

LIST OF AWARDS, PATENTS, PUBLICATIONS, PRESENTATIONS AND WORKSHOP

Awards

- Best oral presentation award on title “Journey of probiotics, curcumin and quercetin for the treatment of diabetes mellitus in International Conference of Pharmacy (ICP-2019) held on 13th-14th September 2019 at School of Pharmaceutical Sciences, Lovely Professional University, Punjab, India.
- Third position in poster presentation on title “SNEDDS: Novel drug delivery system for enhancing the solubility of poorly soluble drugs” in Integrated Conference on Ayurveda, Agriculture, & Pharmaceutical Science, held on 13th -14th October 2018 in Lovely Professional University, Punjab, India.

Patents

- **Khursheed R**, Singh SK, Sheetu, Gulati M. Novel solid emulsion formulation using synbiotics and process thereof. Application No: PCT/IN2020/050257, March 2020.
- **Khursheed R**, Singh SK, Sheetu, Gulati M. Synbiotics as solidifying agents for drying emulsions. Application No: 201911029689, July 2019.
- Gulati M, Singh SK, Divyansh B, Kapoor B, Khursheed R, Kumar AY, Kumar B, Gupta R. Topical formulation of capsiate with aged garlic extract to prevent cold injuries. Application No: 201711041514, November 2018.

Publications from Ph.D. work

- **Khursheed, R.**, Singh, S.K., Gulati, M., Wadhwa, S., Kapoor, B., Pandey, N.K., Chellappan, D.K., Gupta, G., Jha, N.K., Dua, K., 2021. Exploring role of polysaccharides present in *Ganoderma lucidium* extract powder and probiotics as solid carriers in development of liquisolid formulation loaded with quercetin: A novel study. Int. J. Biol. Macromol. 183, 1630-1639. (**Impact Factor: 6.9**).
- **Khursheed, R.**, Singh, S.K., Wadhwa, S., Gulati, M., Awasthi, A., Kumar, R., Ramanunni, A.K., Kapoor, B., Kumar, P., Corrie, L., 2020. Exploring role of probiotics and *Ganoderma lucidum* extract powder as solid carriers to solidify liquid self-nanoemulsifying delivery systems loaded with curcumin. Carbohydr. Polym. 250, 116996. (**Impact Factor: 7.1**).

- **Khursheed, R.,** Singh, S.K., Wadhwa, S., Gulati, M., Awasthi, A., 2020. Enhancing the potential preclinical and clinical benefits of quercetin through novel drug delivery systems. *Drug Discov. Today* 25, 209-222. (**Impact Factor: 7.2**).
- **Khursheed, R.,** Singh, S.K., Wadhwa, S., Gulati, M., Awasthi, A., 2020. Therapeutic potential of mushrooms in diabetes mellitus: Role of polysaccharides. *Int. J. Biol. Macromol.* 164, 1194-1205. (**Impact Factor: 5.1**).
- **Khursheed, R.,** Singh, S.K., Wadhwa, S., Gulati, M., Kapoor, B., Awasthi, A., Kr, A., Kumar, R., Pottoo, F.H., Kumar, V., 2021b. Opening eyes to therapeutic perspectives of bioactive polyphenols and their nanoformulations against diabetic neuropathy and related complications. *Expert Opin. Drug Deliv.* 18, 427-448. (**Impact Factor: 4.8**).
- **Khursheed, R.,** Singh, S.K., Wadhwa, S., Kapoor, B., Gulati, M., Kumar, R., Ramanunni, A.K., Awasthi, A., Dua, K., 2019. Treatment strategies against diabetes: Success so far and challenges ahead. *Eur. J. Pharmacol.* 862, 172625. (**Impact Factor: 3.1**).

Publications accepted

- **Khursheed, R.,** Singh, S.K., Wadhwa, S., Gulati, M., 2021. Development and validation of RP-HPLC method for simultaneous determination of curcumin and quercetin in extracts, marketed formulations and self-nanoemulsifying drug delivery system. Accepted in “Re:GEN Open”.
- **Khursheed, R.,** Singh, S.K., Wadhwa, S., Gulati, M., 2021. Development of mushroom polysaccharide and probiotics based solid self-nanoemulsifying drug delivery system loaded with curcumin and quercetin to improve their dissolution rate and permeability: State of the art. Accepted in “Int. J. Biol Macromol”. (**Impact Factor: 6.9**).

Publications from allied work

- Mohanta, S., Singh, S.K., Kumar, B., Gulati, M., Jyoti, J., Som, S., Panchal, S., Melkani, I., Banerjee, M., **Khursheed, R.,** 2018. Solidification of liquid Modified Apple Polysaccharide by its adsorption on solid porous carriers through spray drying and evaluation of its potential as binding agent for tablets. *Int. J. Biol. Macromol.* 120, 1975-1998. (**Impact Factor: 4.7**).

