

## CONTACT

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## QUALIFICATIONS

- 2024  
UNIVERSITY OF MANCHESTER
- PhD in Medical Microbiology

- 2024  
UNIVERSITY OF MANCHESTER
- Fellow of Higher Education in Health and Medicine

- 2021  
UNIVERSITY OF MANCHESTER
- Postgraduate certificate for Medical and Health education

- 2013  
KING SAUD UNIVERSITY
- Master of Microbiology—Biotechnology

- 2009  
KING SAUD UNIVERSITY
- Bachelor of Botany and Microbiology

## LANGUAGES

- English (Fluent)
- Arabic (Fluent)

# ALJAWHARAH F. ALABBAD

## Assistant Professor

## PROFILE

I am a researcher in microbiology and protein-based vaccine development, specialising in the molecular mechanisms of bacterial infection and vaccine design strategies. With over 14 years of experience as a Teaching Assistant at King Saud University, I have taught and supervised undergraduate and postgraduate students in microbiology, immunology, and molecular biology courses and laboratories. Beyond teaching, I have led and implemented various academic and administrative projects, including curriculum design, quality assurance, and e-learning platforms. My expertise extends to administration, operating systems, and ISO standards, enabling me to optimise research and teaching processes. I am passionate about advancing scientific knowledge and innovation in biotechnology, contributing to global health and well-being. I value collaboration, diversity, and excellence and seek to work with teams that share these values and aspirations.

## WORK EXPERIENCE

● King Saud University	2025 - PRESENT
Assistant professor	
● King Saud University	2019 - 2025
Lecturer	
● University of Manchester	2019 - 2024
Teaching assistant	
● King Saud University	2016 - 2017
Manager of innovation unit of science college.	
● Mawhiba	2015 - 2016
Post trainer of Biology	
● King Saud University	2009 - 2019
Demonstrator	

## COMMITTEE PARTICIPATION

● King Saud University	2009 - 2017
Member of the Evaluation Committee and Academic Accreditation	
● King Saud University	2009 - 2010
Member of the Supervisory Committee on laboratories	

## LABORATORY SKILLS

- Protein engineering
- Protein purifications
- Molecular cloning
- Cell culture
- *In vivo* studies
- Data Analysis
- Gene designing

## SOCIAL SKILLS

- Career ambition
- Charisma
- Innovation
- Effective communication
- Team work spirit
- Healthy Competition
- Problem-solving skills
- Social Responsibility
- Leading
- Ethics of leadership
- Public speaking

## INTEREST

- Protein-based vaccine
- Vaccine strategies
- Immunological assays
- Biotechnology
- Microarray technology

### King Saud University

2010

Member of the Commission annual reports

### King Saud University

2010

Member of the Supervisory Committee on the functioning tests

### King Saud University

2010 - 2017

Member of the Committee on Academic Advising for students

### King Saud University

2014 - 2017

Member of Steering committee in Accreditation program for the department

### King Saud University

2015 - 2016

Member of ISO quality management system at the level of department

## PUBLICATIONS

- Patent contribution. Derrick, J. R., S, 2023. *Virus-like particles*, in International Bureau, Property, W.I., Editor. WO2023187383A1. p. 169.
- Al-Homaidan AA, Al-Abbad AF, Al-Hazzani AA, Al-Ghanayem AA, Alabdullatif JA. *Lead removal by Spirulina platensis biomass*. Int J Phytoremediation. 2016;18(2):184-9. doi: 10.1080/15226514.2015.1073673. PMID: 26280392.
- Al-Homaidan AA, Alabdullatif JA, Al-Hazzani AA, Al-Ghanayem AA, Alabbad AF. *Adsorptive removal of cadmium ions by Spirulina platensis dry biomass*. Saudi J Biol Sci. 2015 Nov;22(6):795-800. doi: 10.1016/j.sjbs.2015.06.010. Epub 2015 Jun 16. PMID: 26587009; PMCID: PMC4625374.
- Al-Homaidan, A.A., Al-Abbad, A.F. 2015. *Adsorption of Pb (II) ions on Spirulina biomass: An eco-friendly process*. International Journal of Environmental Engineering. 2(1): 53.
- Al-Homaidan AA, Al-Ghanayem AA, Al-Qahtani HS, Al-Abbad AF, Alabdullatif JA, Alwakeel SS, Ameen F. *Effect of sampling time on the heavy metal concentrations of brown algae: A bioindicator study on the Arabian Gulf coast*. Chemosphere. 2021 Jan;263:127998. doi: 10.1016/j.chemosphere.2020.127998. Epub 2020 Aug 18. PMID: 32835982.
- Master's Dissertation: "*Lead Removal by Spirulina platensis Biomass*" supervised by Prof. Ali AlHumaidan and Prof. Amal Alhazzani.
- PhD Thesis: "*Developing Novel Protein-Based Strategies for Combating Infectious Disease Transmission*" supervised by Prof. Jeremy Derrick and Dr. Jennifer Cavet.

