & Engineering**. 2018;4(8):2860-2869. **(Impact Factor: 5.5)**
53. Mukta Agrawal, Swarnlata Saraf, Shailendra Saraf, Sophia G. Antimisariis, Nobuhito Hamano, Shyh-Dar Li, Mahavir Chougule, Sunday A. Shoyele, **Umesh Gupta**, Ajazuddin, and Amit Alexander. Recent advancements in the field of nanotechnology for the delivery of anti-Alzheimer drug in the brain region. **Expert Opinion on Drug Delivery**. 2018;15(6):589-617. **(Impact Factor: 5.4)**
54. Avinash Gothwal, Ilyas Khan, Pramod Kumar, Kaisar Raza, Ankur Kaul, Anil Mishra, and **Umesh Gupta**. Bendamustine-PAMAM Conjugates for the Improved Apoptosis, Efficacy and in vivo Pharmacokinetics: A Sustainable Delivery Tactic. **Molecular Pharmaceutics**. 2018;15(6):2084-2097. **(Impact Factor: 4.5)**
55. Ashok K. Sharma, Lokesh Gupta, Hitesh Kumar, Arem Qayum, Shashank K. Singh, Kartik T. Nakhate, Ajazuddin, and **Umesh Gupta**. Chitosan Engineered PAMAM Dendrimers as Nanoconstructs for the Enhanced Anti-cancer Potential and Improved in vivo Brain Pharmacokinetics of Temozolomide. **Pharmaceutical Research**. 2018;35(9):01-14. **(Impact Factor: 4.3)**
56. Prashant Kesharwani, Avinash Gothwal, Arun K. Iyer, Keerti Jain, Manish K. Chourasia, and **Umesh Gupta**. Dendrimer nanohybrid carrier systems: an expanding horizon for targeted drug and gene delivery. **Drug Discovery Today**. 2017;23(2):300-314. **(Impact Factor: 7.5)**
57. Hitesh Kumar, Avinash Gothwal, Ilyas Khan, Kartik T. Nakhate, Amit Alexander, Ajazuddin, Vineeta Singh, and **Umesh Gupta**. Galactose Anchored Gelatin Nanoparticles for Primaquine Delivery and Improved Pharmacokinetics: A Biodegradable and Safe Approach for Effective Anti-plasmodial Activity Against P. falciparum 3D7 and in vivo Hepatocytes Targeting. **Molecular Pharmaceutics**. 2017;14(10):3356-3369. **(Impact Factor: 4.5)**
58. Ilyas Khan, Hitesh Kumar, Gaurav Mishra, Avinash Gothwal, and **Umesh Gupta**. Polymeric Nanocarriers: A New Horizon for the Effective Management of Breast Cancer. **Current Pharmaceutical Design**. 2017;23(35):5315-5326. **(Impact Factor: 2.87)**
59. Seema Upadhyay, Ilyas Khan, Avinash Gothwal, Pravin Pachouri, N. Bhaskar, Umesh D. Gupta, Devendra Singh Chauhan, and **Umesh Gupta**. Conjugated and Entrapped HPMA-PLA Nano-polymeric Micelles Based Dual Delivery of First Line Anti TB Drugs: Improved and Safe Drug Delivery against Sensitive and Resistant Mycobacterium Tuberculosis. **Pharmaceutical Research**. 2017;34(9):1944-1955. **(Impact Factor: 4.3)**
60. Lokesh Gupta, Ashok K. Sharma, Avinash Gothwal, Mohammed S. Khan, Mahaveer P. Khinchi, Arem Qayum, Shashank K. Singh, and **Umesh Gupta**. Dendrimer Encapsulated and Conjugated Delivery of Berberine: A Novel Approach Mitigating Toxicity and Improving In Vivo Pharmacokinetics. **International Journal of Pharmaceutics**. 2017;528(1-2):88-99. **(Impact Factor: 5.2)**
61. Sonam Choudhary, Lokesh Gupta, Sarita Rani, Kaushal K. Dave, and **Umesh Gupta**. Impact of Dendrimers on Solubility of Hydrophobic Drug Molecules. **Frontiers in Pharmacology**. 2017;8(261):01-23. **(Impact Factor: 4.8)**
62. Hitesh Kumar, Gaurav Mishra, Ashok K. Sharma, Avinash Gothwal, Prashant Kesharwani, and **Umesh Gupta**. Intranasal Drug Delivery: A Non-Invasive Approach for the Better Delivery of Neurotherapeutics. **Pharmaceutical Nanotechnology**. 2017;5(3):01-12. (Not declared)
63. **Umesh Gupta**, Saurabh Sharma, Ilyas Khan, Avinash Gothwal, Ashok K. Sharma, Yuvraj Singh, Manish K. Chourasia, and Vipin Kumar. Enhanced apoptotic and anticancer potential of paclitaxel loaded biodegradable nanoparticles based on chitosan. **International Journal of Biological Macromolecules**. 2017;98:810-819. **(Impact Factor: 8.5)**
64. Jennifer M. Wickens, Hashem O. Alsaab, Prashant Kesharwani, Ketki Bhise, Mohd C.I.M. Amin, Rakesh K. Tekade, **Umesh Gupta**, and Arun K. Iyer. Recent Advances in hyaluronic acid-decorated nanocarriers for targeted cancer therapy. **Drug Discovery Today**. 2017;22(4):665-680. **(Impact Factor: 7.5)**
65. Sonam Chaudhary, Avinash Gothwal, Ilyas Khan, Shubham Srivastava, Ruchi Malik, and **Umesh Gupta**. Polypropyleneimine and polyamidoamine dendrimer mediated enhanced solubilization of bortezomib: Comparison and evaluation of mechanistic aspects by thermodynamics and molecular simulations. **Materials Science and Engineering C**. 2017;72:611-619. **(Impact Factor: 6.0)**
66. Ashok K. Sharma, Avinash Gothwal, Prashant Kesharwani, Hashem Alsaab, Arun K. Iyer, and **Umesh Gupta**. Dendrimer nanoarchitectures for cancer diagnosis and anticancer drug delivery. **Drug Discovery Today**. 2017;22 (2):314-326. **(Impact Factor: 7.5)**

