



## **Dr. Asif Mahmood**

Cell: +92-3451052514

E-mail: asif.mahmood@uoc.edu.pk

### **PERSONAL INFORMATION:**

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Name: Asif Mahmood  
Father's Name: Khalid Mahmood  
Religion: Islam  
Nationality: Pakistani  
Professional  
Address: Department of Pharmacy, University of Chakwal, Pakistan  
Languages: Urdu, English and Punjabi

### **QUALIFICATION:**

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**1. Doctor of Philosophy (Pharmaceutics) The Islamia University of Bahawalpur, Bahawalpur.**

Ph.D. open defense was held on 15<sup>th</sup> July, 2016.

**Thesis title:** Solubility enhancement of Acyclovir using various techniques and *in-vitro*, *in-vivo* evaluation.

**2. Master of Philosophy (Pharmaceutics) University of Sargodha, Sargodha**

Completed in session 2010 – 2012 securing 3.49 cGPA out of 4.00 Research thesis completed under the title “**Formulation and *In-vitro* evaluation of antidiabetic orodispersible tablets with comparison of functionally active superdisintegrants**”

**3. Doctor of Pharmacy University of Sargodha, Sargodha**

Completed during session 2003 – 2008 obtaining cGPA 3.15 out of 4.00

**4. Intermediate (Pre-medical) Faran Model College Jhang (BISE FSD)**

Completed in session 2000 – 2002 obtaining 763/1100 marks.

**5. Matriculation (Science) Faran Model High School Jhang (BISE FSD)**

Completed in session 1999 – 2000 obtaining 606/850 marks.

## **PROFESSIONAL EXPERIENCE:**

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<b>Duration</b>	<b>Description</b>
<b>7<sup>th</sup> April, 2022 to date</b>	Assistant Professor, Department of Pharmacy, University of Chakwal, Pakistan
<b>1<sup>st</sup> February, 2022 to 30<sup>th</sup> March, 2022</b>	Associate Professor, Faculty of Pharmacy, The University of Lahore, Lahore, 5400, Punjab, Pakistan.
<b>November 16, 2017 to 31-01-2022</b>	Assistant Professor, Faculty of Pharmacy, The University of Lahore, Lahore, 5400, Punjab, Pakistan.
<b>August 27, 2016 to November 15, 2017</b>	Assistant Professor (IPFP) Institute of Pharmacy, Physiology and Pharmacology, University of Agriculture Faisalabad (Pakistan).

## **TEACHING RESPONSIBILITIES:**

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Teaching experience especially in the following subjects of Pharm-D

- Physical Pharmacy
- Pharmaceutical Preparations
- Industrial Pharmacy
- Pharmaceutical Quality Management
- Biopharmaceutics
- Pharmaceutics

## **RESEARCH EXPERIENCE:**

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Research experience/specialization in the various areas of Pharmaceutical Sciences;

- Formulation development and optimization
- Drug Targeting, Microparticulate Technologies
- Vesicular drug delivery system (Hydrogel microparticles)
- Pharmacokinetic evaluation
- Polymerization
- Solubility enhancement of hydrophobic drugs
- Toxicity studies
- HPLC method development

**DISTINCTIONS:**

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- 1- **HEC Approved Supervisor** via HEC notification no.(3-Med0-October-2016-17191/HEC/HRD/ASA/2016/17191).
- 2- **Appreciation letter & Certificate** awarded by Director, Institute of Pharmacy, Physiology and Pharmacology, university of Agriculture, Faisalabad for participation in Rabi Festival organized by University of Agriculture, Faisalabad. **(2 – 7<sup>th</sup> November, 2016).**
- 3- **Research Productivity Award 2018**, The University of Lahore. (Certificate, Shield and Cash prize)
- 4- **HEC funded Travel Grant** (Notification no. 309.60/TG/R&D/HEC/2018/30066) of Rs. 2, 60,100/- to participate in 6<sup>th</sup> International Conference on Research in Life- Sciences and Healthcare 6 – 8<sup>th</sup> June 2019 at Prague, Czech Republic.

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**RESEARCH PROJECTS AWARDED:**

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“Development and *in-vitro*, *in-vivo* evaluation of crosslinked polymeric nanocomposites for controlled delivery of Lovastatin” funded by Higher Education Commission (HEC) of Pakistan  
**Project no. 21-1196/SRGP/R&D/HEC/2016**

## RESEARCH ARTICLES:

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1. Tahir Mahmood, Rai M Sarfraz, **Asif Mahmood**, Mounir M Salem-Bekhit, Hira Ijaz, Muhammad Zaman, Muhammad R Akram, Ehab I Taha, Ram K Sahu, Yacine Benguerba. Preparation, In Vitro Characterization, and Evaluation of Polymeric pH-Responsive Hydrogels for Controlled Drug Release. ACS Omega. 2024 (**IF = 4.1**)
2. Wahab Ali Khan, Masood Sadiq Butt, Iqra Yasmin, Syed Abdul Wadood, **Asif Mahmood**, Heba A Gad. Protein-polysaccharide based double network microbeads improves stability of Bifidobacterium infantis ATCC 15697 in a gastro-Intestinal tract model (TIM-1). International Journal of Pharmaceutics. 2024 (**IF = 5.8**)
3. Zameer Ul Hassan Shah, Sajid Bashir, Rai Muhammad Sarfraz, **Asif Mahmood**, Umaira Rehman, Hira Ijaz, Mohamed M Salem, Sayed H Auda, Mounir M Salem-Bekhit, Ahmad J Obaidullah, Maytham T Qasim, Yacine Benguerba. Development of antihyperlipidemic drug loaded  $\beta$ -CD-based microparticulate carrier systems: tuning and optimization. Polymer-Plastics Technology and Materials. 2024 (**IF = 3.0**)
4. Mahnoor Ahmed Naseem, Zahid Hussain, Hnin Ei Thu, Shahzeb Khan, Mohammad Sohail, Rai Muhammad Sarfraz, **Asif Mahmood**, Nanotechnology-mediated developments for improving physicochemical properties and wound healing efficacy of curcumin: a review. International Journal of Polymeric Materials and Polymeric Biomaterials. 2024 (**IF = 3.2**)
5. Arooj Khan, Muhammad Zaman, Muhammad Ahsan Waqar, **Asif Mahmood**, Talal Shaheer, Rai Muhammad Sarfraz, Kanwal Shahzadi, Azmat Ali Khan, Amer M. Alanazi, Milton Kumar Kundu, Md Rabiul Islam, Athanasios Alexiou & Marios Papadakis. Sustained release delivery of favipiravir through statistically optimized, chemically cross-linked, pH-sensitive, swellable hydrogel. BMC Pharmacology and Toxicology. 2024 (**IF = 2.9**)
6. Farya Shabir, **Asif Mahmood\***, Muhammad Zaman, Rai Muhammad Sarfraz, Hira Ijaz, Muhammad Umar Ashraf, Heba A Gad. Novel insulin-montmorillonite sodium complex containing pH regulated nanocomposite hydrogels. Journal of Drug Delivery Science and Technology. 2024 (**IF = 5.2**)
7. Imran Anwar, Nadiah Zafar, **Asif Mahmood**, Zulcaif Ahmad, Rai Muhammad Sarfraz, Riffat Latif. Assessing the safety profile of polymers in transdermal microneedle patch fabrication: insights from an acute toxicity study. Cellulose Chemistry and Technology. 2024 (**IF = 1.387**)
8. Saba Arshad, **Asif Mahmood\***, Umaira Rehman, Hira Ijaz, Rai Muhammad Sarfraz, Zulcaif Ahmad & Muhammad Shafeeq Ur Rahman. Development and characterization of stimuli responsive quince gum/ $\beta$ -CD grafted poly (methacrylate) hydrogels for controlled delivery of acyclovir. Polymer Bulletin. 2024 (**IF = 2.843**)

