

Curriculum Vitae

Nancy Hakooz

Personal Information

Date of birth: April 19, 1969.
Place of birth: Wadi Al-Seer, Jordan
Nationality: Jordanian
Marital status: Married with three children.
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Education

1993-1997 Ph.D., Drug Metabolism and Pharmacokinetics, University of Manchester, Manchester, UK
1992 Permission to Practice Pharmacy, Amman, Jordan
1987-1992 B.Sc. in Pharmacy with an aggregate average of 86.7% (Excellent), Jordan University, Amman, Jordan.
1986-1987 Secondary School Certificate with an average of 95.0% (Excellent), Scientific branch, Wadi Al-Seer Secondary School, Jordan.

Training and Working Experience

Sep 2013-Current Vice president-Zarqa University
Sep 2010-Current Dean of the Faculty of Pharmacy-Zarqa University.
Nov 2012-Current Professor, Department of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, Jordan University, Amman, Jordan.
Sep 2006-Nov 2012 Associate Professor, Department of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, Jordan University, Amman, Jordan.
Sep 1997-Sep 2006 Assistant Professor, Department of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, Jordan University, Amman, Jordan.
3-5 April 2014 Head of the scientific committee of the 15th Scientific Conference of the Jordanian Pharmacists Association, Amman, Jordan
Oct 2011-Current A member in The Technical Committee for the Registration of Generic Products, Jordanian Food and Drug Administration (JFDA), Amman, Jordan.

Dec 2006-Current	A member in the Institutional Review Board (IRB) committee of the International Pharmaceutical research Center (IPRC).
Oct 2005-Oct 2008	A member in The Higher Committee for the Control of Smoking, Jordan University, Amman, Jordan .
May 2005-Aug 2009	A member in The Technical Committee for the Registration of Generic Products, Jordanian Food and Drug Administration (JFDA), Amman, Jordan.
May-Jul 2004	An external consultant for MMIS (Management Consultants), Amman, Jordan.
16-18 Oct 2001	A member of the organizing committee of the 5 th Scientific Congress of the Association of the Colleges of Pharmacy in the Arab World and the 2 nd International Conference of the Faculty of Pharmacy, University of Jordan. Amman, Jordan.
1998-1999	A member of The Drug and Therapeutics Committee at Jordan University Hospital, Amman, Jordan.
1998-1999	Acting head of the Department of Biopharmaceutics and Clinical Pharmacy, Faculty of Pharmacy, Jordan University, Amman, Jordan
1997-1999	Medical committee in the Circassian Welfare Association, Amman, Jordan.
21-22 Apr 1999	A member of the organizing committee of the 2 nd International Clinical Pharmacy Conference “Opportunities and Challenges”, Faculty of Pharmacy, University of Jordan, Amman, Jordan.
1993-1997	Ph.D. candidate, Department of Pharmacy, University of Manchester, Manchester, UK
1992-1993	Teaching assistant at the faculty of Pharmacy, University of Jordan, Amman, Jordan.

Awards & Scholarships

2013	Best Scientific Research Award, Zarqa University-Jordan
July 2011	Daniel Turnberg Traveling Fellowship-Academy of Medical Sciences spent at the Institute of Cellular Medicine- Medical School-Newcastle University-UK.
1993-1997	Ph.D. scholarship, Jordan University and Dar Al-Dawa.

Presentations in International Congresses

1. **Hakooz N.** and Ismail S., CYP4F2 Genotyping in Jordanian Population, lecture, The VI Serbian Congress of Pharmacy with International Participation, Belgrade, Serbia, 15-19 October 2014.
2. **Hakooz N.** Education in Pharmacy, Oral presentation, Workshop on Women in Pharmacy, the Jordanian Pharmacists Association, Amman, Jordan, 8 March 2014.
3. **Hakooz, N,** Zalloum, I and Arafat, T. Influence of Genetic Variations in Enzyme CYP2C19 and the Effect on the Pharmacokinetic Profile of Lansoprazole.

Screening the Allele Frequencies of *CYP2C19*1*, *CYP2C19*2* and *CYP2C19*3* in the Jordanian Population. Poster, the 3rd Kuwait International Pharmacy Conference, Kuwait, 14-16 February 2011.