67. Ilyas Khan, Avinash Gothwal, Ashok K. Sharma, Arem Qayum, Shashank K. Singh, and **Umesh Gupta**. Biodegradable nano-architectural PEGylated approach for the improved stability and anticancer efficacy of Bendamustine. **International Journal of Biological Macromolecules**. 2016;92:1242-1251. **(Impact Factor: 8.5)**
68. Duy Luong, Prashant Kesharwani, Rahul Deshmukh, Mohd C.I.M. Amin, **Umesh Gupta**, Khaled Greish, and Arun K. Iyer. PEGylated PAMAM Dendrimers: Enhancing Efficacy and Mitigating Toxicity for Effective Anticancer Drug and Gene Delivery. **Acta Biomaterialia**. 2016;43:14-29. **(Impact Factor: 9.6)**
69. Ilyas Khan, Avinash Gothwal, Ashok K. Sharma, Prashant Kesharwani, Lokesh Gupta, Arun Iyer, and **Umesh Gupta**. PLGA nanoparticles and their versatile role in anticancer drug delivery. **Critical Reviews in Therapeutic Drug Carrier Systems**. 2016;33(2):159-193. **(Impact Factor: 2.5)**
70. Pawan K. Pandey, Ashok K. Sharma, and **Umesh Gupta**. Blood Brain Barrier: An overview on Strategies in Drug Delivery, Realistic In Vitro Modelling and In Vivo Live Tracking. **Tissue Barriers**. 2016;4(1):e1129476-1 to e1129476-14. **(Impact Factor: 4.0)**
71. Avinash Gothwal, Ashok K. Sharma, Ilyas Khan, Lokesh Gupta, and **Umesh Gupta**. Dendrimers in combination therapy of cancers. **Asian Journal of Pharmacy and Pharmacology**. 2015;1(2):48-52. (Not declared)
72. Namrata Soni, Keerti Jain, **Umesh Gupta**, and Narendra K. Jain. Controlled delivery of Gemcitabine Hydrochloride using mannosylated poly(propyleneimine) dendrimers. **Journal of Nanoparticle Research**. 2015;17(458):01-17. **(Impact Factor: 2.6)**
73. Anurag K. Singh, Sonam Choudhary, Sarita Rani, Ashok K. Sharma, Lokesh Gupta, and **Umesh Gupta**. Dendrimer-drug conjugates in drug delivery and targeting. **Pharmaceutical Nanotechnology**. 2015;3(4):239-260. (Not declared)
74. Avinash Gothwal, Ilyas Khan, and **Umesh Gupta**. Polymeric Micelles: Recent Advancements in the Delivery of Anticancer Drugs. **Pharmaceutical Research**. 2015;33(1):18-39. **(Impact Factor: 4.3)**
75. Avinash Gothwal, Prashant Kesharwani, **Umesh Gupta**, Ilyas Khan, Mohd C.I.M. Amin, Sanjeev Banerjee, and Arun K. Iyer. Dendrimers as an Effective Nanocarrier in Cardiovascular Disease. **Current Pharmaceutical Design**. 2015;21(30):4519-4526. **(Impact Factor: 2.8)**
76. Prashant Kesharwani, Sanjeev Banerjee, **Umesh Gupta**, Mohd C.I.M. Amin, Subhash Padhye, Fazlul H. Sarkar, and Arun K. Iyer. PAMAM dendrimers as promising nanocarriers for RNAi therapeutics. **Materials Today**. 2015;18(10):565-572. **(Impact Factor: 22.0)**
77. Rajeev Sharma, Neeraj K. Garg, Rajeev K. Tyagi, **Umesh Gupta**, Narendra K. Jain. Surface engineered and ligand anchored nanobioconjugate: An effective therapeutic approach for oral insulin delivery in experimental diabetic rats. **Colloids and Surfaces B: Biointerfaces**. 2015;127:172-181. **(Impact Factor: 5.6)**
78. Divya B. Bansal, Dipankar Bhadra, **Umesh Gupta**, and Narendra K. Jain. PEGylated methotrexate based micellar conjugates for anticancer chemotherapy. **Asian Journal of Pharmaceutics**. 2015;9(1):60-66. (Not declared)
79. **Umesh Gupta**. Hyper-branched dendrimers in drug delivery and solubilization. **SOJ Pharmacy and Pharmaceutical Sciences**. 2014;1(3):1-2. **(Impact Factor: 4.6)**
80. Keerti Jain, **Umesh Gupta**, and Narendra K. Jain. Dendronized nanoconjugates of lysine and folate for treatment of cancer. **European Journal of Pharmaceutics and Biopharmaceutics**. 2014;87(3):500-509. **(Impact Factor: 4.3)**
81. Udit Agrawal, Neelesh K. Mehra, **Umesh Gupta**, and Narendra K. Jain. Hyperbranched dendritic nano-carriers for topical delivery of dithranol. **Journal of Drug Targeting**. 2013;21(5):497-506. **(Impact Factor: 3.9)**
82. Keerti Jain, Prashant Kesharwani, **Umesh Gupta**, and Narendra K. Jain. A review of glycosylated carriers for drug delivery. **Biomaterials**. 2012;33(16):4166-4186. **(Impact Factor: 12.9)**
83. **Umesh Gupta**, and Narendra K. Jain. Non-polymeric nano-carriers in HIV/AIDS drug delivery and targeting. **Advanced Drug Delivery Reviews**. 2010;62(4-5):478-490. **(Impact Factor: 17.6)**
84. **Umesh Gupta**, Shailendra K.D. Dwivedi, Hemant K. Bid, Rituraj Konwar, and N. K. Jain. Ligand anchored dendrimers based nanoconstructs for effective targeting to cancer cells. **International Journal of Pharmaceutics**. 2010;393(1-2):186-197. **(Impact Factor: 5.2)**
85. Keerti Jain, Prashant Kesharwani, **Umesh Gupta**, and Narendra K. Jain. Dendrimer toxicity: Let's meet the challenge. **International Journal of Pharmaceutics**. 2010;394(1-2):122-142. **(Impact Factor: 5.2)**
86. Kuldeep K. Bansal, Deepak Kakde, **Umesh Gupta**, and Narendra K. Jain. Development and characterization of triazine based dendrimers for delivery of antitumor agent. **Journal of Nanoscience and Nanotechnology**. 2010;10(12):8395-8404. (Not declared)
87. Vijay Mishra, **Umesh Gupta**, and Narendra K. Jain. Biowaiver: an alternative to in vivo pharmacokinetic bioequivalence studies. **Pharmazie**. 2010;65(3):155-161. **(Impact Factor: 1.0)**
88. Vijay Mishra, **Umesh Gupta**, and Narendra K. Jain. Influence of different generations of poly (propylene imine) dendrimers on human erythrocytes. **Pharmazie**. 2010;65(12):891-895. **(Impact Factor: 1.0)**
89. Vijay Mishra, **Umesh Gupta**, and Narendra K. Jain. Surface-engineered dendrimers: a solution for toxicity issues. **Journal of Biomaterials Science Polymer Ed.** 2009;20(2):141-166. **(Impact Factor: 3.6)**
90. Narendra K. Jain, Ram N. Prajapati, Abhinav Agarwal, **Umesh Gupta**, and Abhay Asthana. Dendrimers - Reflections on host-guest interaction mechanism towards solubility enhancement. **Asian Journal of Pharmaceutics**. 2009;3(3):188-196. (Not declared)
91. Ram N. Prajapati, Rakesh Tekade, **Umesh Gupta**, Virendra Gajbhiye, and Narendra K. Jain. Dendrimer mediated solubilization, formulation development and in vitro- in vivo assessment of piroxicam. **Molecular Pharmaceutics**. 2009;6(3):940-950. **(Impact Factor: 4.5)**