## CONFERENCES

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- **2023 International Society for Vaccines (ISV) Annual Congress**, Lausanne, Switzerland, 22-24 October 2023 – Presented a poster titled "A Novel Virus-Like Particle Vaccine Platform Elicits Robust IgG Responses Against Selected Meningococcal Antigens in vivo".
- **23rd International Pathogenic Neisseria Conference (IPNC 2023)**, Boston, MA, USA, 24-29 September 2023 – Presented a poster titled "A Novel Virus-Like Particle Vaccine Platform Elicits Robust IgG Responses Against Selected Meningococcal Antigens in vivo".

## WORKSHOPS, TRAINING & CERTIFICATIONS

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### *Professional Development & Training Programs*

- **20th International Vaccinology Course** – International Vaccine Institute (IVI), Seoul, 6-10 September 2021.
- **Bacterial Genomes: From DNA to Protein Function Using Bioinformatics** – Wellcome Genome Campus Advanced Courses & Scientific Conferences, accredited by the Royal College of Pathologists (10 CPD credits), 2020.
- **MATLAB & SIMULINK: From Algorithm to Simulation** – Innovation and Prototyping Center (IPC), King Abdulaziz University, 8/10/2020 (4-day online workshop).
- **English Language Courses** (Intermediate, Upper Intermediate, and Advanced Levels) – University of Manchester, UK (2017–2018).
- **Pre-sessional Academic English Course** (Five Months) – University of Manchester, UK (2018).
- **Research Integrity in Biomedical Sciences** – Oxford University Press, 24 September 2018.
- **Creative Teaching Skills Program** – King Saud University (KSU), 16/11/2014 (6 training hours).
- **Ethics of University Teaching Profession Program** – KSU, 12/11/2014 (5 training hours).
- **Mind Maps: Applications in College Teaching** – KSU, 19-20/11/2014 (10 training hours).
- **Building and Managing Teams Program** – KSU, 24/11/2014 (6 training hours).
- **Integrating Technology in University Teaching** – KSU, 8-10/3/1436 H (12 training hours).
- **Basics of Committee Work Program** – KSU, 22-23/2/1436 H (8 training hours).
- **Quality Management System in Educational Institutions (ISO 9001:2008)** – KSU, 15-17/8/1436 H (2-4/6/2015) (15 training hours).
- **In-Depth Study of ISO 9001 Standards** – KSU, 28-1/5-6/1437 H (8-10/3/2016) (12 training hours).
- **Internal Quality Auditor Qualification Program** – KSU, 11-12, 15/6/1437 H (20-21, 24/3/2016) (12 training hours).

### *Workshops & Specialised Training*

- **Workshop on Educational Plan Updates** – Department of Botany and Microbiology, KSU, 16/12/2009.
- **Obesity and Lifestyle Changes Workshop** – Organised under the Sheikh Ali bin Sulaiman Chair for Obesity Studies, Faculty of Medicine, King Khalid University Hospital, KSU, 15/05/1431 H.

- **Intellectual Property & Technology Licensing Workshop** – Organised by the Developmental Agency for Higher Studies and Scientific Research, KSU, 26/04/2010.
- **Academic Guidance Workshop** – Organised by the Department of Botany and Microbiology, KSU, 1431 H.
- **Workshop on Excellence in Petrochemicals: National & International Vision.**
- **International Computer Driving License (ICDL) Course** – Institute of New Horizons, 1429 H.
- **Laboratory Training** – Central Labs, College of Science & Medical Studies, as a prerequisite for Biotechnology Assistant Decision (Master's Level), Malaz Campus, 1430 H.

### ***Trainer & Leadership Roles***

- **Biology Trainer – Mawhiba Summer Forum (Saudi Arabia International Teams for the Science Olympiad):**
  1. Princess Nourah University, Riyadh – 18-28/8/1436 H (5-15/6/2015).
  2. Courtyard Marriott Hotel, Riyadh – 30/11-3/4/1437 H (10-21/1/2016).
  3. Novotel Suites, Riyadh – 19-29/8/1437 H (26/5-5/6/2016).
- **Contributor to Science Olympiad Training Packages** – Developed training materials on Human Biology, Taxonomy & Ecology, Cytology & Tissue, and Genetics for the Saudi Arabia International Olympiad Team, as part of Mawhiba initiatives.