جامعة الشرقية
A' SHARQIYAH UNIVERSITY

# Application for Academic Promotion to Associate Professor
# Call 2026


**Dr. Einas Awad Ibrahim Osman**

**Assistant Professor in Microbiology**

**College of Applied and Health Sciences**

**Department of Health Sciences**

# Contents

# Cover Letter

**Cover Letter for Academic Promotion**

**Dr. Einas Awad Ibrahim Osman**
Assistant Professor, Medical Laboratory Sciences
College of Applied and Health Sciences
A' Sharqiyah University

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**Prof. Yahya Al Wahaibi**
Vice Chancellor
A' Sharqiyah University

**Subject:** Application for Promotion from Assistant Professor to Associate Professor

Dear Prof. Al Wahaibi,

I am writing to formally apply for promotion to the rank of Associate Professor in the Department of Health Sciences, College of Applied and Health Sciences, effective from my current position as Assistant Professor. Having served A' Sharqiyah University with dedication since September 2023, I believe my academic accomplishments, research contributions, and service to the university community demonstrate my readiness for this advancement.

**Academic Excellence and Teaching Innovation**

During my tenure at A' Sharqiyah University, I have successfully delivered diverse courses across medical laboratory disciplines including Medical Bacteriology, Medical Mycology, Medical Bacteriology, Medical Parasitology, Microbiology, Molecular Biology, Genetics, Histology and Cytology, Toxicology and Health Education & wellness. My commitment to educational excellence is evidenced by:

- Development of three comprehensive laboratory manuals for Medical Mycology, Molecular Biology, and Basic Microbiology, featuring detailed explanations and visual aids that significantly enhanced student learning outcomes
- Successful coordination of clinical practicum programs for 81 students across 17 healthcare facilities throughout Oman
- Implementation of innovative supervision frameworks with systematic evaluation methodologies
- Consistent achievement of high student satisfaction scores and successful completion rates across all taught courses

**Research Achievements and Scholarly Impact**

My research portfolio demonstrates sustained productivity and growing international recognition:

- **Publications:** 9 peer-reviewed publications in high-impact, Scopus-indexed journals spanning antimicrobial resistance, molecular biology, and medical microbiology

- **Book Publication:** Published "**Essential Medical Mycology**" (Noor Publishing, 2025), contributing valuable educational resources to the field
- **International Recognition:** Presented research at multiple international conferences, including the 8th UAE International Conference on Antimicrobial Resistance and served as a session chair at the 8th National Conference on Metaverse and AI
- **Professional Development:** Attended the African Researcher Career Development Workshop in Johannesburg, South Africa, enhancing my research capabilities and international networks
- **Grant Applications:** Submitted multiple research proposals demonstrating active pursuit of external funding opportunities

**Administrative Leadership and Service Excellence**

My contributions to university administration and community service include:

- **Event Leadership:** Successfully spearheaded the organization of Biomedical Day 2025, managing comprehensive planning, stakeholder coordination, and logistics
- **Program Development:** Key member of the Program Development Committee for establishing the Bachelor of Science in Nursing program for academic year 2025/26, contributing to curriculum design and program framework
- **Committee Service:** Active participation in Teaching and Learning Committee, with responsibilities including faculty development and policy implementation
- **Community Engagement:** Led innovative research projects with secondary schools focusing on sustainable energy solutions and green hydrogen production
- **Healthcare Coordination:** Managed vaccination programs for the entire student population and established robust partnerships with healthcare institutions

**Performance Recognition**

My commitment to excellence has been consistently recognized through performance appraisals, achieving an overall score of 96/100 in my most recent evaluation. The appraisal highlighted my:

- Exceptional teaching capabilities and student engagement
- Strong research productivity and international presence
- Effective administrative coordination and leadership skills
- Valuable contributions to community development and outreach

**Alignment with University Strategic Goals**

My work directly supports A' Sharqiyah University's mission of advancing knowledge through innovative learning and applied research. Through international collaborations, community partnerships, and interdisciplinary research initiatives, I have contributed to raising the university's profile both nationally and internationally.

**Future Commitments**

As Associate Professor, I am committed to:

- Expanding research collaborations and securing external funding
- Mentoring junior faculty and doctoral students
- Enhancing laboratory infrastructure and research capabilities
- Strengthening community partnerships and industry connections
- Contributing to curriculum development and program accreditation initiatives

I assert that my academic qualifications, teaching excellence, research accomplishments, and service contributions fulfil the criteria for promotion to Associate Professor. My PhD in Molecular Biology from Khartoum University (2020), combined with four years of progressive experience at the Assistant Professor level across two distinguished institutions, demonstrates my academic maturity and readiness for advancement. My extensive practical experience and demonstrated leadership capabilities position me well for increased responsibilities and continued contribution to the university's mission.

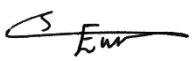
I respectfully request your consideration of this application and welcome the opportunity to discuss my qualifications and future contributions to A' Sharqiyah University.

Thank you for your time and consideration.

Sincerely,

07/09/2025

**Dr. Einas Awad Ibrahim Osman**



Assistant Professor in Medical Laboratory Sciences
College of Applied and Health Sciences
A' Sharqiyah University

# Curriculum Vitae

# DR. EINAS OSMAN, Ph.D.

Medical Microbiology & Molecular Biology Specialist
Email: einas.osman@asu.edu.om
ORCID: https://orcid.org/0000-0003-2567-889X
Google Scholar: https://scholar.google.com/citations?user=06GoXOcAAAAJ
ResearchGate: https://www.researchgate.net/profile/Einas-Osman


## PROFESSIONAL SUMMARY


Accomplished Molecular Biologist and Medical Microbiologist with 15+ years of progressive experience in academic research, teaching, and clinical laboratory management. Expert in antimicrobial resistance research, molecular diagnostics, and curriculum development. Proven track record of securing competitive research grants, publishing in high-impact journals, and mentoring students and junior faculty, and currently serving as an Assistant Professor while leading international research collaborations and institutional committees.


## EDUCATION

**PhD in Molecular Biology** | 2016-2020
Institute of Endemic Diseases, University of Khartoum, Sudan
*Thesis: Molecular characterisation of antimicrobial resistance mechanisms*

**MSc Medical Laboratory Sciences (Microbiology)** | 2011-2013
University of Medical Science and Technology, Khartoum, Sudan

**BSc Medical Laboratory Sciences** | 2000-2004
Sudan University of Sciences and Technology, Khartoum, Sudan
*Major: Microbiology*

## PROFESSIONAL APPOINTMENTS

**Assistant Professor of Medical Microbiology** | Sep 2023 – Present
College of Applied and Health Sciences, A'Sharqiyah University, Ibra, Oman

- Teach undergraduate courses in Medical Microbiology, Molecular Biology, and Genetics
- Supervise student research projects and clinical practicum
- Develop and revise curriculum for the medical laboratory sciences program
- Serve on multiple university committees, including the Teaching & Learning Committee

**Assistant Professor & Postgraduate Coordinator** | Nov 2020 – Jul 2023
Faculty of Medical Laboratories Sciences, Ibn Sina University, Khartoum, Sudan

- Coordinated postgraduate programs and research activities
- Taught advanced molecular biology and microbiology courses
- Mentored graduate students and junior faculty members

**Molecular Biology Consultant & Technical Manager** | Jul 2021 – Apr 2023
Al-Saaha Specialised Hospital, Khartoum, Sudan

- Managed molecular biology laboratory operations
- Oversaw COVID-19 testing and other molecular diagnostics
- Implemented quality control and assurance protocols

**Postdoctoral Research Fellow** | Nov 2019 – Jul 2023
Biosciences Research Institute, Ibn Sina University, Khartoum, Sudan

- Led research on antimicrobial resistance mechanisms
- Collaborated with international partners from UK institutions
- Supervised junior researchers and laboratory staff

**Lecturer of Microbiology** | Dec 2014 – Nov 2020
Faculty of Medical Laboratories Sciences, Ibn Sina University, Khartoum, Sudan