9. Tahira Yasmin, **Asif Mahmood\***, Muhammad Farooq, Rai Muhammad Sarfraz, Abir Boubliya, Umaira Rehman, Muhammad Umar Ashraf, Javed Khan Bhutto, Barbara Ernst, Malik Albrahim, Nouredine Elboughdiri, Krishna Kumar Yadav, Maha Awjan Alreshidi, Hira Ijaz, Yacine Benguerba. Development and evaluation of a pH-responsive Mimosa pudica seed mucilage/ $\beta$ - cyclodextrin-co-poly(methacrylate) hydrogel for controlled drug delivery: In vitro and in vivo assessment. International Journal of Biological Macromolecules. 2024 (**IF = 8.2**)
10. Ayesha Mahmood, **Asif Mahmood\***, Rai Muhammad Sarfraz, Zahid Hussain, Atika Afzal, Abir Boubliya, Javed Khan Bhutto, Maha Awjan Alreshidi, Krishna Kumar Yadav, Nouredine Elboughdiri, Yacine Benguerba. Chitosan-based intelligent polymeric networks for site-specific colon medication delivery: A comprehensive study on controlled release of diloxanide furoate and network formation dynamics. International Journal of Biological Macromolecules. 2024 (**IF = 8.2**)
11. Zainab Abdullah, Muhammad Umer Ashraf, Kashif Barkat, Syed Faisal Badshah, Umaira Rehman, Asma Razzaq, **Asif Mahmood**, Farid Ul Haq, Hitesh Chopra, Summya Rashid, Marian Valko, Suliman Alomar, Kamil Kuca, Rohit Sharma. Formulation of pH responsive highly swellable hydrogel scaffolds for controlled release of tramadol HCl: characterization and biocompatibility evaluation. Frontiers in Bioengineering and Biotechnology. 2023. (**IF = 6.7**)
12. Zulcaif Ahmad, Nadiah Zafar, **Asif Mahmood**, Rai Muhammad Sarfraz, Riffat Latif, Heba A Gad. Fast dissolving microneedle patch for pronounced systemic delivery of an antihyperlipidemic drug. Pharmaceutical Development and Technology. 2023. (**IF = 3.4**)
13. Tahira Yasmin, **Asif Mahmood\***, Muhammad Farooq, Umaira Rehman, Rai Muhammad Sarfraz, Hira Ijaz, Muhammad Rouf Akram, Abir Boubliya, Mounir M Salem Bekhit, Barbara Ernst, Yacine Benguerba. Quince seed mucilage/ $\beta$ -cyclodextrin/Mmt- $\text{Na}^+$ -co-poly (methacrylate) based pH-sensitive polymeric carriers for controlled delivery of Capecitabine. International Journal of Biological Macromolecules. 2023. (**IF = 8.2**)
14. Manar O. Lashkar and Heba A. Gad Aysha Aslam, Muhammad Umer Ashraf, Kashif Barkat, **Asif Mahmood**, Muhammad Ajaz Hussain, Muhammad Farid-ul-Haq, Statistically Optimized Polymeric Buccal Films of Eletriptan Hydrobromide and Itopride Hydrochloride: An In Vivo Pharmacokinetic Study. Pharmaceuticals. 2023. (**IF = 5.215**)
15. Iqra Ahmed, **Asif Mahmood\***, Omer Salman Qureshi, Rai Muhammad Sarfraz, Hira Ijaz, Muhammad Zaman, Muhammad Rouf Akram, Sufyan Usmani, Zulcaif & Maria Malook. Development of tamarind gum/ $\beta$ -CD-co-poly (MAA) hydrogels for pH-driven controlled delivery of Capecitabine. Polymer Bulletin. 2023. (**IF = 2.843**)
16. Fatima Noor, **Asif Mahmood\***, Nadiah Zafar, Rai Muhammad Sarfraz, Umaira Rehman, Hira Ijaz, Zahid Hussain, Inas A . Ahmed, Mohammad Tariqu e Imam, Waleed Al Abdulmonem, Krishna Kumar Yadav, Yacine Benguerba. Fabrication of pH-responsive hydrogels of perindopril erbumine using black seed extract and  $\beta$ -cyclodextrin co-

polymerized with methacrylic acid and methylene bisacrylamide. Journal of Drug Delivery Science and Technology 88 (IF = 5.062)

17. Aysha Aslam, Muhammad Umer Ashraf, Kashif Barkat, **Asif Mahmood**, Rai Muhammad Sarfraz, Rania T. Malatani, Heba A. Gad. Green synthesis of quince/pectin cross-linked superporous hydrogel sponges for pH-regulated sustained domperidone delivery. International Journal of Pharmaceutics (IF = 6.51)
18. Abdullah, Zainab, Muhammad Umer Ashraf, Kashif Barkat, Syed Faisal Badshah, Umaira Rehman, Asma Razzaq, **Asif Mahmood** et al. "Formulation of pH-responsive highly swellable hydrogel scaffolds for controlled release of tramadol HCl: characterization and biocompatibility evaluation." Frontiers in Bioengineering and Biotechnology 11 (2023): 1190322 (IF = 6.064)
19. Ijaz, Hira, **Asif Mahmood**, Mohamed M. Abdel-Daim, Rai Muhammad Sarfraz, Muhammad Zaman, Nadiah Zafar, Sultan Alshehery et al. "Review on carbon nanotubes (CNTs) and their chemical and physical characteristics, with particular emphasis on potential applications in biomedicine." Inorganic Chemistry Communications (2023): 111020 (IF = 3.428)
20. Zafar, Nadiah, **Asif Mahmood**, Sehar Ilyas, Hira Ijaz, Rai Muhammad Sarfraz, Wael A. Mahdi, Mounir M. Salem-Bekhit, Mohamed A. Ibrahim, Yacine Benguerba, and Barbara Ernst. "Novel Natrosol/Pectin-co-poly (acrylate) based pH-responsive polymeric carrier system for controlled delivery of Tapentadol Hydrochloride." Saudi Pharmaceutical Journal 31, no. 8 (2023): 101671 (IF = 4.562)
21. Rania T. Malatani, Sana Bilal, **Asif Mahmood\***, Rai Muhammad Sarfraz, Nadiah Zafar, Hira Ijaz, Umaira Rehman, Shehla Akbar, Hala M. Alkhalidi, and Heba A. Gad\*. Development of Tofacitinib-Loaded pH-Responsive Chitosan Microparticles: In Vitro Characterization and Toxicological Screening, Gels. 2023, 9. (IF = 4.432)
22. Ayesha Aslam, Muhammad Umar Ashraf, Kashif Barkat, **Asif Mahmood**, Muhammad Ajaz Hussain, Muhammad Farid-ul-Haq, Manar O. Lashkar and Heba A. Gad. Fabrication of Stimuli-Responsive Quince/Mucin Co-Poly (Methacrylate) Hydrogel Matrices for the Controlled Delivery of Acyclovir Sodium: Design, Characterization and Toxicity Evaluation. Pharmaceutics. 2023, 15. (IF = 6.51)
23. Nighat Batool, Rai Muhammad Sarfraz, **Asif Mahmood**, Umaira Rehman, Muhammad Zaman, Shehla Akbar, Diena M. Almasri, Heba A. Gad. Development and Evaluation of Cellulose Derivative and Pectin Based Swellable pH Responsive Hydrogel Network for Controlled Delivery of Cytarabine. Gels. 2023, 9. (IF = 4.432)
24. Eiman Abdalla Madawi, Alaa Raad Al Jayoush, Mutasem Rawas-Qalaji, Hnin Ei Thu, Shahzeb Khan, Mohammad Sohail, **Asif Mahmood** and Zahid Hussain. Polymeric

