Curriculum Vitae
Ahlam Zaid Alkilani

Personal Information

Date of birth:	14 May 1984.
Nationality:	Jordanian
Marital status:	Married
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Education

2013	Ph.D., Drug delivery and pharmaceutical technology, Queens University of Belfast, UK. Title of PhD thesis **''Polymeric Microneedle Systems for Enhanced Transdermal Drug Delivery''**
2009	MSc, Pharmaceutical sciences, title of master thesis, **Development and validation of HPLC method for the determination of β–sistosterol in a pharmaceutical product (MEBO®)** with an aggregate average of 3.71 (Excellent), Jordan University, Amman, Jordan
2006	Permission to Practice Pharmacy, Amman, Jordan
2006	B.Sc. in Pharmacy with an aggregate average of 3.69 (Excellent), Jordan University, Amman, Jordan.
2002	Secondary School Certificate with an average of 95.2% (Excellent), Scientific branch, Qater Alnda Secondary School, Jordan.

Training and Working Experience

Sep 2016- current	Dean in Faculty of pharmacy/ Zarqa university
Sep 2019-current	Associate Professor, Department of Pharmacy, Faculty of Pharmacy, Zarqa University, Zarqa, Jordan.

Sep 2015- Sep 2016	Deputy Dean in Faculty of pharmacy/ Zarqa university
Sep 2014- Sep 2016	Head of the Department of the Pharmaceutical science and Pharmaceutics in faculty of pharmacy/ Zarqa university
Nov 2013	Assistant Professor, Department of Pharmacy, Faculty of Pharmacy, Zarqa University, Zarqa, Jordan.
2010-2013	Ph.D. candidate, Department of Pharmacy, Queen's University of Belfast, Belfast, UK
2009-2010	Teaching assistant at the faculty of Pharmacy, Zarqa University, Zarqa, Jordan.
2007-2009	MSc. candidate, department of pharmaceutical science, University of Jordan, Amman, Jordan.
2006-2009	Teaching assistant at the faculty of Pharmacy, University of Jordan, Amman, Jordan.

Research interest

My research is centred on design and physicochemical characterization of advanced polymeric drug delivery systems for transdermal drug delivery. I published many papers and two book's chapters. My H-index is 10 and my citation around 300. I presented my research in many international conferences, e.g. 6th FIP Pharmaceutical Sciences World Congress 2017. Stockholm, Sweden.

Membership in professional

- Member of the The Jordan pharmaceutical association (JPA)
- Member of the Post Approval changes (PAC) Committee in JFDA (2016- 2020)
- Member of the American College of Clinical Pharmacy (ACCP)

Workshops

- Scientific writing workshop conducted by Dr. Navid Madani from Harvard Medical School and Dana-Farber Cancer Institute in Boston, MA, Zarqa University 26th-27th of September 2016

- The first Regional Faculty Development Workshop on Curricular Design and Delivery conducted by Al Ain University of Science and Technology (AAU) in conjunction with The American Association of Colleges of Pharmacy (AACP) and The Accreditation Council for Pharmacy Education (ACPE) international in Abu Dhabi Campus, United Arab Emirates, 13th -14th of March, 2017.

- The Second Regional Faculty Development Workshop on Best Practices for Planning Educational Assessment and Curriculum Mapping conducted by Al Ain University of Science and Technology (AAU) in conjunction with The American Association of Colleges of Pharmacy (AACP) and The Accreditation Council for Pharmacy Education (ACPE) international in Abu Dhabi Campus, United Arab Emirates, 5th -6th of March, 2017.

Scientific visits

I worked at Queen's University Belfast as a Visiting Researcher with Professor Ryan Donnelly for a period of one month, starting from 01-08-2015 until 31-08-2015 on project that involve transdermal delivery of drug substances using microneedle arrays.

Awarded Fellowships

Visiting Research Fellow in the school of pharmacy at Queen's University of Belfast from 1 June 2014 to 31 May 2015.

