# Aiman Yahya Alwadi, PharmD, MSc

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# **Summary**

Dr. Aiman Alwadi is a university lecturer and director of Phase-3 (Year 4 and 5) of the Doctor of Pharmacy (PharmD) program at College of Pharmacy, Alfaisal University (AU). He holds a master's degree in biotechnology (first-class honors; GPA 4.00/4.00) from College of Medicine, AU, and a PharmD degree (first-class honors; GPA 4.93/5.00) from College of Pharmacy, Qassim University. He is currently pursuing his PhD in Biomedical Sciences at AU. Dr. Alwadi has one year of clinical experience at King Faisal Specialist Hospital & Research Center in Riyadh, where he served as a PharmD intern. As Phase-3 director, he oversees academic calendar planning, course coordination, examination management, and monitors classes and students progress. As a faculty member, he teaches several undergraduate courses, including Patient Care and Health System Management Laboratory I, II, III, and IV (PCL 477, 487, 595, and 5X4), Selfcare and Non-Prescription Drugs (SCR 346), Organic and Medicinal Chemistry Laboratory (CHM 232, MCH 241), and Pharmaceutics I Laboratory (PHC 353), and co-supervises research projects for a number of undergraduate students. His research interests include synthesis and formulation of bio-derived molecules followed by optimization of their binding affinities toward several drug targets and incorporating these molecules in suitable biosensing platforms for non-invasive therapeutic drug monitoring. In addition, he studies and compare pharmacokinetics of various commercially available drugs using several in-vitro analytical techniques to understand differences in release profiles and the effects of excipients on product interchangeability.

### **Education**



Alfaisal University
Aug 2024 – Present

**PhD in Biomedical Sciences** 

College of Medicine Riyadh, Saudi Arabia



Alfaisal University Sep 2019 – Oct 2021 Master of Biomedical Sciences – Biotechnology (GPA 4/4)

College of Medicine Riyadh, Saudi Arabia



**Qassim University** Sep 2010 – May 2016 Doctor of Pharmacy (GPA 4.93/5)

College of Pharmacy Qassim, Saudi Arabia

# **Appointments**



Alfaisal University
Feb 2022 – Present

Lecturer of Biotechnology - Full-time

College of Pharmacy Riyadh, Saudi Arabia



Alfaisal University Sep 2022 – Jun 2024 **OET Venue Manager –** Contract

Assessment Office Riyadh, Saudi Arabia





Alfaisal University Nov 2021 – Jun 2024 **OET Interlocutor – Contract** 

Assessment Office Riyadh, Saudi Arabia



Alfaisal University
Feb 2018 – Present

Director, PharmD Program's Phase 3 - Full-time

College of Pharmacy Riyadh, Saudi Arabia





Alfaisal University Feb 2018 – Jan 2022 Research & Teaching Assistant - Full-time

College of Pharmacy Riyadh, Saudi Arabia



**KFSH&RC**Jun 2016 – May 2017

**PharmD Intern -** Full-time Pharmaceutical Care Department Riyadh, Saudi Arabia

## Research

#### **Publications:**

- **1.** Alwadi M. Y., **Alwadi A. Y.**, Abdulmuniem E., Omer S. A., Shalaby A. O. <u>Methamphetamine addiction in Sudan: examining the knowledge, attitudes, and practices of 24 Al-qurashi residents—a novel cross-sectional approach.</u>
- **2. Alwadi A. Y.**, Arafeh G. M., Almehlesi M. S., Maswadeh H. M., Salman I. M., and Ameer O. Z. <u>Comparative Analysis of Commercially Available Paracetamol Tablets in Saudi Arabia</u>. *Dissolution Technologies*. 2022 Aug; DOI: dx.doi.org/10.14227/DT290322PGC2
- **3. Alwadi A. Y.**, <u>Selection and Characterization of DNA Aptamers for the Monitoring and Management of Apixaban-Induced Major Bleeding</u>. *PQDT-Global*. 2022 Jan; 29321695.