92. Abhinav Agarwal, **Umesh Gupta**, Abhay Asthana and Narendra K. Jain. Dextran conjugated dendritic nanoconstructs as potential vectors for anti-cancer agent. **Biomaterials**. 2009;30(21):3588-3596. **(Impact Factor: 12.9)**
93. Narendra K. Jain and **Umesh Gupta**. Application of dendrimer-drug complexation in the enhancement of drug solubility and bioavailability. **Expert Opinion on Drug Metabolism and Toxicology**. 2008;4(8):1035-1052. **(Impact Factor: 3.4)**
94. Prateek Singh, **Umesh Gupta**, Abhay Asthana, and Narendra K. Jain. Folate and folate-PEG-PAMAM dendrimers: synthesis, characterization and targeted anticancer drug delivery potential in tumor induced mice. **Bioconjugate Chemistry**. 2008;19(11):2239-2252. **(Impact Factor: 3.9)**
95. Abhinav Agarwal, Surbhi Saraf, Abhay Asthana, **Umesh Gupta**, Virendra Gajbhiye, and Narendra K. Jain. Ligand Based Dendritic Systems for Tumor Targeting. **International Journal of Pharmaceutics**. 2008;350(1-2):3-13. **(Impact Factor: 5.2)**
96. Abhinav Agarwal, Abhay Asthana, **Umesh Gupta**, and Narendra K. Jain. Tumor and Dendrimers: A review on drug delivery aspects. **Journal of Pharmacy and Pharmacology**. 2008;60(6):671-688. **(Impact Factor: 3.2)**
97. Payal Agrawal, **Umesh Gupta**, and Narendra K. Jain. Glycoconjugated peptide dendrimers based nanoparticulate system for the delivery of chloroquine phosphate. **Biomaterials**. 2007;28(22):3349-3359. **(Impact Factor: 12.0)**
98. Jitendra Satija, **Umesh Gupta**, and Narendra K. Jain. Pharmaceutical and biomedical potential of surface engineered dendrimers. **Critical Reviews in Therapeutic Drug Carrier Systems**. 2007;24(3):261-315. **(Impact Factor: 2.5)**
99. **Umesh Gupta**, Hrushikesh B. Agashe, and Narendra K. Jain. Polypropylene imine dendrimer mediated solubility enhancement: effect of pH and functional groups of hydrophobes. **Journal of Pharmacy and Pharmaceutical Sciences**. 2007;10(3):358-367. **(Impact Factor: 4.3)**
100. **Umesh Gupta**, Hrushikesh B. Agashe, Abhay Asthana, and Narendra K. Jain. Dendrimers: novel polymeric nano-architectures for solubility enhancement. **Biomacromolecules**. 2006;7(3):649-658. **(Impact Factor: 5.4)**
101. **Umesh Gupta**, Hrushikesh B. Agashe, Abhay Asthana, and Narendra K. Jain. A review of in vitro-in vivo investigations on dendrimers: the novel nanoscopic drug carriers. **Nanomedicine-Nanotechnology Biology and Medicine**. 2006;2(2):66-73. **(Impact Factor: 4.6)**

#### Books Edited

1. **Umesh Gupta** and N K Jain (**editors**) (2025). Functionalized Drug Delivery Systems. Academic Press; 1st edition (ISBN: 978-0-443-33304-0).
2. **Umesh Gupta** and Amit K Goyal (**editors**) (2023). Molecular Pharmaceutics and Nano Drug Delivery. Academic Press; 1st edition (ISBN: 978-0-323-91924-1).
3. **Umesh Gupta** and Prashant Kesharwani (**editors**) (2022). Nanomedicine based approaches for treatment of Dementia. Elsevier Inc. 1<sup>st</sup> edition (ISBN: 978-0-12-824331-2).
4. Awesh Yadav, **Umesh Gupta**, and Rajeev Sharma (**editors**) (2020). Nano Drug Delivery Strategies for the Treatment of Cancers. Academic Press; 1st edition (ISBN: 978-0-12-819793-6).
5. Prashant Kesharwani and **Umesh Gupta** (**editors**) (2018). Nanotechnology-Based Targeted Drug Delivery Systems for Brain Tumors. Academic Press; 1st edition. (ISBN 978-0-12-812218-1).

#### Book Chapters

1. Nitendra Rohit, Karthikeya Lalitha Siddhartha Pallem, Anurag Aswal, **Umesh Gupta**, NK Jain (2025). Chapter 1: Functionalized Drug Delivery Systems: Need and Significance. *Edited by Umesh Gupta and NK Jain*. Academic Press, Elsevier Inc. [ISBN: 978-0-443-33304-0]
2. Sanya Batheja, Karthikeya Lalitha Siddhartha Pallem, **Umesh Gupta** (2025). Chapter 2: Surface Engineering of Drug Carriers. *Edited by Umesh Gupta and NK Jain*. Academic Press, Elsevier Inc. [ISBN: 978-0-443-33304-0]
3. Anurag Aswal, Nitendra Rohit, **Umesh Gupta** (2025). Chapter 5: Tailor-made Dendrimers in Drug Delivery and Targeting. *Edited by Umesh Gupta and NK Jain*. Academic Press, Elsevier Inc. [ISBN: 978-0-443-33304-0]
4. Vinay Kumar, Himani Singh, Sofiya Tarannum, Sanya Batheja, **Umesh Gupta**, and Amit Kumar Goyal (2025). Chapter 6: Nanostructure-based Pulmonary Drug Delivery Systems for Respiratory Infections. *Edited by Rishi Paliwal and Shivani Rai Paliwal*. CRC Press, Taylor & Francis. [ISBN: 978-1-003-13005-5]
5. Karthikeya Lalitha Siddhartha Pallem, Anjali Jain, Rakesh K. Sahoo, and **Umesh Gupta** (2024). Chapter 29: Dendrimers as Controlled and Novel Drug Delivery System. *In Advances in Controlled and Novel Drug Delivery Systems. Edited by NK Jain*. CBS Publisher and Distributors. [ISBN: 9789354666957]
6. Vinay Kumar, Rakesh K. Sahoo, Sanya Batheja, and **Umesh Gupta** (2024). Chapter 8: Potential of Dendrimers as a Nanocarrier for Brain Delivery. *In Application of Nanocarriers in Brain Delivery of Therapeutics*. 1st edition, *Edited by Amit Alexander*. Springer Nature Singapore Pte Ltd. 217-240 (ISBN: 978-981-97-2858-9)
7. Aadil SK Khatik, Kurdhane Satish, Sanya Batheja, and **Umesh Gupta** (2023). Chapter 10: Dendrimers: Promises and Challenges in Drug Delivery. *In Molecular Pharmaceutics and nano Drug Delivery, Edited by Umesh Gupta and Amit K Goyal*. Academic Press, Elsevier Inc.
8. Ujwala Ramteke, Vinay Kumar, Sanya Batheja, Ganesh Phulmogare, and **Umesh Gupta** (2023). Chapter 16: Functionalized Mesoporous Silica-based Nanoparticles for Theranostic Applications. *In Multifunctional and Targeted Theranostic Nanomedicines, Edited by Keerti Jain and N. K. Jain*. Springer Nater Singapore Pte Ltd. [ISBN: 978-981-99-0538-6]

