

CURRICULUM VITAE

Dr. Ala Abdul Kareem Ahmad Alhusban

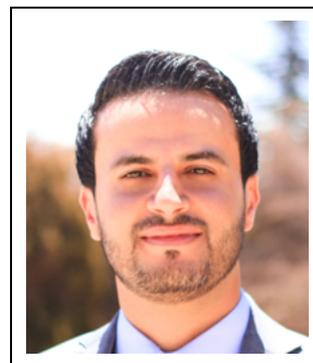
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1. Personal Data

Date of Birth: 13th of November, 1980

Nationality: Jordanian

2. Education

- Ph.D. (Pharmacy/ Pharmaceutical Analysis), 2016, University of Tasmania, Hobart, Tasmania, Australia
- M.Sc. (Pharmaceutical Chemistry/ Pharmaceutical Analysis), 2006, Jordan University of Science and Technology, Irbid, Irbid, Jordan
- B.Sc. (Pharmacy), 2003, Jordan University of Science and Technology, Irbid, Jordan

3. Ph.D. Dissertation

*Bioprocess Monitoring Using Sequential Injection Capillary Electrophoresis,
University of Tasmania, Hobart, Tasmania, Australia*

4. Employment

Academic Positions

- Associate Professor, Department of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
July 27, 2021 – now.



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- Assistant Professor, Department of Pharmacy, Al-Zaytoonah University of Jordan, Amman, Jordan
May 20, 2016 – July 27, 2021

Administrative Positions

- Vice Dean of Faculty of Pharmacy (October 2020 – now).

5. Research Interests

- Pharmaceutical Analysis applying Separation Techniques through the Development of Liquid Chromatographic and Capillary Electrophoretic Methods.
- Trace Elements Analysis in Pharmaceutical Products employing Inductively Coupled Plasma Optical Emission Spectroscopy.

6. Membership in Scientific Societies and Associations

- Jordan Pharmacists Association.

7. Honors and Awards

- Honored for the leadership of ACPE Committee responsible of receiving the Faculty of Pharmacy of the ACPE ISP certification of accreditation from the accreditation council of pharmacy education, 2020.
- Honored for participation in receiving the Faculty of Pharmacy the first Quality Assurance Certificate from Accreditation and Quality Assurance Commission for Higher Education Institutions in Jordan, 2017.

8. Fellowships and Scholarships

- PhD Scholarship from Al-Zaytoonah University of Jordan (2012 – 2015).

9. Teaching Experience

- *Graduate Courses*
 - Advanced Pharmaceutical Analysis
 - Advanced Pharmaceutical Analysis Laboratory



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- ***Undergraduate Courses***

1. Pharmaceutical Instrumental Analysis
2. Pharmaceutical Instrumental Analysis Laboratory
3. Phytochemistry
4. Medicinal Plants
5. Pharmacology Laboratory
6. Pharmacy Practice II

10. Supervision of Graduate Research

1. Amal Yousef Bargash, Characterization of Medical Platforms to Reduce the Bacterial Adhesion Associated with Dental Implants, 2018-2019.
2. Sukaina Mohammad Bustanji, Chromatographic and/or Electrophoretic methods development and validation for correlating tamoxifen resistant MCF-7 cell line changes with biomarkers (lactate, pyruvate, glucose and glutamine) level, 2019-2020.
3. Rama Mohammad Abuarqoub, Tamoxifen resistance in MCF-7: tracking the changes in PI3K/AKT/PTEN signaling pathway and their role in glucose and glutamine metabolism during resistance development, 2019-2020.

11. Grants

- Interaction of Gold Nanorods-Gel Composite with Human Skin Hair Follicles: The Colloidal Stability and Preferential Targeting, Al-Zaytoonah University of Jordan, 2017, 23,000 JD.
- Correlation between Metabolic, Genetic and Epigenetic Changes in Tamoxifen Resistant Breast Cancer Cell Line MCF-7 Employing Electrophoretic Techniques, 2018, Al-Zaytoonah University of Jordan, 70,100 JD.
- On-line Monitoring of Lactic Acid in Tamoxifen Induced Resistance Breast Cancer Cell Line MCF-7, 2020, Al-Zaytoonah University of Jordan, 17,130 JD.

