

Dr. Amjad Hussain”
PhD (Pharmaceutical Technology)
HEC Approved Supervisor
amjad_husein@hotmail.com
amjadhussain.pharmacy@pu.edu.pk

Mobile +92(0)333-4274049
Office: +92(0)42-99211616, Fax: +92(0)42-99211624

Personal Information:

Father's Name: Ghulam Muhammad
Address: House No. 12 Street No. 2 Saeed Park, Shahdara
Lahore Pakistan
Date of Birth: 09-07-1977
Marital Status: Married

Objective

To excel the academic and research activities through innovative contribution in the field of Pharmaceutical Technology.

ACADEMICS

1	PhD (Pharmaceutical Technology) from De Montfort University (DMU), Leicester, United Kingdom. (Research Supervisor Prof. Geoff Smith)	“A study of mechanisms of milling induced enhancement of solubility and dissolution rate of poorly soluble drugs”	
2	M. Phil (Pharmaceutics), 2007, University of the Punjab, Lahore	736/1000	First Position
3	Bachelor of Pharmacy 2002, University of the Punjab, Lahore	2579/3600	Gold Medalist
4	Bachelor of Science (English only), 2001 University of the Punjab, Lahore	39/100	
4	F.Sc. (Pre Medical) 1996	838/1100	Government Islamia College Civil lines Lahore
5	Matriculation (Science) 1993	676/850	Government High School Shahdara, Lahore.

RESEARCH INTERESTS

- Pharmaceutical Technology and drug development including Pre-formulation studies and formulation design.
- **Study of changes in crystallinity**
- **Crystallization/re-crystallization behavior of amorphous materials**
- Dielectric and Terahertz analysis of pharmaceuticals
- Thermal (TGA, DSC) analysis of materials
- Solubility and/dissolution enhancement of poorly water soluble drugs.
- **Milling and co-milling of pharmaceuticals**
- Solid dispersion.
- **Microencapsulation**, Preparation and Characterization of Microcapsules
- Pharmacy Practice

JOB EXPERIENCES

S.NO	Employer	Date employed	Position	Status
1	Punjab University College of Pharmacy, University of the Punjab, Lahore (current job)	19-02-2009 17-10-2012 to date	Lecturer Assistant Professor	Regular BPS-18 BPS-19
2	Health Department Government of the Punjab	19-11-04 18-2-2009	Drug Inspector / Hospital Pharmacist	Regular BPS-17
3	The Children Hospital and Institute of Child Health Lahore	16-01-2003 to 18-11-2004	Hospital Pharmacist	Contract BPS-17
4	Fazal Din & Sons (Retail Pharmacy Chain, Lahore)	01-07-2002 to 15-01-2003	Manager Pharmacy	Private

ALLIED JOB EXPERIENCES

- Part time Lecturer (Pharmaceutics) in University College of Pharmacy University of the Punjab from August 2007 to February 2009.
- Teaching Experience (2 years) of Clinical Biochemistry to B.Sc Lab Technology students at School of Allied health Sciences, Children Hospital Lahore.

- Teaching experience at various academics at both F.sc & B.Sc. Level
- Demonstrator for Training of Undergraduate Pharmacist in Clinical Pharmacy and Pharmaceutical aspects of patient care in Children Hospital Lahore.

CERTIFICATES OF HONOR/DISTINCTIONS

- Certificate of Merit by University of the Punjab for getting **First position** in B.Pharmacy examination.
- Certificate of Honor by Chairman Pharmacy Department, University of the Punjab on getting **highest total marks** in B. Pharmacy session 2002.
- Certificate of Honor on getting **Gold Medal** in B. Pharmacy (2002) by Qarshi Foundation Pakistan.
- Attempt certificate for passing all four professionals of B.Pharmacy in **First Attempt**.
- Certificate by Principal College of Pharmacy for getting **First Position in M.Phil** (Pharmaceutics).
- **Overseas scholarship** for PhD awarded by University of the Punjab.
- Certificate for delivering **honorary lectures** at DMU, Leicester, UK.