- Sharma, P., Singh, S.K., Pandey, N.K., Rajesh, S.Y., Bawa, P., Kumar, B., Gulati, M., Singh, S., Verma, S., **Khursheed, R.**, 2018. Impact of solid carriers and spray drying on pre/post-compression properties, dissolution rate and bioavailability of solid self-nanoemulsifying drug delivery system loaded with simvastatin. *Powder Technol.* 338, 836-846. **(Impact Factor: 3.3).**
- Singh, S., Singh, S.K., Chauhan, M.G., Kumar, B., Pandey, N.K., Kaur, B., Kumar, A., Mohanta, S., Gulati, M., **Khursheed, R.**, 2019. Quality by design-based optimization of formulation and process variables for controlling particle size and zeta potential of spray dried incinerated copper nanosuspension. *Recent Innov. Chem. Eng.* 12, 248-260.
- Patil, A., Mishra, V., Thakur, S., Riyaz, B., Kaur, A., **Khursheed, R.**, Patil, K., Sathe, B., 2019. Nanotechnology derived nanotools in biomedical perspectives: An update. *Curr. Nanosci.* 15, 137-146. **(Impact Factor: 1.8).**
- Som, S., Singh, S.K., Khatik, G.L., Kapoor, B., Gulati, M., Kuppusamy, G., Anandhakrishnan, N.K., Kumar, B., Yadav, A.K., **Khursheed, R.**, 2020. Quality by design-based crystallization of curcumin using liquid antisolvent precipitation: micromeritic, biopharmaceutical, and stability aspects. *Assay Drug Dev. Technol.* 18, 11-33. **(Impact Factor: 1.4).**
- Jyoti, J., Anandhakrishnan, N.K., Singh, S.K., Kumar, B., Gulati, M., Gowthamarajan, K., Kumar, R., Yadav, A.K., Kapoor, B., **Khursheed, R.**, 2019. A three-pronged formulation approach to improve oral bioavailability and therapeutic efficacy of two lipophilic drugs with gastric lability. *Drug Deliv. Transl. Res.* 9, 848-865. **(Impact Factor: 3.4).**
- Kapoor, B., Gupta, R., Gulati, M., Singh, S.K., **Khursheed, R.**, Gupta, M., 2019. The Why, Where, Who, How, and What of the vesicular delivery systems. *Adv. Colloid Interface Sci.* 271, 101985. **(Impact Factor: 8.2).**
- Kapoor, B., Gupta, R., Gulati, M., Singh, S.K., Khatik, G.L., Chawla, M., Nagappan, K.V., **Khursheed, R.**, Kumar, R., 2020. High-performance liquid chromatography and liquid chromatography/mass spectrometry studies on stress degradation behavior of sulfapyridine and development of a validated, specific, stability-indicating HPLC assay method. *Assay drug dev. Technol.* 18, 119-133. **(Impact Factor: 1.1).**
- Kumar, R., **Khursheed, R.**, Kumar, R., Awasthi, A., Sharma, N., Khurana, S., Kapoor, B., Khurana, N., Singh, S.K., Gowthamarajan, K., 2019. Self-nanoemulsifying

drug delivery system of fisetin: Formulation, optimization, characterization and cytotoxicity assessment. *J. Drug Deliv. Sci. Technol.* 54, 101252. **(Impact Factor: 2.6).**

- Kumari, Y., Kaur, G., Kumar, R., Singh, S.K., Gulati, M., **Khursheed, R.**, Clarisse, A., Gowthamarajan, K., Karri, V.N.R., Mahalingam, R., 2019. Gold nanoparticles: New routes across old boundaries. *Adv. Colloid Interface Sci.* 274, 102037. **(Impact Factor: 8.2).**

- Famta, P., Famta, M., Kaur, J., **Khursheed, R.**, Kaur, A., Khatik, G.L., Pawde, D.M., Rahman, S.N.R., Shunmugaperumal, T., 2020. Protecting the Normal Physiological Functions of Articular and Periarticular Structures by Aurum Nanoparticle-Based Formulations: an Up-to-Date Insight. *AAPS PharmSciTech.* 21, 1-16. **(Impact Factor: 2.4).**

- Ramanunny, A.K., Wadhwa, S., Singh, S.K., Sharma, D.S., **Khursheed, R.**, Awasthi, A., 2020. Treatment strategies against psoriasis: principle, perspectives and practices. *Curr. Drug Deliv.* 17, 52-73. **(Impact Factor: 1.5).**

- Ghosh, D., Singh, S.K., **Khursheed, R.**, Pandey, N.K., Kumar, B., Kumar, R., Kumari, Y., Kaur, G., Clarisse, A., Awasthi, A., 2020. Impact of solidification on micromeritic properties and dissolution rate of self-nanoemulsifying delivery system loaded with docosahexaenoic acid. *Drug Dev. Ind. Pharm.* 46, 597-605. **(Impact Factor: 2.2).**

- Banerjee, M., **Khursheed, R.**, Yadav, A.K., Singh, S.K., Gulati, M., Pandey, D.K., Prabhakar, P.K., Kumar, R., Porwal, O., Awasthi, A., 2020. A systematic review on synthetic drugs and phytopharmaceuticals used to manage diabetes. *Curr. Diabetes Rev.* 16, 340-356.