12. Patents

- Not Applicable



13. Membership of Committees

- **National and International**
 - *Australian Centre for Research on Separation Science: member (2012 - 2016).*
 - *Pharmaceutical Quality Control Committee at the Jordan Food and Drug Administration (JFDA): member and technical consultant (2017 - 2018).*
 - *Pharmaceutical Laboratories Affairs Committee at JFDA: member and technical consultant (2017 - now).*
 - *Clinical Trials Committee at JFDA: member and scientific consultant (2018 - 2020).*
 - *COVID-19 Investigational Committee at JFDA: member and scientific consultant (2020 - 2021).*
 - *Originator registration at JFDA: member and scientific consultant (2020 - 2021).*
 - *Member of on-site evaluation team for the Accreditation Council for Pharmacy Education (ACPE) (2020).*
 - *Examination Committee of the following postgraduate students:*
 - *Isolation, characterization, synthesis and proposing mechanisms of generating degradation products and related impurities in Lenalidomide raw material, Qusai Sameer Aqel, University of Jordan, 2018.*
 - *Tamoxifen Resistance in Breast Cancer Tracking the Changes in Lactate Dehydrogenase Expression, Lara Imad Al-Lakkis, Al-Zaytoonah University of Jordan, 2018.*
 - *Characterization of Medical Platforms to Reduce the Bacterial Adhesion Associated with Dental Implants, Amal Yousef Bargash, Al-Zaytoonah University of Jordan, 2019.*



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- *Antioxidant Activity and Protective Effect of Fluoroquinolones Derivatives in Carbon Tetrachloride Induced Liver Injury in Rats, Manal Abdel Rauf Suleiman, Al-Zaytoonah University of Jordan, 2020.*

- **University**

- *The ACPE Steering Committee, a Faculty committee (Chair).*
- *The ACPE Accreditation Certification Committee, a Faculty committee (Chair).*
- *The Committee for the Detection of the Remaining Equipment in the Warehouses of the Supplies Department, a University committee (Chair).*
- *The Committee for Faculty of Pharmacy Strategic Plan 2020/2023 Preparation, a Faculty committee (member).*
- *The Committee for Scientific Research, a Faculty committee (member).*
- *The Committee for Curriculum and Educational Resources, a Faculty committee (member).*
- *The Committee for Curricular Equivalence and Academic Advisement, and Training, and Alumni Follow-up, a Faculty committee (member).*
- *The Committee of Quality Assurance (member).*
- *Member of " Al-Zaytoonah University of Jordan Council" as Representative of the Faculty of Pharmacy.*
- *Member of the "Faculty of Pharmacy Council".*

14. Professional and Scientific Meetings

Scientific Meetings Organized

- Member of the Scientific Committee of the *Al-Zaytoonah University of Jordan & The University of Toledo International Pharmaceutical Conference (ZTIPC 2019)*, Amman, Jordan, 7th to 8th of November, 2019.



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- Member of the Organizing Committee of the *Al-Zaytoonah University of Jordan & The University of Toledo International Pharmaceutical Conference (ZTIPC 2017)*, Amman, Jordan, 29th to 30th of November, 2017.
- Member of the Organizing Committee of the *5th Australia New Zealand Nano/Microfluidics symposium (ANZNMF)*, Hobart, Australia, 14th to 16th of April, 2014.

Participation in Scientific meetings

- *20th Research and Development Topics Conference*, Deakin University, Geelong, Australia, 11th to 14th of December 2012.
- *UTAS Postgraduate Conference*, University of Tasmania, Hobart, Australia, 4th to 7th of September 2012.
- *Tasmanian Health Science HDR Student Conference*, University of Tasmania, Hobart, Australia, 5th to 6th of September 2013.
- *40th International Symposium on High-Performance Liquid-Phase Separations and Related Techniques*, Hobart, Australia, 18th to 21st of November 2013.
- *5th Australia New Zealand Nano/Microfluidics symposium (ANZNMF)*, Hobart, Australia, 14th to 16th of April, 2014.
- *The 3rd International Conference Implementation of Microreactor in Biotechnology (IMTB)*, Opatija, Croatia 10th to 13th of May 2015.
- *International Interdisciplinary Meeting on Bio-analysis*, Brno, Czech Republic, 21st to 23rd of September 2015.
- *4th Scientific day of the College of Pharmacy at Zarqa University (Pharmaceutical practice, Good Practice and Better Health)*, 10th of March, 2016.
- *ASU-Pharmacy 4th Conference "Recent Trends in Postgraduate Research" and the 3rd Conference of the Association of Faculties of Pharmacy at Jordanian Universities*, 15th to 16th of April 2017.
- *JUST International Pharmacy Conference, Faculty of Pharmacy at Jordan University of Science and Technology "Challenges vs Opportunities", The 2nd International Conference on Ethics in Jordan: Clinical Trials and the 4th conference for Faculties of Pharmacy in Jordan*, 2nd to 4th of August, 2017.