- Nanoparticles as Tunable Nanocarriers for Targeted Delivery of Drugs to Skin Tissues for Treatment of Topical Skin Diseases. *Pharmaceutics*. **2023**, 15. (IF = 6.51)
25. Zunaira Sarwar, Muhammad Farooq, Sherjeel Adnan, Muhammad Umer Saleem, Zeeshan Masood, **Asif Mahmood**. Development and optimization of metoclopramide containing polymeric patches: impact of permeation enhancers. *Brazilian Journal of Pharmaceutical Sciences*. **2023**, 28. (IF = 1.321)
26. Mahmood, Ayesha, **Asif Mahmood\***, Mohamed A. Ibrahim, Zahid Hussain, Muhammad Umar Ashraf, Mounir M. Salem-Bekhit, and Ibrahim Elbagory. "Development and Evaluation of Sodium Alginate/Carbopol 934P-Co-Poly (Methacrylate) Hydrogels for Localized Drug Delivery." *Polymers*. **2023**, 311. (IF = 4.967)
27. Zafar, Nadiah, Muhammad Akhlaq, **Asif Mahmood**, Hira Ijaz, Rai Muhammad Sarfraz, Zahid Hussain, and Zainab Masood. "Facile synthesis and in vitro evaluation of semi-interpenetrating polymeric network." *Polymer Bulletin*, **2022**, 1-29. (IF = 2.843)
28. Zafar, Nadiah, **Asif Mahmood**, Rai Muhammad Sarfraz, Hira Ijaz, Muhammad Umar Ashraf, and Sidra Mehr. "Facile synthesis of  $\beta$ -cyclodextrin-cyclophosphamide complex-loaded hydrogel for controlled release drug delivery." *Polymer Bulletin*, **2022**: 1-33. (IF = 2.843)
29. Rehman, Umaira, Rai Muhammad Sarfraz, **Asif Mahmood**, Shehla Akbar, Ahmed E. Altyar, Roaa M. Khinkar, and Heba A. Gad. "pH Responsive Hydrogels for the Delivery of Capecitabine: Development, Optimization and Pharmacokinetic Studies." *Gels*. **2022**, 775. (IF = 4.432)
30. Shafiq, Kanza, **Asif Mahmood\***, Mounir M. Salem-Bekhit, Rai Muhammad Sarfraz, Alanood S. Algarni, Ehab I. Taha, Ahd A. Mansour, Sami Al Zahrani, and Yacine Benguerba. "Development and Optimization of Tamarind Gum- $\beta$ -Cyclodextrin-g-Poly (Methacrylate) pH-Responsive Hydrogels for Sustained Delivery of Acyclovir." *Pharmaceutics*. **2022**, 15, 1527. (IF = 5.215)
31. Shabir, Farya, **Asif Mahmood\***, Nadiah Zafar, Muhammad Zaman, Rai Muhammad Sarfraz, and Hira Ijaz. "Novel Black Seed Polysaccharide Extract-g-Poly (Acrylate) pH-Responsive Hydrogel Nanocomposites for Safe Oral Insulin Delivery: Development, In Vitro, In Vivo and Toxicological Evaluation." *Pharmaceutics*. **2023**, 15, 62. (IF = 6.51)
32. Rehman, Umaira, Rai Muhammad Sarfraz, **Asif Mahmood**, Tahir Mahmood, Nighat Batool, Bilal Haroon, and Yacine Benguerba. "Tamarind/ $\beta$ -CD-g-poly (MAA) pH responsive hydrogels for controlled delivery of Capecitabine: fabrication, characterization, toxicological and pharmacokinetic evaluation." *Journal of Polymer Research*. **2023**, 30, 1-20. (IF = 3.097)
33. Hussain, Zahid, Hnin Ei Thu, Shahzeb Khan, Mohammad Sohail, Rai Muhammad Sarfraz, **Asif Mahmood**, and Mohammad AS Abourehab. "Phytonanomedicines, a state-of-the-art

strategy for targeted delivery of anti-inflammatory phytochemicals: A review of improved pharmacokinetic profile and therapeutic efficacy." *Journal of Drug Delivery Science and Technology*. **2022**. 10389. (IF = 5.062)

34. Zulcaif, Nadiah Zafar, **Asif Mahmood**, Rai Muhammad Sarfraz, Toxicological Evaluation of Natural and synthetic polymer based dissolvable microneedle patches having variable release profiles, *Cellulose Chemistry and Technology*, Volume 56, 7-8. Pages 777-786 **2022**. (IF = 1.467)
35. Ayesha Mahmood, **Asif Mahmood\***, Rai Muhammad Sarfraz, Hira Ijaz, Nadiah Zafar, Muhammad Umar Ashraf. Hydrogel-based intelligent delivery system for controlled release of diloxanide furoate. *Polymer Bulletin*. **2022**. (IF = 2.87)
36. Zulcaif, Nadiah Zafar, **Asif Mahmood**, Rai Muhammad Sarfraz, Abdelhamid Elaissari. Simvastatin Loaded Dissolvable Microneedle Patches with Improved Pharmacokinetic Performance. *Micromachines*. **2022**, 12, 1304. (IF=3.523)
37. Sana Hanif, Rai Muhammad Sarfraz, Muhammad Ali Syed, **Asif Mahmood**, and Zahid Hussain. "Smart mucoadhesive buccal chitosan/HPMC scaffold for sore throat: In vitro, ex vivo and pharmacokinetic profiling in humans." *Journal of Drug Delivery Science and Technology*. **2022**. 103271. (IF = 5.062)
38. Hafiz Rashid Hussain, Sajid Bashir, **Asif Mahmood**, Rai Muhammad Sarfraz, Misbah Kanwal, Nadeem Ahmad, Hamid Saeed Shah, Imran Nazir. Fenugreek seed mucilage grafted poly methacrylate pH-responsive hydrogel: A promising tool to enhance the oral bioavailability of methotrexate. *International Journal of Biological Macromolecules*, **2022**, Volume 202, 31. Pages 332-344. (IF=8.025)
39. Nighat Batool, **Asif Mahmood\***, Rai Muhammad Sarfraz, Hira Ijaz, Nadiah Zafar & Zahid Hussain. Formulation and Evaluation of Interpenetrating Polymeric Network for Controlled Drug Delivery. *Drug Development and Industrial Pharmacy*. 2021 (Accepted) (IF = 3.727)
40. Nighat Batool, Rai Muhammad Sarfraz, **Asif Mahmood**, Nadiah Zafar, Muhammad Usman Minhas, Zahid Hussain and Umaira Rehman. Biocompatible polymeric blend for pH driven delivery of Cytarabine: Effect of feed contents on swelling and release kinetics. *Journal of Biomedical Materials Research: Part B - Applied Biomaterials*, **2022**. Accepted. (IF=3.405)
41. Sana Hanif, Rai Muhammad Sarfraz, Muhammad Ali Syed, **Asif Mahmood**, Muhammad Usman Minhas and Muhammad Irfan. Development and optimization of tibezoneium iodide and lignocaine hydrochloride containing novel mucoadhesive buccal tablets: A pharmacokinetic investigation among healthy humans. *Drug Development and Industrial Pharmacy*. 2021 (Accepted) (IF = 3.727)