MANAGERIAL EXPERIENCE/

ASSIGNMENTS AT UNIVERSITY COLLEGE OF PHARMACY

- **In-charge examination cell** Punjab University College of Pharmacy.
- **Student advisor** (Since February 2014 to date).
- Deputy Student Advisor from January 2011 to February 2014.
- Member Board of studies in 2012.
- Focal person for the Hostels/ Accommodation of students in year 2012
- **Organizing Secretary** of Seminar organizing committee of college.
- Member Convocation organizing committee 2015
- **Signatory Authority** on behalf of Principal for Pharmacy Council for the Registration of graduate Pharmacists.
- Coordinator for the renovation and up gradation of Animal House.
- Focal person for provision of data/preparation of Reports of College for University and HEC.
- Focal person of Quality enhancement cell (QEC) of University of the Punjab.
- **Secretary Alumni Association** of College of Pharmacy (PUPA).

- **Focal person** of Government Laptop scheme for students.

PAPER SETTER/EXAMINER

I have been appointed as External examiner/Paper setter for Pharm-D examination since 2009 in different universities of Pakistan including

- Bahauddin Zakaryia University Multan.
- University of Sargodha.
- Gomal University Dera Ismail Khan.
- Ripha Institute of Pharmaceutical sciences, Islamabad.
- University of Health Sciences Lahore.
- Superior University Lahore.
- Government College University Faisalabad.
- Lahore College for Women University (LCPW).
- University of Health Sciences Lahore.

MEMBER SELECTION BOARD

- Member selection committee at Lahore Pharmacy College affiliated with University of health sciences, Lahore

PROFESSIONAL DEVELOPMENT TRAININGS FOR UNIVERSITY

TEACHERS

- Two day workshop “Beginning to Teach in Higher Education” organized by DMU, Leicester, UK.
- One month Professional competency enhancement program organized by HEC, in June July 2010.
- One week workshop on “Competency Enhancement of teachers” in August 2010, organized by UVAS, Lahore
- 1 week workshop on “Faculty orientation 2010” organized by IAS, University of the Punjab, Lahore.
- 1 week Indigenous on-campus training course for management team organized by HEC, Pakistan

RESEARCH TRAININGS

- Workshop on “Managing Research projects” organized by IPA in UVAS, Lahore in August 2009.
- Workshop on “Research Management” organized by research office, University of the Punjab, Lahore in July 2010.
- “National seminar on use of animals in science-Ethical and practical considerations” held on 3-4 January, 2011 organized by University College of Pharmacy, University of the Punjab, Lahore.
- Workshop on “Academic writing for research” organized by IRP and UMT, Lahore in May 2011.
- Academic writing for research”, seminar organized by University of the Punjab, Lahore in August 2011.
- Workshop on Mastering Research Tools using SPSS, AMOS, STATA and EndNote” organized by RCTD and Superior University, Lahore, held in January 2012.
- “**Clinical Research Certified Professional (CRCP)**” a course organized by Clinical trial Unit, Dow University of Health sciences, Karachi and Services Institute of Medical Sciences, Lahore, from February to June 2011.

INTERNATIONAL CONFERENCES, SEMINARS AND WORKSHOPS

- APS PharmSci 2011, 31 August to 2nd September 2011, East Midland Conference Centre University of Nottingham, UK.
- Technology Showcase, 15 September 2011, De Montfort University, Leicester UK.
- APS PharmSci 2012, 12 to 14 September 2012, East Midland Conference Centre University of Nottingham, UK.
- APS PharmSci 2013, 1 to 3 September 2013, Heriot Watt University Conference center Edinburgh, Scotland, UK.
- APS PharmSci 2014, 8 to 10 September 2014, Hertfordshire University Hatfield, UK.
- Workshop on skill of teaching “Beginning to Teach in higher education” 17-18 October 2013, De Montfort University, Leicester, UK.
- 3rd Quality by design symposium 24th March 2015, organized by De Montfort University, Leicester, UK.