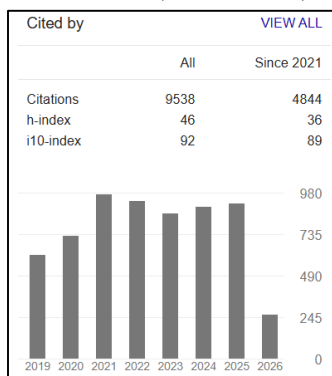
9. Sanya Batheja, Remya, Vinay Kumar, Rakesh Kumar Sahoo, and **Umesh Gupta (2023)**, Chapter 8: Drug Delivery to Central Nervous System. *In Controlled and Novel Drug Delivery, Edited by NK Jain*. CBS Publisher. 266-298.
10. Sunil K. Jain, Kuldeep Rajpoot, K. Kesavan, Awesh Yadav, **Umesh Gupta**, and Prem N. Gupta **(2022)**. Chapter 6: Targeting Potential of Nanocarriers for Efficient Treatment of *H. Pylori* Infection. *In Nanoparticles and Nanocarriers-based Pharmaceutical Formulations Edited by Akhlesh K. Jain and Keerti Mishra*. Bentham Science Publishers Ltd. 158-175.
11. Himani Singh, Sofiya Tarannum, Rakesh K. Sahoo, Vinay Kumar, and **Umesh Gupta (2022)**. Chapter 10: Dendritic Polymer Macromolecular Carriers for Drug Delivery. *In Smart Polymeric Nano-Constructs in Drug Delivery, Edited by Suresh P. Vyas, Udit Agrawal, and Rajeev Sharma*, Academic Press, Elsevier Inc. (ISBN: 978-0-32-391248-8)
12. Rakesh K. Sahoo, Vinay Kumar, Sanya Batheja, and **Umesh Gupta (2022)**. Chapter 4: Dendrimers in the Effective Management of Alzheimer's and Dementia. *In Nanomedicine-Based Approaches for the Treatment of Dementia, Edited by Umesh Gupta and Prashant Kesharwani*, Academic Press, Elsevier Inc. 2022 (ISBN: 978-0-12-824331-2)
13. Sarita Rani, Rakesh K. Sahoo, Vinay Kumar, and **Umesh Gupta (2022)**. Chapter 5: Targeted Nanomedicine Delivery to Human Epidermal Growth Receptor. *In Targeted Nanomedicine for Breast Cancer Therapy, Edited by Shivani R. Paliwal and Rishi Paliwal*, Academic Press, Elsevier Inc. 111-130 (ISBN: 978-0-12-824476-0)
14. Rakesh K. Sahoo, Tanisha Gupta, Smily, Vinay Kumar, Sarita Rani, and **Umesh Gupta (2022)**. Chapter 1: Aetiology and Pathophysiology of Neurodegenerative Disorders. *In Nanomedical Drug Delivery for Neurodegenerative Diseases, Edited by Awesh K. Yadav, Rahul Shukla, and S J S Flora*, Academic Press, Elsevier Inc. 1-16 (ISBN: 978-0-32-385544-0)
15. Rakesh K. Sahoo, Sarita Rani, Vinay Kumar, and **Umesh Gupta (2021)**. ZnO nanoparticles for bio imaging and drug delivery. *In Nanostructured Zinc Oxide: Synthesis, Properties and Applications. Edited by, Kamalendra Awasthi*. Elsevier Inc., 483-509 (ISBN: 978-0-12-818900-9)
16. Sarita Rani, Ankur Kaul, Anil K. Mishra, and **Umesh Gupta (2021)**. Extra pulmonary TB: Changing Paradigm in Diagnosis. *In Strategies to Overcome Superbug Invasions: Emerging Research and Opportunities. Edited by Dimple S. Chopra and Ankur Kaul*. IBI Global. 91-116. (ISBN: 978-1-79980-307-2)
17. Sarita Rani, Neetu Sehrawat, Sudhakar Rajoria, and **Umesh Gupta (2021)**. Role of Dendrimers in Drug Delivery and Targeting. *In Nanomaterials: Evolution and Advancement (Part I). Edited by Surendra Nimesh*. Bentham Science Publishers Ltd. 141-159.
18. Avinash Gothwal, Ilyas Khan, and **Umesh Gupta (2020)**. Dendrimer Nanohybrids for Drug Delivery. *In Handbook of Materials for Nanomedicine, Polymeric Nanomaterials. Edited By, Vladimir Torchilin*. Jenny Stanford Publishing, volume 7, 213-239. [ISBN: 978-1-00304-511-3]
19. Akhlesh K Jain and **Umesh Gupta (2020)**. Nanomaterials Used for Delivery of Bioactives. *In Nanomaterials and Environmental Biotechnology. Nanotechnology in the Life Sciences. . Edited By, Indu Bhushan, Vivek Kumar Singh, Durgesh Kumar Tripathi*. Springer, Cham:381-405. (ISBN 978-3-030-34543-3).
20. Avinash Gothwal, Sarita Rani, **Umesh Gupta**, and Narendra K Jain **(2020)**. Toxicity and Biocompatibility Aspects of Dendrimers. *In Pharmaceutical Applications of Dendrimers. Edited by, Abhay Chauhan and Hitesh Kulhari*. Elsevier Inc. :251-274.[ISBN: 978-0-12-814527-2]
21. Avinash Gothwal, Ilyas Khan, Prashant Kesharwani, Manish K Chourasia, and **Umesh Gupta (2018)**. Micelles Based Drug Delivery for Brain Tumor. *In Nanotechnology-Based Targeted Drug Delivery Systems for Brain Tumors. Edited by, Prashant Kesharwani, Umesh Gupta*. Academic Press; 1 edition. (ISBN: 978-0-12-812218-1).
22. Bapi Gorain, Hira Choudhury, Manisha Pandey, Mohd Cairul Iqbal Mohd Amin, Bhupinder Singh, **Umesh Gupta**, Prashant Kesharwani **(2018)**. Dendrimers as Effective Carriers for the Treatment of Brain Tumor. *In Nanotechnology-Based Targeted Drug Delivery Systems for Brain Tumors. Edited by, Prashant Kesharwani, Umesh Gupta*. Academic Press; 1 edition. (ISBN: 978-0-12-812218-1).
23. Ilyas Khan, Avinash Gothwal, Gaurav Mishra and **Umesh Gupta (2018)**. "Polymeric Micelles. *In: Functional Biopolymers. Polymers and Polymeric Composites: A Reference Series. Edited by, Jafar Mazumder M., Sheardown H., Al-Ahmed A*. Springer, Cham. 2018;1-29. (ISBN: 978-3-319-95989-4)
24. Avinash Gothwal, Ashok Kumar Sharma, Gurjit Kaur Bhatti and **Umesh Gupta (2018)**. "Dendrimers as Promising Nanocarrier Nanocarriers in Drug Delivery". *Emerging Trends in NanoBioMedicine. NanoBioEngineering. Edited by, Bhupinder Singh*. CRS Press. (ISBN: 9780815348351)
25. Anurag Kumar Singh, Ashok Kumar Sharma, Ilyas Khan, Avinash Gothwal, Lokesh Gupta and **Umesh Gupta (2017)**. "Oral Drug Delivery Potential of Dendrimers." *In: Nanostructures for Oral Medicine. Edited by, Ecaterina Andronescu, Alexandru Mihai Grumezescu*. Elsevier Inc. 2017;232-261. [ISBN: 978-0-323-47720-8]
26. Sarita Rani, Ashok Kumar Sharma, Ilyas Khan, Avinash Gothwal, **Umesh Gupta (2017)**. "Polymeric Nanoparticles in targeting and delivery of drugs". *In Nanotechnology based Approaches for Targeting and Delivery of Drugs and Genes. Edited by, Vijay Mishra, Prashant Kesharwani, Mohd Cairul Iqbal Mohd Amin, Arun Iyer*. Elsevier Inc. 2017;223-255. [ISBN: 978-0-12-809717-5]
27. Ashok Kumar Sharma, Lokesh Gupta and **Umesh Gupta (2017)**. "Nanoparticle as a Nucleic Acid Delivery Vector." *In Advances in Nanomedicine for the Delivery of Therapeutic Nucleic Acids. Edited by Surendra Nimesh, Ramesh Chandra, Nidhi Gupta*. Elsevier Inc. 2017;13-42. [ISBN: 978-0-08-100557-6]