42. Umaira Rehman, Rai Muhammad Sarfraz, **Asif Mahmood**, Nadiah Zafar, Muhammad Umar Ashraf. Chitosan/Agarose-g-poly (methacrylate) pH responsive polymeric blend: A dais for controlled delivery of Capecitabine. *Polymers for advanced Technologies*. 2021: 1-13 (**IF= 3.348**)
43. Umaira Rehman, Rai Muhammad Sarfraz, **Asif Mahmood**, Zahid Hussain, Hnin Ei Thu, Nadiah Zafar, Muhammad Umar Ashraf and Nighat Batool. Smart pH-responsive Copolymeric Hydrogels for Controlled Delivery of Capecitabine: Fabrication, Optimization and In Vivo Toxicology Screening. *Current Drug Delivery*. 2021. Vol. 18: 1-16. (**IF= 3.752**)
44. Maryam Shabbir, Uzair Nagra, Muhammad Zaman, **Asif Mahmood** and Kashif Barkat. Lipid Vesicles and Nanoparticles for Non-invasive Topical and Transdermal Drug Delivery, *Current Pharmaceutical Design*, **2020**, Vol. 24 (18) 2149 – 2166. (**IF = 3.31**)
45. Uzair Nagra, Maryam Shabbir, Muhammad Zaman, **Asif Mahmood** and Kashif Barkat. Review on methodologies used in the synthesis of metal nanoparticles: Significance of Phytosynthesis using plant extract as an Emerging Tool. *Current Pharmaceutical Design*, **2020**, DOI: 10.2174/1381612826666200531150218. (**IF = 3.31**)
46. Sidra Bashir, Nadiah Zafar, Nouredine Lebaz, **Asif Mahmood** and Abdelhamid Elaissari. Hydroxypropyl Methylcellulose-Based Hydrogel Copolymeric for Controlled Delivery of Galantamine Hydrobromide in Dementia. *Porcesses*. 2020. Vol. 8(11) 1350. (**IF= 3.352**)
47. Muhammad Zaman, Rabia Hassan, Sobia Razzaq, **Asif Mahmood**, Muhammad Wahab Amjad, Maria Abdul Ghafoor Raja, Asif Ali Qaiser, Abdul Majeed, Muhammad Hanif, Rana Azam Tahir. Fabrication of polyvinyl alcohol based fast dissolving oral strips of sumatriptan succinate and metoclopramide HCl. *Science Progress*, 2020, Vol. 103(4) 1–21. **Accepted (IF = 1.512)**
48. Sobia Anwar, Muhammad Zaman, Maria Abdul Ghafoor Raja, **Asif Mahmood**, Muhammad Wahab Amjad. Rosuvastatin, Perindopril and Ezetimibe loaded instant release buccal films: Development and *in vitro* characterization. *Journal of Applied Biomedicine*. (2020) **Accepted (IF = 0.5)**
49. Hira Ijaz, Ume Ruqia Tulain, Muhammad Usman Minhas, **Asif Mahmood**, Rai Muhammad Sarfraz, Alia Erum and Zeeshan Danish. Design and In-Vitro Evaluation of pH Sensitive Crosslinked Chitosan Grafted Acrylic Acid Copolymer (CS-co-AA) For Targeted Drug Delivery. *International Journal of Polymeric Materials and Polymeric Biomaterials* (2020) **Accepted (IF = 3.221)**.
50. Azeema Tayyab, **Asif Mahmood\***, Hira Ijaz, Rai Muhammad Sarfraz, Nadiah Zafar and Zeeshan Danish. Formulation and Optimization of Captopril-Loaded Microspheres Based Compressed Tablets: *In-Vitro* Evaluation, *International Journal of Polymeric Materials and Polymeric Biomaterials* (2020) **Accepted (IF = 3.221)**

51. Barkat, Kashif, Mahmood Ahmad, Muhammad Usman Minhas, Ikrima Khalid, and **Asif Mahmood**. "Understanding mechanical characteristics of pH-responsive PEG 4000-based polymeric network for colorectal carcinoma: its acute oral toxicity study." *Polymer Bulletin* (2020): 1-27 (**IF: 2.870**)
52. Sarfraz, Rai Muhammad, Muhammad Usman Khan, **Asif Mahmood**, Muhammad Rouf Akram, Muhammad Usman Minhas, Muhammad Naeem Qaisar, Muhammad Rizwan Ali, Hasnain Ahmad, and Muhammad Zaman. "Synthesis of co-polymeric network of carbopol-g-methacrylic acid nanogels drug carrier system for gastro-protective delivery of ketoprofen and its evaluation." *Polymer-Plastics Technology and Materials* 59, no. 10 (2020): 1109-1123. (**IF: 2.439**)
53. Bashir, Sajid, Muhammad Aamir, Rai Muhammad Sarfaraz, Zahid Hussain, Muhammad Umer Sarwer, **Asif Mahmood**, Muhammad Rouf Akram, and Muhammad Naeem Qaisar. "Fabrication, characterization and in vitro release kinetics of tofacitinib-encapsulated polymeric nanoparticles: a promising implication in the treatment of rheumatoid arthritis." *International Journal of Polymeric Materials and Polymeric Biomaterials* (2020): 1-10. (**IF: 3.221**)
54. Saeed, Ayesha, Sherjeel Adnan, Muhammad Farooq, Zeeshan Masood, **Asif Mahmood**, Nazar M. Ranjha, Sana Saeed, and Sadia Hassan. "Development and Optimization of Atenolol Loaded Polymeric Microspheres: In Vitro Attributes." *Lat. Am. J. Pharm* 39, no. 4 (2020): 707-16. (**IF:0.249**)
55. **Asif Mahmood\***, Amara Sharif, Faqir Muhammad, Rai Muhammad Sarfraz, Muhammad Asad Abrar, Muhammad Naeem Qaisar, Naveed Anwer, Muhammad Wahab Amjad, Muhammad Zaman, Development and in vitro evaluation of ( $\beta$ - cyclodextrin-g-methacrylic acid)/Na<sup>+</sup>-montmorillonite nanocomposite hydrogels for controlled delivery of lovastatin, *International Journal of Nanomedicine*, 2019; 14: 5397–5413 (**IF = 7.033**).
56. Muhammad Zaman, Muhammad Hanif\*, Muhammad Wahab Amjad, **Asif Mahmood**, Shahid Shah, Maria Abdul Ghafoor Raja, Shahid Rasool and Rai Muhammad Sarfraz, Development of thiomers based buccal films for the enhancement of bioavailability: An in-vivo analysis, *Pakistan Journal of Pharmaceutical Sciences*, 2019, Vol.32, No.2(Suppl), pp.759-764 (**IF = 0.863**).
57. **Asif Mahmood**, Mahmood Ahmad, Rai Muhammad Sarfraz & Muhammad Usman Minhas.  $\beta$ -CD based hydrogel microparticulate system to improve the solubility of acyclovir: Optimization through *in-vitro*, *in-vivo* and toxicological evaluation. *Journal of Drug Delivery Science and Technology*, 2016;36:75-88. (**IF = 5.062**)
58. **Asif Mahmood**, Mahmood Ahmad, Rai Muhammad Sarfraz & Muhammad Usman Minhas. Development of Acyclovir Loaded  $\beta$ -Cyclodextrin-g-Poly Methacrylic Acid Hydrogel Microparticles: An In Vitro Characterization. *Advances in Polymer Technology*, 2018. 37(3):697-705 (**IF = 2.502**)