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- the *Al-Zaytoonah University of Jordan & The University of Toledo International Pharmaceutical Conference (ZTIPC 2017)*, Amman, Jordan, 29th to 30th of November, 2017.
- *MENA Biosimilars Training*, Jordan, 22nd to 23rd of September, 2018.
- *Al-Zaytoonah University of Jordan & The University of Toledo International Pharmaceutical Conference (ZTIPC 2019)*, Amman, Jordan, 7th to 8th of November, 2019.

15. Participation in or organization of curricular and/or extra-curricular activities

- University's 9th Career Day and Career Day for Pharmacy students on 5th of May, 2017 with the participation of 15 pharmaceutical companies and pharmacies.
- University's 10th Career Day on 24th of April, 2018. in Al-Zaytoonah University of Jordan campus.
- Career Day for 5th year students in March, 2018, in Al-Zaytoonah University of Jordan campus.
- Pharmacy Training Day on April, 2019, in Al-Zaytoonah University of Jordan campus.
- Several Alumni and medical days and public lectures and presentations held in Al-Zaytoonah University of Jordan campus.

16. Publications

- Papers in refereed journals
1. **Alhusban, A. A.**, Albustanji, S., Hamadneh, L.A. and Shallan, A.I., 2021. High Performance Liquid Chromatography–Tandem Mass Spectrometry Method for Correlating the Metabolic Changes of Lactate, Pyruvate and L- Glutamine with Induced Tamoxifen Resistant MCF-7 Cell Line Potential Molecular Changes. *Molecules*, 26(16), p.4824, (2021).
 2. **Alhusban, A. A.**, Hamadneh, L.A., Albustanji, S. and Shallan, A.I., *Lactate and pyruvate levels correlation with lactate dehydrogenase gene expression and glucose consumption in Tamoxifen resistant MCF-7 cells using capillary electrophoresis with contactless conductivity detection (CE-C4D)*. *Electrophoresis*, (2021).