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## RESEARCH GRANTS & AWARDS

**Principal Investigator** | 2024-2026
"Predicting Cardiovascular Disease Risk Using Visceral Adiposity Index in Omani Population"
Ministry of Higher Education, Research and Innovation (MOHERI)

- Award: 2,000 OMR | Project ID: BFP/URG/HSS/24/001

**Research Collaborator** | 2020-2022
"Establishment of One Health Platform to Reduce Antibiotic Resistance in Nile Valley"
Global Challenges Research Fund (GCRF) – Academy of Medical Sciences

- Award: £24,950 | International consortium across 15 countries

**Principal Investigator** | 2019-2020
"Promoting Research Excellence in Antimicrobial Resistance Research in Sudan"
International Development Challenge Fund (IDCF)

- Award: £52,400

**Principal Investigator** | 2017-2018
"Molecular Characterization of β-Lactamases Producing Klebsiella pneumoniae"
Wellcome Trust Brighton and Sussex Center for Global Health Research

- Award: £10,000

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## SELECTED PUBLICATIONS FOR PROMOTION

*✉ denotes corresponding author*

**Latest article:**

**Omer SA**, Abdrabo AA, Omar AA, **Osman EA**✉. (2025). Diagnostic and prognostic value of anti-cyclic citrullinated peptide and Rheumatoid Factor in rheumatoid arthritis patients. *Georgian Medical News*. (**Accepted for publication**).

**Published Journal Articles:**

1. **Al-Hassan L**, Nowbuth AA, Beyene GT, Yeshitela B, Berhe DF, Desta K, Wolde M, Schneiders T, Hussein A, Zafer M, Elshimy R, El-Mahallawy H, El-Amin N, Roemer-Mahler A, Aizzeldin S, Higgins PG, Moghith A, Nahar P, **Osman EA** ✉, Mukhtar M. (2025). A Scoping Review of Antibiotic Resistance through a One Health Lens. *Frontiers in Tropical Diseases*. 6. https://doi.org/10.3389/fitd.2025.1629274

2. **Alblooshi MM**, Alkalbani NH, Al-Joubori B, Saadoun I, Hussein E, **Osman EA**, Saifeldin T. (2025). Microbial profiling and safety assessment of fish marketed in UAE. *Arab Journal of Basic and Applied Sciences*. 32(1). https://doi.org/10.1080/25765299.2025.2482295

3. **Afzal M**, Agarwal S, Elshaikh RH, Babker AMA, **Osman EAI**, Choudhary RK, Jaiswal S, Zahir F, Prabhakar PK, Abbas AM, Shalabi MG, Sah AK. (2025). Innovative Diagnostic Approaches in HIV Management. *Life*. 15(2), 209. https://doi.org/10.3390/life15020209

4. **Osman EA**, Omer SA, Elmubarak RMA, Abdelnabi M, Abdelgadir S, Ahmed DG, Arbab Nasr MH, Yousif M, Mukhtar M, Al-Hassan L. (2024). Antibiotic Resistance in Sudan: Assessing Knowledge and Practices of Healthcare Workers. *JAC-Antimicrobial Resistance*. 6(2). https://doi.org/10.1093/jacamr/dlae049

5. **Osman EA**, Yokoyama M, Altayb HN, Cantillon D, Wille J, Seifert H, Higgins PG, Al-Hassan L. (2023). Klebsiella pneumonia in Sudan: Multidrug Resistance, Polyclonal Dissemination, and Virulence. *Antibiotics*. 12(2), 233. https://doi.org/10.3390/antibiotics12020233

6. **Al-Hassan L**, Elbadawi H, **Osman E**, Ali S, Elhag K, Cantillon D, Wille J, Seifert H, Higgins PG. (2021). Molecular Epidemiology of Carbapenem Resistant Acinetobacter baumannii from Sudan. *Frontiers in Microbiology*. 12:628736. https://doi.org/10.3389/fmicb.2021.628736

7. **Ali KM**, Ali AH, Ali MA, **Osman E**, Yousif YS. (2021). Phenotypic and Genotypic Pattern of Acinetobacter baumannii at Hospital Setting Khartoum State, Sudan. *EC Microbiology*. 17(3):44-54.

8. **Osman EA†**, El-Amin N, Al-Hassan L, Mukhtar M. (2021). Multi-clonal spread of Klebsiella pneumoniae across hospitals in Khartoum, Sudan. *Journal of Global Antimicrobial Resistance*. 24:241-245. https://doi.org/10.1016/j.jgar.2020.12.004

9. **Osman EA**, El-Amin N, Adrees EAE, Al-Hassan L, Mukhtar M. (2020). Comparing conventional, biochemical and genotypic methods for accurate identification of Klebsiella pneumoniae in Sudan. *Access Microbiology*. 2(3). https://doi.org/10.1099/acmi.0.000096

10. **Ibrahim SM**, Ibrahim AM, Ibrahim OA, **Osman EA**, Amid OM, Alaziz HA. (2020). Antimicrobial Resistant Pattern of Acinetobacter Baumannii Among ICU Patients in Khartoum State-Sudan. *World Journal of Pharmaceutical Research*. 9(5).

11. **El Amin N**, **Osman E**, Al-Hassan L, Abdalrahman I. (2019). Epidemiology of Antibiotic Resistance in Culture-positive Hospitalised Patients in Selected Hospitals in Khartoum, Sudan. *Sudan Journal of Medical Sciences*. 14(1):15-23.

12. **Ibrahim EA**, El Amin N. (2015). High prevalence of multidrug-resistant Acinetobacter species in Khartoum intensive care unit. *American Journal of Research Communication*. 3(2):35-42.

**Book Publication:**
**Osman E**. (2025). *Essential Medical Mycology*. Noor Publishing.
ISBN-13: 978-6208870362 | ISBN-10: 6208870364. https://www.amazon.com/Essential-Medical-Mycology-Einas-Osman/dp/6208870364

**Conference Abstracts & Presentations:**

1. **Osman E**, Abdelrahim M. (2025). Comparative Analysis of AI-Driven Translation Platforms. *Keynote oral presentation & Session Chair*. 8th National Conference on Metaverse and AI-Driven Approaches, Al-Buraimi University College, Oman.
2. **Osman E**, Al-Gheilani S, Al-Rajhi A, Hussein E. (2025). Knowledge, Attitudes, and Practices Regarding Antibiotic Use and Resistance in Oman. *Poster presentation*. 8th UAE International Conference on Antimicrobial Resistance, Dubai, UAE.
3. **Osman E**. (2024). Antibiotic resistance in Sudan: assessing knowledge and practices of healthcare workers. *Oral presentation*. ASU Research Day, A'Sharqiyah University, Oman.
4. Satti A, Mohager MO, Abdelraheem MH, Yousif M, Alhassan L, **Osman E**. (2023). Outbreak of Burkholderia cepacia Complex in neonatal intensive Care Unit. *Poster presentation*. 33rd ECCMID, Copenhagen, Denmark.
5. **Al-Hassan L**, Tesfaye G, Yeshitela B, Desta K, Wolde M, Schneiders T, Farouk A, Zafer M, Elshimy R, El-Mahallawy H, El-Amin N, **Osman E**, Izzeldin S, Afdal A, Nahar P, Roemer-Mahler A, Mukhtar M. (2023). A Scoping Review of Antibiotic Resistance within One Health across the Nile Valley. *Poster presentation*. 33rd ECCMID, Copenhagen, Denmark.
6. **Osman EA**, Yokoyama M, Altayb HN, Cantillon D, Wille J, Seifert H, Higgins PG, Al-Hassan L. (2022). Klebsiella pneumonia in Sudan: Multidrug Resistance, Polyclonal Dissemination, and Virulence. *Poster presentation*. IMMEM XIII, Bath, UK.
7. **Osman E**, Ali S, Cantillon D, Willie J, Seifert H, Higgins P, Al-Hassan L. (2020). Molecular epidemiology of Acinetobacter baumannii in Sudan. *Poster presentation*. 30th ECCMID, Paris, France.
8. **Awad E**, Mukhtar M, Al-Hassan L. (2019). Multi-clonal spread of Klebsiella pneumoniae across hospitals in Khartoum, Sudan. *Oral presentation*. 29th ECCMID, Amsterdam, Netherlands.
9. **Osman E**. (2018). High prevalence of New Delhi Metalo β-Lactamases in Multidrug-Resistant Klebsiella pneumoniae sequence type 101 in Sudan. *Poster presentation*. 3rd GCCMID, Dubai, UAE.