NATIONAL CONFERENCES, SEMINARS AND WORKSHOPS

- International conference on recent innovation in Pharmaceutical Sciences held in March 2015, RIPHA Islamabad.
- National Pharmacy Conference held in August, 2015, University of Peshawar.
- International conference of Hospital Pharmacy Practices 2009, organized by Jinnah Hospital & AIMC Lahore.
- 13th International Pharmacy conference and exhibition 2006, organized by Pakistan Pharmacist Association.
- 15th International Pharmacy conference and exhibition 2009, organized by Pakistan Pharmacist Association.
- 16th International Pharmacy conference and exhibition 2011, organized by Pakistan Pharmacist Association
- “National Seminar & Workshop on environmental Toxicology and health” held on March 2011 organized by UVAS, Lahore in 2011.
- One day seminar on “Good Clinical practices” held on February 2011, organized by UVAS, Lahore.
- Workshop on Contemporary Pharmacy Practice, held in 2013 organized by Lahore College of Pharmaceutical Sciences.
- 2-day “National seminar and workshop” organized by Ministry of Health, Government of Pakistan in Collaboration with WHO, in December 2003.

OTHER PROFESSIONAL TRAININGS

- “Internship (2 months)” in Highnoon Laboratories Ltd in 2001.
- 5 day training work on “Good pharmacy Practices” organized by Punjab Pharmacy Council in January 2005.
- National Pharmacy Conference on “Impact of WTO on Pharmaceutical Trading” organized by University College of Pharmacy in April 2007.
- Training workshop on Logistic Support System (LSS) organized by WHO in 2008.

COMPUTER LITERACY

- English language for Academic research purpose
- Effective presentation skills using PowerPoint.
- Managing data using Microsoft excel.
- Introduction to quantitative data analysis using SPSS/PSAW

PAPER PRESENTATION/TALKS (NATIONAL AND INTERNATIONAL CONFERENCES)

1. “Orphan drugs” 8th annual symposium of the children’s hospital and institute of child health Lahore, Pakistan
2. Preliminary assessment of the prescribing errors in outpatient department of public hospitals presented at International conference of Hospital Pharmacy Practices 2009, organized by Jinnah Hospital & AIMC Lahore.
3. Study of Prescribing Errors and Their Effect on Patient Perception and Compliance in Psychiatric Patients of a Mental Hospital presented at 16th International Pharmacy conference and exhibition 2011, organized by Pakistan Pharmacist Association.
4. A study of the amorphization of lactose monohydrate following extended milling times Podium Presentation. UK PharmSci 2012, the Science of Medicines, East Midland Conference Centre, Nottingham UK, 12 - 14 September 2012.
5. Solubility and dissolution rate enhancement by Co-milling presented at 1st International conference on recent innovations in Pharmaceutical sciences (Margala Hotel, Islamabad, Pakistan) in March, 2015.
6. Use of okra gum as binder in naproxen tablets presented at national pharmacy conference pharmacy as profession: challenges and opportunities in the new Scenario University of Peshawar on 21-23 august 2015.

POSTER PRESENTED IN NATIONAL AND INTERNATIONAL CONFERENCES

International Level

1. Hussain, A., Ermolina, I., Bukhari, N.I., Smith, G., Surface percolation of protons a probe for the creation of crystal defects in lactose monohydrate following short

milling times, Poster Presentation. APS UK PharmSci 2012, the Science of Medicines, East Midland Conference Centre, Nottingham UK, 12 - 14 September 2012.