Awarded

- The Best Poster Award at the 8th International Conference and Exhibition on Pharmaceutics & Novel Drug Delivery Systems (2016), Madrid, Spain
- The Best Poster Award at the 15th Jordanian Pharmaceutical Conference (2014) Amman . Jordan.

Scientific productions

Publications

1. Zaid **Alkilani**, A., Musleh, B., Hamed, R., Swellmeen, L., & Basheer, H. A. (2023). Preparation and Characterization of Patch Loaded with Clarithromycin Nanovesicles for Transdermal Drug Delivery. Journal of Functional Biomaterials, 14(2), 57.
2. **Alkilani**, A.Z, Hamed, R., Abdo, H., Swellmeen, L., Basheer, H. A., Wahdan, W., & Abu Kwiak, A. D. (2022). Formulation and Evaluation of Azithromycin-Loaded Niosomal Gel: Optimization, In Vitro Studies, Rheological Characterization, and Cytotoxicity Study. ACS omega.
3. **Alkilani**, A.Z, Nimrawi, S., Al-Nemrawi, N. K., & Nasereddin, J. (2022). Microneedle-assisted transdermal delivery of amlodipine besylate loaded nanoparticles. Drug Development and Industrial Pharmacy, 1-11.
4. **Alkilani**, A. Z., Nasereddin, J., Hamed, R., Nimrawi, S., Hussein, G., Abo-Zour, H., & Donnelly, R. F. (2022). Beneath the Skin: A Review of Current Trends and Future Prospects of Transdermal Drug Delivery Systems. *Pharmaceutics*, *14*(6), 1152.
5. **Alkilani**, A., Hamed, R., Hussein, G., & Alnadi, S. (2021). Nanoemulsion-based patch for the dermal delivery of ascorbic acid. Journal of Dispersion Science and Technology, 1-11.
6. Hamed, R., Mahmoud, N. N., Alnadi, S. H., **Alkilani**, A. Z., & Hussein, G. (2020). Diclofenac diethylamine nanosystems-loaded bigels for topical delivery:

development, rheological characterization, and release studies. Drug Development and Industrial Pharmacy, 46(10), 1705-1715.

7. Hamed, R., Kamal, A., & **Alkilani**, A. Z. (2020). Gelation and rheological characterization of Carbopol® in simulated gastrointestinal fluid of variable chemical properties. Pakistan Journal of Pharmaceutical Sciences, 33(3).
8. **Alkilani**, A. Z., Alkalbani, R., Jaber, D., Hamed, R., Hamad, I., Abumansour, H., & Assab, M. A. (2019). Knowledge, attitude, practice and satisfaction of patients using analgesic patches in Jordan. Tropical Journal of Pharmaceutical Research, 18(8).
9. Development and in-vitro characterization of nanoemulsion-based buccal patches of valsartan , Abu-Huwaij, R. Hamed, R., Daoud , E., **Alkilani**, A. Z., Acta Poloniae Pharmaceutica, Vol. 76 No. 2 , 2019
10. **Alkilani**, A. Z., Hamed, R., Al-Marabeh, S., Kamal, A., Abu-Huwaij, R., & Hamad, I. (2018). Nanoemulsion-based film formulation for transdermal delivery of carvedilol. Journal of Drug Delivery Science and Technology, 46, 122-128.
11. Hamed, R., Al Baraghthi, T., **Alkilani**, A. Z., & Abu-Huwaij, R. (2016). Correlation between rheological properties and in vitro drug release from penetration enhancer-loaded Carbopol® gels. Journal of Pharmaceutical Innovation, 11(4), 339-351.
12. Eltayib, E., Brady, A. J., Caffarel-Salvador, E., Gonzalez-Vazquez, P., **Alkilani**, A. Z., McCarthy, H. O., ... & Donnelly, R. F. (2016). Hydrogel-forming microneedle arrays: potential for use in minimally-invasive lithium monitoring. European Journal of Pharmaceutics and Biopharmaceutics, 102, 123-131.
13. **Alkilani**, A., McCrudden, M. T., & Donnelly, R. (2015). Transdermal drug delivery: innovative pharmaceutical developments based on disruption of the barrier properties of the stratum corneum. Pharmaceutics, 7(4), 438-470.
14. McCrudden, M. T., **Alkilani**, A. Z., Courtenay, A. J., McCrudden, C. M., McCloskey, B., Walker, C., ... & Donnelly, R. F. (2015). Considerations in the