**PROFESSIONAL DEVELOPMENT & TRAINING**

- African Researcher Career Development Workshop | Nov 2024 | Johannesburg, South Africa

- Business Development Training Program | Aug 2022 | Zafar Training Centre, Sudan
- Clinical Bioinformatics of Microbial Genomics & Metagenomics | Sep 2019 | Lausanne, Switzerland
- Whole Genome Sequencing Training | Jun 2019 | Brighton and Sussex Medical School, UK
- Linux & Python Programming Course | Feb 2019 | International University of Africa, Sudan
- Molecular Biotechnology & Bioinformatics Workshop | Feb 2018 | ICSCCB, Pune, India
- Bacterial Genomes & Antimicrobial Resistance Course | Nov 2018 | Wellcome Sanger Institute, UK

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## LEADERSHIP & SERVICE

### University Committees (A'Sharqiyah University)

- Chair, University Research Ethics and Biosafety Committee (2025-Present)
- Member, University Research and Enterprise Committee (2025-Present)
- Chair, College Research and Enterprise Committee (2025-Present)
- Member, Teaching and Learning Committee (2023-Present)
- Member, Exam & Academic Integrity Committee (2024-2025)

### Professional Memberships

- European Society of Clinical Microbiology and Infectious Diseases (2018-Present)
- Member, Senate of Ibn Sina University (2017-2018)

### Community Engagement

- External Grant Reviewer, University of Buraimi (2023-2024)
- Coordinator, Blood Bank Conference with Ibra Reference Hospital (2024)
- Supervisor, Secondary School Research Projects (2023-2024)
- Healthcare Professional Development Trainer

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## CONFERENCE PRESENTATIONS

**Keynote Speaker & Session Chair** | May 2025
8th National Conference on Metaverse and AI-Driven Approaches, Al-Buraimi University College, Oman

**Oral Presentation** | May 2024
"Antibiotic Resistance in Sudan" - ASU Research Day, A'Sharqiyah University, Oman

**Poster Presentations** | 2023-2025

- 33rd ECCMID (Copenhagen, Denmark)
- 8th UAE International Conference on Antimicrobial Resistance (Dubai, UAE)
- IMMEM XIII (Bath, UK)
- 30th ECCMID (Paris, France)
- 29th ECCMID (Amsterdam, Netherlands)

## TECHNICAL EXPERTISE

**Molecular Techniques**: Whole Genome Sequencing, PCR, MLST, DNA extraction, Gel electrophoresis
**Bioinformatics**: Linux, Python, Genomic analysis, BLAST, MultiAlin
**Laboratory Management**: Quality control, SOP development, Staff training, Equipment maintenance
**Teaching**: Curriculum development, E-learning platforms, Student assessment, Academic advising
**Research**: Grant writing, Project management, Data analysis, Scientific writing, Peer review

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## LANGUAGES

- Arabic (Native)
- English (Fluent)

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## REFERENCES

Available upon request

# Section 1

# Response to the Promotion Criteria

# Introduction

According to the Academic Promotions Policy (Section 6.2.1), an applicant must fulfil the specified criteria to be promoted from Assistant Professor to Associate Professor. This promotion case is organized into four primary sections: Introduction, Teaching, Research, and University/Community Services.

**In Section 1 (Introduction), the response to the following Criteria is presented:**

**Criterion 1: Hold a PhD in a relevant discipline from a university recognized by the Ministry of Higher Education, Research and Innovation**

I obtained my PhD in Molecular Biology from Khartoum University, Sudan, in 2020. This full-time program provided comprehensive training in molecular biology, microbiology, and antimicrobial resistance research, directly relevant to my current position in Medical Laboratory Sciences.

**Evidence:** Folder A Doc. A1 & A2

**Criterion 2: Have a minimum of 4 years' experience at the rank of Assistant Professor on full-time basis of which at least 2 years should have been spent at A 'Sharqiyah University**

I have more than four years of experience at the Assistant Professor level:

- Ibn Sina University, Sudan: November 2020 - July 2023 (2 years, 8 months)
- A' Sharqiyah University, Oman: September 2023 - present (2+ years)

**Total Experience:** 5+ years at Assistant Professor level, with 2+ years at A' Sharqiyah University, exceeding the minimum requirements.

**Evidence:**

- Folder A Doc. A3 Documentation from HR (A' Sharqiyah University employment) (9/2023-current)
- Folder A Doc. A4 Employment documentation from Ibn Sina University, Sudan (2020-2023)

**Criterion 3: Evidence of teaching excellence and innovation**

My teaching excellence is demonstrated through:

- Active participation in curriculum development, including:
  1. Key-member in Program Development Committee for Bachelor of Science in Nursing program (2024/25) (**Evidence:** Folder A Doc, A5)
  2. External reviewer for master's program proposal in Blood Sciences from Sultan Qaboos University (2024), demonstrating recognition of expertise by university leadership and external institutions. (**Evidence:** Folder A Doc, A6 and A7)

- Successful coordination of clinical practicum programs (internships) for 81 students across 17 healthcare facilities throughout Oman. (**Evidence:** Folder A Doc, A8)
- Developed and modified curriculum for Molecular Biology course to align with MDLS program requirements. (**Evidence:** Folder A Doc, A9)

- Development of two comprehensive laboratory manuals for Medical Mycology, Molecular Biology, and reviewed Basic Microbiology manual with detailed explanations, visual aids, and atlas-like resources. (**Evidence:** Folder A Doc, A10, A11 and A12)
- Successful delivery of diverse courses across medical laboratory disciplines including Medical Bacteriology, Medical Parasitology, Medical Mycology, Microbiology, Genetics, Molecular Biology, and Toxicology. (**Evidence:** Folder A Doc, A13)
- Implementation of innovative supervision and systematic evaluation methodologies. (**Evidence:** Folder A Doc, A14 and A15)
- Developed a summer training course for students (Crash course). The purpose of the course is to give students hands-on experience in university laboratories **before** their hospital practicum (Summar 2024) (**Evidence:** Folder A Doc, A16)
- Achievement of consistently high student satisfaction scores and successful completion rates. (**Evidence:** Folder A Doc, A17, A18 and A19)

**Performance Recognition:**

- Achieved overall performance score of 96/100 in most recent appraisal
- Consistently received excellent ratings in peer observations and student evaluations
- Performance evaluations demonstrate sustained excellence and continuous improvement in all academic areas (**Evidence:** Folder A Doc, A20 and A21)

(Please refer to Section 2: Teaching for comprehensive evidence)

**Criterion 4: Research Publications Requirements**

**Overall Research Portfolio: I have established a strong research record with thirteen (13) publications in high-impact, Web of Science and Scopus-indexed journals, along with one published book. This demonstrates sustained research productivity and scholarly contribution to my field.**

**Post-PhD Research Productivity:** Following completion of my PhD in Molecular Biology (2020) and attaining the rank of Assistant Professor, I have published eight (8) research articles, demonstrating continued research excellence at the independent researcher level. Of these eight publications, I served as first author on three (3) papers and as corresponding author on one, indicating research leadership and collaborative excellence.