2. **Hussain, A.**, Ermolina, I., Bukhari, N.I., Smith, G., A study of the amorphization of lactose monohydrate following extended milling times Poster Presentation. APS UK PharmSci 2012, the Science of Medicines, East Midland Conference Centre, Nottingham UK, 12 - 14 September 2012.
3. **Hussain, A.**, Ermolina, I., Bukhari, N.I., Khan, K.A., Smith, G., Milling and Co-milling with various excipients for the improvement of intrinsic dissolution rate of Ibuprofen. APS UK PharmSci 2013, the Science of Medicines, Heriot Watt University, Edinburgh Scotland UK, 1 - 3 September 2013.
4. **Hussain, A.**, Ermolina, I., Bukhari, N.I., Smith, G., Quantification of Residual Crystallinity of ball milled anhydrous lactose using DSC and terahertz spectroscopy. 11th European Symposium of Thermal Analysis and Calorimetry, Dipoli Congress Centre, Espoo Finland 17 - 21 August 2014.
5. **Hussain, A.**, Ermolina, I., Bukhari, N.I., Smith, G., Study of Changes in Crystallinity of Ball Milled Mefenamic Acid using Terahertz Pulsed Spectroscopy. APS UK PharmSci 2014, the Science of Medicines, Weston Auditorium Hertfordshire University, Hatfield UK, 8 - 10 September 2014.

National Level

1. **Hussain A.**, Rasheed Huma., Ali A., Imtiaz A., Orphan drugs” 8th annual symposium of the children’s hospital and institute of child health Lahore, Pakistan 2003.
2. **Hussain. A.**, “Preliminary assessment of the prescribing errors in outpatient department of public hospitals” International conference of Hospital Pharmacy Practices 2009, organized by Jinnah Hospital & AIMC Lahore.
3. **Hussain. A.**, “Study of Prescribing Errors and Their Effect on Patient Perception and Compliance in Psychiatric Patients of a Mental Hospital” presented at 16th International Pharmacy conference and exhibition 2011, organized by Pakistan Pharmacist Association.

4. **Hussain, A.**, Anjum, Z., Ehsan, N., Bukhari, N.I., Abbas, N., Micellar solubilization of poorly soluble drugs using a new surfactant-Soluplus presented at 1st International conference on recent innovations in Pharmaceutical sciences Margala Hotel, Islamabad, Pakistan, 3- 5 March, 2015.
5. **Hussain, A.** Younas.S., Use Okra gum as binder in Naproxen sodium tablets presented at National Pharmacy conference University of Peshawar (Baragali campus), 20- 23 August, 2015.

PUBLISHED PAPER

- Smith, G., **Hussain, A.**, Bukhari, N. I., Ermolina, I., 2015. Quantification of residual crystallinity in ball milled commercially sourced lactose monohydrate by thermo-analytical techniques and terahertz spectroscopy. *European Journal of Pharmaceutics and Biopharmaceutics*, 92, 180-191.
- Smith, G., **Hussain, A.**, Bukhari, N., Ermolina, I., 2015. Quantification of residual crystallinity of ball-milled, commercially available, anhydrous β -lactose by differential scanning calorimetry and terahertz spectroscopy. *Journal of Thermal Analysis and Calorimetry*, 1-7. doi: 10.1007/s10973-015-4469-4
- Ahsan, M., Abbas, N., **Hussain, A.**, Saeed, H., Shah, P. A., Mohammad, S., Arshad, M. S., 2015. Formulation Optimization and In-vitro Evaluation of Oral Floating Captopril Matrix Tablets using Factorial Design. *Tropical Journal of Pharmaceutical Research*, 14(10), 1737-1748.
- Hussain, T., **Hussain, A.**, Shamim, R., Shehzad, M. K., Danish, Z., Hussain, K., Irfan, B. N., 2015. Development and In-Vitro Evaluation of Floating Gastro-Retentive Matrix Tablet for a Model Water Soluble Drug Prepared with the Novel Blends of Chitosan and Polycaprolactone. *Latin American Journal of Pharmacy*, 34(9), 1849-1857.
- Akhlaq, M., Arshad, M. S., Mudassir, A. M., **Hussain, A.**, Kucuk, I., Haj-Ahmad, R., Rasekh, M., Ahmad, Z., 2015. Formulation and evaluation of anti-rheumatic dexibuprofen transdermal patches: a quality-by-design approach. *Journal of drug targeting*(just-accepted), 1-27.
- Haj-Ahmad, R., Khan, H., Arshad, M. S., Rasekh, M., **Hussain, A.**, Walsh, S., Li, X., Chang, M.-W., Ahmad, Z., 2015. Microneedle Coating Techniques for Transdermal Drug Delivery. *Pharmaceutics*, 7(4), 486-502.
- Amjad, S., Hussain, K., Bukhari, N. I., Khan, M. T., Latif, A., Islam, M., Karim, S., Hashmi, F. K., **Hussain, A.**, Danish, M. Z., 2014. Analytical, nutritional and biological evaluation of various brands of fortified and non-fortified wheat flour. *Pakistan journal of pharmaceutical sciences*, 27(3), 445-452.
- Khan, M. N., Hussain, K., Bukhari, N. I., Latif, A., Hashmi, F. K., **Hussain, A.**, Karim, S., Islam, M., Masood, M., 2012. Evaluation of seeds of phoenix sylvestris as novel candidate adsorbent in paracetamol poisoning. *Latin American Journal of Pharmacy*, 31.

