



Dr Muhammed Hashem Alzweiri

BSc, MSc, PhD Pharmacy

Associate Professor of Pharmaceutical Analysis

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SUMMARY OF PROFESSIONAL QUALIFICATIONS

- Extensive background in staff recruitment and retention
- Staff training and development
- Superb written and oral communication skills
- Organizational and Strategic Planning

GENERAL INFORMATION

Date of Birth : Jan. 09, 1975
Place of Birth : Alshouback - Jordan.
Nationality : Jordanian
Marital Status : Married, with three Children

EDUCATION

1- Ph.D. in Pharmacy (Pharmaceutical Analysis, LC-MS metabonomics), 2009, Strathclyde University, Glasgow, UK.

Dissertation: “Investigations and optimizations of metabonomics as a clinical tool of analysis”

2- MSc. in Pharmacy (Pharmaceutical Sciences), 2003, The University of Jordan. Thesis: “synthesis and characterization of novel chiral polymer/metal composites and their evaluation as new stationary phase for chromatographic separation of optical isomers.”

4. B.Sc. in Pharmacy (Pharmacy), 1998, Faculty of Pharmacy, The University of Jordan, Jordan.

LANGUAGES

Arabic Mother Tongue

English Very good

ACADEMIC APPOINTMENTS

• *22/4/2013-till now*

Associate Professor, Department of Pharmaceutical Sciences, Faculty of Pharmacy, The University of Jordan, Amman-Jordan

• *26/8/2009-22/4/2013*

Assistant Professor, Department of Pharmaceutical Sciences, Faculty of Pharmacy, The University of Jordan, Amman-Jordan.

• *15/3/2009-26/8/2009*

Full-time Lecturer in Department of Pharmaceutical Sciences, Faculty of Pharmacy, The University of Jordan, Amman-Jordan.

• *17/3/2003 –12/9/2005*

Teaching Assistant, Faculty of Pharmacy, The University of Jordan, Amman-Jordan.

ADMINISTRATIVE ACTIVITIES AND POSITIONS

- Dean assistant for quality affairs, Faculty of Pharmacy, The University of Jordan, Amman-Jordan (2014-till now).

- Head of department of pharmaceutical science in the University of Jordan 2011-2013
- Dean assistant for student affairs, Faculty of Pharmacy, The University of Jordan, Amman-Jordan (2009-2011).

Main Responsibilities:

- Organizing course and lab sessions according to the facilities of the faculty.
 - Supervising activities of pharmacy students in and outside the faculty.
 - Participation of preparation of curriculum and planning for semester courses.
 - Responsible for conveying student opinions and suggestions to the academic staff and to the administrative group.
 - Calling for activities and meetings to inspire students with responsibility spirit toward the faculty and its amenities.
 - Coaching and helping students to solve their personal problems.
 - Fostering and encouraging students to participate in the faculty research.
- Member of Department Council (2009-till now).

NATIONWIDE ACTIVITIES and CONSULTATION

- 1 Associate Member, Royal Society of Chemistry (United Kingdom), Membership No.403949, 2008
- 2 Judge and instructor in “Research in Residence” program for school students (United Kingdom), 2008.
- 3 SANA Pharmaceutical Company, Faculty for Factory (FFF) program, 2010.
- 4 Membership of bioequivalence committee -JFDA, 2010-2012
- 5 Member in the committee of re-evaluating the foundations of the adoption of pharmaceutical factories 2012-2013
- 6 Membership of clinical studies committee -JFDA, 2013-till now
- 7 Referee for international journal of physical chemistry, pharmaceutical biology, chromatographia acta and Jordanian journal of pharmaceutical sciences. 2008-till now
- 8 Member of Courses Evaluation Committee, Faculty of Pharmacy, University of Jordan.