28. Lokesh Gupta, Ashok Kumar Sharma, Ilyas Khan, Avinash Gothwal and **Umesh Gupta (2016)**. "Dendrimers: An effective nano-carrier for the delivery of DNA and siRNA." *In Encyclopedia of Nanoscience and Nanotechnology. Edited Dr. H. S. Nalwa.* American Scientific Publishers, USA. 2017;1-19. [ISBN: 1-58883-0012]
29. **Umesh Gupta (2015)**. "Dendrimers in Drug Delivery in *Novel Carriers for Drug Delivery*" edited by Manish K Chourasia, Mohini Chourasia and Nitin K Jain by PharmaMed Press: 43-71.
30. **Umesh Gupta** and Omathanu Perumal **(2014)**. "Dendrimers and its Biomedical Applications" in *Natural and Synthetic Biomedical Polymers* edited by Kumbar S. G., Laurencin C.T. and Deng M. San Diego USA: Elsevier Inc.: 2014;243-257. [ISBN: 978-0-12-396983-5].
31. **Umesh Gupta** and NK Jain **(2011)**. Pharmaceutical Product Development (Chapter 1) *In: Prof. N. K. Jain Edited Pharmaceutical Product Development, 2<sup>nd</sup> Edition*, Published by CBS Publishers & Distributors (ISBN 8123913214, 978-81239-13216).

## Citations

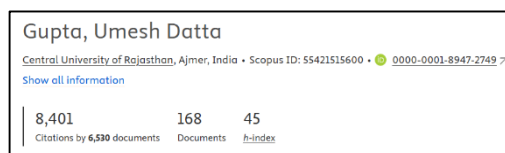
### 1. Google Scholar:

Total Citations: 9538; *h*-index: 46, *i10*-index: 92



### 2. Scopus:

Total Citations: 8401; *h* index: 45



## Invited Talk/Lectures Delivered

1. Invited Speaker at National Conference on "Biopharmaceutical Innovations in Advanced Drug Delivery Systems and Translational Biotechnology" organized by ADINA College of Pharmacy, Sagar, sponsored by Department of Biotechnology, on 20<sup>th</sup> September 2025.
2. Resource person in the "Popular Lecture Series" organized by Sagar Institute of Pharmaceutical Sciences, Sagar, sponsored by Department of Biotechnology on 19<sup>th</sup> September, 2025.
3. Participated in 3-day Face-to-Face FDP on the theme "**Inculcating Universal Human Values in Technical Education**" organized by All India Council for Technical Education (AICTE) at *Central University of Rajasthan*, Kishangarh from 21<sup>st</sup> October to 23<sup>rd</sup> October 2024.
4. Participated as a Subject Expert in Brainstorming Session on "Revision of Syllabus for Bachelor of Pharmacy", a workshop on National Education Policy 2000 in Pharmacy organized by Pharmacy Council of India and SGT College of Pharmacy on 2<sup>nd</sup> and 3<sup>rd</sup> September 2024 at SGT University, Gurgaon, Haryana, India.
5. Invited lecture at virtual Faculty Development Program on "Innovation in Healthcare System: Multidisciplinary Approach" organized by MVN University, sponsored by IPGA Palwal Chapter held from 22<sup>nd</sup> to 26<sup>th</sup> July 2024.
6. Resource person in Two-day Symposium on "Recent Advances in Neuroscience and Neurochemistry" organized by Jamia Hamdard in collaboration with Society for Neurochemistry (SNCI), Delhi Local Chapter on 25<sup>th</sup> and 26<sup>th</sup> April 2024.
7. Resource person in the interdisciplinary refresher course on "Trends and Technologies in Development of Phytomedicinal Products" organized by UGC-Human Resource Development Centre, Dr. Hari Singh Gour Vishwavidyalaya, Sagar, MP on 07<sup>th</sup> October 2023. (Cell Culture Techniques in Phytopharmaceutical Research)
8. Invited lecture at DST -STUTI training program on "Formulation and Characterization Techniques in Drug Delivery" organized by Department of Pharmacy, Central University of Rajasthan, Ajmer during 31<sup>st</sup> July to 6<sup>th</sup> Aug. 2023.
9. Invited lecture at International Conference on Nanopharmaceuticals and Neurological Disorders (ICNAND2023) organized by International Brain Research Organization (IBRO) and Indira Gandhi National Tribal University (IGNTU),

- Amarkantak, Madhya Pradesh, India during 2<sup>nd</sup> to 4<sup>th</sup> February 2023 (Hyperbranched polymeric conjugates for the treatment of Alzheimer's).
10. Invited lecture at SCITECHCON-2023 on "Dendrimeric Conjugates in Drug Delivery and Targeting" organized by Sobhasaria College, Sikar, Rajasthan during 13<sup>th</sup>-14<sup>th</sup> January 2023.
  11. Contributed as Resource Person in DST STUTI Sponsored Hands-on Training Program on Basic Instrumentation Techniques for Qualitative and Quantitative Estimation of Bioactives organized by Rungta College of Pharmaceutical Sciences and Research, Kohka - Kurud Road, Bhilai, Chhattisgarh from 24<sup>th</sup>-30<sup>th</sup> September, 2022. (Research Methodology: Scientific Writing and Publication Ethics)
  12. Participated in UGC-Approved Short-Term Professional Development Programme 'Implementation of NEP-2020 for University and College Teachers' organized by Indira Gandhi National Open University, Staff Training and Research Institute of Distance Education, New Delhi 110068, held from 09<sup>th</sup>-17<sup>th</sup> September, 2022.
  13. Invited lecture at IBRO Supported Meeting and Workshop on "Recent Progress in Brain Research and Drug Delivery" organized by ISF College of Pharmacy, Moga, Punjab during 13<sup>th</sup>-15<sup>th</sup> May, 2022 (Polymeric Conjugates in the Treatment of Neurodegenerative Disorders)
  14. Invited lecture on "Dendrimers in Drug Delivery and Targeting" in webinar organized by School of Pharmacy, Parul University on 30<sup>th</sup> April, 2022.
  15. Invited lecture on "Research Methodology and Publication Ethics" as part of National Science Day Celebration organized by Amrita School of Pharmacy, Amrita Vishwa Vidyapeetham, Ponekkara, Kochi, Kerala on 2<sup>nd</sup> March, 2022.
  16. Invited lecture at Trends in Chemistry: Chemistry Colloquium Series on "Dendrimeric Conjugates in the Treatment of Neurodegenerative Disorders" organized by Department of Chemistry, Amrita Vishwa Vidyapeetham, Amritapuri, Kollam, Kerala on 8<sup>th</sup> January, 2022.
  17. Invited lecture at "Strategies to Improve Research Output" in AICTE sponsored one week online STTP on "New Horizons in Pharmaceutical Industry And Health Care: Rediscovering Indian Traditional System of Medicine Through Novel Approaches (DRUG DISCOVERY AND ANALYTICAL PROFILING: A PRIMER FOR MEDICINAL CHEMISTS) organized by Department of Pharmaceutical Chemistry and Department of Pharmaceutical Analysis, Al Shifa College of Pharmacy, Malappuram on 9<sup>th</sup> September, 2021.
  18. Contributed as Resource Person in AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Foundation of Pharmaceutical Innovation and Research" organized by Department of Pharmacy, Central University of Rajasthan during 06<sup>th</sup> to 10<sup>th</sup> September 2021.
  19. Invited lecture at five-day online Faculty Development Program on "Recent Advancements in Science and Technology" organized by School of Basic and Applied Science, K. R. Mangalam University, Gurugram, during 9<sup>th</sup> to 13<sup>th</sup> August, 2021. (Research Methodology: Tools and Techniques)
  20. Invited lecture at AICTE Training and Learning (ATAL) Academy Sponsored Five Days Faculty Development Programme on "Quality Attributes for the Strategic Improvement of Faculty Productivity" organized by Sri Venkateswar College of Pharmacy, RVS Nagar, Chittoor, AP, during 03<sup>rd</sup> August to 8<sup>th</sup> August, 2021. (Strategies in Improving Research Productivity of the Academician)
  21. Invited lecture at "Applications of Rheometer in Pharmaceutical Sciences" organized by National Institute of Pharmaceutical Education and Research (NIPER) – Raebareli, Lucknow, UP, on 22<sup>nd</sup> June 2021. (Rheological Parameters: Role in Drug Delivery Formulations)
  22. Invited lecture at "AICTE one-week Sponsored Short Term Training Program" on "Interplay Between health Wellbeing, Environment and Community Pharmacy organized by Sagar Institute of Research & Technology-Pharmacy, Sagar, MP, from 26<sup>th</sup> April to 1<sup>st</sup> May, 2021.
  23. Invited lecture at "AICTE Sponsored Sort Term Training Program" on "Advances in Pharmaceutical Formulations and Regulatory Pathways Globally for Small Molecules, Medical Devices & Biologics" organized by Department of Pharmaceutics and Regulatory Affairs, Shri Vishnu College of Pharmacy (Autonomous), Bhimavaram, West Godavari District, Andhra Pradesh, from 22<sup>nd</sup> to 27<sup>th</sup> February, 2021. (Dendrimers : A Versatile Nano-carrier for Drug Delivery and Targeting)
  24. Invited lecture at "AICTE-RGPV Joint Teachers Training Program" on "Artificial Intelligence in Pharmaceuticals: Contemporary Status & Impending Prospects" organized by Chameli Devi Institute of Pharmacy, Indore, MP, (15<sup>th</sup> to 20<sup>th</sup> June 2020)(Artificial Intelligence in Nanomedicine)
  25. Invited lecture at "SWAYAM Platform: Capabilities and Challenges" during CDIP WEBCON 2020: A Series of Expert Lectures on "Role of Pharma Sector in Building Atmanirbhar Bharat", organized by Chameli Devi Institute of Pharmacy, Indore, MP, (10<sup>th</sup> to 20<sup>th</sup> June 2020)