Latif, A., Hussain, K., Bukhari, N. I., Karim, S., **Hussain, A.**, Khurshid, F., 2013. Analytical and Biological Studies of Kanji and Extracts of its Ingredient, *Daucus carota L. Journal of The Chemical Society of Pakistan*, 35(6), 1481-1489.

A. Hussain, Bukhari N.I., Hussain K., Jamshaid M., Ali S., Tayyab M., et al. Preliminary assessment of the prescribing errors in outpatient department of public sector teaching hospitals in Lahore. *HealthMED*. 2011;5(1):101-5

Sohail, I., Hussain, K., Irfan Bukhari, N., Islam, M., Tanveer Khan, M., Khurshid Hashmi, F., Latif, A., **Hussain, A.**, Zeeshan Danish, M., Shamim, R., 2014. Analytical, Antioxidant and Hepatoprotective Studies on Extracts of *Oxalis corniculata* Linn. *Journal of The Chemical Society of Pakistan*, 36(4).

- Sohail A., Mariah I., and **Amjad H.**, Evaluation Of Antibiotic Use Behavior In Cold And Flu Amongst The Students Of Bahauddin Zakariya University Multan Pakistan. *Pakistan Journal of Pharmacy*. 2010;20-23(1 & 2):15-22.
- **Amjad H.**, Nadeem I. , Furqan K.i, Asima A., Tayyaba R., Sameera A, Saira R., Muhammad T., Study Of Non-Compliance And Its Reasons In Outdoor Patients With Mental Illness Of A Public Hospital. *Pakistan Journal of Pharmacy*. 2003-2006;16-19(1 & 2):21-4.
- Khalid H., Furqan K., **Amjad H.**, and Abida L. The Pharmacy Act XI Of 1967: Quackery And Irrational Use Of Drugs. *Pakistan Journal of Pharmacy*. 2003-2006;16-19(1 & 2):35-6.

ACCEPTED ARTICLES

- 1- Development of ANN optimized mucoadhesive buccal tablet containing flurbiprofen and lidocaine for dental pain. (*Acta Pharmaceutica* IF 0.95) will be online in February 2016
- 2- Polymeric based therapeutic delivery systems prepared using electrohydrodynamic processes (*Current Pharmaceutical Design* IF 3.45) will be online in March 2016.
- 3- Effect of cellulose acetate phthalate and polyethylene glycol on physical properties and release of theophylline from microcapsules (*Brazilian Journal of Pharmaceutical Sciences*, IF 0.245) will be online in couple of months.

ARTICLES NEAR SUBMISSION (FROM MY PHD WORK)

- 1- Correlation of molecular dynamics and stability of ball milled anhydrous sugars (*Molecular Pharmaceutics* IF 4.7).
- 2- Co-milling of ibuprofen for the improvement of solubility and dissolution rate (*European Journal of Pharmaceutical Sciences* IF 3.8).

M.PHIL RESEARCH SUPERVISED (As supervisor)

2012

- Prevalence of vitamin D deficiency and perception of selected physicians in Lahore on its treatment (Saira Naeem).
- Development and optimization of a novel dental analgesic system containing flurbiprofen and lidocaine (Ali Sayyed).
- Study of the factors affecting the properties of griseofulvin after ball milling applying design of experiment (Khalid Iqbal).

