

Karthik Yadav Janga, M.Pharm., Ph.D.

Research Scientist – Bayer | Karthikyadav.janga@gmail.com | +1 (662) 380-6945 | New Jersey. USA.

Pharmaceutical professional with proven leadership, team building and presentation skills with 8+ years' industrial and academic research experience across a broad range of product development and manufacturing operations. Proven track record in developing complex drug products, delivering value and innovation in the strategy and execution of product design & development and manufacturing operations.

RESEARCH AREAS

- Oral Drug Delivery- NCEs, NBEs, Protein and Peptides
- Parenteral Drug Delivery – Ophthalmic, inhalation, Pulmonary
- Transdermal Drug Delivery, Transmucosal Drug Delivery
- Lipid Based Drug Delivery Systems- SEDDS/SMEDDS
- Liposomes, Proliposomes, Solid lipid Nanoparticles, Nano lipid carriers, polymeric nanoparticles, metal nanoparticles
- Vaccines, Monoclonal antibodies, Antibody drug conjugates, Bispecific antibodies, DNA, RNA
- Solutions, Suspensions, Tablets, Capsules, Hydrogels, Amorphous Solid Dispersions, Inhalations
- Preformulation, Formulation, QbD, DoE, Scale-up
- Physicochemical, Solid state, Biophysical Characterization
- FDA, EMEA, ICH, GMP, Regulatory, Clinical Strategies
- Cancer, AMD, Alzheimer's, Schizophrenia, Hemophilia, Infection, Pancreatic etc
- Controlled release, Taste masking, prolong/ delayed release
- HME, Spray Drying, FBP, Pellets, Multiparticulate etc

GOOGLE SCHOLAR PROFILE

<https://scholar.google.com/citations?user=xZ4Z2wkAAAAJ&hl=en>

	All
Citations	273
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EDUCATION

2015-2018	UNIVERSITY OF MISSISSIPPI Ph.D. in Pharmaceutics and Drug Delivery	OXFORD, MS
2009-2011	KAKATIYA UNIVERSITY M. Pharmacy (Emphasis: Pharmaceutics)	WARANGAL, INDIA
2005-2009	KAKATIYA UNIVERSITY Bachelor of Pharmacy (B. Pharm)	WARANGAL, INDIA

ACHIEVEMENTS/AWARDS

- Best Paper of the Year 2016 in International Journal of Pharmaceutical Sciences and Nanotechnology
- 2018 AAPS Best Abstract Award from AAPS PharmSci 360, an AAPS Conference
- Graduate Achievement Award from the University of Mississippi – 2018
- Junior Research Fellowship – All India Council for Technical Education (AICTE) – 2009-2011
- All India Rank with 95 percentile in Graduate Aptitude Test in Engineering (GATE 2009)
- Indian Pharmaceutical Association Travel Grant – to attend AAPS 2011
- Published 23 articles in peer reviewed international journals
- Presented > 40 Poster/Oral presentations
- 3 Invited guest lectures
- 1 Indian patent (published), 2 US patents (Filed).

EXPERIENCE

2019-present	BAYER HEALTHCARE Research Scientist II, Formulation R&D – Novel Drug Delivery	MORRISTOWN, NJ
2018-2019	NEVAKAR, INC. Research Scientist, Formulation R&D	BRIDGEWATER, NJ
2015-2018	UNIVERSITY OF MISSISSIPPI. Graduate Research Assistant, Pharmaceutics and Drug Delivery	OXFORD, MS
2016-2017	HANDS-ON TABLET TECHNOLOGY COURSE. Lab Instructor, Granulations, Tableting and MUPS	OXFORD, MS

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2014-2015	KAKATIYA UNIVERSITY & DAEWOONG PHARMACEUTICALS PVT LTD Assistant Project Coordinator, Formulation R & D	WARANGAL, INDIA
2013-2014	ALPHAMED FORMULATIONS PVT LTD (now ASPEN PHARMACARE) Research Assistant, Formulation and Analytical R & D	HYDERABAD, INDIA
2012-2013	KAKATIYA INSITUTE OF PHARMACEUTICAL SCIENCES Assistant Professor– Dept. of Pharmaceutics	WARANGAL, INDIA

INVITED GUEST LECTURES

- *New Formulation Paradigms for Improved Ocular Pharmacotherapeutics* - GITAM UNIVERISTY. India. 2018
- **Novel Drug Delivery Strategies for the Improved Ocular Pharmacotherapy** – Talla Padmavathi College of Pharmacy. India - 2017
- **Advanced Drug Delivery Approaches for the Efficient Ocular Pharmacotherapy** – St. Peter's Institute of Pharmaceutical Sciences. India – 2017

PEER REVIEWER

- AAPS PharmSciTech
- Journal of Drug Delivery and Industrial Pharmacy
- Drug Development and Industrial Pharmacy
- Cogent Medicine
- SciTechnol Journals
- Journal of Bioequivalence and Bioavailability

PATENTS (Total 3 Patents – 2 Patents under review and 1 published)

- US 62/853,597, filed May 28th, 2019
- US 62/741,728, filed October 5th, 2018
- Bazedoxifene Proliposomal Delivery Systems and Preparations Thereof, IP 6362/CHE/2014, published July 1st, 2016.