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3. Hamadneh, L., Bahader, M., Abuarqoub, R., AlWahsh, M., **Alhusban, A. A.** and Hikmat, S., 2021. *PI3K/AKT and MAPK1 molecular changes preceding matrix metalloproteinases overexpression during tamoxifen-resistance development are correlated to poor prognosis in breast cancer patients*. *Breast Cancer*, 28(6), pp.1358-1366, (2021).
4. Massadeh, A.M. and **Alhusban, A. A.**, 2021. *A developing method for preconcentration and determination of Pb, Cd, Al and As in different herbal pharmaceutical dosage forms using chelex-100*. *Chemical Papers*, 75(7), pp.3563-3573, (2021).
5. Hamadneh, L., Al-Lakkis, L., **Alhusban, A. A.**, Tarawneh, S., Abu-Irmaileh, B., Albustanji, S. and Al-Bawab, A.Q., 2021. *Changes in Lactate Production, Lactate Dehydrogenase Genes Expression and DNA Methylation in Response to Tamoxifen Resistance Development in MCF-7 Cell Line*. *Genes*, 12(5), p.777, (2021).
6. Hamadneh, L., Abuarqoub, R., **Alhusban, A. A.**, and Bahader, M., 2020. *Upregulation of PI3K/AKT/PTEN pathway is correlated with glucose and glutamine metabolic dysfunction during tamoxifen resistance development in MCF-7 cells*. *Scientific reports*, 10(1), pp.1-7, (2021).
7. **Alhusban, A. A.**, Ata, S., "Simple HPLC method for rapid quantification of nicotine content in e-cigarettes liquids". *Acta Chromatographica*, 33(3), pp.302-307, (2021).
8. Nouf N. Mahmoud, **Alhusban, A. A.**, Jamila Isabilla Ali, Amal G. Al-Bakri, Rania Hamed, and Enam A. Khalil. "Preferential Accumulation of Phospholipid-PEG and Cholesterol-PEG Decorated Gold Nanorods into Human Skin Layers and Their Photothermal-Based Antibacterial Activity". *Scientific reports* 9, no. 1 (2019): 5796. DOI: 10.1038/s41598-019-42047-7
9. **Alhusban, A. A.**, Ola A. Tarawneh, Sanabel O. Dawabsheh, Ahmad A. Alhusban, and Feras W. Abumhareb. "Liquid chromatography–tandem mass spectrometry for rapid and selective simultaneous determination of fluoroquinolones level in human aqueous humor". *Journal of pharmacological and toxicological methods* 97 (2019): 36-43. DOI: 10.1016/j.vascn.2019.03.001
10. **Alhusban, A. A.**, Ata, S. A., & Shraim, S. A. "The Safety Assessment of Toxic Metals in Commonly Used Pharmaceutical Herbal Products and Traditional Herbs for Infants in Jordanian Market". *Biological trace element research* 187(1) (2018): 307-315. DOI: 10.1007/s12011-018-1367-1
11. Breadmore, M. C., Grochocki, W., Kalsoom, U., Alves, M. N., Phung, S. C., Rokh, M. T., Cabot, J M., Ghiasvand, A., Li, F., Shallan A. I., Abdul Keyon



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- A. S., **Alhusban, A. A.**, Hong Heng S., Wuethrich, A., Dawod, M., Quirino, J. P. “*Recent advances in enhancing the sensitivity of electrophoresis and electrochromatography in capillaries and microchips (2016–2018)*”. *Electrophoresis* (2019), 40(1), 17-39. DOI: 10.1002/elps.201400420
12. Tarawneh, O., Al-Assi A. R., Hamed R., Sunoqrot S., Lina Hasan, Al-Sheikh I., Al-Qirim R., **Alhusban, A. A.**, and Naser W. “*Development and characterization of k-carrageenan platforms as periodontal intra-pocket films*”. *Tropical Journal of Pharmaceutical Research* (2019), 18, no. 9. DOI: 10.4314/tjpr.v18i9.1
13. Tarawneh, O. A., Madi, A. M., Hamed R., Qirem, Q., **Alhusban, A. A.**, Sunoqrot, S., Mahmoud, N., Ata, A., and Isheikh I, “*In-vitro Characterization and Evaluation of Commercialized Paracetamol Products in Jordan*”. *Dissolution Technologies, studies 8* (2019): 9. DOI: 10.14227/DT260119P36
14. **Alhusban, A.A.**, Breadmore, M.C., Gueven, N. and Guijt, R.M. *Time-Resolved Pharmacological Studies using Automated, On-line Monitoring of Five Parallel Suspension Cultures*. *Scientific Reports*, 7(1), (2017) p.10337, DOI: 10.1038/s41598-017-10472-1.
15. **Alhusban, A. A.**, Breadmore, M. C., Gueven, N., Guijt, R. M. *Capillary Electrophoresis for Automated On-line Monitoring of Suspension Cultures: Correlating Cell Density, Nutrients and Metabolites in Near-real-time*. *Analytica Chimica Acta, ACA*, 920, (2016) 94–101, DOI: 10.1016/j.aca.2016.03.034.
16. Breadmore M. C., Tubaon R. M., Shallan A.I., Phung S.C., Abdul Keyon A.S., Gstoettenmayr D., Prapatpong P., **Alhusban A.A.**, Ranjbar L., See H.H., Dawod M., Quirino J.P. *Recent advances in enhancing the sensitivity of electrophoresis and electrochromatography in capillaries and microchips (2012-2014)*. *Electrophoresis*, 36(1), (2015) 36-61. DOI: 10.1002/elps.201400420.
17. **Alhusban, A. A.**, Gaudry, A. J., Breadmore, M. C., Gueven, N., Guijt, R. M. *On-line Sequential Injection-Capillary Electrophoresis for Near-real-time Monitoring of Extracellular Lactate in Cell Culture Flasks*. *Journal of Chromatography A*, 1323, (2014) 157-162. DOI: 10.1016/j.chroma.2013.11.006.
18. **Alhusban, A. A.**, Breadmore, M. C.; Guijt, R. M. *Capillary Electrophoresis for Monitoring Bioprocesses*. *Electrophoresis*, 34, (2013) 1465-1482. DOI: 10.1002/elps.201200646.