PUBLICATIONS

- 1- **Muhammed Alzweiri**, David G. Watson, Chris Robertson, Graeme J. Sills, John A. Parkinson. 2008. Comparison of Different Water Miscible Solvents for the Preparation of Plasma and Urine Samples in Metabolic Profiling Studies. Talanta 74 1060–1065.
- 2- **Muhammed Al Zweiri**, Graeme J. Sills, John Paul Leach, Martin J. Brodie, Chris Robertson, David G. Watson, John A. Parkinson. 2010. Response to

- drug treatment in newly diagnosed epilepsy: A pilot study of ¹H NMR- and MS-based metabonomic analysis. *Epilepsy Research*. 88 (2-3). 189-195
- 3- Yusuf Mohammad Al-Hiari, Amjad M. Qandil, Rufaida M. Al-Zoubi, **Muhammed H. Alzweiri**, Rula M. Darwish, Ghassan F. Shattat and Tariq M. Al-Qirim. 7-(3-Chlorophenylamino)-1-cyclopropyl-6-fluoro-8-nitro-4-oxo-1,4-dihydroquinoline-3-carboxylic Acid. *Molbank* 2010, M669
 - 4- **Muhammed Alzweiri**, John Parkinson, David W. Watson and Steve Steer. 2011. Microscopic trends in methanol/water and acetonitrile/water systems. *Jordan Journal of Pharmaceutical Sciences*. 4(1):20-28
 - 5- Yusuf M. Al-Hiari, Ashok K. Shakya, **Muhammed H. Alzweiri**, Tariq M. Al-Qirim, Ghassan F. Shattat and Mustafa M. El-Abadleh. 2011. Synthesis and Antibacterial Properties of New N4- acetylated Hexahydro-2,7-dioxopyrido[2,3-f]quinoxaline-8-carboxylic acids. *Journal of Enzyme Inhibition and Medicinal Chemistry*. 26(5):649-656
 - 6- **Muhammed Alzweiri**, Ali Al Sarhan, Kamal Mansi, Mohammad Hudaib and Talal Aburjai. 2011. Ethnopharmacological Survey of Medicinal Herbs in Jordan, The Northern Badia Region. *Journal of ethnopharmacology*. 137:27-35
 - 7- Yusuf M. Al-Hiari, Amjad M. Qandil, Rufaida M. Al-Zoubi, **Muhammed H. Alzweiri**, Rula M. Darwish, Ghassan F. Shattat, and Tariq M. Al-Qirim. 2012. Synthesis and Antibacterial Activity of Novel 7-haloanilino-8-nitrofluoroquinolone Derivatives. *Medicinal Chemistry Research*. 21:1734-1740
 - 8- **Muhammed Alzweiri**, Yusuf M. Al-Hiari, Talal Aburjai and Osama Abdel-Aldaem. 2012. On-column approach in HPLC-UV analysis of non-chromophoric compounds using azelaic acid as a model. *Jordan Journal of Pharmaceutical Sciences*. 5(3): 243-251
 - 9- Safwan Shiyab, Mohamed Shatnawi, Rida Shibli, **Muhammed Alzweiri**, Muhannad Akash, and Talal Aburjai. 2012 Influence of developmental stage on yield and composition of *Origanum syriacum* L. oil by multivariate analysis. *Journal of Medicinal Plants Research*. 6(15):2985-2994
 - 10- **Muhammed Alzweiri** and Yusuf Al-Hiari. 2013. Evaluation of vanillic acid as inhibitor of carbonic anhydrase isozyme III by using a modified Hummel-Dreyer method: Approach for drug discovery. *Biomedical chromatography*. 27(9):1157-61.
 - 11- Talal Aburjai, **Muhammed Alzweiri**, and Yusuf M. Al-Hiari. 2011. Temperature and pressure behaviours of methanol, acetonitrile/water mixtures on chromatographic systems. *American Journal of Analytical Chemistry*. 2(8): 934-937.
 - 12- **Muhammed Alzweiri**, David Watson, and John Parkinson. 2012. Metabonomics as a Clinical Tool of Analysis, LC-MS approach. *Journal of Liquid Chromatography & Related Technologies*. 36(1): 94-115
 - 13- **Muhammed Alzweiri**, Ruba Tarawneh and Mohammad A. Khanfar. 2013. Gas chromatography/trace analysis of derivatized azelaic acid as a stability marker. *Journal of Separation Science*. 36(19):3200-5.
 - 14- Hayder Al-domi, **Muhammed Alzweiri**, Imad Hamdan and Ziad Jardat. 2013. In vitro evaluation of potential complexation between bovine insulin and bovine serum albumin. *Biomedical chromatography*. Accepted.
 - 15- Ali Alsarhan, Kamal Mansi, Talal Aburjai, Ahed Al-Khatib, **Muhammed Alzweiri** and Naznin Sultana. 2013. HSP70 and iNOS biomarkers in