**Post-PhD Publications (2020-2025):**

1. **Omer SA**, Abdrabo AA, Omar AA, **Osman EA**. (2025). Diagnostic and prognostic value of anti-cyclic citrullinated peptide and Rheumatoid Factor in rheumatoid arthritis patients. *Georgian Medical News*. (**Accepted for publication**). **corresponding author**
2. Leena Al-Hassan , Anya A Nowbuth , Getachew Tesfaye Beyene , Biruk Yeshitela , Derbew Fikadu Berhe , Kassu Desta , Mistire Wolde , Thamarai Schneiders , Amira Hussein , Mai Zafer , Rana Elshimy , Hadir El-Mahallawy , Nagwa El-Amin , Anne Roemer-Mahler , Sarra Aizzeldin , Paul G Higgins , Aalaa Moghith , Papreen Nahar , **Einas Osman *** and Maowia Mukhtar. **A Scoping Review of Antibiotic Resistance through a One Health Lens. Insights from The Nile Valley: Egypt, Sudan, and Ethiopia**. Frontiers. Trop. Dis., 14 August 2025 Sec. Antimicrobial Resistance

Volume 6 – 2025. https://doi.org/10.3389/fitd.2025.1629274 . **(Q2 SCOPUS) corresponding author**

3. Munira M. Alblooshi, Nadia Hamad Alkalbani, Ban Al-Joubori, Ismail Saadoun, Emad Hussein, **Enas Osman** and Tasabih Saifeldin. **Microbial profiling and safety assessment of fish marketed in UAE: a quantitative, biochemical, and molecular study.** Arab Journal of Basic and Applied Sciences. Volume 32, 2025 – issue 1. https://doi.org/10.1080/25765299.2025.2482295. **(Q2 SCOPUS)**

4. Mohd Afzal, Shagun Agarwal, Rabab H Elshaikh, Asaad M A Babker, **Einas Awad Ibrahim Osman**, Ranjay Kumar Choudhary, Suresh Jaiswal, Farhana Zahir, Pranav Kumar Prabhakar, Anass M Abbas, Manar G Shalabi and Ashok Kumar Sah. **Innovative Diagnostic Approaches and Challenges in the Management of HIV: Bridging Basic Science and Clinical Practice**. Life 2025 Jan 30;15(2):209. https://doi: 10.3390/life15020209. **(Q1 SCOPUS)**

5. **Einas A Osman**, Sara A Omer, Rashida M A Elmubarak, Manal Abdelnabi, Safaa Abdelgadir, Dalal G Ahmed, Mohamed H Arbab Nasr, Muna Yousif, Maowia Mukhtar, Leena Al-Hassan. **Antibiotics resistance in Sudan: Assessing the Knowledge and Practices of Healthcare Workers in Khartoum**. JAC- Antimicrobial Resistance 2024, volume 6, issue 2. https://doi.org/10.1093/jacamr/dlae049. **(Q1 SCOPUS) First author**

5. **Osman, E.A.**; Yokoyama, M.; Altayb, H.N.; Cantillon, D.; Wille, J.; Seifert, H.; Higgins, P.G.; Al-Hassan, L. **Klebsiella pneumonia in Sudan: Multidrug Resistance, Polyclonal Dissemination, and Virulence**. Antibiotics 2023, 12, 233. https://doi.org/10.3390/antibiotics12020233. **(Q1 SCOPUS) First author**

6. Leena Al-Hassan, Hana Elbadawi, **Einas Osman**, Sara Ali, Kamal Elhag, Daire Cantillon, Julia Wille, Harald Seifert, Paul G. Higgins. **Molecular Epidemiology of Carbapenem Resistant Acinetobacter baumannii from Khartoum State, Sudan**. *Frontiers Microbiology* (Front. Microbiol., 2021,12:628736. DOI: 10.3389/fmicb.2021.628736. **(Q1 SCOPUS)**

7. Khairy M Ali, Ali H Ali, Muath A Ali, **E. Osman** and Yousif S Yousif. **Phenotypic and Genotypic Pattern of Acinetobacter baumannii at Hospital Setting Khartoum State,** Sudan, EC Microbiology 17.3 (Feb 27, 2021): 44-54.

8. **Einas A. Osman**, N. El-Amin, Leena Al-Hassan, Maowia Mukhtar*. **Multi-clonal spread of Klebsiella pneumoniae across hospitals in Khartoum, Sudan**. *Journal of Global Antimicrobial Resistance*, 2021, Volume 24: Pages 241-245. DOI: 10.1016/j.jgar.2020.12.004. **(Q2 SCOPUS) First author**

**Evidences:** Folder C (Doc: C01 to C8)

**Book Publication:** Osman, E. "Essential Medical Mycology." Noor Publishing, May 2025. ISBN-13: 978-6208870362. (**Evidence:** Folder C: Doc: C12)

**Research Grant Leadership:**

Following completion of my PhD and appointment as Assistant Professor, I have demonstrated research leadership through successful grant acquisition and project management. I was appointed as Principal Investigator for the URG project "Predicting Cardiovascular Disease Risk Using the Visceral Adiposity Index in the Omani Population of A' Sharqiyah Region" (Project ID: BFP/URG/HSS/24/001), funded by MOHERI for the period 2024-2026. This appointment demonstrates institutional confidence in my research capabilities and leadership skills, as evidenced by the formal project transfer approval through university administrative channels including Dean, Director of Research and Graduate Studies, and Deputy Vice Chancellor recommendations. (**Evidence:** Folder C: Doc:C14)

**Research Excellence Indicators:**

- All research publications are directly related to my field of specialization in Medical Laboratory Sciences, medical microbiology, and clinical diagnostics
- Publications demonstrate sustained international collaboration and high-impact research contributions
- Research addresses critical public health challenges in antimicrobial resistance and infectious diseases
- Work has been presented at multiple international conferences with recognition as session chair and keynote speaker

**Criterion 5: All research papers in the candidate's area of specialization**

All my research publications are directly related to my field of specialization in Medical Laboratory Sciences, specifically:

- Antimicrobial resistance and microbiology
- Medical mycology
- Clinical laboratory diagnostics
- Public health microbiology
- Healthcare-associated infections

This demonstrates focused expertise and consistent contribution to my academic discipline.

(**Evidence:** Folder C: Doc: C1 to C12)

**Criterion 6: Proven record of excellent service to the University and the Community**

- As an active member of Teaching and Learning Committee and Exam Committee, I have delivered keynote presentations, organized workshops, and contributed to curriculum development initiatives. I participated in the Program Development Committee for Bachelor of Science in Nursing program and served as external reviewer for master's programs, demonstrating institutional and external recognition of expertise. Additionally, I designed and delivered a 4-day Basic Molecular Biology Workshop for healthcare professionals funded by the Ministry of Higher Education, developed

summer training courses for students, and co-supervised award-winning research projects that secured first place at University Research Day. Furthermore, I participated in international research consortiums addressing global health challenges across multiple continents and contributed to various academic conferences through presentations and session chairing roles. Also, three school projects were supervised by me.

- Acting HOD summer 2025
- Note: More details and Evidence are in section 4 (University and Community Service). (**Evidence:** Folder B Doc: B1-B17)

# Section 2

# Teaching and Learning

- **Teaching experience:**

My teaching experience in higher education spans over a decade, encompassing both undergraduate and postgraduate levels. My roles have evolved from lab technician to Assistant Professor, allowing me to develop a comprehensive and innovative approach to teaching Medical Microbiology and Molecular Biology. The following table illustrates my teaching experience since I began as a lab technician in 2005.

| Position | Institute | Duration | Evidence |
|---|---|---|---|
| Assistant Professor of Medical Microbiology | College of Applied and Health Sciences, A' Sharqiyah University, Ibra, Oman | Sep 2023 – Present | Folder A Doc-A3 |
| Assistant Professor & Postgraduate Coordinator | Faculty of Medical Laboratories Sciences, Ibn Sina University, Khartoum, Sudan | Nov 2020 - Jul 2023 | Folder A Doc-A4 |
| Lecturer of Microbiology | Faculty of Medical Laboratories Sciences, Ibn Sina University, Khartoum, Sudan | Dec 2014 - Nov 2020 | Folder A Doc-A22 |
| Postdoctoral Research Fellow (Teaching & Supervision) | Biosciences Research Institute, Ibn Sina University, Khartoum, Sudan | Nov 2019 - Jul 2023 | Folder A Doc-A23 |
| Lab Technician | Department of Medical Laboratory, National Ribat University, Khartoum, Sudan | Feb 2005 - Jun 2006 | Folder A Doc-A24 |

- **Postgraduate Supervision:**

Primary co-supervisor for a PhD student at Alzaiem Alazhari University. Thesis: "Molecular Detection of Gene Encoding Extended Spectrum-β lactamase Producing Gram Negative Bacteria Isolate from Neonatal Septicaemia in Khartoum State Hospitals, Khartoum, Sudan"

- **Demonstrating Teaching and Learning Excellence in Higher Education:**

Higher education extends beyond traditional classroom instruction to encompass comprehensive student development and professional preparation. As a university educator, I

recognize the responsibility to serve as both academic instructor and professional mentor, guiding students toward successful career outcomes and lifelong learning capabilities. My primary commitment involves developing students' analytical, technical, and professional competencies essential for their post-graduation success in medical laboratory sciences.

