Curriculum Vitae (CV) for Faculty Staff

Personal statement: Assistant Professor and dentist with a PhD in Dentistry from Queen's University Belfast, leading research on the role of *Fusobacterium nucleatum* and the oral microbiome in oral squamous cell carcinoma. My work investigates tumour-microbe interactions, cancer-associated inflammation, and how oral bacteria influence responses to therapeutic agents. I bring expertise in cellular and molecular biology, microbiological infection models, 3D tumour spheroids and transcriptomic analysis. I am committed to uncovering the molecular mechanisms linking the oral microbiome to cancer progression and treatment response and to deliver research-led .dental education

1. Personal Information	
Name:	**Bara'a Yousef El-Dwaikat**
Date and place of birth	**14/5/1998 Saudi Arabia**
Faculty:	**Dentistry**
Department:	**Basic Dental Sciences**
Contact info.	**Baraa.eldwaikat@isums.edu.jo**

2. Education			
Date	**Issuing institute**	**Field**	**Degree**
2016-2021	**Jordan University of Science and Technology**	**Dental Surgery**	**Bachelor (BDS)**
2023-2026	**Queen's University Belfast**	**Dentistry**	**PhD**

3. Specialization and area of interest	
General	**Dentistry – Oral Cancer and Microbiology Research**
Focus area	**Oral Cancer Biology, Tumour–Microbe Interactions, Molecular Pathways of Cancer and the Impact of the Oral Microbiome on Chemotherapeutic Response**

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4. Professional experience	
Position	**Date**
Teaching Assistant and Demonstrator at Queen's University Belfast	**2024–2026**
Assistant Professor at Ibn Sina University of medical sciences	**2026- currently**

5. Research Experience
Investigations of the effects of *Fusobacterium nucleatum* infection on oral squamous cell carcinoma via three-dimensional SCC-4 spheroid models (*in vitro*).
Investigations of the cellular responses using RNA sequencing, ELISA, quantitative PCR and Western blotting.
Assessment of apoptosis and cell death using caspase-3/7 and LDH-based assays.
Bulk RNA-sequencing analysis, differential gene expression and pathway enrichment analysis.
Investigations of pharmacological modulation of chemotherapeutic agents and NF-kB inhibitors.

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6. Publications	
Name of Author(s)	**Title**
ORCID: 0009-0007-1716-3841	
El-Dwaikat, B., El Karim, I., Longley, D.B., Moynagh, P.N., Lundy, F.T.	Role of *Fusobacterium nucleatum* in the pathogenesis of oral squamous cell carcinoma: A systematic review of molecular mechanisms and signalling pathways. **Archives of Oral Biology, 179, 106369.** DOI: 10.1016/j.archoralbio.2025.106369

7. Conferences and Presentations		
Name- organizer	**Place and date**	**Type of participation**
International Association for Dental Research (IADR) General Session & Exhibition	**San Diego, USA. 2026**	**Oral presentation**
International Association for Dental Research (IADR) General Session & Exhibition	**Barcelona, Spain. 2025**	**Poster presentation.**
International Association for Dental Research (IADR) Annual Scientific Meeting Irish Division.	**Belfast, UK. 2024**	**Poster presentation.**
NewTom Forum. The pioneer of cone beam ct conference	**Milan, Italy. 2021**	**Attendee**

8. Training courses	
Course name-organizer	**Date**
Small Group Teaching and Lab Demonstration. Centre for Educational Development at Queen's University Belfast	**2024**

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Tips for Improving Peer Review and Authorship. IADR/PER General Session & Exhibition, Barcelona	**2025**
Clinical Techniques to Improve Endodontic Success – What Do the Guidelines Say? and Endodontic Microsurgery – Why, When and How? British Dental Association, Northern Ireland Branch	**2024**
Medication-Related Osteonecrosis. Jordan Dental Association	**2022**
Master Clear Aligner	**2021**
Pregnancy and Breastfeeding During COVID-19. Harvard Medical School	**2020**
Treatment of Infectious Disease and Immunocompromised Patients. Harvard Medical School	**2020**

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9. Teaching Experience for last 5 years		
Course Name	**Year**	**Institute**
Teaching Assistant and Demonstrator in histology, biomedical sciences, microbiology and physiology	**2024-2026**	**Dentistry and medicine department at Queen's University Belfast**

10. committees' membership and community service	
Date	**Name or type of membership/service**
2024-currently	International Association for Dental Research (IADR), Member

11. Awards And Honors		
Name	**Date**	**Issuing authority**
PhD researchers' annual symposium	March/2026	Queen's University Belfast-Wellcome Wolfson institute for experimental medicine

12. Other skills
Scientific writing and academic communication
Research project planning and management as well as Research laboratory record documentation
Scientific literature review and critical appraisal and Systematic review methodology
Scientific presentation and public speaking

13. References
Prof. Fionnuala Lundy (F.Lundy@qub.ac.uk)
Prof. Paul Moyngah (p.moynagh@qub.ac.uk)
Prof. Dan Longley (d.longley@qub.ac.uk)

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