sterile manufacture of polymeric microneedle arrays. Drug delivery and translational research, 5(1), 3-14.

15. Donnelly, R. F., McCrudden, M. T., **Alkilani**, A. Z., Larrañeta, E., McAlister, E., Courtenay, A. J., ... & Caffarel-Salvador, E. (2014). Hydrogel-forming microneedles prepared from "super swelling" polymers combined with lyophilised wafers for transdermal drug delivery. PLoS One, 9(10), e111547.

16. Donnelly, R. F., Moffatt, K., **Alkilani**, A. Z., Vicente-Pérez, E. M., Barry, J., McCrudden, M. T., & Woolfson, A. D. (2014). Hydrogel-forming microneedle arrays can be effectively inserted in skin by self-application: a pilot study centred on pharmacist intervention and a patient information leaflet. Pharmaceutical research, 31(8), 1989-1999.

17. Donnelly, R. F., Morrow, D. I., McCrudden, M. T., **Alkilani**, A. Z., Vicente-Pérez, E. M., O'Mahony, C., ... & Woolfson, A. D. (2014). Hydrogel-forming and dissolving microneedles for enhanced delivery of photosensitizers and precursors. Photochemistry and photobiology, 90(3), 641-647.

18. McCrudden, M. T., **Alkilani**, A. Z., McCrudden, C. M., McAlister, E., McCarthy, H. O., Woolfson, A. D., & Donnelly, R. F. (2014). Design and physicochemical characterisation of novel dissolving polymeric microneedle arrays for transdermal delivery of high dose, low molecular weight drugs. Journal of controlled release, 180, 71-80.

19. Donnelly, R. F., Singh, T. R. R., **Alkilani**, A. Z., McCrudden, M. T., O'neill, S., O'mahony, C., ... & Woolfson, A. D. (2013). Hydrogel-forming microneedle arrays exhibit antimicrobial properties: potential for enhanced patient safety. International journal of pharmaceutics, 451(1-2), 76-91.

Books

1. **Alkilani**, A.Z. (2018). Genesis of Transdermal Drug Delivery. In Microneedles for Drug and Vaccine Delivery and Patient Monitoring, F. D. Ryan (Ed.). doi:10.1002/9781119305101.ch1. **John Wiley and Sons**, Incorporated.

2. Singh, T. R. R., McMillan, H., Mooney, K., **Alkilani**, A. Z., & Donnelly, R. F. (2017). Fabrication of Microneedles. In Percutaneous Penetration Enhancers Physical Methods in Penetration Enhancement (pp. 305-323). **Springer**, Berlin, Heidelberg.
3. Donnelly, R. F., Garland, M. J., & **Alkilani**, A. Z. (2014). Microneedle-iontophoresis combinations for enhanced transdermal drug delivery. In Drug Delivery System (pp. 121-132). **Springer** New York.
4. Singh, T. R. R., McMillan, H., Mooney, K., **Alkilani**, A., & Donelly, R. (2013). Microneedles for drug delivery and monitoring. Microfluidic Devices for Biomedical Applications, X. Li and Y. Zhou, Editors, 185-230, **Elsevier**.

Presentations in International conferences

- **Zaidalkilani**, A., Thakur, T.R.R., and Donnelly, R.F., (2012). Optical Coherence Tomographic characterization of skin insertion of polymeric microneedle loaded with ovalbumin. Proceedings of the 2nd International Conference on Microneedles, Cork, Ireland.