Throughout my academic career, I have delivered undergraduate coursework within medical laboratory sciences programs. This specialized teaching experience has reinforced my understanding of the importance of clear scientific communication, evidence-based instruction, and practical laboratory skills development. My instructional philosophy centres on maintaining high academic standards while fostering an environment of mutual respect and intellectual curiosity.

Student engagement and development remain central to my educational approach. I believe that effective teaching in medical laboratory sciences requires establishing clear expectations, providing consistent feedback, and creating opportunities for students to apply theoretical knowledge through hands-on laboratory experiences. My experience supervising research projects, developing laboratory training programs, and mentoring students through academic competitions demonstrates this commitment to comprehensive student development in the medical sciences.

The integration of current research findings into curriculum design and classroom instruction ensures that students receive education aligned with contemporary scientific developments and healthcare industry standards. This research-informed teaching methodology prepares graduates to contribute meaningfully to medical laboratory practice while developing critical thinking skills necessary for continued professional growth in healthcare settings. Below is a summary of my teaching accomplishments:

**Evidence of Recent and Sustained Teaching Load**

- During last two years in ASU, I taught for 4 semesters covering all my load as assistant professor in addition to Clinical Practicum course in Summer and guyed more than 100 students for successful academic performance in many MDLS courses. (**Evidence:** Folder A Doc: A13)

**Students' Evaluation of Teaching**

- Student evaluation outcomes consistently demonstrate my effective teaching practices, with feedback highlighting the practical relevance of my laboratory training components and successful integration of current research findings into classroom instruction. These evaluations meet university standards and reflect student appreciation for my evidence-based teaching methodologies that connect theoretical concepts with real-world applications in medical laboratory practice. **(Evidence:** Folder A, Doc A17, A18 and A19)

**Use of E-learning Technologies**

- I utilize digital platforms (Moodle) to deliver structured course content, interactive assessments, multimedia resources, and streamlined communication with students across multiple courses, demonstrating effective integration of technology-enhanced learning environments. (**Evidence**: Folder A, Doc A25, A26 and A27)

**Timeliness and Comprehensiveness of Student Advising Reports**

- I monitor student academic progress through regular advising sessions with comprehensive documentation submitted according to university timelines. My advising reports include detailed assessments of academic performance, career guidance recommendations, and identification of research opportunities. The systematic approach I employ in student advising ensures timely intervention when needed and supports individual student development trajectories **Evidence:** Folder A, Doc A28 and A29

**HoD Evaluation of Teaching Reports and Peer Review of Teaching Reports**

- Administrative evaluations from department leadership consistently recognize my innovative curriculum development, effective teaching practices, and positive student outcomes. Head of Department evaluations highlight my contributions to program development and commitment to educational excellence, particularly noting my successful integration of research expertise into undergraduate education. Peer review processes provide additional validation of my teaching methodologies, with colleagues noting my effective student engagement strategies and systematic course organization. **(Evidence:** Folder A, Doc A30, A31, A32 and A33)

**Timely Submission of Course Evaluation Reports, Course Syllabi, Course Files, Course Descriptors**

- I submit all required academic documentation including course syllabi, course descriptors, course files, and evaluation reports according to university deadlines. This systematic approach I follow in course planning reflects thorough preparation and assessment strategy development. The comprehensive nature of these documents demonstrates my commitment to transparent educational practices and continuous improvement. **(Evidence:** Folder A, Doc A34, A35 and A36)

**University/National/International Teaching Awards**

- Recognition for my teaching excellence includes selection as keynote speaker at BUC's 8th National Conference (May 2025), representing national acknowledgment of my educational expertise. My student research supervision has resulted in first-place recognition at University Research Day, reflecting my effective mentoring capabilities that extend beyond traditional classroom instruction. Additionally, my successful grant acquisition from the Ministry of Higher Education, Research, and Innovation through the Research and Innovation Training Support Program (R&I-TSP) for developing the Basic Molecular Biology Workshop demonstrates my successful funding acquisition for educational initiatives. (**Evidence:** Folder C, Doc C15, Folder B, Doc B5, B6, B7 B11 and B12)

**Performance on Student Outcomes**

- Student success rates in my courses demonstrate effective teaching methodologies. laboratory sciences. Students I supervise in research projects achieve recognition through competition awards, conference presentations, and publication opportunities, as evidenced by my student oral presentation at Sultan Qaboos University during BMS Day 2024 titled "Knowledge, Attitude and Practice Regarding Antibiotics Use and Resistance Among Healthcare professionals and General Public in Oman." Performance outcomes reflect both academic achievement and practical competency development

under my guidance, indicating my successful preparation of students for independent scientific work and professional presentation skills. (**Evidence:** Folder A, Doc A37, A38 and A39. Folder D, Doc D6)

**Grants Awarded for Teaching Innovations**

- My professional development activities include organizing and facilitating specialized learning experiences such as the 4-day Basic Molecular Biology Workshop I developed for healthcare professionals and summer training courses I created for students. These initiatives I design provide hands-on laboratory experience that bridges the gap between theoretical knowledge and practical application, supporting workforce development in the region. (**Evidence:** Folder B, Doc B11 and B12. Folder A, Doc A16)

**Publications of Academic Books and Membership of Learning and Teaching Journals' Editorial Boards**

- My educational contributions extend to scholarly publishing with my authorship of "Essential Medical Mycology" (Noor Publishing, May 2025), providing a comprehensive educational resource for medical laboratory sciences students and professionals. This publication demonstrates my commitment to educational material development and contributes to the broader academic community's teaching resources. Additionally, my active engagement with academic publishing includes my appointment as Editorial Board Member for SCIREA Journal of Biology (November 2024), where I contribute review responsibilities and editorial expertise to advance scientific publishing in biological sciences. (**Evidence:** Folder A, Doc A40 and Folder C, Doc C12)

**Keynote Addresses at National and International Teaching Conferences**

- Recognition for my teaching excellence includes selection as keynote speaker and Session Chair at Al-Buraimi University College's 8th National Conference on Metaverse and AI-Driven Approaches in Language Teaching, Learning and Research (May 5-6, 2025), representing national acknowledgment of my educational expertise. This dual role demonstrates recognition of both my presentation skills and leadership capabilities in academic conference management, reflecting my expertise in innovative educational technologies and their application in scientific education. My student research supervision has resulted in first-place recognition at University Research Day, reflecting my effective mentoring capabilities that extend beyond traditional classroom instruction. Additionally, my successful grant acquisition from the Ministry of Higher Education, Research, and Innovation through the Research and Innovation Training Support Program (R&I-TSP) for developing the Basic Molecular Biology Workshop demonstrates my successful funding acquisition for educational initiatives. My professional development activities include organizing and facilitating specialized learning experiences such as the 4-day Basic Molecular Biology Workshop I developed for healthcare professionals and summer training courses I created for students. These initiatives I design provide hands-on laboratory experience that bridges the gap between theoretical knowledge and practical application, supporting workforce development in the region. Additionally, I organized the 7th International Biomedical Laboratory Sciences (BMS Day) on April 21, 2025, at A' Sharqiyah University, as recognized by Sultan Qaboos University, and participated in the 6th International BMS Day at Sultan Qaboos University (April 17, 2024). These international events demonstrate my

commitment to fostering cross-institutional collaboration and advancing biomedical laboratory sciences education across the region. (**Evidence:** Folder C, Doc C15, C16 and C18. Folder B, Doc B5, B6, B11 and B12. Folder D, Doc D1 and D2)