59. **Asif Mahmood**, Mahmood Ahmad, Rai M. Sarfraz, Muhammad U. Minhas & Ayesha Yaqoob. Formulation and *In-Vitro* Evaluation of Acyclovir Loaded Polymeric Microparticles: A Solubility Enhancement Study. *Acta Poloniae Pharmaceutica – Drug Research*, **2016**;73(5): 1311 -1324. **(IF = 0.555)**
60. Rai M. Sarfraz, Mahmood Ahmad, **Asif Mahmood**, Muhammad U. Minhas & Ayesha Yaqoob. Development and Evaluation of Rosuvastatin Calcium Based Microparticles for Solubility Enhancement: An *In Vitro* Study. *Advances in Polymer Technology*, **2017**; **36**:433 -441. **(IF = 2.502)**
61. Rai M. Sarfraz, Mahmood Ahmad, **Asif Mahmood**, Hafeez Ullah Khan, Sajid Bashir, Muhammad Usman Minhas & Muhammad Sher. Comparative Study of Various Polymeric Superdisintegrants on the Design and Evaluation of Novel Antihypertensive Orodispersible Tablets. *Advances in Polymer Technology*, **2016**; 35(4): 378 -385) **(IF = 2.502)**
62. Zaman, Muhammad, Sundus Qureshi, Kishwar Sultana, Muhammad Hanif, **Asif Mahmood**, Zaib Ali Shaheryar, Faisal Gulzar, Kashif Barkat, and Mohamed M. Abdel-Daim. "Application of quasi-emulsification and modified double emulsification techniques for formulation of tacrolimus microsponges." *International journal of nanomedicine* 13 (**2018**): 4537. **(IF=7.033)**
63. Atif I. Arshad, Shoaib H. M. Khan, Naveed Akhtar, **Asif Mahmood** & Rai Muhammad Sarfraz. *In vivo* evaluation of skin irritation potential, melisma and sebum content following long term application of skin care cream in healthy adults, using non-invasive Biometrological techniques. *Acta Poloniae Pharmaceutica, Drug Research*, **2016**: 73 (1): 219-227. **(IF = 0.555)**
64. Zermina Rashid, Nazar Muhammad Ranjha, Rabia Razzaq, Bushra Nasir & **Asif Mahmood**. Preparation and evaluation of pH responsive poly (2-hydroxyethyl methacrylate-co-itaconic acid) microgels for controlled drug delivery. *Acta Poloniae Pharmaceutica-Drug Research*. **2016**; 73(4): 1045 – 1055. **(IF = 0.555)**
65. Hina Raza, Nazar Muhammad Ranjha, Rabia Razzaq, Mehvish Ansari, **Asif Mahmood** & Zermina Rashid. Fabrication and *In Vitro* Evaluation of 5-Fluorouracil Loaded Chondroitin Sulfate-Sodium Alginate Microspheres for Colon Specific Delivery. *Acta Poloniae Pharmaceutica-Drug Research*, **2016**; 73(2): 495-507. **(IF = 0.555)**
66. Ayesha Yaqoob, Mahmood Ahmad, **Asif Mahmood** & Rai Muhammad Sarfraz. Preparation, *In Vitro* and *In Vivo* Characterization of Hydrophobic Patches of a Highly Water Soluble Drug for Prolonged Plasma Half Life: Effect of Permeation Enhancers. *Acta Poloniae Pharmaceutica - Drug Research*. **2016**; 73 (6):1639 – 1648. **(IF = 0.555)**
67. Ayesha Yaqoob, Mahmood Ahmad, **Asif Mahmood** & Rai Muhammad Sarfraz. Comparative Study of Polymeric Films for Sustained Transdermal Delivery of Metoprolol:

Preparation, *In Vitro* and *Ex Vivo* Characterization, Latin American Journal of Pharmacy, **2016**;35(9): 2171-2179. (IF = **0.229**)

68. Ayesha Yaqoob, Mahmood Ahmad, Rai Muhammad Sarfraz & **Asif Mahmood**. Optimization and validation of high performance liquid chromatography-ultra violet method for quantitation of metoprolol in rabbit plasma: application to pharmacokinetic studies. Tropical Journal of Pharmaceutical Research, **2016**; 15 (10): 2245-2252. (IF = **0.523**)
69. Muhammad Zaman, Shahid Rasool, Muhammad Yasir Ali, Junaid Qureshi, Sharjeel Adnan, Muhammad Hanif, Rai Muhammad Sarfraz, Hira Ijaz & **Asif Mahmood**. Fabrication and Analysis of Hydroxypropyl methyl Cellulose and Pectin based controlled release matrix Tablets loaded with Loxoprofen Sodium. Advances in Polymer Technology, **2015**, 34 (3), 21493-21500. (IF = **2.502**)
70. **Asif Mahmood**, Mahmood Ahmad, Rai M. Sarfraz, Muhammad U. Minhas & Ayesha Yaqoob. Development and *In Vitro* Evaluation of Acyclovir Rapid Dissolving Tablets: A Solubility and Bioavailability Enhancement Study. Latin American Journal of Pharmacy, **2015**; 34 (9): 1701-9. (IF = **0.229**)
71. Rai M. Sarfraz, Mahmood Ahmad, **Asif Mahmood**, Muhammad U. Minhas & Ayesha Yaqoob. Fabrication and Evaluation of Rosuvastatin Calcium Fast- Disintegrating Tablets Using  $\beta$ -Cyclodextrin and Superdisintegrants. Tropical Journal of Pharmaceutical Research, **2015**; 14 (11): 1961-1968. (IF = **0.523**)
72. Rai M. Sarfraz, Mahmood Ahmad, **Asif Mahmood**, Muhammad U. Minhas & Ayesha Yaqoob. Formulation Design and Development of Rosuvastatin Calcium Rapid Disintegrating Tablets with Enhanced Solubility: *In Vitro* and *In Vivo* Evaluation. Latin American Journal of Pharmacy, **2015**; 34(10): 2103-12. (IF = **0.229**)
73. Irfan Aslam, Nisar U. Rehman, **Asif Mahmood\***, Atif I. Arshad, Rai M. Sarfraz, Naveed Akhtar, Rehan Mustafa, Muhammad T. Chaudhary, Muhammad Z. Malik, Arafat Idrees & Muhammad Kashif. Development and *Ex-Vivo* Evaluation of Tenoxicam Based Microemulsion Using Rabbit Skin. Latin American Journal of Pharmacy, **2015**;34 (4): 790-6. (IF = **0.229**)
74. Rai Muhammad Sarfraz, Hafeez ullah Khan, **Asif Mahmood**, Mahmood Ahmad, Safirah Maheen and Muhammad Sher. Formulation and Evaluation of Mouth Disintegrating Tablets of Atenolol and Atorvastatin. Indian Journal of Pharmaceutical Sciences. **2015**; 77(1): 83-91. (IF = **0.634**)
75. Muhammad Zaman, Rai Muhammad Sarfraz, Sherjeel Adnan, **Asif Mahmood**, Muhammad Hanif, Junaid Qureshi, Muhammad Taimoor Chaudhary, Muhammad Abdullah Akram and Irfan Bashir. Development and *In-vitro* Evaluation of once daily Tablet Dosage form of Loxoprofen Sodium. Tropical Journal of Pharmaceutical Research. **2015**; 14 (9): 1557-1563. (IF = **0.523**)