- evaluating the healing properties of *Rubia tinctorum*. European Scientific Journal. vol.9, No.15
- 16- **Muhammed Alzweiri** and Yusuf Al-hiari. 2013. Evaluation and standardisation of hydroxytyrosol antioxidant activity in olive leaf extract. Jordan Journal of Pharmaceutical Sciences. Volume 6, No. 3, 2013.
 - 17- Sanaa K. Bamradweel, Aman Ishaqat and **Muhammed Alzweiri**. 2014. D-serine in Neurobiology: CNS Neurotransmission and Neuromodulation. The Canadian Journal of Neurological Sciences. 41 (2) 164-176
 - 18- Yusuf M Al-Hiari, Violet N Kasabri, Ashok K Shakya, **Muhammad H Alzweiri**, Fatma U Afifi, Yasser K Bustanji, Ihab M Al-Masri. 2014. Fluoroquinolones: Novel class of gastrointestinal dietary lipid digestion and absorption inhibitors. Medicinal Chemistry Research.1-11
 - 19- Manal AL-Najdawi, Yusuf Al-Hiari, Tariq Al-Qirim, Ghassan Shattat, **Muhammad Alzweiri**, and Ghassan Abu Sheikha. 2014. Synthesis and Pharmacological Evaluation of Novel Unsubstituted Indole-Anthraquinone Carboxamide Derivatives as Potent Antihyperlipidemic Agents. Zeitschrift Fur Naturforschung Section C-A Journal of Biosciences.
 - 20- **Alzweiri M**, Shudeifat M, Al-Khalidi K, Al-Hiari Y, Afifi F. U. 2014. Acetylated ferulenol-oxy-ferulenol as a proposed marker for fresh ferula toxicity: A metabolomic approach. Journal of Liquid Chromatography & Related Technologies.
 - 21- **Muhammed Alzweiri**, Qosay Al-Balas and Yusuf Al-Hiari. 2014. Chromatographic evaluation and QSAR optimization for benzoic acid. Journal of enzyme inhibition and medicinal chemistry.
 - 22- Yusuf M Al-Hiari, Ashok K Shakya, **Muhammed H Alzweiri**, Talal Aburjai, Rana Abu-Dahab. 2014. Synthesis And Biological Evaluation Of Substituted Tetrahydro-1h-Quino [7, 8-B][1, 4] Benzodiazepine-3-Carboxylic Derivatives.
 - 23- SK Bardaweel, RM Darwish, **MH Alzweiri**, YM Al-Hiari. 2014. Synergism and Efficacy of Some Naturally Occurring D-amino Acids Against Clinically Relevant Bacterial and Fungal Species. Jordan Journal of Pharmaceutical Sciences 7 (3).
 - 24- **Muhammed Alzweiri**, Ibrahim M. Alrawashdeh and Sanaa K. Bardaweel. 2014. The development and application of novel IR&NMR-based model for the evaluation of carminative effect of Artemisia judaica L. essential oil. International journal of analytical chemistry.
 - 25- **Muhammed Alzweiri**, Mohammed Khanfar, and Yusuf Al-hiari. 2014. Variation in GC-MS responses between analytes and deuterated analogs. Chromatographia.

BOOKS

- 1- **Muhammed Alzweiri**. Neutral and acidic nitrogen compounds. Pharmaceutical and Medicinal Chemistry book. David G Watson. Elsevier 2011.