- Pandey, N.K., Singh, S.K., Ghosh, D., **Khursheed, R.**, Kumar, R., Kapoor, B., Kumar, B., Awasthi, A., 2020a. Method Development and Validation for Simultaneous Estimation of Glimepiride and Simvastatin by using Reversed Phase High-performance Liquid Chromatography. *Res. J. Pharm. Technol.* 13, 1655-1659.

- Kumar, R., Kumar, R., **Khursheed, R.**, Awasthi, A., Khurana, N., Singh, S.K., Khurana, S., Sharma, N., Gunjal, P., Kaur, J., 2020c. Development and validation of RP-HPLC method for estimation of fisetin in rat plasma. *S. Afr. J. Bot.* **(Impact Factor: 1.1).**

- Kumar, R., Kumar, R., **Khursheed, R.**, Kapoor, B., Sharma, N., Khurana, S., Khurana, N., Singh, S.K., Vyas, M., 2020e. Development and Validation of UV Spectroscopic Method for Estimation of Fisetin in Self Nanoemulsifying Drug Delivery System. *Res. J. Pharm. Technol.* 13, 1179-1182. (**Impact Factor: 1.7**).
- Kumari, Y., Singh, S.K., Kumar, R., Kumar, B., Kaur, G., Gulati, M., Tewari, D., Gowthamarajan, K., Karri, V.N.R., **Khursheed, R.**, 2020. Modified apple polysaccharide capped gold nanoparticles for oral delivery of insulin. *Int. J. Biol. Macromol.* 149, 976-988. (**Impact Factor: 5.1**).
- Kumar, A., Gulati, M., Singh, S.K., Gowthamarajan, K., Prashar, R., Mankotia, D., Gupta, J.P., Banerjee, M., Sinha, S., **Khursheed, R.**, 2020a. Effect of co-administration of probiotics with guar gum, pectin and eudragit S100 based colon targeted mini tablets containing 5-Fluorouracil for site specific release. *J. Drug Deliv. Sci. Technol.* 60, 102004. (**Impact Factor: 2.7**).
- Kumar, R., Kumar, R., **Khursheed, R.**, Awasthi, A., Ramanunni, A.K., Kaur, J., Khurana, N., Singh, S.K., Khurana, S., Pandey, N.K., 2020d. Validated Reverse Phase-High-Performance Liquid Chromatography Method for Estimation of Fisetin in Self-Nanoemulsifying Drug Delivery System. *Assay Drug Dev. Technol.* 18, 274-281. (**Impact Factor: 1.1**).
- Awasthi, A., Vishwas, S., Corrie, L., Kumar, R., **Khursheed, R.**, Kaur, J., Kumar, R., Arya, K., Gulati, M., Kumar, B., 2020. OUTBREAK of novel corona virus disease (COVID-19): Antecedence and afterth. *Eur. J. Pharmacol.* 884, 173381. (**Impact Factor: 3.2**).
- Pandey, N.K., Singh, S.K., Gulati, M., Kumar, B., Kapoor, B., Ghosh, D., Kumar, R., **Khursheed, R.**, Awasthi, A., Kuppusamy, G., 2020b. Overcoming the dissolution rate, gastrointestinal permeability and oral bioavailability of glimepiride and simvastatin co-delivered in the form of nanosuspension and solid self-nanoemulsifying drug delivery system: a comparative study. *J. Drug Deliv. Sci. Technol.* 60, 102083. (**Impact Factor: 2.7**).
- Kumar, R., Kumar, R., Khurana, N., Singh, S.K., Khurana, S., Verma, S., Sharma, N., Kapoor, B., Vyas, M., **Khursheed, R.**, 2020b. Enhanced oral bioavailability and neuroprotective effect of fisetin through its SNEDDS against rotenone-induced Parkinson's disease rat model. *Food Chem. Toxicol.* 144, 111590. (**Impact Factor: 4.6**).