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77. Hafeez ullah Khan, **Asif Mahmood**, Safirah Maheen, Rai M. Sarfraz, Alamgeer Yuchi, Ayesha Shamim, Muhammad Akhtar, Haseeb Ahsan, Muhammad T. Khan, Muhammad Khalil, and Tahir M Rana. Formulation and *In Vitro* Evaluation of Novel Antidiabetic Orodispersible Tablets Using Kyrone-T<sub>134</sub> and Crosscarmellose Sodium as Superdisintegrants. Latin American Journal of Pharmacy, **2014**; 33(4): 631-639. (IF = **0.229**).
78. Hafeez ullah Khan, Safirah Maheen, Alamgeer, Ghulam Abbas, **Asif Mahmood**, Rai Muhammad Sarfraz, Zaman Ashraf, Muhammad Khalil, and Muhammad Nasir Hayat Malik. Determinants of Increasing Trend of Self-Medication in a Pakistani Community. Tropical Journal of Pharmaceutical Research, **2014**; 13(3): 437-443. (IF = **0.523**)
79. Hafeez ullah Khan, Safirah Maheen, Sajid Bashir, Ghulam Abbas, Muhammad Sher, Zaman Ashraf, **Asif Mahmood**, and Rai Muhammad Sarfraz. Determinants of Increasing Trends of Self-Medication: Physicians, Perspectives. Latin American Journal of Pharmacy, **2012**; 31(5): 699 – 704. (IF = **0.249**)
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81. Rai Muhammad Sarfraz, Mahmood Ahmad, **Asif Mahmood**, Muhammad Rouf Akram, Muhammad Asad Abrar. Development of  $\beta$ -Cyclodextrin based hydrogel microparticles for solubility enhancement of rosuvastatin and in-vitro, in-vivo evaluation. Drug Design, Development and therapy, **2017**:11 3083–3096. (IF. **4.319**)
82. Muhammad Hanif, Hafeez Ullah Khan, Samina Afzal, Asif Mahmood, Khurram Afzal, Nabila Iqbal, Mehwish Andleeb, Aisha Rauf. Sustained release biodegradable solid lipid microparticles: Formulation, evaluation and statistical optimization by response surface methodology, Acta Pharmaceutica, **2017**; 67:441-461. (IF=**3.299**)
83. Hina Raza, Nazar Muhammad Ranjha, **Asif Mahmood**, Farooq Azam, Rai Muhammad Sarfraz and Zermina Rashid. Development and *in-vitro* characterization of 5-FU loaded colon targeted drug delivery system. Tropical Journal of Pharmaceutical Research, **2018**; 17 (2): 195-204. (**0.523**)
84. Hafeez ullah Khan, Rai M Sarfraz, Safirah Maheen, **Asif Mahmood**, Ayesha Shamim and Muhammad Sher. Development and evaluation of novel antihypertensive Orodispersible tablets, Pakistan Journal of pharmaceutical Sciences, **2017**; 30:1557 -1565 (IF = **0.863**).

85. R. M. Sarfraz, S. Bashir, **A. Mahmood**, H. Ahsan, H. Riaz, H. Raza, Z. Rashid, S. A. Raza, M.A. Abrar, K. Abbas, T. Yasmeen. Application of various polymers and polymers based techniques used to improve solubility of poorly water soluble drugs: A review. *Acta Poloniae Pharmaceutica – Drug Research*, **2017**; 74 (2): 347 – 356. **(IF = 0.555)**.
86. R. M. Sarfraz, H.U. Khan, S. Maheen, S. Afzal, M. R. Akram, **A. Mahmood**, K. Afzal, M. A. Abrar, M. A. Akram, M. Andleeb, I. Haider, K. Abbas and T. Yasmeen. *Plantago Ovata*: A Comprehensive Review on Cultivation, Biochemical, Pharmaceutical and Pharmacological Aspects. *Acta Poloniae Pharmaceutica – Drug Research*, **2017**; 74 (3): 739 – 746. **(IF = 0.555)**
87. Nazar Muhammad Ranjha, Zermina Rashid, Rabia Razzaq, Hina Raza, Muhammad Hanif, and **Asif Mahmood**. Development and Validation of Fast Reversed-Phase HPLC Method for Analysis of Esomeprazole in Rabbit Plasma. *Acta Poloniae Pharmaceutica – Drug Research*, **2017**; 74 (2): 385 - 391. **(IF = 0.555)**
88. Muhammad Rauf Akram, Mahmood Ahmad, Asad Abrar, Rai Muhammad Sarfraz, **Asif Mahmood**. Formulation design and development of matrix diffusion controlled transdermal drug delivery system of Glimepiride. *Drug, Design, Development and therapy*, **2018**; **21**: 349 – 364. **(IF. 4.319)**
89. Saiqa Muneer, Iyad N. Muhammad, **Asif Mahmood**, Muhammad A. Abrar and Iqra Munir. Formulation and *in vitro* characterization of naproxen sodium loaded immediate release tablets. *Latin American Journal of Pharmacy*; 37 (1): 42-49 **(2018)**. **(IF = 0.249)**
90. Rai M. Sarfraz, Mahmood Ahmad, **Asif Mahmood**, Hira Ijaz. Development, In Vitro and In Vivo Evaluation of pH Responsive  $\beta$ -CD-Comethacrylic Acid-Crosslinked Polymeric Microparticulate System for Solubility Enhancement of Rosuvastatin Calcium. *Polymer-Plastics Technology and Engineering*; **2017**; 57(12), pp.1175-1187 **(IF = 2.439)**
91. Syed Ahmed Shah, Muhammad Sohail, Muhammad Usman Minhas, Nisar-ur-Rehman, Shahzeb Khan, Zahid Hussain, Mudassir, Arshad Mahmood, Mubeen Kousar and **Asif Mahmood**. pH-responsive CAP-co-poly (methacrylic acid)-based hydrogel as an efficient platform for controlled gastrointestinal delivery: fabrication, characterization, in vitro and in vivo toxicity evaluation. *Drug Delivery and Translational Research*. **2018**; 9:555 – 577 **(IF = 5.671)**
92. Hina Raza, Nazar Muhammad Ranjha, **Asif Mahmood**, Farooq Azam, Rai Muhammad Sarfraz, Zermina Rashid. Development and in vitro characterization of 5-fluorouracil loaded, colon-targeted drug delivery system. *Tropical Journal of Pharmaceutical Research*. **2018**; 17 (2): 195-204. **(IF = 0.523)**
93. Zaman, Muhammad, Muhammad Hanif, Najm Ul Hassan Khan, **Asif Mahmood**, Muhammad Naeem Qaisar, and Huma Ali. Development and Validation of Stability-

Indicating RP-HPLC Method for the Simultaneous Determination of Tizanidine HCl and Meloxicam in Rabbit's Plasma. *Acta Chromatographica*, **2019**: 1-6. (IF = 2.011)

94. Iqra Munir, Bilal Aslam, Rana Dawood Naseer, Asif Mahmood, Uzma Saleem, Aisha Sultana, Saiqa Muneer, Muhammad Asad Abrar and Mudassar Ashraf. Impact of rabeprazole sodium on pharmacokinetics of nimesulide in healthy volunteers: a prospective study from Pakistan. *Acta Poloniae Pharmaceutica, Drug Research*, **2018**: 75 (2): 507 – 513. (IF = 0.555)
95. Rai Muhammad Sarfraz, **Asif Mahmood**, Muhammad Rouf Akram, Muhammad R. Ali, Muhammad U. Khan, Husnain Ahmad, Muhammad N. Qaisar, Muhammad A. Akram, Jahangir Khan, and Zamir Ul HASSAN. Solubility Enhancement of Rosuvastatin Calcium through Development of  $\beta$ -CD Based Microparticulate System and its In Vitro Evaluation." *Lat. Am. J. Pharm* 38, no. 2 (**2019**): 219-29 (IF: 0.249).
96. Rai Muhammad Sarfraz, Muhammad Rouf Akram, Muhammad Rizwan Ali, **Asif Mahmood**, Muhammad Usman Khan, Husnain Ahmad and Muhammad Naeem Qaisar Rai, Development and *In-Vitro* Evaluation of pH Responsive Polymeric Nano Hydrogel Carrier System for Gastro-Protective Delivery of Naproxen Sodium, *Advances in Polymer Technology*, **2019** (IF: 2.502).
97. Anam Ahsan, Faqir Muhammad, Bushra Akhtar, Faiza Rafique, **Asif Mahmood**, Sajjad-ur-Rahman. Therapeutic potential of green synthesized silver nanoparticles loaded PVA hydrogel patches for wound healing. *Journal of Drug Delivery Science and Technology* 54 (**2019**): 101308 (IF: 5.062)