2013

- Effect of the selected absorption enhancers on permeation of mefloquine using Franz diffusion cells (Nadia Mazhar).
- Study of Selected Surfactant and Inorganic Materials on Properties of Naproxen after Co-milling (Nosheen Khizer).

2014

- Micellar solubilization of Ibuprofen using Soluplus®, a newly developed surfactant (Nigarish Ehsan)
- Micellar solubilization of mefanamic acid using Soluplus®, a newly developed surfactant (Zunaira Anjum).

2015

- Study of Okra gum in comparison with starch paste as a binder in naproxen sodium tablets (Farah Qureshi)
- Preparation and in vitro evaluation of orally disintegrating modified release tablets of naproxen sodium (Maham Misbah)
- Study of different methods for the modification of flow properties of cohesive pharmaceutical powders (Javeria Masood)
- Study of exhaled carbon monoxide levels and its effect on health of susceptible population (Mahmood)

M.PHIL RESEARCH SUPERVISED (As co-supervisor)

2012

- Study of solubility and dissolution of naproxen, a Biopharmaceutical classification system class II drug, using solid dispersion (Sana Javed)
- Study of factors affecting properties of ketoprofen after ball milling using quality by design approach (Ume-Salma)
- Evaluation of the properties of milled and mucilage of flaxseeds as tablet excipient using paracetamol as a model drug (Sana Qamar)
- Study of changes in liver profile induced by pemetrexed alone or pemetrexed based chemotherapy regimens in adult cancer patients (Ayesha Mehmood)
- Treatment of vitamin D deficiency and its effects on the Vitamin D levels (Bushra Shehbaz)
- Development of a novel dental analgesic system using artificial intelligence (Bilal Tahir)
- Occurrence of medication errors and comparison of manual and computerized prescription systems in public sector hospitals (Kashif Riaz)

2013

- Occurrence of medication errors and comparison of manual and computerized prescription systems (Marina Rehman)
- Study of the effect of selected excipients on the stability of naproxen-Gelucire solid dispersion (Kanwal Fatima)
- Patients' health literacy and comprehension of CVS disorder and their effect on the concordance and therapeutic outcome (Naveel Atif)
- Study of effect of selected absorption enhancers on permeation of artemether using Franz diffusion cells (Zunaira Rafique)
- Development and optimization of a palatable sodium benzoate formulation using artificial intelligence approach (Mehwish Mahtab)
- Evaluation of different forms of date syrup as an excipient using paracetamol as a model drug (Zobia Mubarak).

2014

- *In silico* prediction of pediatric dose of methotrexate from adult pharmacokinetic data and study on the effect of factors affecting its pharmacokinetic parameters (Memoona Rashid)

- Formulation of a novel trans-lip drug delivery system of estradiol (Ayesha Khadija)
- Study of potential trans-lip delivery of estradiol as a novel dosage form (Maham Shafiq)
- Formation and development of palatable dosage form of sodium benzoate using computer aided approach (Ayesha Mehwish)
- Study of the factors affecting the characteristics of sodium benzoate formulation (Iram Sohail)
- Effect of polymorphism of mefenamic acid in tablet dosage form (Tahira Noreen)

- Comparison of the effectiveness of branded and generic iron supplements in anemic pregnant women (Nadia Qamar)
- Study of the potential involvement of retail/community pharmacy sector for the initiation of public awareness programs (Farhan Ali)

2015

- Effect of Polymorphism on the release of Piroxicam from tablet dosage form (Arooj)
- Preparation and characterization of solid dispersion of ibuprofen prepared by different techniques (Mehreen)
- Preparation and characterization of solid dispersion of naproxen prepared by different techniques (Javeria Arshad)
- Preparation and evaluation of modified and sustained release double layer tablet of Trimetazidine and Nifedipine (Moosa)
- (Sana Ijaz)
- (Obaid Anwar)
- (Malia)
- (Amna Hafeez)