4. **Hakooz N**, Arafat T, Payne D, Ollier W, Andrews J and Newman W. Genetic analysis of thiopurine methyltransferase polymorphism in Jordanian population. Poster, the 11th European ISSX Meeting, Lisbon, Portugal, 17-20 May 2009. The abstract was published in *Drug Metabolism Reviews*, Vol. 41, supplement 1.
5. Wazaify M, Albsoul-Younes A and **Hakooz N**. Student Perspectives on Pharmacy Curriculum and Instruction in the Public Faculties of Pharmacy in Jordan. Oral presentation, the 11th Pharmaceutical Conference of the Jordan Pharmaceutical Association, Amman, Jordan, April 2006.
6. **Hakooz N** and Hamdan I. Effects of broccoli on CYP1A2 and CYP2A6 activities using Caffeine metabolism in a group of Jordanian volunteers. Poster, the 9th European ISSX Meeting, Manchester, UK, June 2006. The abstract was published in *Drug Metabolism Reviews*, Vol. 38, supplement 1.
7. **Hakooz N.** and Houston JB. Effect of aminobenzotriazole on diazepam metabolism, Poster, The 6th Stowe Symposium on Drug Metabolism organized by the UK Drug Metabolism Group, Stoke Rochford Hall, Grantham, UK, July 1996.

Workshops

1. “Three Circles of Aemat”, USAID Funded Project on Women Mentoring, January 3rd 2015. Jordan Society for Scientific Research (JSSR).
2. The 6th Annual Conferance of AROQA (The Arab Organization for Quality Assurance in Education, Muscat, Sultanate of Oman, December 10-11th 2014.
3. Workshop on Erasmus + program, the National Erasmus+ office, Amman, Jordan, December 8th 2014.
4. Developing Service-Learning and Civic Engagement Partnership across the Curriculum, EU Funded Tempus IV Tawasol Project, January 26th-31st 2011. Lebanon.
5. Clinical Investigation Training Program (CITP), May 8-9th 2010.
6. Implementation of Global Guidelines in Bioequivalence and Stability Studies, March 3rd, 2007. Participating with a presentation with the title “Stability Fundamentals of Drug Product, ICH Guidelines” organized by the Jordan Food and Drug Administration.

Professional memberships

1. Member of the Jordan Pharmaceutical Association (*since 1992*).
2. Member of the International Society for the Study of Xenobiotica (ISSX)) (*since 1996*).

Research interests:

- 1- Phenotyping/genotyping of the Jordanian population for drug metabolic enzymes.
- 2- Scaling Factors: Quantitative prediction of *in vivo* drug clearance from *in vitro* data from microsomes and hepatocytes in both rats and humans. This line of research was conducted during visits to Professor Brian Houston’s laboratory in the University of Manchester, Manchester, UK.

- 3- Public Health: The Jordanian population is not a well-characterized population. Screening of the Jordanian population on the national level in different aspects will be very expensive. The only alternative is to conduct such screening on a smaller level for example in different areas of Jordan. This will add to the knowledge of the public health status in general. Along this line of research the prevalence of vitamin B₁₂ and folate deficiency in two ethnic groups in Amman: Arab and Circassian were investigated.
- 4- Cell Culture: Participating in the establishment of a cell culture lab for the use of validated cell culture systems for the assessment of drug toxicity and transport. This lab is going to be extended in the future to include drug metabolism studies.

Funded Research Projects:

- 1- The frequency of CYP4F2 among Jordanians (**4 500JD**, Deanship of Academic research, Zarqa University), 2012.
- 2- The effect of CYP2D6 and CYP1A2 polymorphisms on the pharmacokinetics of paroxetine in healthy volunteers (**25 000JD**, Deanship of Academic research, University of Jordan), 2011.
- 3- Effect of genetic polymorphism of organic cation transporter 1 and 3 on the response to metformin in Jordanians (**13 000JD**, Deanship of Academic research, University of Jordan), 2011.
- 4- Assessment of Drug Toxicity/Transport Using Validated Cell Culture Systems (**12 500 JD**, Deanship of Academic research, University of Jordan), 2002.
- 5- Studying the Effect of Nafcillin and Broccoli Induction of CYP1A2 mRNA Using *In Vitro* Chemiluminescent Detection Kits (**6 900 JD**, Deanship of Academic research, University of Jordan), 2000.

