

ABHISHESH KUMAR MEHATA

Indian Institute of Technology (Banaras Hindu University)
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EDUCATION

Indian Institute of Technology (BHU), India	Ph. D, Pharmaceutics	2024
Indian Institute of Technology (BHU), India	M. Pharmacy, Pharmaceutical Eng. & Tech.	2017
Acharya BM Reddy College of Pharmacy, India	B. Pharmacy	2015

RESEARCH EXPERIENCE

- Ph.D. Project:** Targeted nanomedicine and nanotheranostics for breast cancer imaging and therapy 2024
 Mentor: Dr. M.S. Muthu, Department of Pharmaceutics, IIT (BHU) Varanasi
- Preconjugation of polymeric nanocarrier with targeting moiety and characterization by FTIR, NMR, MS/MS and XPS
 - Development imaging probe co-loaded NPs and their characterization, *in-vitro* and *in-vivo* anticancer evaluation
 - Ultrasound/photoacoustic imaging and *in-vivo* live imaging of breast tumour bearing rat.
- M. Pharm Dissertation:** TPGS-g-Chitosan nanoparticle for targeted breast cancer therapy 2017
 Mentor: Dr. M.S. Muthu, Department of Pharmaceutics, IIT (BHU) Varanasi
- Graduation research:** Modified Released Tablets: An Overview 2015
 Mentor: Prof. Divakar Goli, Acharya BM Reddy college of pharmacy, Bangalore

INDUSTRIAL EXPERIENCE

- Sun Pharmaceutical Industries Ltd, Delhi, India** 2018-2019
 Research scientist in formulation R&D
- Product development research
 - Oral solid dosage formulation and topical formulation
 - Quality documentation
- Apotex Research Pvt. Ltd., Bengaluru, India** 2017-2018
 Research Trainee in analytical R&D
- Analytical method development of pharmaceutical product
 - Performing dissolution, assay, degradation production quantification by using HPLC, UV

GRADUATE & UNDERGRADUATE RESEARCH MENTORING

- IIT (BHU), Mentored M. Pharm. thesis of S. K. Rout (Published in J Drug Deliv Sci Technol.) 2021-2022
- IIT (BHU), Mentored M. Pharm. thesis of P. Dhamija (Published in Mol. pharmaceutics.) 2022-2023
- IIT (BHU), Mentored M. Pharma. thesis of J. Bolunwar (Nanotheranostics) 2022-2023

SKILLS

Technical Skills	Software Skills	Personal Skills
<ul style="list-style-type: none"> • Nanoformulations development • Targeted drug delivery • <i>In-vitro</i> characterization • PK-PD studies • Animal handling • Histopathology • Cell line studies 	<ul style="list-style-type: none"> • Design expert • Winolin • PK-solver, IC-50 • Endnote • Image J • M3Vision (IVIS) • MestReNova(NMR) • Vivo Lab 	<ul style="list-style-type: none"> • Teamwork • Problem solving • Mentorship • Work ethics • Reliability • Project planning

RECENT PUBLICATIONS

- Mehata, A.K., Singh, V., Vikas, Singh, N., Mandal, A., Dash, D., Koch, B. and Muthu, M.S., 2023. Chitosan-g-estrone Nanoparticles of Palbociclib Vanished Hypoxic Breast Tumor after Targeted Delivery: Development and Ultrasound/Photoacoustic Imaging. **ACS Applied Materials & Interfaces**, 15(29), 34343-34359 (IF 9.5)
- Mehata AK, Singh V, Vikas, Singh N, Srivasstava P, Koch B, Kumar M, and Muthu MS. Theranostic chitosan nanoparticles for the co-delivery of palbociclib and ultra-small magnesium nanoclusters: dual receptor targeting, optical and ultrasound/photoacoustic imaging. **Nanotheranostics**. 2024; 8(2): 179-201(IF 4.8)
- Vikas, Mehata, A. K., Viswanadh, M. K., Malik, A. K., Setia, A., Kumari, P. Muthu, M. S. (2023). EGFR Targeted Redox Sensitive Chitosan Nanoparticles of Cabazitaxel: Dual-Targeted Cancer Therapy, Lung Distribution, and Targeting Studies by Photoacoustic and Optical Imaging. **Biomacromolecules**. 24, 11, 4989–5003 (IF 6.092)
- In more than **60 peer review publications** and **5 book chapters**.

PRESENTATION AND TRAININGS

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| • SERB SSR, IIT (BHU), India. | Exploring New Avenues and Innovations in Drug Discovery | 2023 |
| • DST STUTI, SATHI-BHU, India. | Hands on training program on ultrasound and photoacoustic imaging | 2022 |
| • NIPER-DRIL Hyderabad, India. | Industry Oriented Training on cell culture and animal handlings | 2019 |
| • 67th IPC, Mysuru, India. | Bioadhesive micelles of chitosan conjugated D- α -tocopherol polyethylene glycol succinate 1000 | 2017 |
| • IIT BHU Institutes Day, India. | Vitamin E TPGS conjugated carbon nanotubes improved efficacy of docetaxel with safety for lung cancer treatment | 2016 |
| • 5th DDNPTM, Niper Mohali, India. | Quality control standardization and antimicrobial evaluation of <i>Heterophragma adenophyllum</i> | 2016 |
| • IIT BHU, Varanasi, India. | Formulation and evaluation of hydrogel containing SLN loaded with Neem leaves extract for cosmetic Application | 2015 |

ACCOMPLISHMENTS AND GRANTS

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| • Ministry of human resource development fellowship (INR 35,000/month for 5 yrs.) | 2019-present |
| • Ministry of human resource development research support grant (INR 18,000/yr. for 5 yrs.) | 2019-2023 |
| • University grants commission fellowship (INR 12,500/month for 2 yrs.) | 2015-2017 |
| • University Grants commission research support grant (INR 18,000/yr. for 2 yrs.) | 2015-2017 |
| • Qualified GPAT with percentile of 94.5 | 2015 |
| • University Rank holder from RGUHS, Bangalore | 2015 |
| • B. Pharmacy class topper award from ABMRCP | 2015 |
| • A certificate of appreciation from Indian Pharmaceutical Association | 2014 |

EXTRACURRICULAR ACTIVITIES

- Volunteered at the 63rd and 64th IPC (2011-2012)
- Experienced in Lab stock management.
- Mentor UG/PG students