**Organizes and Facilitates Learning Experiences**

- In addition to teaching, I have also been actively involved in curriculum development. Recognizing the evolving needs of Medical Laboratory Sciences students, I have made significant modifications to the syllabus of the Molecular Biology course. These changes were aimed at aligning the course content with the specific requirements of the MDLS program, ensuring that the students receive relevant and up-to-date knowledge. Furthermore, I have also made enhancements to the practical section of the course. I also putted the course descriptive for (BIOL 108 Histology & embryology course). (**Evidence:** Folder D, Doc D3, D4 and D5)
- Moreover, I have had serving as a supervisor for two student groups participating in different events. The first group participated in the Medad Science Festival, held at A' Sharqiyah University in the College of Applied and Health Sciences on April 30, 2024. The second group represented our department at the Biomedical Sciences Day (BMS Day) at Sultan Qaboos University on May 1, 2024. As a supervisor, I provided guidance and mentorship to these students, helping them prepare their oral presentations, and research projects. Their successful participation in these events is a testament to their hard work and dedication, and I am proud to have been a part of their achievements. (**Evidence:** Folder D, D6)

**Creates Learning Experiences and Assessment Materials**

- I designed assessment materials and learning experiences to integrate current research methodologies with educational objectives, creating comprehensive evaluation tools that measure both theoretical understanding and practical competency. I have created two specialized manuals for Mycology and Molecular Biology and reviewed Microbiology Practical Manual that serve as comprehensive educational resources for students. Additionally, I develop detailed lab notes for each session in Medical Bacteriology, containing experimental procedures with discussion sections and relevant questions to facilitate student understanding and comprehension. (**Evidence:** Folder A, Doc A10, A11, A12 and A41)

**Provides Appropriate Feedback Directed to Individual Student Needs**

- I provide individualized feedback through systematic assessment approaches using multiple evaluation tools including final exams, mid-term exams, quizzes, and assignments to capture different aspects of student learning. My course evaluation reports demonstrate structured feedback mechanisms with varied assessment tools aligned with specific learning outcomes, as evidenced in my Toxicology course (MDLS335) and Genetics course (MDLS211). These courses utilize comprehensive assessment strategies mapped to learning course outcomes (LCO1-LCO5) ensuring students receive targeted feedback on different competency areas. The diversified assessment approach enables me to identify individual student strengths and areas for improvement, providing personalized guidance that addresses specific learning

needs through systematic grade analysis and performance tracking. (**Evidence:** Folder A, Doc A35 and A36)

**Responds to Students in Various Settings with Sensitivity to Background and Learning Style**

- I respond to students across various academic settings with careful attention to their diverse cultural backgrounds, educational preparations, and learning preferences. My approach to student communication demonstrates sensitivity to individual circumstances and learning needs, as evidenced through email correspondence where I provide personalized guidance and support. When students reach out with academic concerns, personal challenges, or requests for assistance, I respond with culturally sensitive and individually tailored advice that acknowledges their unique backgrounds and situations. My email responses demonstrate adaptive communication styles that consider students' comfort levels, language proficiency, and cultural contexts while providing practical solutions and emotional support. This personalized correspondence approach ensures that students from diverse backgrounds feel heard, understood, and supported in their academic journey, fostering an inclusive learning environment that respects individual differences and promotes student success. **(Evidence:** Folder D, Doc D7 and D8)

**Generates and Fosters Student Enthusiasm and Motivation for Learning**

- My mentoring strategies support student development toward independent learning capabilities, emphasizing critical thinking skills, research competencies, and professional judgment development. I encourage students to pursue self-directed learning opportunities and research initiatives that prepare them for lifelong learning in rapidly evolving medical fields. I generate and foster student enthusiasm through innovative approaches such as the intensive summer crash course I developed in Summer 2024, which resulted in heightened student engagement and motivation. Student evaluation forms from this course demonstrate excellent ratings across multiple criteria and positive written feedback highlighting the course's value in preparing them for clinical work, reflecting sustained enthusiasm that extended beyond the classroom. (**Evidence:** Folder A, Doc A16 and Folder D, Doc D9)

**Supports Student Development and Ability to Learn Independently**

- I support student development and ability to learn independently through structured assignments that emphasize critical thinking skills, independent research capabilities, and professional judgment development. My assignment design in courses such as Molecular Biology (MDLS301) and Toxicology (MDLS335) encourages students to pursue self-directed learning opportunities through complex problem-solving tasks that require independent analysis and research. (**Evidence:** Folder D, Doc D10 and D11)

**Refines Teaching Practice Based on Self-Assessment and Reflection**

- I employ continuous improvement practices including regular evaluation of my teaching methods, incorporation of student feedback, and adaptation of my instructional approaches based on learning outcomes assessment. My professional

development activities inform pedagogical innovations, ensuring my teaching practices remain current with educational research and best practices in scientific education. My evidence-based teaching approaches incorporate contemporary understanding of effective learning strategies and assessment methodologies derived from current educational literature. (**Evidence:** Folder D, Doc D12 and D13)

**Utilizes Theory and Publications on Teaching and Learning**

- I utilize educational theory and publications on teaching and learning to develop comprehensive course design, teaching methodologies, and assessment materials. My approach to curriculum development is grounded in pedagogical research and evidence-based practices, as demonstrated through my authorship of "Essential Medical Mycology" (Noor Publishing, May 2025), which integrates current educational methodologies with scientific content delivery. This publication reflects my application of learning theories and instructional design principles to create effective educational resources that bridge theoretical knowledge with practical application. Additionally, I developed evidence-based course descriptions for Histology and Embryology that incorporate established learning taxonomies and research-informed assessment strategies. My design of the intensive summer crash course for student training internships demonstrates the practical application of educational research on experiential learning and skill development, utilizing pedagogical principles that support effective knowledge transfer and professional preparation." (**Evidence:** Folder A, Doc A16, Folder C, Doc C12 and Folder D, Doc D3 and D4)

# Section 3

# Research and/or Consultancy

**Research Portfolio Overview:**

- Established comprehensive research record with thirteen (13) peer-reviewed publications in high-impact, Web of Science and Scopus-indexed journals
- Demonstrated sustained research productivity spanning antimicrobial resistance, medical microbiology, and clinical diagnostics
- Published research addresses critical public health challenges in infectious diseases and healthcare-associated infections

**Post-PhD Research Excellence:**

- Published eight (8) research articles following PhD completion (2020-2025), demonstrating independent researcher capabilities
- Served as first author on three publications and corresponding author on one, indicating research leadership
- Maintained active collaboration with international research networks across multiple continents

List of articles published after PhD(2020 – 2025):

1. **Omer SA**, Abdrabo AA, Omar AA, **Osman EA**. (2025). Diagnostic and prognostic value of anti-cyclic citrullinated peptide and Rheumatoid Factor in rheumatoid arthritis patients. *Georgian Medical News*. (**Accepted for publication**). **corresponding author**

2. Leena Al-Hassan , Anya A Nowbuth , Getachew Tesfaye Beyene , Biruk Yeshitela , Derbew Fikadu Berhe , Kassu Desta , Mistire Wolde , Thamarai Schneiders , Amira Hussein , Mai Zafer , Rana Elshimy , Hadir El-Mahallawy , Nagwa El-Amin , Anne Roemer-Mahler , Sarra Aizzeldin , Paul G Higgins , Aalaa Moghith , Papreen Nahar , **Einas Osman *** and Maowia Mukhtar. **A Scoping Review of Antibiotic Resistance through a One Health Lens. Insights from The Nile Valley: Egypt, Sudan, and Ethiopia**. Frontiers. Trop. Dis., 14 August 2025 Sec. Antimicrobial Resistance Volume 6 – 2025. https://doi.org/10.3389/fitd.2025.1629274 . **(Q1 SCOPUS) corresponding author**