- **4.** Maswadeh H. M., Abdellatif A. H., Amin M. A., **Alwadi A. Y.**, and Ibrahim M. A. <u>Prediction of Plasma Drug Concentration Profiles and Pharmacokinetic Parameters of Nifedipine Commercial Tablets Using the Convolution Method</u>. *Research J. Pharm. and Tech.* 2021 Oct; 14(10):5380-4. DOI: 10.52711/0974-360X.2021.00938.
- **5.** Ameer O. Z., Salman I. M., **Alwadi A. Y.**, et al. <u>Regional Functional and Structural Abnormalities within the Aorta as a Potential Driver of Vascular Disease in Metabolic Syndrome</u>. *Exp Physiol*. 2021 Mar; 106(3):771-788. DOI: 10.1113/EP089213.

#### Accepted articles:

- **1.** Tobeili M., Mulla F., Adam D. R., Khanfar M. A., Abdulkarim M. F., Salman I. M., **Alwadi A. Y.** and Ameer O. Z. Evaluation of Pharmaco-equivalence Properties of Oral Lisinopril Dihydrate Tablets: A Local Comparative Study. *Dissolution Technologies*. 2025.
- **2.** Abdulkarim M. F., Adam D. R., Alzahrani Y., Binsaeed N., **Alwadi A. Y.**, Ameer O. Z. and Mahrous G. M. Development of a Metformin Matrix Tablet: A Comparative Study with Marketed Sustained Release Formulation. *Farmacia*. 2025.

### **Current and ongoing research:**

- 1. Development of sustained release formation of empagliflozin/metformin with pharmaceutical equivalent properties to the innovator (Synjardy XR) for type II diabetes mellitus treatment.
- 2. Comparative analysis of metronidazole tablet formulations available from the local Saudi market.
- 3. Comparative analysis of clopidogrel tablet formulations available from the local Saudi market.
- 4. Therapeutic drug monitoring of posaconazole in critically ill pediatric patients (single-center study).
- 5. Development and validation of an electrochemical biosensor for the detection of apixaban.

# **Conference Proceedings**

#### **Published abstracts:**

- **1.** Salman I. M., Ameer O. Z. and **Alwadi A. Y.** <u>Differential expression of vascular dysfunction of smaller diameter arteries in a rodent model of metabolic syndrome</u>. *Journal of Hypertension*. 2021 Apr; 39(e250) DOI: 10.1097/01.hjh.0000747296.20754.a4. (**IF: 4.844**)
- **2.** Ameer O. Z., Salman I. M and **Alwadi A. Y.** <u>Regional Aortic Vascular Dysfunction in a Rodent Model of Metabolic</u> Syndrome. *Journal of Hypertension*. 2021 Apr; 39(e255) DOI: 10.1097/01.hjh.0000747368.82976.e5. (**IF: 4.844**)

#### **Posters:**

- **1.** Alotaibi, A., Aljumaa, R., Omran, S., Adam, D.R., Alamoudi, R., **Alwadi, A.Y.**, and Ameer, O.Z. <u>Navigating Bioequivalence in Relation to Quality Parameters of Various Clarithromycin Immediate-Release Tablet Brands</u>. The 16<sup>th</sup> Annual Research Day Student Poster Competition. Alfaisal University, Riyadh, Saudi Arabia, 2025 March. (Poster presentation)
- **2. Alwadi, A.Y.**, Salman, I.M., and Ameer, O.Z. <u>Changes in Metabolic Parameters and Vascular Dysfunction in a Metabolic Syndrome Rat Model</u>. The 15<sup>th</sup> Annual Research Day Student Poster Competition. Alfaisal University, Riyadh, Saudi Arabia, 2024 March. (Poster presentation)
- **3.** Tobeili, M., Mulla, F., Adam, D.R., **Alwadi, A.Y.**, and Ameer, O.Z. <u>Evaluation of Pharmaco-equivalence Properties of Oral Lisinopril Dihydrate Tablets</u>. The 15<sup>th</sup> Annual Research Day Student Poster Competition. Alfaisal University, Riyadh, Saudi Arabia, 2024 March. (Poster presentation)
- **4. Alwadi, A.Y.**, Arafeh, G.M., Salman, I.M., and Ameer, O.Z. <u>Analyzing Physical Quality Control Attributes of Different Acetaminophen Brands</u>. The 14<sup>th</sup> Annual Research Day Student Poster Competition. Alfaisal University, Riyadh, Saudi Arabia, 2023 March. (Poster presentation)