#### **ABSTRACT PRESENTED:**

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- 1- **Asif Mahmood**, Rai Muhammad Sarfraz, Muhammad Zaman, Hira Ijaz. Development and optimization of pH responsive crosslinked network for sustained delivery of Acyclovir: An *in-vitro* evaluation. 1<sup>st</sup> Grip's International conference on Pharmaceutical and Biochemical Sciences (PBS), 7<sup>th</sup> Pak Pharma & Healthcare Expo 2018.
- 2- **Asif Mahmood**, Rai Muhammad Sarfraz, Muhammad Zaman, Hira Ijaz. Development, optimization and characterization of Hydrogel Microparticulate system for solubility enhancement of Lovastatin. International Pharmaceutics Conference 2018, BZU, Multan.
- 3- **Asif Mahmood**, Rai Muhammad Sarfraz, Muhammad Zaman, Hira Ijaz. Development, optimization and characterization of Hydrogel Microparticulate system for solubility enhancement of Lovastatin. 1<sup>st</sup> National conference on RECENT ADVANCEMENTS IN PHARMACEUTICAL SCIENCES, 7 – 8<sup>th</sup> March, 2018, University of Sargodha.
- 4- **Asif Mahmood**, Muhammad Zaman, Sundus Qureshi, Rai Muhammad Sarfraz and Hira Ijaz. Development and optimization of flurbiprofen loaded microsponges using ethyl

cellulose and xanthan gum facilitated approaches: an *in-vitro* evaluation. 3<sup>rd</sup> International Health Trigon Summit 20- 21 March, 2018.

- 5- Muhammad Zaman, Muhammad Hanif, **Asif Mahmood**, Hira Ijaz, Zaib Ali Shaheryar, Muhammad Junaid Qureshi. Development and validation of stability indicating RP-HPLC method for the simultaneous determination of Tizanidine HCl and Meloxicam in rabbit's plasma. 3<sup>rd</sup> International Health Trigon Summit 20- 21 March, 2018.

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#### **POSTERS PRESENTED:**

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1. Farya Shabir, **Asif Mahmood\***, Muhammad Zaman, Nadiah Zafar, Rai Muhammad Sarfraz, Hira Ijaz. Safe oral insulin delivery by novel pH-responsive Linseed polymer-co-poly (acrylate)/poly (methacrylate) hydrogel nanocomposites: Preparation, Characterization to *in-vitro* assessment by HPLC. Structural Biology Approaches in Drug Discovery and Vaccine Research, Conference and Hands-on Workshop, 13 – 14<sup>th</sup> March, 2023, LUMS Lahore,
2. Hira Ijaz, Ume Ruqia tulain, Sajid Bashir, **Asif Mahmood**, Muhammad Zaman. Design and evaluation bilayers matrix tablets of metoprolol tartarate and lisinopril maleate. 1<sup>st</sup> National conference on Recent Advancements in Pharmaceutical sciences, 7 – 8<sup>th</sup> March, 2018, University of Sargodha.
3. Sobia Razaq, Muhammad Ali Syed, Syed Saeed Ul Hassan, Javed Iqbal, Syed Atif Raza, Humayun Riaz, **Asif Mahmood**, Farah Abid and Sana Hanif. Evaluation and Optimization of mucoadhesive buccal tablets containing Metrinidazole for the treatment Gingivitis using design expert. 1<sup>st</sup> National conference on Recent Advancements in Pharmaceutical sciences, 7 – 8<sup>th</sup> March, 2018, University of Sargodha.
4. **Asif Mahmood**. Development of Iovastatin loaded pH Responsive crosslinked nanocomposite Network: its characterization and Toxicological Evaluation. 6<sup>th</sup> International Conference on Research in Life-Sciences and Healthcare (ICRLSH) at Prague, Czech Republic, 7 – 8<sup>th</sup> June, 2019.

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#### **BOOKS/MANUAL PUBLISHED:**

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1. Polymeric Hydrogels and Nanogels: Classification, Development, and Pharmaceutical Applications 2023  
**Asif Mahmood\***, Hira Ijaz, Rai Muhammad Sarfraz, Nadiah Zafar, Muhammad Zaman, Mariya Azam (IntechOpen)
2. Nanoparticles in Anti-inflammatory Phytoconstituent Delivery 2023  
Zahid Hussain, Hnin Ei Thu, Shahzeb Khan, Rai Muhammad Sarfraz, **Asif Mahmood**, Nor Amlizan Ramli (CRC Press)



**SEMINARS/CONFERENCES/EVENTS ATTENDED:**

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1. Attended two days International Summit of Health Professional 2022 at Faculty of Pharmacy, The University of Lahore as **Invited Speaker. (8-9<sup>th</sup> December, 2022).**
2. Attended one day national conference on Current Advancements in Pharmacy Profession at Faculty of Pharmacy, The University of Lahore as **Participant & Organizer (2<sup>nd</sup> April, 2022).**
3. Attended one day Pharmacy Scientific Symposium and Pharmaceutical Exhibition-2022 at Faculty of Pharmacy, University of Central Punjab. **(22<sup>nd</sup> June, 2022)**
4. Attended two days 2<sup>nd</sup> National Pharmacy Conference and Exhibition “Pharmacy Profession for Prosperous Health” at Gotvi Hall Abbasia Campus, Organized by Department of Pharmacy, The Islamia University of Bahawalpur, Pakistan **(8-9<sup>th</sup> February, 2013).**
5. Attended one-day Pre-Conference National Seminar on Leading Persuasion in Metabolic Disorders Organized by Institute of Pharmacy, Physiology and Pharmacology, Faculty of Veterinary Science, University of Agriculture Faisalabad**(15<sup>th</sup> March, 2016).**
6. Attended one-day seminar on the topic entitled “Epidemiology and Control of Crimean-Congo Hemorrhagic Fever (CCHF)”, Organized by Faculty of Veterinary Science, University of Agriculture Faisalabad. **(3<sup>rd</sup> September, 2016).**
7. Participated in 06-days “Agri. / Textile/ Pharmaceutical Exhibition During RABI FESTIVAL 2016” organized by University of Agriculture, Faisalabad - Pakistan. **(2<sup>nd</sup> – 7<sup>th</sup> November, 2016)**
8. Attended three days, international conference on Pharmacy Practice at Bahawalpur entitled as “Emerging Role of Pharmacist in Patient Centered Care” Organized by Faculty of Pharmacy & Alternative Medicines, The Islamia University of Bahawalpur, Pakistan. **(January 12 – 14, 2017).**
9. Attended one-day workshop on “PCR – The Basics and Beyond” organized by Molecular care, University of Agriculture Faisalabad, Pakistan **(28<sup>th</sup> January, 2017).**
10. Attended one-day workshop on Technical & Patent writing organized by department of chemistry, University of Agriculture Faisalabad. **(28 January, 2017).**
11. Attended two days, International Conference on “Sustainable Approaches to Combat Malnutrition” organized by Food & Nutrition, University of Agriculture Faisalabad, Pakistan **(3-4<sup>th</sup> April, 2017).**