- Awasthi, A., Singh, S.K., Kumar, B., Gulati, M., Kumar, R., Wadhwa, S., **Khursheed, R.**, Corrie, L., Kr, A., Kumar, R., 2021. Treatment Strategies Against Diabetic Foot Ulcer: Success so Far and the Road Ahead. *Curr. Diabetes Rev.* 17, 421-436. (**Impact Factor: 2.7**).
- Gulati, M., Singh, S.K., Corrie, L., Chandwani, L., Singh, A., Kapoor, B., Kumar, R., Pandey, N.K., Kumar, B., **Khursheed, R.**, 2021. Fecal Microbiota Transplant: Latest Addition to Arsenal against Recurrent *Clostridium difficile* Infection. *Recent Adv. AntiInfect. Drug Discov.* 16, 2-12. (**Impact Factor: 1.9**).
- Sharma, D.S., Wadhwa, S., Gulati, M., Kadukkattil Ramanunny, A., Awasthi, A., Singh, S.K., **Khursheed, R.**, Corrie, L., Chitranshi, N., Gupta, V.K., 2021. Recent advances in intraocular and novel drug delivery systems for the treatment of diabetic retinopathy. *Expert Opin. Drug Deliv.* 18, 553-576. (**Impact Factor: 4.8**).
- Ramanunny, A.K., Wadhwa, S., Gulati, M., Singh, S.K., Kapoor, B., Dureja, H., Chellappan, D.K., Anand, K., Dua, K., **Khursheed, R.**, 2021. Nanocarriers for treatment of dermatological diseases: Principle, perspective and practices. *Eur. J. Pharmacol.* 890, 173691. (**Impact Factor: 3.2**).
- Corrie, L., Gulati, M., Singh, S.K., Kapoor, B., **Khursheed, R.**, Awasthi, A., Vishwas, S., Chellappan, D.K., Gupta, G., Jha, N.K., 2021. Recent updates on animal models for understanding the etiopathogenesis of polycystic ovarian syndrome. *Life Sci.* 280, 119753. (**Impact Factor: 5.0**).

Poster presentations

International

- Khursheed R, Singh SK, Sheetu, Gulati M, Awasthi A, Kumar R, Arya KR. Exploring the role of synbiotics as carrier to solidify self nano-emulsifying drug delivery system. Presented in international conference “AAPS PharmSci 360 held at San Antonio, Texas, USA, 3rd -6th November, 2019.
- Khursheed R, Singh SK, Sheetu, Gulati M, Awasthi A. Development of S-SNEDDS for Oral Colon Targeted Delivery of Curcumin. Presented in conference “World Congress of Pharmacology-2019 “Drug Discovery and Development” held at Indian Institute of Science, Bangaluru, India, 28th -29th August, 2019.

National

- Khursheed R, Singh SK, Sheetu, Gulati M, Awasthi A, Kumar R, Arya KR. Role of synbiotics in management of lifestyle disorders. Presented in conference “Recent

Advancements in the Field of Pharmaceutical Sciences (RAPSCON-2019) held at Sri Sai College of Pharmacy, Amritsar, Punjab, 27th March, 2019.

- Khursheed R, Singh SK, Sheetu, Gulati M, Awasthi A. SNEDDS: Novel drug delivery system for enhancing the solubility of poorly soluble drugs. Presented in conference “Integrated Conference on Ayurveda, Agriculture, & Pharmaceutical Science”, held at Lovely Professional University, Punjab, 13th -14th October, 2018.

- Khursheed R, Singh SK, Sheetu, Gulati M. An insight on role of pharmaceutical co-crystals for dissolution rate enhancement of poorly water soluble drugs. Presented in conference “PHYTOCON-2018” held at Lovely Professional University, Punjab, 14th April, 2018.

Oral presentations

International

- Khursheed R, Singh SK, Sheetu, Gulati M, Awasthi A. Giving new birth to synbiotics as pharmaceutical carrier beyond their as nutraceuticals: Case studies curcumin and quercetin. Presented in “34th MSPP Scientific Meeting 2021” held virtually on 15th-17th July 2021.

- Khursheed R, Singh SK, Sheetu, Gulati M, Awasthi A. Journey of Probiotics, Curcumin and Quercetin for the treatment of diabetes mellitus. Presented in conference “International conference of Pharmacy (ICP-2019) held at Lovely Professional University, Punjab, 13th -14th September, 2019.

- Khursheed R, Singh SK, Sheetu, Gulati M, Awasthi A. Combinational approach of herbal drugs with exercise for the management of diabetes mellitus. Presented in conference “International Conference on Expanding Domains of Physiotherapy held at Lovely Professional University, Punjab, 12th -13th April, 2019.

National

- Khursheed R, Singh SK, Sheetu, Gulati M, Awasthi A. Multifaceted role of synbiotics: From gut to drug delivery. Presented in Student Research Convention “ANVESHAN-2019-2020” held at Amity University, Haryana, 16th-17th January, 2020.

Workshops

- National Workshop on Advanced Instrumentation organized by “Lovely Professional University, Punjab” on 20th April 2019.

- Author Workshop on How to Write and Publish Scientific Articles and Manuscripts jointly organized by Lovely Professional University, Punjab and Springer Nature” on 15th April, 2018.