Publications:

- 1- Al-Sha'er MA., Mansi I. and **Hakooz N.** (2013) 1-[2-Substituted ethyl]-2-methyl-5-nitroimidazole derivatives, synthesis and antibacterial activities. *Der Pharma Chemica*, 5(3): 156-162.
- 2- Dajani R., Fathallah R., Arafat A, Abdulqader ME., **Hakooz N.**, Al-Motassem Y. and El Khateeb M. (2013) Prevalence of MTHFR C677T Single Nucleotide Polymorphism in Genetically Isolated Populations in Jordan. *Biochemical Genetics* , 51(9-10): 780-788.
3. Shakya A., Arafat T., **Hakooz N.**, Abuawwad A, Al-Hroub H. and Melhim M. (2013) High Performance Liquid Chromatographic Determination of Montelukast Sodium in Human Plasma: Application to Bioequivalence Study. *Acta Chromatographica* [Accepted for publication].
4. Dajani R., Arafat A., **Hakooz N.**, Al-Abbadi Z., Yousef AM., El Khateeb M. and Quadan F. (2013) Polymorphisms in Factor II and Factor V thrombophilia genes among Circassians in Jordan. *Journal of Thrombosis and Thrombolysis*, 35(1): 83-89.

5. Dajani R., Khader YS., **Hakooz N.**, Fatahalla R. and Quadan F. (2013) Metabolic syndrome between two ethnic minority groups (Circassians and Chechens) and the original inhabitants of Jordan. *Endocrine*, 43(1): 112-119.
6. Yousef AM., Bulatova NR., Newman W., **Hakooz N.**, Ismail S., Qusa H., Zahran F., Anwar Ababneh N., Hasan F., Zaloom I., Khayat G., Al-Zmili R., Naffa R., Al-Diab O. (2012) Allele and genotype frequencies of the polymorphic cytochrome P450 genes (CYP1A1, CYP3A4, CYP3A5, CYP2C9 and CYP2C19) in the Jordanian population. *Molecular Biology Reports*. 39(10): 9423-33.
7. Dajani R., Khader YS., Fatahallah F., El-Khateeb M., Shiyab AH., **Hakooz N.** (2012) Diabetes mellitus in genetically isolated populations in Jordan: prevalence, awareness, glycemic control, and associated factors. *The Journal of Diabetes and Its Complications*, 26(3):175-80.
8. **Hakooz N.**, Alzubiedi S., Yousef A., Arafat T., Dajani R., Ababneh N. and Ismail S. (2012) UDP-Glucuronosyltransferase 1A4 (*UGT1A4*) Polymorphisms In A Jordanian Population. *Molecular Biology Reports*, 39(7):7763-8.
9. **Hakooz N.** and Salem I. (2012) Prevalence of Desloratadine Poor Metabolizers Phenotype in Healthy Jordanian Males. *Biopharmaceutics and Drug Disposition*, 33(1); 15-21.
10. Zalloum I., **Hakooz N.** and Arafat T (2012). Genetic polymorphism of *CYP2C19* in a Jordanian population: influence of allele frequencies of *CYP2C19*1* and *CYP2C19*2* on the pharmacokinetic profile of lansoprazole. *Molecular Biology Reports*, 39(4); 4195-200.
11. Idkaidek N., Arafat T., Melhim M., Alawneh J. and **Hakooz N.** (2011). Metformin IR versus XR Pharmacokinetics in Humans. *Journal of Bioequivalence and Bioavailability*, 3: 233-235. doi:[10.4172/jbb.1000092](https://doi.org/10.4172/jbb.1000092).
12. **Hakooz N.**, Arafat T., Payne D., Ollier W., Pushpakom S., Andrews J. and Newman W. (2010). Genetic analysis of thiopurine methyltransferase polymorphism in the Jordanian population. *European Journal of Clinical Pharmacology*, 66; 999-1003.
13. Shakya AK., **Hakooz N.**, Arafat T., Abu-Awwad A., Abd El-Ghani J. and Melhim M. (2010). Tamsulosin quantification in human plasma by high performance liquid chromatography coupled to electrospray tandem mass spectrometry. *Acta Chromatographica*, 22, 99–116.
14. Wazaify M., Albsoul-Younes A. and **Hakooz N.** (2010). Improving Pharmacy Education at the Public Faculties of Pharmacy in Jordan: Students' Experience and Expectations. *Pharmacy Education*, 10; 107-13.