PUBLICATIONS (23 publications)

Corresponding Author

1. Lipid nanoparticles of zaleplon for improved oral delivery by Box-Behnken design: optimization, *in vitro* and *in vivo* evaluation. N Dudhipala, **KY Janga**. *Drug Dev Ind Pharm*. 2017; 43(7): 1205-1214.
2. Biopharmaceutical and Preclinical Studies of Zaleplon as Semisolid Dispersions with Self-emulsifying Lipid Surfactants for Oral Delivery. N Dudhipala, A Narala, D Suram, **KY Janga**. *IJPSN*. 2016; 9(1): 3102-3111. (**Best Paper of the Year Award**)
3. Competence of raloxifene hydrochloride loaded liquisolid compacts for improved dissolution and intestinal permeation. DR Komala, **KY Janga**, R Jukanti, S Bandari, M Vijayagopal. *J Drug Deliv Sci Technol*. 2015; 30(A): 232-241.

Main Author

4. Gellan gum based sol-to-gel transforming system of natamycin transfersomes improves topical ocular delivery. **KY Janga**, A Tatke, N Dudhipala, SP Balguri, MM Ibrahim, DN Maria, MM Jablonski, S Majumdar. *JPET*. Mar 14, 2019. DOI: <https://doi.org/10.1124/jpet.119.256446>
5. Ion-sensitive *in situ* hydrogels of natamycin bilosomes for enhanced and prolonged ocular pharmacotherapy: *in vitro* permeability, cytotoxicity and *in vivo* evaluation. **KY Janga**, A Tatke, SP Balguri, SP Lamichanne, MM Ibrahim, DN Maria, MM Jablonski, S Majumdar. *Artif Cells Nanomed Biotechnol*. 2018; 46(1): 1039-1050.
6. Retina compatible interactions and effective modulation of blood ocular barrier P-gp activity by third-generation inhibitors improve the ocular penetration of loperamide. **KY Janga**, A Tatke, S Shukla, SP Lamichhane, B Avula, X Wang, MM Jablonski, IA Khan, S Majumdar. *J Pharm Sci*. 2018; 107(8): 2128-2135.

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7. Photostability Issues in Pharmaceutical Dosage Forms and Photostabilization. **KY Janga**, T King, N Ji, S Sarabu, G Shadambikar, S Sawant, P Xu, MA Repka, SN Murthy. *AAPS PharmSciTech*. 2018; 19(1): 48-59.
8. P-glycoprotein restricts ocular penetration of loperamide across the blood-ocular barriers: a comparative study in Mdr1a knock-out and wild type sprague dawley rats. A Tatke, **KY Janga**, B Avula, X Wang, MM Jablonski, IA Khan, S Majumdar. *AAPS PharmSciTech*. 2018; 19(4): 1662-1671.
9. In situ absorption and relative bioavailability studies of zaleplon loaded self-nanoemulsifying powders. **KY Janga**, R Jukanti, S Sunkavalli, A Velpula, S Bandari, P Kandadi, PR Veerareddy. *J Microencapsul*. 2013; 30(2): 161-172.
10. Bioavailability enhancement of zaleplon via proliposomes: Role of surface charge. **KY Janga**, R Jukanti, A Velpula, S Sunkavalli, S Bandari, P Kandadi, PR Veerareddy. *Eur J Pharm Biopharm*. 2012; 80(2): 347-357.