12. Attended one-day workshop on “BIOSAFETY: Importance and Risk Assessment” organized by Molecular care, University of Agriculture Faisalabad, Pakistan (**8<sup>th</sup> April, 2017**).
13. Attended one-day workshop on “Scientific Writing” organized by society of animal sciences, University of Agriculture Faisalabad (**21<sup>th</sup> April, 2017**).
14. Attended three days training program on Statistics for veterinary and animal sciences using R sponsored by Endowment Fund Secretariat UAF organized by department of Mathematics & Statistics, University of Agriculture Faisalabad (**17<sup>th</sup> – 19<sup>th</sup> July, 2017**).
15. Attended 05 – Days training program on Orientation of Newly Inducted Faculty organized by Directorate of Academics & Teaching Resource Centre, University of Agriculture Faisalabad (**31<sup>th</sup> July – 4<sup>th</sup> August, 2017**).
16. Attended 03 – Days International Conference on Advancement in Drug Discovery and Development, **NARC Islamabad (3 – 5<sup>th</sup> January, 2018)**.
17. Attended 02-days Conference of Pharmaceutical and Biochemical Sciences, **23 – 24<sup>th</sup> January, 2018** at Expo Center Lahore, Pakistan.
18. Attended 02-Days International Pharmaceutical Conference entitled, “Exploring new avenues for pharmacy profession”, Department of Pharmaceutics, Bahauddin Zakariya University, **12 – 13<sup>th</sup> February, 2018**.
19. Attended 02-Days national conference at College of Pharmacy, entitled “1<sup>st</sup> National conference on Recent Advancements in Pharmaceutical sciences”, **7 – 8<sup>th</sup> March, 2018**, University of Sargodha as **Oral Speaker**.
20. Attended, participated and organized 3<sup>rd</sup> International Health Trigon Summit 2018, Faculty of Pharmacy, The University of Lahore, **17-18<sup>th</sup> April, 2018**.
21. Attended 01-Day seminar on Biosafety and Biosecurity for young researchers/scientists, Department of Pharmacy, Forman Christian College, Lahore, **04<sup>th</sup> October, 2018**.
22. Attended 01-Day talk on “Practical Synthesis of Bioactive Compounds on Purine Isosteric Scaffolds”, Institute of Pharmaceutical Sciences, UVAS Lahore, **22<sup>nd</sup> October, 2018**.
23. Participated in 03-Days Conference in “2<sup>nd</sup> National Conference on Bioactivity of Phytochemicals 2018, IMBB & CRiMM, The University of Lahore, **13<sup>th</sup> to 15<sup>th</sup> November, 2018**.
24. Participated in 01-Day training workshop, “Export of Pharmaceutical products conception to execution & Data Integrity and compliance with cGMP”, Pakistan Pharma Technocrats Association, (**17<sup>th</sup> April, 2019**).

25. Participated in 02-Days National Conference on “Pharmaceutical Innovations and Future Prospects”, College of Pharmacy, University of Sargodha as **Oral Speaker (26 – 27<sup>th</sup> April, 2019)**

#### **INTERNSHIPS & TRAININGS:**

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- 1- One-month internship at District Head Quarter Hospital (DHQ) Hospital Jhang (including various Ward Visits, Prescription Analysis, Patient Care & inventory management) (**1<sup>st</sup> June, 2008 to 30<sup>th</sup> June, 2008**).
- 2- 42-Days internship at Gray’s Pharmaceuticals I-9, Islamabad, Pakistan (Performed services of ware house in charge, Quality control department, production department & Quality assurance inspector) (**1<sup>st</sup> July, 2008 to 11<sup>th</sup> August, 2008**).

#### **MEMBERSHIPS:**

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- 1- Member of **Research Project reviewer** committee of Faculty of Pharmacy, University of Sargodha, through ORIC.
- 2- Editorial member of PSM Publishers.
- 3- Potential reviewer of various journals i.e. Current Drug Delivery, Drug development and Industrial Pharmacy, Saudi Pharmaceutical Journal, International Journal of Nanomedicines, Journal of Drug Design, Development, and Therapy etc.
- 4- Received Reviewer Certificate from Wiley as a potential reviewer of *Advances in Polymer Technology Journal*.
- 5- Received Reviewer Certificate from Elsevier as a potential reviewer of *Saudi Pharmaceutical Journal*.

#### **SKILLS:**

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Professional skills gained under various practical and development roles

- How to conduct and organize trainings/ seminars/ workshops/conferences.
- Expertise of different characterization and analytical
- Fundamentals of Computer.

#### **Research Supervisor:**

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#### **Ph.D. Scholars supervised as Supervisor-II**

##### **1. Umaira Rehman (2016 - 2019)**

Development and functionalization of Capecitabine loaded pH sensitive hydrogels: *in-vitro* and *in-vivo* evaluation. (**Completed**)

**2. Nighat Batool (2016 - 2019)**

Development and Characterization of Natural and Synthetic Polymer Based Crosslinked Networks for Sustained Delivery of Cytarabine (**Completed**)

**3. Hafiz Rashid Hussain (2013 - 2016)**

Fabrication, characterization and evaluation of stimuli responsive polymeric carrier system for oral delivery of methotrexate (**Completed**)

**4. Zulcaif (2018-2022)**

Development, Evaluation, and Optimization of Microneedle Patch for the delivery of Simvastatin (**Completed**).

**Ph.D. Scholars supervised as Supervisor-I**

**1. Farya Shabbir**

Development and Optimization of pH-Responsive Hydrogel Nanocomposites for Oral Delivery of Insulin: *In-Vitro*, *In-Vivo* and Toxicological Evaluation (Awaiting Ph.D. Defense)

**2. Ayesha Mahmood**

Development of pH responsive polymeric blends for sustained delivery Diloxanide Furoate: *In-vitro*, *Ex-vivo* evaluation and toxicological screening (**Completed**).

**3. Ahmad Kamal**

Safety and Pharmacokinetic evaluation of Iodine complex (Renessans) in healthy volunteers and its efficacy against COVID-19 patients (Defense Pending).

**4. Tahira Yasmin**

Development of Capecitabine Loaded pH Responsive Polymeric Networks: Optimization and Toxicological Screening (Awaiting Ph.D. Defense)

**M.Phil Scholars**

**1. Sobia Anwar (2017 – 2019)**

Optimization of instant release polymeric drug delivery system of Rosuvastatin and Perindopril (**Completed**)

**2. Shaheer Khalid (2017 – 2019)**

Development of Cytarabine loaded pH responsive polymeric networks: An *in-vitro* and *in-vivo* evaluation. (**Completed**)

**3. Iqra Ahmad (2018 – 2020)**

Development and characterization of Tamarind gum-based hydrogels for controlled delivery of Capecitabine. (**Completed**)

**4. Maria Malook (2018 – 2020)**

Development and optimization of fenugreek-based hydrogels for controlled delivery of 5-fluorouracil. (**Completed**)

**5. Sajida Jamil (2017 – 2019)**

Development and optimization of instant release polymeric films of Ezetimibe and Lovastatin. (**Completed**)

**6. Fatima Noor (2020-2022)**

*Nigella sativa* seed gum-based pH sensitive polymeric network for controlled drug delivery: Development and Evaluation (**Completed**)

**7. Kanza Shafique (2020-2022)**

Tamarind gum-based pH responsive hydrogels for drug delivery: Fabrication and Characterization (**Completed**)

**8. Saba Arshad (2020-2022)**

Development and characterization of stimuli Responsive polymeric blend for controlled delivery of Acyclovir (**Completed**)

**9. Hafiz Abu Bakar Zubair (2019 – 2021)**

Development of Venlafaxine Loaded Linseed Gum Based Hydrogel Microparticles: Development and Evaluation (**Completed**)

**10. Sana Bilal (2020 – 2022)**

Development of Tofacitinib loaded pH responsive polymeric microparticles: in-vitro characterization and toxicological screening (**Completed**)

**11.Saba Malik (2019 – 2021)**

Development and characterization of Terbinafine Hydrochloride loaded fenugreek gum-based pH responsive polymeric carriers (**Completed**)

**References:**

**Prof. Dr. Mahmood Ahmad**

Ex-Dean

Faculty of Pharmacy and Alternative Medicines

The Islamia University of Bahawalpur

**Email:** ma786\_786@yahoo.com

**Prof. Dr. Sajid Bashir**

Ex-Dean

College of Pharmacy, University of Sargodha

**Email:** pharmacy@uos.edu.pk

**Dr. Muhammad Usman Minhas**

Associate Professor

College of Pharmacy, University of Sargodha

**Email:** us.minhas@hotmail.com