15. **Hakooz N.** (2009). Caffeine Metabolic Ratios for the *In Vivo* Evaluation of CYP1A2, N-acetyltransferase 2, Xanthine Oxidase and CYP2A6 Enzymatic Activities. *Current Drug Metabolism*, 10; 329-38.
16. **Hakooz N.** and Hamdan I. (2007). Effects of dietary broccoli on human *in vivo* caffeine metabolism: a pilot study on a group of Jordanian volunteers. *Current Drug Metabolism*, 8; 9-15.
17. Abu-Dahab R., **Hakooz N.** (2006). A primer of an animal cell culture laboratory for efficacy, toxicity and transport screening. *Jordan Medical Journal*, 40; 172-8.
18. **Hakooz N.**, Abu-Dahab R., Arafat T., Hamad M. (2006). A trend of low serum vitamin B₁₂ in Jordanian adults from two ethnic groups in Amman. *Jordan Medical Journal*, 40; 80-7.
19. **Hakooz N.**, Ito K., Rawden H., Gill H., Lemmers L., Boobis A.R., Edwards R.J., Carlile D.J., Lake G.B. and Houston J.B. (2006). Determination of a human hepatic microsomal scaling factor for predicting *in vivo* drug clearance. *Pharmaceutical Research*, 28; 533-9.
20. Hallifax D., Rawden H., **Hakooz N.** and Houston J.B. (2005). Prediction of metabolic clearance using cryopreserved human hepatocytes: Kinetic characteristics for five benzodiazepines. *Drug Metabolism and Disposition*, 33; 1852-8.
21. Carlile D.J., **Hakooz N.**, Bayliss M.K. and Houston J.B. (1999). Microsomal prediction of *in vivo* clearance of CYP2C9 substrates in humans. *British Journal of Clinical Pharmacology*, 47; 625-635.
22. Carlile D.J., **Hakooz N.** and Houston J.B. (1999). Kinetics of drug metabolism in rat liver slices: Comparison of ethoxycoumarin clearance by liver slices, isolated hepatocytes and hepatic microsomes from rat pretreated with known modifiers of CYP activity. *Drug Metabolism and Disposition*, 27; 526-532.

Editor in chief:

Gene Journal

Meta Gene

Reviewer for the following peer-reviewed Journals

1. Molecular Biology Reports
2. Jordan Journal of Pharmaceutical Sciences
3. Saudi Medical Journal
4. Egyptian Journal of Medical Human Genetics.
5. المجلة الأردنية للعلوم التطبيقية
6. Biopharmaceutics and Drug Disposition

7. Archives of Pharmacol Research
8. Journal of Pharmacology and Pharmacotherapeutics

Courses Taught:

BSc Courses:

Clinical Biochemistry
Clinical Biochemistry Practical
Clinical Biochemistry I (PharmD program)
Clinical Biochemistry II (PharmD program)
Genetics and Immunology (PharmD program)
Biochemistry I
Biochemistry II
Biochemistry Practical
Biopharmaceutics
Pharmacokinetics
Pharmacokinetics Workshops.

MSc Clinical Pharmacy:

Advanced Clinical Biochemistry.

Active participation in the course development for the program of PharmD and MSc in clinical pharmacy at the Faculty of Pharmacy-University of Jordan.

Languages:

Arabic: native language.
English: very good command (spoken and written)
Circassian: well enough (spoken)

Computer skills

The University of Jordan Computer Driving License (UJCDL), passing successfully in 7 modules.