Author

11. Melt-cast films significantly enhance triamcinolone acetonide delivery to the deeper ocular tissues. A Tatke, N Dudhipala, **KY Janga**, B Soneta, B Avula, S Majumdar. *Pharmaceutics*. 2019; 11(4): 158.
12. In situ gel of triamcinolone acetonide-loaded solid lipid nanoparticles for improved topical ocular delivery: Tear kinetics and ocular disposition studies. A Tatke, N Dudhipala, **KY Janga**, SP Balguri, B Avula, M Jablonski, S Majumdar. *Nanomaterials*. 2019; 9(1): 33.
13. Comparative study of nisoldipine-loaded nanostructured lipid carriers and solid lipid nanoparticles for oral delivery: preparation, characterization, permeation and pharmacokinetic evaluation. N Dudhipala, **KY Janga**, T Gorre. *Artif Cells Nanomed Biotechnol*. 2018; 46(2): 616-625.
14. Micronized zaleplon delivery via orodispersible film and orodispersible tablets. P Manda, C Popescu, A Juluri, **KY Janga**, PR Kakulamari, S Narishetty, SN Murthy, MA Repka. *AAPS PharmSciTech*. 2018; 19(3): 1358-1366.
15. Melt-cast noninvasive ocular inserts for posterior segment drug delivery. SP Balguri, GR Adelli, A Tatke, **KY Janga**, P Bhagav, S Majumdar. *J Pharm Sci*. 2017;106(12): 3515-3523.
16. Ocular disposition of ciprofloxacin from topical, PEGylated nanostructured lipid carriers: Effect of molecular weight and density of poly (ethylene) glycol. SP Balguri, GR Adelli, **KY Janga**, P Bhagav, S Majumdar. *Int J Pharm*. 2017; 529(1-2): 32-43.
17. Preparation and characterization of docetaxel self-nanoemulsifying powders (SNEPs): A strategy for improved oral delivery. S Sunkavalli, BB Eedara, **KY Janga**, A Velpula, R Jukanti, S Bandari. *KOREAN J CHEM ENG*. 2016; 33(3): 1115–1124.
18. Amoxicillin trihydrate floating-bioadhesive drug delivery system for eradication of Helicobacter pylori: Preparation, in vitro and ex vivo evaluation. N Dudhipala, A Narala, **KY Janga**, R Bomma. *J Bioequiv Availab*. 2016; 8(3): 118-124.
19. Enhanced dissolution efficiency of zaleplon solid dispersions via modified β -cyclodextrin molecular inclusion complexes. C Popescu, P Manda, A Juluri, **KY Janga**, M Cidda, SN Murthy. *J. Pharm Pharm Scien*. 2015; 1(1): 12-21.
20. Proliposome powders for enhanced intestinal absorption and bioavailability of raloxifene hydrochloride: effect of surface charge. A Velpula, R Jukanti, **KY Janga**, S Sunkavalli, S Bandari, P Kandadi, PR Veerareddy. *Drug Dev Ind Pharm*. 2013; 39(12): 1895-1906.
21. Enhanced intestinal absorption and bioavailability of raloxifene hydrochloride via lyophilized solid lipid nanoparticles. M Burraa, R Jukanti, **KY Janga**, S Sunkavalli, A Velpula, S Ampati, KN Jayaveera. *ADV POWDER TECHNOL*. 2013; 24(1): 393-402.

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22. Development and characterization of ramipril loaded Solid self nanoemulsifying drug delivery system (SNEDDS) for improved oral delivery of lipophilic drugs. M Kasturi, S Agrawal, **KY Janga**. *IJPBA*. 2015; 6(6): 10-17.
23. Self nano emulsifying drug delivery system of ramipril: formulation and *in vitro* evaluation. M Kasturi, S Agrawal, **KY Janga**. *Int J Pharm Pharm Sci*. 2016; 8(4): 291-296.

POSTER/ORAL PRESENTATION (> 40 Posters; Selected listed below)

1. Topical delivery of specific MRP inhibitors improve blood-ocular penetration of substrates: Formulation, ocular distribution, and retinal compatibility studies. C Sweeney, **KY Janga**, A Tatke, B Soneta, N Dudhipala, X Wang, MM Jablonski, S Majumdar. *AAPS annual meeting and exposition*. 2019 held at San Antonio, Texas, USA.
2. Intraocular delivery of triamcinolone acetonide protransfersome gel by trans-eyelid application for improved delivery. **KY Janga**, A Tatke, T Mehraj, N Dudhipala, B Avula, S Majumdar. *AAPS annual meeting and exposition*. 2019 held at San Antonio, Texas, USA.
3. Effective Modulation of P-gp Activity in the Blood Ocular Barriers by Topically Administered Specific Inhibitors Improved Blood-Ocular Penetration of Anticancer Drug. **KY Janga**, C Sweeney, A Tatke, B Soneta, N Dudhipala, B Avula, X Wang, MM Jablonski, S Majumdar. *AAPS annual meeting and exposition*. 2018 held at Walter E Washington convention center, Washington DC, USA.
4. *MRP1* Efflux Protein expression restricts the penetration of Methotrexate across the blood ocular barriers: Effect of specific inhibitors. **KY Janga**, S Sennapati, A Tatke, B Soneta, C Sweeney, N Dudhipala, B Avula, X Wang, MM Jablonski, S Majumdar. *AAPS annual meeting and exposition*. 2018 held at Walter E Washington convention center, Washington DC, USA. (**Best Abstract Award**)
5. Combination polymeric matrix films for sustained ocular delivery of Triamcinolone Acetonide – Development and physico-chemical evaluation. A Tatke, **KY Janga**, B Soneta, S Majumdar. *AAPS annual meeting and exposition*. 2018 held at Walter E Washington convention center, Washington DC, USA.
6. The Impact of P-gp on the Blood Ocular Transportation of Paclitaxel in Wild Type and *Mdr 1A* Knock Out Sprague Dawley Rats. **KY Janga**, A Tatke, S Shukla, B Avula, S Majumdar. *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.
7. Improved Permeation of Paclitaxel Across the Blood Aqueous Barrier by Modulating the P-gp Expression with Specific Inhibitors. **KY Janga**, A Tatke, S Shukla, B Avula, S Majumdar. *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.
8. Inhibition of *MRP 1* Efflux Protein Expression at Blood Ocular Barriers with Specific Inhibitor for Improved Ocular Penetration of Fluorescein. **KY Janga**, A Tatke, S Shukla, S Majumdar. University of Mississippi, *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.
9. Electrolyte Triggered *In situ* Hydrogels of Natamycin Bilosomes for Enhanced and Prolonged Ocular Pharmacotherapy. **KY Janga**, A Tatke, SP Balguri, MM Ibrahim, DN Maria, MM Jablonski, S Majumdar. *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.
10. In situ Hydrogels of Natamycin Loaded Transfersomes for Improved Ocular Delivery. **KY Janga**, A Tatke, SP Balguri, MM Ibrahim, DN Maria, MM Jablonski, S Majumdar. *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.
11. In Vivo Tear Kinetics and Ocular Distribution of Triamcinolone Acetonide from Topical Solid Lipid Nanoparticles and In Situ Gels. A Tatke, **KY Janga**, B Avula, M Jablonski, S Majumdar. *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.