TEACHING COURSES

- 1- Medicinal chemistry III (Undergraduate level)

- 2- Instrumental analysis (Undergraduate level)
- 2- Analytical chemistry (Undergraduate level)
- 3- Applied chromatography. (Undergraduate level)
- 4- Organic chemistry (MSc level)
- 5- Drug identification (MSc level)
- 6- Advanced spectroscopy (PhD level)
- 7- Advanced chromatography (PhD level)
- 8- Spectroscopic analysis (PhD level)

CONFERENCES, MEETINGS AND WORKSHOPS

- 1- ^{3d}Jordanian international pharmaceutical conference. Alzaytoonah private university of Jordan. Metabonomics as clinical tool of analysis, 2010.
- 2- ^{13th}conference of Jordan pharmaceutical association. Presentation: Macro and Microscopic Trends in Methanol/Water and Acetonitrile/Water Systems, 2010.
- 3- European biomarker summit. Lisbon, Portugal. Poster: Can Metabolic Markers in Blood Serum be Found for Distinguishing Anti-Epileptic Drug Responders from Non-Responders Using a Metabonomic Approach? 2008.
- 4- ^{11th} international conference on chemistry and its role in development ICCRD-2013. Egypt. Influence of developmental stage on yield and composition of *Origanum syriacum* L. oil by multivariate analysis 2013.
- 5- Eurasia Conference on Chemical Sciences-11. 2010. The Use of Mass Spectroscopy (MS) in Detection and Elucidation of Low-Abundant Metabolites (LAM). Dead Sea.
- 6- ^{14th} scientific congress of association of pharmacy in the Arab world. Ajman University 2011. Development of a safe formula for treating acne vulgaris
- 7- ^{15th} congress of pharmacy from Romania (CNFR 2014). Oral presentation: "Evaluation of vanillic acid as inhibitor of carbonic anhydrase isozyme III by using Hummel-Dreyer method: Approach for drug discovery".

RESEARCH GRANTS

- 1- Pharmacodynamic evaluation and marker standardization of *Paronychia argentea* (Rijl El Hmameh) as a diuretic herb. JD15,000-> Scientific research- The University of Jordan
- 2- Convenient synthesis and bioproperties of heterocycles [H]-fused onto 4-oxoquinoline-3-carboxylic acid: substituted hexahydro [1,4] diazepino [2,3-H] quinoline-9-carboxylic acid. JD20,000-> Scientific research- The University of Jordan.
- 3- Evaluation and characterization of a novel possible diabetogenic bovine milk protein. JD30,000-> Scientific research- The University of Jordan.
- 4- Discovery of inhibitors for carbonic anhydrase iii and structural activity relationship through chromatographic vacancy peak. . JD10,000. Scientific research- The University of Jordan
- 5- Purification of Pathogenesis Determinant proteins for the identification of novel antimicrobial targets: Polyphosphate Kinase 1 active site characterization. JD95,000. Scientific Research Support Fund.
- 6- Relying on 3D shape of benzoic acid derivatives as anti-obesity by using protein X-ray crystallography. JD130,000. Scientific Research Support Fund

THESIS SUPERVISION AND EXAMINATION

MSc Students Supervision

- 1- MSC thesis: Mariam Alsyed. "Physical and chemical stability of etoricoxib in oral liquid suspensions. An investigational study using microcrystals and nanocrystals of etoricoxib".
- 2- MSC thesis: Yahya Tabaza. " Implementation of chemometrics in studying drug-excipient compatibility for ciprofloxacin as a model. Quality by design approach".
- 3- MSC thesis: Hamsa Alakad. "Investigating physicians' perception of pharmaceutical trade names in Jordan's private market: simulated and real-world setting approaches".
- 4- MSC thesis: Nada Jarar. "Screening of nicotinic acid analogues as potential carbonic anhydrase III inhibitors".
- 5- MSC thesis: Belal Al-Remaoy. "Preparation of an acyl ester of Risedronate and its evaluation as a prodrug for transdermal drug-delivery".
- 6- MSC thesis: Sara Al-Maraebyeh. "A prodrug approach to enhance azelaic acid percutaneous absorption."
- 7- MSC thesis: Haneen Khalid. "Screening and size effect investigation of nicotinic acid analogues as potential Carbonic anhydrase III inhibitor to treat hyperlipidemia".
- 8- MSC thesis: Sanaa Al-Sunah. "Detecting counterfeit for some products in Jordan as one of the MENA markets using chemometrics as a tool of analysis."
- 9- PhD thesis: Soha Telafah. "Drug discovery and chromatographic optimization of new carbonic anhydrase III ligands."
- 10- MSC thesis: Hanady Saleh "Evaluation of Chemical and Physical Stabilities of Etoricoxib in the Presence of Some Suggested Suspension Excipients".