3. Munira M. Alblooshi, Nadia Hamad Alkalbani, Ban Al-Joubori, Ismail Saadoun, Emad Hussein, **Enas Osman** and Tasabih Saifeldin. **Microbial profiling and safety assessment of fish marketed in UAE: a quantitative, biochemical, and molecular study.** Arab Journal of Basic and Applied Sciences. Volume 32, 2025 – issue 1. https://doi.org/10.1080/25765299.2025.2482295. **(Q2 SCOPUS)**

4. Mohd Afzal, Shagun Agarwal, Rabab H Elshaikh, Asaad M A Babker, **Einas Awad Ibrahim Osman**, Ranjay Kumar Choudhary, Suresh Jaiswal, Farhana Zahir, Pranav Kumar Prabhakar, Anass M Abbas, Manar G Shalabi and Ashok Kumar Sah. **Innovative Diagnostic Approaches and Challenges in the Management of HIV: Bridging Basic Science and Clinical Practice**. Life 2025 Jan 30;15(2):209. https://doi: 10.3390/life15020209. **(Q1 SCOPUS)**

5. **Einas A Osman**, Sara A Omer, Rashida M A Elmubarak, Manal Abdelnabi, Safaa Abdelgadir, Dalal G Ahmed, Mohamed H Arbab Nasr, Muna Yousif, Maowia Mukhtar, Leena Al-Hassan. **Antibiotics resistance in Sudan: Assessing the Knowledge and Practices of Healthcare Workers in Khartoum**. JAC- Antimicrobial

Resistance 2024, volume 6, issue 2. https://doi.org/10.1093/jacamr/dlae049. **(Q1 SCOPUS) First author**

6. **Osman, E.A.**; Yokoyama, M.; Altayb, H.N.; Cantillon, D.; Wille, J.; Seifert, H.; Higgins, P.G.; Al-Hassan, L. **Klebsiella pneumonia in Sudan: Multidrug Resistance, Polyclonal Dissemination, and Virulence**. Antibiotics 2023, 12, 233. https://doi.org/10.3390/antibiotics12020233. **(Q1 SCOPUS) First author**

7. Leena Al-Hassan, Hana Elbadawi, **Einas Osman**, Sara Ali, Kamal Elhag, Daire Cantillon, Julia Wille, Harald Seifert, Paul G. Higgins. **Molecular Epidemiology of Carbapenem Resistant Acinetobacter baumannii from Khartoum State, Sudan**. *Frontiers Microbiology* (Front. Microbiol., 2021,12:628736. DOI: 10.3389/fmicb.2021.628736. **(Q1 SCOPUS)**

8. Khairy M Ali, Ali H Ali, Muath A Ali, **E. Osman** and Yousif S Yousif. **Phenotypic and Genotypic Pattern of Acinetobacter baumannii at Hospital Setting Khartoum State,** Sudan, EC Microbiology 17.3 (Feb 27, 2021): 44-54.

9. **Einas A. Osman**, N. El-Amin, Leena Al-Hassan, Maowia Mukhtar*. **Multi-clonal spread of Klebsiella pneumoniae across hospitals in Khartoum, Sudan**. *Journal of Global Antimicrobial Resistance*, 2021, Volume 24: Pages 241-245. DOI: 10.1016/j.jgar.2020.12.004. **(Q2 SCOPUS) First author**

(**Evidence** Doc C: Folder C01 – C8)

During PhD:

1. Shirehan M Ibrahim, Alamin M Ibrahim, Omer .A. Ibrahim, **E. A. Osman**, Omnia M amid and Hassan A Alaziz. Antimicrobial Resistant Pattern of Acinetobacter Baumannii Among ICU Patients in Khartoum State-Sudan. World Journal of Pharmaceutical Research.Volume 9, Issue 5. May 2020.

2. **E. A. Osman**, N. El-Amin, E. A.E. Adrees, L. Al-Hassan, M. Mukhtar (2020). **Comparing conventional, biochemical and genotypic methods for accurate identification of Klebsiella pneumoniae in Sudan**. Access Microbiology 2(3). DOI: 10.1099/acmi.0.000096. **(SCOPUS)**

3. N. El Amin, **E. Osman**, L. Al-Hassan, I. Abdalrahman (2019). **Epidemiology of Antibiotic Resistance in Culture-positive Hospitalized Patients in Selected Hospitals in Khartoum**, Sudan. Sudan Journal of Medical Sciences 14(1):15-23. **(SCOPUS)**

(**Evidence** Doc C: Folder C9, C10 and C11)

**Grant Acquisition and Funding:**

Successfully secured research funding through competitive grant programs:

- **Co-investigator** - Global Challenges Research Fund (GCRF): "Establishment of One Health Platform to Reduce the Emergence and Spread of Antibiotic Resistance in the Nile Valley (PRESAR)" (£24,950, 2020-2022) (**Evidence:** Folder C Doc: C13)

- **Collaborator** - Network Strengthening Grant: "Does One Health Fit All? Promoting Research, Engagement, and Strengthening Actions on Antibiotic Resistance (PRESAR)" (£200,000, Academy of Medical Sciences, 2025-2027) (**Evidence:** Folder B Doc: B12)
- **Research Grant Leadership:**
- I was appointed as mean supervisor for TRC-URG project "Predicting Cardiovascular Disease Risk Using the Visceral Adiposity Index in the Omani Population of A' Sharqiyah Region" (Project ID: BFP/URG/HSS/24/001), funded by MOHERI for the period 2024-2026. (**Evidence:** Folder C Doc: C14)
- Also, Submitted proposal to High Ministry of Education through REMS as Co-PI for project "Bioethanol production from lignocellulose biomass waste using local fungi strain"

**Research Impact and Recognition:**

- Publications demonstrate sustained international collaboration with institutions across Sudan, UK, Egypt, Ethiopia, and Oman (**Evidence:** Folder C (Doc: C13 and Folder B Doc: B12)

Research findings presented at major international and national conferences including:

- **Al-Buraimi University College's 8th National Conference on Metaverse and AI-Driven Approaches in Language Teaching, Learning and Research** - Keynote Speaker and Session Chair (May 5-6, 2025) (**Evidence:** Folder C Doc: C15 and C16)
- **8th UAE International Conference on Antimicrobial Resistance (ICAMR)** - Poster presentation (February 21-22, 2025, Dubai, UAE) (**Evidence:** Folder C Doc: C17)
- **A' Sharqiyah University Research Day** - Oral presentation (May 8, 2024) (**Evidence:** Folder C Doc: C18)

**Editorial and Peer Review Recognition:**

- Editorial Board Member for SCIREA Journal of Biology (November 2024) (**Evidence:** Folder A Doc: A33)
- Peer reviewer for Frontiers in Microbiology journal (2025) (**Evidence:** Folder C Doc: C19)
- These appointments demonstrate international recognition my expertise in antimicrobial resistance research and scientific publishing

**Summary of my research Profile:**

1. Scholar Google:

**https://scholar.google.com/citations?user=06GoXOcAAAAJ&hl=en**

| | |
|---|---|
| Citations | 179 |
| h-index | 6 |
| I10-index | 6 |

2. ResearchGate:

**https://www.researchgate.net/profile/Einas-Osman?ev=hdr_xprf**

| | |
|---|---|
| Research Interest Score | 100.7 |
| Citations | 118 |
| h-index | |

- **Einas Osman (https://orcid.org/0000-0003-2567-889X)** (**Evidence:** Folder C Doc: C20)