26. Invited lecture during the "SIPS Webinar Series" organized by Sagar Institute of Pharmaceutical Sciences, Sagar, MP (19<sup>th</sup> to 24<sup>th</sup> May 2020)
27. Invited lecture at Teachers Training Program on "Implementation of Green Chemistry and Analytical Techniques to Reconcile Obligation of Drug Discovery and Design", organized by ADINA Institute of Pharmaceutical Sciences, Sagar, MP, (03<sup>rd</sup> to 07<sup>th</sup> Mar. 2020)
28. Invited lecture at National Conference on "Nanomaterials in Biology" at MNIT Jaipur, on dated 9th to 12th Oct. 2019.
29. Invited lecture at National Conference on "Nanotechnology for Healthcare & Environment" at Rameshwaram Institute of Technology Management, Lucknow, (24<sup>th</sup> to 28<sup>th</sup> Sept. 2019).
30. Invited lecture at CEP on "Combating Neurological Disorders: Approaches and Methods" at INMAS, Delhi on dated 19th Sept. 2019 (Dendrimeric Nanoparticles in the Treatment of Neurodegenerative Disorders)
31. Invited lecture at National Conference on "Challenges and Opportunity of Radiopharmaceuticals in Healthcare" at S.N. Medical College Agra, UP on dated 7<sup>th</sup> Sept. 2019
32. Participated in "A One Day IGC Workshop on Training of Teacher" on 28<sup>th</sup> August, 2019, organized by UGC- Human Resource Development Centre, Gujarat University, Ahmedabad.
33. Participated in "UGC Orientation Workshop on Awareness, Adoption & Promotion of the MOOCs on SWAYAM Platform" organized by Central Regional Office, University Grants Commission, Bhopal, on 9<sup>th</sup> August 2019 at National Law Institute University, Bhopal.
34. Resource person in Two days National Seminar on "Emerging Trends and Innvoations in Pharmaceutical Nanotechnology & Nanomedicine" on 16<sup>th</sup>-17<sup>th</sup> March 2019
35. Invited lecture at International Conference of "ICFNM-2019" at IIT-BHU, on dated 22-25<sup>th</sup> Feb. 2019.
36. Participated in Ten Days workshop on "Teaching-Learning & Evaluation for faculty Members of HEIs" organized by teaching Learning Centre, Central University of Rajasthan from 15<sup>th</sup> – 24<sup>th</sup> December 2018.
37. Invited lecture at International Conference of "3<sup>rd</sup> International Conference on Soft Materials" at MNIT, Jaipur on dated 12.12.2018.
38. Invited lecture at the DBT sponsored lecture series at Bhagyodaya College of Pharmacy, Sagar on 15 Feb 2018.
39. Delivered an invited talk in a one-day workshop of "Soft Materials and Society" at Malviya National Institute of Technology, Jaipur India on 15<sup>th</sup>, Dec. 2017.
40. Participated in "Refresher Course in Chemical & Pharmaceutical Science" from 4<sup>th</sup> to 23<sup>rd</sup> September 2017.
41. Delivered an invited talk on the topic "Multifunctional Nano-therapeutic systems for the advanced cancer and other disorders" at Dresden, Germany on dated 11<sup>th</sup>, July 2017.
42. Invited speaker at National Symposium on "Quantum Dots as Drug Delivery: Opportunities & Challenges" organized by ADINA Institute of Pharmaceutical Sciences on 4<sup>th</sup> March 2017.
43. Delivered an invited talk at National conference on "Innovation in Parenteral Packaging and Drug Delivery-2016" organized by Smt. S.S. Patil College of Pharmacy, Jalgaon, Maharashtra.
44. Delivered an invited talk at National conference on "Emerging Trends in Development of Nanotechnology-2016" organized by LNCT Group of Colleges, Bhopal (MP).
45. Participated in Diamond Jubilee Celebrations and International Conference on "Academia-Industry Interaction: Global Pharma Prospects" organized by Department if Pharmaceutical Sciences, Dr. Harisingh Gour Vishwavidyalaya, Sagar on 6<sup>th</sup> -7<sup>th</sup> February, 2016.
46. Participated in "UGC-Sponsored Orientation Programme" from 16<sup>th</sup> November – 12<sup>th</sup> December 2015.
47. Delivered an invited talk on the topic "Dendrimers: A Versatile Nano-carrier for Drug Delivery and Targeting" on the occasion of National Seminar on the Theme "Emerging Era in Nanomedicine and Nanotechnology" (14<sup>th</sup> March 2015) organized by Lakshmi Narain College of Pharmacy, (LNCT) Bhopal (M. P.) India.
48. Delivered an invited talk on the topic "Multifunctional Nanotherapeutics: A new horizon for delivery of drugs and siRNA" at International Conference on Advances in Pharmaceutical Nanotechnology and Nanomedicine (6-8<sup>th</sup> Feb. 2015) organized by ISF college of Pharmacy, Moga (Punjab) India.
49. Chaired Session at 2<sup>nd</sup> International Symposium on Dendrimer in Nano Drug Delivery (14-15<sup>th</sup> June 2014) jointly organized by Rameshwaram Institute of Technology & Management, Lucknow and Indian Pharmacy Graduates Association, Uttar Pradesh, India.
50. Delivered an invited talk on the topic "Multifunctional Nanotherapeutics: A new horizon for delivery of drugs and siRNA against cancer" on the occasion of National Seminar on Nanobiotechnology (22<sup>th</sup>, February 2014) organized by Daksh Institute of Pharmaceutical Sciences, Chhatarpur (M. P.) India.
51. Participated in 60<sup>th</sup> Indian Pharmaceutical Congress, at New Delhi from 12<sup>th</sup> -14<sup>th</sup> December, 2008.