- **Zaidalkilani**, A., Thakur, T.R.R.,and Donnelly, R. F., (2012). Physical and Electrical Characterization of Films Intended For Use in Electrically Assisted Transdermal Drug Delivery.Proceedings of the UKPharmSci Conference, Nottingham.UK

- **Zaidalkilani**, A., Thakur, T.R.R., and Donnelly, R.F., (2013).Hydrogel microneedle array assisted iontophoretic transdermal delivery of a model protein Proceedings of the 2013 UKICRS Symposium, Belfast. UK

- **Zaidalkilani**, A., Thakur, T.R.R.,and Donnelly, R. F., (2014). Influence of polymer concentration, crosslinker molecular weight and swelling conditions upon the diffusion parameter of polyethylene glycol – crosslinked poly (methyl vinyl ether-co-maleic acid) films intended for transdermal applications .Stratum Corneum VIII Conference, Cardiff .UK

- A **Zaidalkilani**, R Thakur and R F Donnelly (2016) . Electrically assisted transdermal drug delivery of Ovalbumin. 8th International Conference and Exhibition on Pharmaceutics & Novel Drug Delivery Systems, Madrid, Spain

- A **Zaidalkilani**, R Thakur and R F Donnelly (2017). Characterization of hydrogel films intended for transdermal applications. 6th Pharmaceutical Sciences World Congress. Stockholm, Sweden.

- A **Zaidalkilani**, R Hamed (2019). Characterization of hydrogel films intended for transdermal applications. 6th Pharmaceutical Sciences World Congress. Stockholm, Sweden.

- A **Zaidalkilani**, H Abdo (2021). Development and evaluation of azithromycin-loaded niosomes for enhanced transdermal delivery in pediatrics patients. 12th World Meeting on Pharmaceutics, Biopharmaceutics and Pharmaceutical Technology, May 2021 | Online Conference

Student Research Supervision:

1. Sukaina Alnimrawi (2019-2020) Master student. Advisor Thesis title: Nanoparticle Based Microneedle for Transdermal Delivery of Amlodipine Besylate

2. Hadeel Mohammed Abozour (2019-2021) Master student. Advisor Thesis title: Formulation and Evaluation of Dissolving Microneedle System Containing a Combination of Ascorbic Acid and Caffeine Niosomes for Dermal Drug Delivery.

3. Sarah Adnan Anees Omar (2019-2021) Master student. Advisor Thesis title: Design and evaluation of solid dispersion for inflammatory bowel disease

4. Hana Abo-Zour (2019—2021), Master student Advisor thesis title: Formulation and characterization of transdermal delivery of alendronate.

5. Zaina Alshariri (2021—2022), Master student Advisor thesis title : Preparation and characterization of transdermal delivery of doxycycline

6. Batool Altarifi (2021—2022), Master student Advisor thesis title : Formulation and characterization of transdermal delivery system for Clarithromycin

7. Lena almasri (2022—now), Master student Advisor thesis title : Formulation and evaluation of transdermal delivery system loaded with cefuroxime axetil

8. Ruaa Alkhaledi (2022—now), Master student Advisor thesis title: Design and evaluation of a niosomal gel system for bioactive compounds.

Grants Accomplished and On-going:

- Research grant from Zarqa University-2019: Evaluation of transdermal absorption of carvedilol patches by animal studies. Budget: **164500** JD
- Research grant from Scientific Research and Innovation Support Fund-2021: The role of glutaminase expression in Jordanian breast cancer patients towards development and pharmacological characterization of a novel) metformin/glutaminase inhibitor) CB-839(nanoparticle formulation. Budget: **63100** JD
- Research grant from Zarqa university-2015: Nanoemulsion-based film formulation for transdermal delivery of carvedilol. **Budget: 15000 JD**