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- Books and Book Chapters

1. Reema Abu Khalaf, **Ala A. Alhusban**, Eveen Al-shalabi, Iyad Al-shekh and Dima Sabbah. "*Isolation and Structure Elucidation of Bioactive Polyphenols, Studies in Natural Products Chemistry*", Bioactive Natural Products, Elsevier, (2019). DOI: 10.1016/B978-0-12-817901-7.00010-1

- Conference Presentations

1. **Alhusban, A. A.**, Breadmore, M. C., Gueven, N., Guijt, R. M. *Online Organic Acids Characterization and monitoring from Bioprocess Using Sequential Injection Capillary Electrophoresis*. 20th Research and Development Topics Conference, Deakin University, Geelong, Australia, 11th to 14th of December 2012.
2. **Alhusban, A. A.**, Breadmore, M. C., Gueven, N., Guijt, R. M. *Sequential Injection Capillary Electrophoresis for Bioprocess Monitoring*. UTAS Postgraduate Conference, University of Tasmania, Hobart, Australia, 4th to 7th of September 2012.
3. **Alhusban, A. A.**, Breadmore, M. C., Gueven, N., Guijt, R. M. *On-line SI-CE for Near-real-time Monitoring of Extracellular Lactate in Cell Culture*. Tasmanian Health Science HDR Student Conference, University of Tasmania, Hobart, Australia, 5th and 6th of September 2013.
4. **Alhusban, A. A.**, Breadmore, M. C., Gueven, N., Guijt, R. M. *Online Monitoring of Cell Culture by Sequential Injection Capillary Electrophoresis*. 40th International Symposium on High-Performance Liquid-Phase Separations and Related Techniques, Hobart, Australia, 18th to 21st of November 2013.
5. **Alhusban, A. A.**, Breadmore, M. C., Gueven, N., Guijt, R. M. *On-line Monitoring of Cell Cultures*. The 3rd International Conference Implementation of Microreactor in Biotechnology (IMTB), Opatija, Croatia 10th to 13th of May 2015.
6. R.M. Guijt, **A. A. Alhusban**, A. Shallan, U. Kalsoom, M. Boyce, M.C. Breadmore, *Alternative Approaches for Sample Preparation in Capillary Electrophoresis*, CECE 2015 – International Interdisciplinary Meeting on Bio-analysis, Brno, Czech Republic, 21st to 23rd of September 2015.
7. Sanabel O. Dawabsheh, **A. A. Alhusban**, Ola A. Tarawneh, Ahmad A. Alhusban, Feras W. Abu-Mhareb, *Fluoroquinolones Bioavailability in Human Aqueous Humor*, The Al-Zaytoonah University of Jordan & The



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University of Toledo International Pharmaceutical Conference (ZTIPC 2017), Amman, Jordan, 29th to 30th of November, 2017.

8. Ola Tarawneh, **A. A. Alhusban**, Amal Barghash, *The Manufacture and Characterization of Microbicide Medical Platforms for Oral Infections*. Al-Zaytoonah University of Jordan & The University of Toledo International Pharmaceutical Conference (ZTIPC 2019), Amman, Jordan, 6th to 7th of November, 2019.
9. Sokiyna M. Albustanji, Lara I. Al-Lakkis, **A. A. Alhusban**, Lama A. Hamadneh, *Tamoxifen Induced Resistance in Breast Cancer: Correlating Metabolic and Molecular Biomarkers Changes in MCF-7 Cell Line*. Al-Zaytoonah University of Jordan & The University of Toledo International Pharmaceutical Conference (ZTIPC 2019), Amman, Jordan, 6th to 7th of November, 2019.