# Section 4

# University and Community Service

**University Service:**

**Committee Memberships:**

- Chair of University Research Ethics and Biosafety Committee (UREBC). (1st of October 2025)
- Member of University Research and Enterprise Committee (UREC). A' Sharqiyah University. (1st of October 2025)
- Chair of College Research and Enterprise Committee (CREC). A' Sharqiyah University. (1st of October 2025)
- Active member of Teaching and Learning Committee - Member of committee focusing on enhancing teaching practices, promoting effective learning strategies, and ensuring quality of educational programs within the college (Sep 2023 up to date)
- Member of Exam Committee: Responsible for coordinating final exam invigilation schedules, managing technical corrections, and ensuring proper examination administration procedures (Sep 2024 to Sep 2025)
- European Society of Clinical Microbiology and Infectious Diseases ESCMID, ID number: 451440. (2018 up to date)

(**Evidence:** Folder B, Doc: B1, B2, B3, B4, B30 and B31)

**Curriculum Development and Academic Leadership:**

- Active participation in curriculum development through key membership in Program Development Committee for Bachelor of Science in Nursing program (2024/25) and serving as external reviewer for master's program proposal in Blood Sciences from Sultan Qaboos University (2024), demonstrating recognition of expertise by university leadership and external institutions (**Evidence:** Folder A Doc, A19)
- Developed course descriptor for **BIOL 108 Histology & Embryology course** - Created comprehensive course documentation including learning outcomes, assessment strategies, and curriculum framework to support program development and ensure academic quality standards (**Evidence:** Folder D Doc, D3 and D4)

**Conference Presentations and Academic Engagement:**

- Delivered keynote presentation and served as Session Chair at BUC's 8th National Conference (May 5-6, 2025) (Evidence: Folder C Doc, C15 and C16)
- Presented oral presentation at University Research Day at A' Sharqiyah University on May 8th, 2024 (Evidence: Folder C Doc, C18)
- Presented poster at 8th UAE International Conference on Antimicrobial Resistance (Feb 21-22, 2025) (**Evidence:** Folder C Doc, C17)

**Student Supervision and Mentoring:**

- Co-supervisor for student group that participated in University Research Day on May 8th, 2024 - Group presented poster titled "Development and Assessment of stickREMs: Innovative Medical Dressings Derived from Omani Nature" and won first place for best poster (**Evidence:** Folder B Doc, B5, B6 and B7)

- Mentored junior faculty and staff - Delivered comprehensive induction presentations on ASU Teaching and Learning Policies to both part-time faculty and permanent new staff orientation programs (February 13, 2025, and September 16, 2025), providing guidance on university policies, teaching standards, and academic procedures. (**Evidence:** Folder B Doc, B8 and B9)

**Event Organization and Coordination:**

- Organized 7th International Biomedical Laboratory Sciences (BMS Day) 2025 - Successfully spearheaded comprehensive event planning, stakeholder coordination, and logistics management for international conference held on April 21,2025 at A' Sharqiyah University, as recognized by Sultan Qaboos University. (**Evidence:** Folder D Doc, D2)

- Participated in 6th International BMS Day - Actively engaged in Sultan Qaboos University's Biomedical Sciences Day (April 17, 2024), contributing to inter-institutional collaboration and knowledge exchange. (**Evidence:** Folder D Doc, D1)

- Served as organizing committee member for 11th Students Cultural Week (February 5-8, 2025)

**Professional Development and Training Programs:**

- Developed summer training course for students - Purpose of course is to give students hands-on experience in university laboratories before their hospital practicum (Summer 2024) (**Evidence:** Folder A Doc A14 and Folder B Doc B10)

- Secured approval and funding from Ministry of Higher Education, Research, and Innovation through Research and Innovation Training Support Program (R&I-TSP) to design and deliver 4-day Basic Molecular Biology Workshop (December 2025) for 20 healthcare professionals from North A' Sharqiyah region, covering DNA extraction, PCR, and gel electrophoresis techniques (**Evidence:** Folder B Doc, B11 and B12)

- Conducted specialized workshop on Infection prevention and control for Applied Human Nutrition and Dietetics (AHND) students prior to hospital placements (December 16, 2024) (**Evidence:** Folder B Doc, B13)

- Attended Patent Registration Legal System Workshop (ورشة النظام القانوني لتسجيل براءة الاختراع) (February 9-13, 2025) at A' Sharqiyah University, Ibra, Oman. (**Evidence:** Folder B Doc, B14)

**Research and Collaboration:**

- Research collaborator in international consortium of experts from over 15 countries addressing universal health coverage challenges through understanding transmission

of antibiotic resistance and improving health outcomes for vulnerable populations across multiple continents (**Evidence:** Folder B Doc, B15)

- Coordinated interdepartmental collaboration - Facilitated joint research projects between Medical Laboratory Sciences (MDLS) department and Basic Sciences department, particularly Chemistry, through supervision of interdisciplinary school projects (**Evidence:** Folder B Doc, B16)

- Submitted proposal to High Ministry of Education through REMS RG project "Bioethanol production from lignocellulose biomass waste using local fungi strain" (**Evidence:** Folder B Doc, B17)

- Collaborated on "Frankincense Oil Nanoemulsion to Suppress Breast Cancer" proposal with chemistry department colleague. (**Evidence:** Folder B Doc, B18)

**Administrative Leadership:**

- Appointed as acting Head of Department (Summer 2025). (**Evidence:** Folder B Doc, B19)

**Professional Development:**

- Attended African Researcher Career Development Workshop (Nov 13-15, 2024) in Johannesburg. (**Evidence:** Folder B Doc, B20 and B21)

**Community Service:**

**Coordinated Blood Bank Conference with Ibra Reference Hospital**

- Served as institutional liaison between A' Sharqiyah University and Ibra Reference Hospital to facilitate the organization of a Blood Bank conference (November 2024), managing venue coordination, date changes, and administrative procedures to support healthcare professional development in the region. (**Evidence:** Folder B Doc, B22)

**External Grant Reviewer for University of Buraimi**

- Appointed as external reviewer for internal research grants (AY 2023-24), evaluating research proposals including "Enhancing Diabetes Self-Management: a randomized controlled trial" and "Use of Native resources (such as Frankincense Oil) Transdermal Delivery of Anti-Cancer Drugs for Treatment of Cancer," providing expert evaluation to support research quality and funding decisions. (**Evidence:** Folder B Doc, B23, B24 and B25)

**Secondary School Research Project Supervisor**

- Supervised multiple secondary school student groups in scientific research projects, including:

1. Tharmad plant juice extraction project investigating its potential to eliminate Helicobacter pylori bacteria associated with stomach acidity. (**Evidence:** Folder B Doc, B26)
2. Flavonoids and sickle cell anemia project examining plant sources of flavonoids and their therapeutic potential for sickle cell anemia treatment. These projects fostered scientific curiosity among young students while exploring natural remedies and alternative treatment options relevant to regional health challenges. (**Evidence:** Folder B Doc, B27)
3. Led sustainable fuel research project with school teams, providing expertise in various oil extraction methods including solvent extraction using hexane, mechanical pressing with hydraulic systems, and supercritical fluid extraction using carbon dioxide. (**Evidence:** Folder B Doc, B28)
4. Guided green hydrogen production research project involving anaerobic compost preparation through organic material fermentation, bacterial strain identification, methanogens inhibition using sustainable materials, and safe hydrogen collection procedures. (**Evidence:** Folder B Doc, B29)

**Healthcare Professional Development Trainer**

- Conducted specialized Infection Prevention and Control workshop for Applied Human Nutrition and Dietetics (AHND) students prior to hospital placements (December 16, 2024), and secured approval to deliver Basic Molecular Biology workshop for North A' Sharqiyah healthcare professional staff, contributing to regional workforce development and continuing education. (**Evidence:** Folder B Doc, B11, B12 and B13)

**Summary**

I assert that my academic qualifications, teaching excellence, research accomplishments, and service contributions fulfil the criteria for promotion to Associate Professor. My PhD in Molecular Biology, combined with over four years of progressive experience at the Assistant Professor level across two distinguished institutions, demonstrates my academic maturity and readiness for advancement to Associate Professor rank.

My contributions to A' Sharqiyah University through innovative teaching, active research collaboration, and comprehensive service to both the university and wider community position me well for increased responsibilities and continued contribution to the university's mission of advancing knowledge through innovative learning and applied research