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12. Improved Ocular Distribution of Loperamide via Inhibition of P-gp Efflux by the P-gp Inhibitors Transporter at Blood Ocular Barriers. A Tatke, **KY Janga**, B Avula, M Jablonski, S Majumdar. *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.
13. Triamcinolone Acetonide Loaded Polymeric Matrix Films for Sustained Ocular Delivery. A Tatke, **KY Janga**, B Avula, S Majumdar. *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.
14. Development and characterization of fluocinolone acetonide loaded nanosized lipid carriers for ocular delivery via sub-conjunctival route: synergistic effect of vitamin A palmitate. B Soneta, A Tatke, **KY Janga**, SP Lamichhane, B Avula, S Majumdar. *AAPS annual meeting and exposition*. 2017 held at San Diego. California. USA.
15. Enhancement in the Transcorneal Permeation of Fluorescein via Bilosomes: Formulation and In-Vitro Evaluation. **KY Janga**, A Tatke, E Ashour, S Majumdar. *AAPS annual meeting and exposition*. 2016 held at Denver. Colorado. USA.
16. Distribution of Fluorescein in Aqueous Humor and Vitreous Humor from the Systemic Circulation following Intravenous Administration in Sprague Dawley Rats. **KY Janga**, A Tatke, EA Ashour, S Majumdar. *AAPS annual meeting and exposition*. 2016 held at Denver. Colorado. USA.
17. Ocular Distribution of Loperamide HCl in Wild Type and MDR 1A Knock Out Sprague Dawley Rats: Impact of P-Glycoprotein. A Tatke, **KY Janga**, MM Jablonski, X Wang, B Avula, E Ashour, S Majumdar. *AAPS annual meeting and exposition*. 2016 held at Denver. Colorado. USA.
18. Oral Disintegrating Tablets (ODT) and Oral Dissolving Film (ODF) as Zaleplon Microparticles Delivery Systems. C Popescu, P Manda, SW Hoag, M Cidda, A Juluri, **KY Janga**, VK Shankar, SN Murthy, HJ Muhammad. 10th World Meeting on Pharmaceutics Biopharmaceutics and Pharmaceutical Technology 2016 held at Glasgow (UK).
19. Quantification of Agomelatine in Rat Plasma by Validated Bioanalytical Rapid RP-HPLC/UV Method. **KY Janga**, S Pasupunooti. *AAPS annual meeting and exposition*. 2013 held at San Antonio. Texas. USA.
20. Development of Validated RP-HPLC Method for Analysis of Agomelatine in Proliposome Powders with the Help of Central Composite Design. **KY Janga**, S Pasupunooti, BK Korupaju, P Voora, S Valepu. *AAPS annual meeting and exposition*. 2013 held at San Antonio. Texas. USA.
21. Pharmacokinetics and Brain distribution studies of Zaleplon loaded solid self-emulsifying drug delivery systems. **KY Janga**, R Jukanti, S Bandari, P Kandadi, PR Veerareddy. *AAPS annual meeting and exposition*. 2011 held at Walter E Washington convention center, Washington DC, USA.