#### **Conferences/Symposium Attended/Presented**

## International

1. Poster presentation on the topic “PEGylated Dendrimer Mediated Delivery of Bortezomib for Improved Anti-cancer Efficacy and in vivo Pharmacokinetics” in International Conference “AAPS 360 PharmSci-2019”, at San Antonio, Texas, USA” on dated 5<sup>th</sup> November 2019. Rakesh K. Sahoo and Umesh Gupta\*.
2. Poster presentation on the topic “Drug Based Nanoparticles for Safe and Efficient Delivery of Anticancer Bio-actives” in International Conference “ICMBDT-2019”, at Central University of Rajasthan, Ajmer, India” between 8<sup>th</sup>-10<sup>th</sup> March 2019. Iliyas Khan, Raj Kumar, Umesh Gupta\*.
3. Poster presentation on the topic “*Combined and Safe Nanodelivery Effort for the Management of Breast Cancer*” in International Conference “Controlled Release Society-Indian Chapter 17th International Symposium on “Advances in Technology and Business Potential of New Drug Delivery Systems” between 1-2<sup>nd</sup> Feb. 2019. at The Lalit, Sahar Airport Road, Andheri (East), Mumbai 400 059. Iliyas Khan, Raj Kumar, Umesh Gupta\*.
4. Poster presentation on the topic “*Ligand Tethered Dendrimers for Brain Delivery of Anti-AD Agent for Better Pharmacokinetics and Improved Behavioral Responses*”, Controlled Release Society-Indian Chapter 17th International Symposium on “Advances in Technology and Business Potential of New Drug Delivery Systems” between 1-2<sup>nd</sup> Feb. 2019. at The Lalit, Sahar Airport Road, Andheri (East), Mumbai 400 059. Avinash Gothwal, Raj Kumar, Nakhate N Kartik, Anupom Borah, Umesh Gupta\*.
5. Poster presentation on the topic “*Biotinylated Polymeric Micelles for Cancer Therapy: Synthesis, Characterization and Evaluation*”, in International Conference Controlled Release Society-Indian Chapter 17th International Symposium on “Advances in Technology and Business Potential of New Drug Delivery Systems” between 1-2<sup>nd</sup> Feb. 2019. at The Lalit, Sahar Airport Road, Andheri (East), Mumbai 400 059. Sarita Rani, Umesh Gupta\*.
6. Poster presentation on the topic “*Dendrimer mediated approach for the improved stability effect of a mustine drug: Evidences in leukemic THP-1 cells and EAT solid tumor in BALB/c mice*”. 25-27<sup>th</sup> Sep. 2017 at Budapest, Hungary. Avinash Gothwal and Umesh Gupta\*.
7. Poster presentation on the topic “*PEG-PLA Polymeric Micelles Based Dual Drug Delivery of Isoniazid and Rifampicin for the Effective Management of Tuberculosis*”, in International Conference “International Conference on Challenges in Drug Discovery and Delivery (ICCD3-2017) between 2-4<sup>th</sup> March 2017 at BITS-Pilani, India. Sarita Malik, Avinash Gothwal, Iliyas Khan and Umesh Gupta\*.
8. Poster presentation on the topic “*Development and Characterization of PEG-PLGA based Nanoparticles for the Improved Stability and Efficacy of Bendamustine: A Promising Approach*” in International Conference of AAPS-2016, Annual Meeting and Exposition at Denver, Colorado, USA between 13-17<sup>th</sup> November 2016. Iliyas Khan and Umesh Gupta\*.
9. Attended international conference on “Academia-Industry Interactions: Global Pharma Prospects” at Dr. H.S. Gour University, Sagar (MP) in February 2016.
10. Presented poster on the topic "Development and characterization of bendamustine-dendrimer conjugate for the improved stability and efficacy" in 67<sup>th</sup> Indian Pharmaceutical Congress, 19-21 December 2015 at Mysuru.
11. Presented poster on the topic “Development and Characterization of Hyaluronic acid Conjugated PPI (Polypropyleneimine) dendrimers for the effective delivery of Paclitaxel” in 2014 AAPS Annual Meeting and Exposition, 2<sup>nd</sup>-6<sup>th</sup> November 2014 at San Diego, USA.
12. Presented poster on the topic “Multi-functional Dendrimer Based Nano-therapeutic System for Prostate Cancer” in 40<sup>th</sup> Annual Meeting and Exposition of the Controlled Release Society, 21<sup>st</sup>-24<sup>th</sup> July 2013 at Honolulu, Hawaii, USA.
13. Poster presentation on the topic “Dendrimer Based Drug Delivery Systems for Prostate Cancer” at 22<sup>nd</sup> Annual Pharmacy Research Presentations and Keo Gidden Smith Fall Pharmacy Convocation, South Dakota State University, Brookings SD USA, 29<sup>th</sup> October 2012.
14. Attended Cancer Biology Symposium organized by Sanford Research Group and University of South Dakota at Sioux Falls USA on 30<sup>th</sup> Aug. 2012.
15. Attended Avera-SDSU mini-symposium in Cancer held at Avera McKennan Education Center, Sioux Falls, SD, USA Sept. 2012.
16. Attended webinar on “Fundamentals of High-Performance Liquid Chromatography” by Tom Sirard Chemistry Specialist, Waters Corporation, Milford, MA USA in October 2012.
17. Attended webinar on Polymeric Nanoparticles for Drug Delivery on Thursday, January 17, 2013 from 12:30 pm– 2:00 pm EST Organized by the Physical Pharmacy and Bio-pharmaceutics section Conducted by Jayanth Panyam, Ph.D., University of Minnesota USA.
18. Oral presentation on the topic “Surface Engineered Dendrimers Emerging Vistas In Carrier Mediated Gene and Drug Delivery.” In International Conference on Cellular and Molecular Bioengineering” 10<sup>th</sup>-12<sup>th</sup> Dec. 2007, Singapore.