- **5. Alwadi, A.Y.**, Arafeh, G.M., and Zourob, M. <u>Development and Characterization of an Electrochemical Biosensor for the Detection of the Anticoagulant Agent Apixaban</u>. The 13<sup>th</sup> Annual Research Day Student Poster Competition. Alfaisal University, Riyadh, Saudi Arabia, 2022 March. (Poster presentation)
- **6. Alwadi, A.Y.**, Ameer, O.Z. and Salman, I.M. <u>Smaller Diameter Arteries Express A Differential Vascular Dysfunction in Metabolic Syndrome: A Preliminary Rodent Study</u>. The 12<sup>th</sup> Annual Research Day Student Poster Competition. Alfaisal University, Riyadh, Saudi Arabia, 2021 March. (Poster presentation)
- **7. Alwadi, A.Y.**, Salman, I.M., and Ameer, O.Z. <u>Segmental Aortic Dysfunction in A Metabolic Syndrome Rat Model</u>. The 11<sup>th</sup> Annual Research Day Student Poster Competition. Alfaisal University, Riyadh, Saudi Arabia, 2020 March. (Poster presentation)
- **8. Alwadi, A.Y.** and Maswadeh H. M. <u>An Investigation on Physical Quality Control Parameters of Commercially Available Paracetamol Tablets in the Kingdom of Saudi Arabia</u>. The 5<sup>th</sup> Pharmacy Research Day Competition. Qassim University, Buraidah, Saudi Arabia, 2017 February. (Poster presentation)

# **Teaching**

Courses Taught	Code	Delivery	Experience
Patient Care and Health System Management Laboratory I	PCL 477	Lectures/Lab	2018 – Present; 7 years
Patient Care and Health System Management Laboratory II	PCL 487	Lectures/Lab	2018 – Present; 7 years
Patient Care and Health System Management Laboratory III	PCL 595	Lectures/Lab	2019 – Present; 6 years
Patient Care and Health System Management Laboratory IV	PCL 5X4	Lectures/Lab	2019 – Present; 6 years
Self-care and Non-prescription Medicine	SCR 364	Lectures	2019 – Present; 6 years
Research Project	RSE 5X6	Lab	2023 – Present; 2 years
Pharmaceutics I	PHC 353	Lab	2018 – 2021; 3 years
Medicinal Chemistry	MCH 241	Lab	2018 – 2021; 3 years
Organic Chemistry	CHM 232	Lab	2018 – 2021; 3 years

# **Licensure and Memberships**

**SCFHS** – Saudi Commission for Health Specialists [17-J-P-0030521].

**ACCP** – American College of Clinical Pharmacy.

**IPSHD** – International Parliament for Scientists of Human Development.

### **Grants**

1. Pharmaco-equivalence and comparative studies of popular oral solid dosage forms from Saudi Arabia.

Role: Co-PI

Sponsor: Office of Research and Graduate Studies, Alfaisal University (IRG 24525)

**Amount: 50,000 SAR** 

**Duration:** Aug 2024 – Feb 2026

**2.** Development of sustained release formulation of empagliflozin /metformin with pharmaceutical equivalent properties to the innovator Synjardy<sup>®</sup> XR for type II diabetes mellitus treatment.