Thesis Examiner/ The University of Jordan

- 1- Maha Rawhi Abed Al-karim Al-Rimawi, Preparation and antimicrobial evaluation substituted aniline-8-nitrofluoroquinolones. Supervisor Dr Yusuf Al-Hiari, Co-supervisor Dr. Amal Albakri. August 2010. Faculty of Graduate studies, The University of Jordan.
- 2- Rania Al-Qirem. Novel 5-flouroindoles-2-carboxamide derivatives as potential antihyperlipidaemic compounds. Supervisor Dr Yusuf Al-Hiari, Co-supervisor Dr. Ghassan F. Shattat. November, 2010. . Faculty of Graduate studies, The University of Jordan.
- 3- Emad Abdelrahim. Convenient synthesis and bio properties of substituted tetrahydro-1H-[7,8-b][1,4] benzodiazepine-3-carboxylic acid derivatives and [1,2,3] triazolo [4,5-h] quinolines analogs. Supervisor Dr Yusuf Al-Hiari. December 2010. Faculty of Graduate studies, The University of Jordan.
- 4- Noor Barham. Evaluation of lipoprotein (A) levels in type 2 diabetic Jordanian patients. Supervisor Dr Yaseer Khalil Bustanji. Co-supervisor Dr. Mohammed Khalil Mohammad. August 2012. Faculty of Graduate studies, The University of Jordan.
- 5- Saeed Maan Marji. Chemical composition of the essential oils hydrodistilled from six Eucalyptus species growing in Jordan. Supervisor Dr Mohammad Hudaib. Co-supervisor Dr. Khalid Tawaha. 2013. Faculty of Graduate studies, The University of Jordan.
- 6- Osamam Alyamani. Development of a quantitative method for the most commonly used anti-diabetic drugs in Jordan, in blood samples using triple quadruple mass spectrometer coupled with liquid chromatography. Supervisor Dr Kamal A. hadidi.. 2013. Faculty of Graduate studies, The University of Jordan.

Professional experience

- 1- R&D Researcher in Arab Pharmaceutical Manufacturing Company: Provide as needed new analytical methods with their validations, including development of drug products, excipients and the traces of drugs as a part of the cleaning validation. In addition to editing documentations and doing statistical work. **2000-2003**
- 2- QC Analyst in Arab Pharmaceutical Manufacturing Company: Analyzing the drug raw materials and their products using the following instruments, HPLC, GC, A.A, TGA and DSC. **1998-2000**

Scientific Awards

Jordan University award for distinguished academic research and achievements, The Jordan of University 2011

References

1- Dr Derek Stewart

Derek.Stewart@hutton.ac.uk +44 (0)844 928 5428

The James Hutton Institute, Invergowrie, Dundee DD2 5DA, Scotland UK

2- Dr RuAngelie Edrada-Ebel

ruangelie.edrada-ebel@strath.ac.uk +44(0)141 548 5968 (Ext. 5968)

University of Strathclyde, Strathclyde Institute of Pharmacy and Biomedical Sciences, United Kingdom

3- Dr David Watson

D.G.Watson@strath.ac.uk +44(0)141 548 2651 (Ext. 2651)

University of Strathclyde, Strathclyde Institute of Pharmacy and Biomedical Sciences, United Kingdom

4- Dr John Parkinson

john.parkinson@strath.ac.uk +44 (0)141 548 2820

University of Strathclyde, Department of Pure and Applied Chemistry, United Kingdom