## National

1. Contributed as a 'Jury Member' in the "6<sup>th</sup> Science Conclave cum National Biomedical Research Competition 2025" organized by AIIMS, Jodhpur under the aegis of SYBS India from 3<sup>rd</sup> December to 7<sup>th</sup> December 2025.
2. Participated in "Two days Regional Training Programme for Nominees of CCSEA" organized by the Committee for Control and Supervision of Experiments on Animals (CCSEA) at Amity University, Noida, Uttar Pradesh on 5<sup>th</sup> & 6<sup>th</sup> February, 2025.
3. Poster presentation in on the topic *Development and Characterization of Dendrimer-Dug based Conjugates for Improved Stability and Efficacy*, National Conference "Impact of Molecular Biology on Drug Discovery and Development: Promises and Challenges" on February 17-18, 2015 at Central University of Rajasthan. Avinash Gothwal and Umesh Gupta\*.
4. Poster presentation in on the topic *Development and characterization of PLGA based nanoparticles of anticancer drugs: An attempt for improved stability and delivery*, National Conference "Impact of Molecular Biology on Drug Discovery and Development: Promises and Challenges" on February 17-18, 2015 at Central University of Rajasthan. Iliyas Khan and Umesh Gupta\*.
5. Poster presentation in on the topic *Galactocylated Albumin based Nano-particulate system for the delivery of Anti-malarial drug*, National Conference "Impact of Molecular Biology on Drug Discovery and Development: Promises and Challenges" on February 17-18<sup>th</sup>, 2015 at Central University of Rajasthan. Swati Khandelwal and Umesh Gupta\*.
6. Oral presentation on the topic "Ligand Anchored Dendrimers Based Nanoconstructs for Effective Targeting of Anti-Cancer Drug" in 25<sup>th</sup> Madhya Pradesh Silver Jubilee Young Scientist Congress 2010. 22-23 Feb. 2010 at Bhopal M.P. India.
7. Oral presentation on the topic "Polypropyleneimine dendrimer mediated solubilization Effect of pH and functional groups of the hydrophobes" in 24<sup>th</sup> Madhya Pradesh Young Scientist Congress 2009, 28 Feb- 1 March, 2009 at Bhopal, M.P., India.
8. Presented poster entitled "Dendritic Nanocontainers: The Next Generation Therapeutics" in National Conference on Current Trends of Nanotechnology in Advanced Drug Delivery, 30<sup>th</sup> March 2007, Bhilai (M.P.) India.
9. Presented poster as a co-author entitled "Surface Engineered Dendritic Nano-scaffolds in Drug Delivery" in National Seminar-Controlled and Targeted Drug Delivery: Nanotechnology, 17-18 March 2007, Sagar, (M.P.) India.
10. Presented poster entitled "Polysaccharide Conjugated PPI Dendrimers for Delivery of an Anti-cancer Drug" in National Seminar-Controlled and Targeted Drug Delivery: Nanotechnology, 17-18 March 2007, Sagar, (M.P.) India.

## Conferences/Symposium Organized

1. Organized the DST-STUTI training program on "Formulation and Characterization Techniques in Drug Delivery" at Department of Pharmacy, Central University of Rajasthan, Ajmer during 31<sup>st</sup> July to 6<sup>th</sup> Aug. 2023.
2. Organized the "World Pharmacist Day Poster and Banner Competition" on 25<sup>th</sup> September, 2019, at Department of Pharmacy, Central University of Rajasthan.
3. Resource chairperson of organizing committee in "3<sup>rd</sup> International Conference on Academic and Industrial Innovations: Transitions in Pharmaceutical, Medical and Biosciences" (22-23 Oct 2018) organized by Innovare Academics Sciences at Kala Academy, Goa, India.
4. Resource chairperson of organizing committee in 2<sup>nd</sup> International Conference on "Bridging Innovations in Pharmaceutical, Medical and Bio Sciences, INNOPHARM-2" (11-12<sup>th</sup> Feb. 2017) organized by Innovare Academics Sciences at M.P. Council of Science & Technology, Vigyan Bhawan, Nehru Nagar, Bhopal, M.P., India.
5. Member of Organizing committee in 1<sup>st</sup> International Conference on "Novel Frontiers in Pharmaceutical & Health Sciences INNOPHARM-1" (10-11<sup>th</sup> Oct. 2015) organized by Innovare Academics Sciences at M.P. Council of Science & Technology, Vigyan Bhawan, Nehru Nagar, Bhopal (M.P.) India.
6. Organized National Conference partly funded by Department of Biotechnology, Government of India, on the theme, "Impact of Molecular Biology on Drug Discovery and Development: Promises and Challenges" on February 17-18, 2015 at Central University of Rajasthan, as Organizing Secretary.
7. Member of Organizing Committee in "Science Academies' Refresher Course on Advances in Chemical Sciences and Sustainable Development" organized by Department of Chemistry, School of Chemical Sciences and Pharmacy, Central University of Rajasthan from 12<sup>th</sup> to 25<sup>th</sup> January, 2015.
8. Member of Organizing Committee in "School and Workshop on Electroanalytical Techniques (SWEt-2013)" " organized by Department of Chemistry, School of Chemical Sciences and Pharmacy, Central University of Rajasthan from 25<sup>th</sup> November to 1<sup>st</sup> December, 2013.
9. Being Deputy Director, Teaching Learning Centre, Central University of Rajasthan, we have conducted almost 13 workshops/training programs for teachers in the time span of 1.5 years.

## Professional Expertise

1. Serving as Dean for the School of Chemical Sciences and Pharmacy at Central University of Rajasthan, Ajmer, Rajasthan India.
2. Serving as Head of the Department for Department of Pharmacy and Department of Health Sciences at Central University of Rajasthan, Ajmer, Rajasthan, India.
3. 18 years of combined experience both in academics as well as research.
4. Member of Academic Expert's in various esteemed government universities; Rajasthan University of Health Sciences (RUHS), Jaipur; Rajiv Gandhi Proudyogiki Vishwavidyalaya (RGPV), Bhopal; Jai Narayan Vyas University (JNVU), Jodhpur etc. at postgraduate and research level.
5. Served as Head of the Department for Pharmaceutics at Guru Ramdas Khalsa Institute of Science and Technology (Pharmacy), Jabalpur, M.P., India
6. Experience in development and characterization of polymeric, non-polymeric as well vesicular carriers like nanoparticles, dendrimers, liposomes, ethosomes, etc.
7. Generic Drug Delivery, Development of solid dosage forms at commercial level for US, Europe and domestic markets. Filing drug approval to Asian and other regulated markets.
8. Nanotechnological approaches for the oral delivery, cancer targeting, solubilization of insoluble drugs.
9. Synthesis and characterization of dendrimers, ligand conjugation, targeted drug delivery.
10. Cell culture techniques like MTT assay, Quantitative Cell Counting techniques, Cell uptake studies specially with different cancer cell lines.
11. Experience Gel electrophoresis, HPLC, Lyophilization, Franz diffusion cell techniques etc.

#### **Professional Memberships**

1. Member of American Chemical Society (ACS; Membership No. 30285930)
2. Member of American Association of Pharmaceutical Sciences (AAPS; Membership No. 253364).
3. Life Member of Association of Pharmaceutical Teachers of India APTI (Membership No. MP/LM0236).
4. Life Member of Indian Pharmaceutical Association (Membership No. RAJ/LM/0086).
5. Post Doc Member of Controlled Release Society, USA.
6. Active member of Science and Advisory Board, USA.

#### **Extra-curricular Activities**

1. Organized various functions, seminars and cultural activities at the department/college level.
2. Executed and started the first annual magazine "GRKISTIAN Pharmazine" of Guru Ram Das Khalsa Institute of science and Technology (Pharmacy) Jabalpur India.
3. Participated and interested in sports activities especially cricket and volleyball.
4. Organized industrial tour and visited Eros Pharma Ltd. (Bangalore), Glaxo Smithkline (Bangalore), Wyeth (Goa), German Remedies (Goa), Alkem (Mumbai).
5. Working knowledge of MS Word, Excel, and Power point, PageMaker, Photoshop Image and Internet, Chem Draw etc.

**Place: Central University of Rajasthan, Ajmer**

**Date: 01/05/2026**

**(Umesh Gupta)**