Role: Co-PI

**Sponsor:** Office of Research and Graduate Studies, Alfaisal University (**IRG 23522**)

**Amount:** 50,000 SAR

**Duration:** Feb 2023 – Feb 2025

3. In-vitro pharmaceutical analysis of popular generic solid dosage forms in Saudi Arabia.

Role: Co-PI

Sponsor: Office of Research and Graduate Studies, Alfaisal University (IRG 21313)

**Amount: 50,000 SAR** 

**Duration:** Feb 2021 – Feb 2023

**4.** Histopathological and biochemical changes associated with metabolic syndrome in a rat model of high fat diet and streptozotocin induced diabetes mellitus.

Role: RA

Sponsor: Office of Research and Graduate Studies, Alfaisal University (IRG 20307)

**Amount: 35,000 SAR** 

**Duration:** Feb 2020 – Feb 2022

**5.** Characterization of aortic regional functional and structural changes in diabetic rat models.

Role: Co-PI

Sponsor: Office of Research and Graduate Studies, Alfaisal University (IRG 18317)

**Amount:** 50,000 SAR

**Duration:** Feb 2018 – Feb 2020

### **Awards and Achievements**

- **1.** 3<sup>rd</sup> place at the "15<sup>th</sup> Annual Research Day Poster Competition", Alfaisal University (**2024**).
- **2.** 2<sup>nd</sup> place at the "14<sup>th</sup> Annual Research Day Poster Competition", Alfaisal University (**2023**).
- **3**. 2<sup>nd</sup> place at the "13<sup>th</sup> Annual Research Day Poster Competition", Alfaisal University (**2022**).
- **4.** Master of Biomedical Sciences Biotechnology degree with an *Excellent grade* and *First-Class honor*, received during the 10<sup>th</sup> batch graduation ceremony, Alfaisal University (**2021**).
- **5.** 1st place at the "12th Annual Research Day Poster Competition", Alfaisal University (**2021**).
- **6.** 3<sup>rd</sup> place at the "11<sup>th</sup> Annual Research Day Poster Competition", Alfaisal University (**2020**).
- 7. Graduate Program Scholarship from the Office of Research and Graduate Studies, Alfaisal University (2019).
- **8.** Best Research Poster Award at the "5<sup>th</sup> Pharmacy Research Day" conference, Qassim University (**2017**).
- **9.** Doctor of Pharmacy degree with an *Excellent grade* and *First-Class honor*, received during the 13th batch graduation ceremony, Qassim University (**2016**).
- **10.** Academic Excellence Golden Medal Awards for academic years of **2012**/**2013**, **2013**/**2014**, **2014**/**2015**, and **2015**/**2016**, Qassim University.
- 11. Leadership Honoree Award for academic year of 2012/2013 at College of Pharmacy, Qassim University (2012).
- 12. Internal Scholarship for Undergraduate Studies from the Ministry of Education, Saudi Arabia (2010).

### Referees

#### 1. Prof. Mohammed Zourob, PhD

Professor of Chemistry, College of Science and General Studies Alfaisal University, Riyadh, Kingdom of Saudi Arabia

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#### 2. Prof. Hamzah M. Maswadeh, PhD

Professor of Pharmaceutics, Head of Pharmaceutics Department, College of Pharmacy Qassim University, Buraidah, Kingdom of Saudi Arabia

**Tel:** +966 53 1263 569 **Email:** msodh@gu.edu.sa

### 3. Prof. Mohammed Khanfar, PhD

Professor of Medicinal Chemistry and Drug Design, Vice Dean, College of Pharmacy Alfaisal University, Riyadh, Kingdom of Saudi Arabia

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### 4. Dr. Omar Ziad Ameer, PhD

Associate Professor of Pharmacology, Head of Pharmaceutical Sciences Department, College of Pharmacy Alfaisal University, Riyadh, Kingdom of Saudi Arabia

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Email: oaladhami@alfaisal.edu

### 5. Dr. Ibrahim M. Salman, PhD

Associate Professor of Pharmacology, Head of Pharmacy Practice Department, College of Pharmacy Alfaisal University, Riyadh, Kingdom of Saudi Arabia

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