



Heba M. Abdelkareem Ali

Nationality: Egyptian **Date of birth:** 27/10/1980 **Place of birth:** Benha, Egypt

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ABOUT ME

Dynamic Assistant Professor of Medical Biochemistry & Molecular Biology with over 19 years of experience in teaching, examining, and guiding students in medical and health fields. Expertise in biochemical ELISA, real-time PCR techniques, and team management..

WORK EXPERIENCE



Assistant dean for quality affairs at Mutah Faculty of Allied Medicine, Mutah University, Jordan

[01/10/2024 – 01/10/2025]

*Head of biochemistry, molecular biology and physiology department, Mutah Faculty of Medicine, Mutah University, Jordan.

September 2023 – October 2025

* Assistant professor of Biochemistry & Molecular Biology & Medical terminology / Mutah College of Medicine/Mutah University/ Jordan

September 2018 – Present

* Chairman of the Psychological and Academic Guidance Committee, Mutah Faculty of Medicine, Mutah University, Jordan.

2018 – Present

* Assistant professor of Medical Terminology, Mutah Faculty of Medicine, Mutah University, Jordan
2021 – Present

* Assistant professor of Medical History & Documentation at Mutah College / Mutah university/Jordan.
2021 – Present

* Assistant dean for quality affairs at Mutah Faculty of Medicine, Mutah University, Jordan (2019- 2020)

* Reviewer in the American Journal of Biochemistry and Biotechnology, Journal of Cosmetic Dermatology.

*Supervisor on Masters and PhD thesis at Benha Faculty of Medicine, Benha University, Egypt (2014- 2018).

*Supervisor of medical Biochemistry exams in the health Technical institutes at the level of the Arab Republic of Egypt for two consecutive years. (2016- 2018).

*Lecturer of emergency patient's nutrition at Benha Health Technical Institute, Egypt. (2015- 2018)

* Lecturer of medical biochemistry & Molecular biology at Health Technical Institute, Egypt. (2015-2018).

* Deputy Manager of information technology (IT) unit at Benha Faculty of Medicine. Benha University, Egypt.

* Quality coordinator in Benha Faculty of Medicine (2014-2018).

* Lecturer of Biochemistry & Molecular Biology, Faculty of Medicine, Benha University (2014-2018).

* Assistant lecturer of Biochemistry & Molecular Biology, Benha Faculty of Medicine, Benha University, Egypt (2010-2014).

* Demonstrator of Biochemistry & Molecular Biology, Benha Faculty of Medicine, Benha University (2005 - 2010).
* House officer, Benha University Hospitals, (2003 -2005).

EDUCATION AND TRAINING

1. Highest University Degree: Ph.D. of Biochemistry & Molecular Biology, Faculty of Medicine/ Benha University/ Egypt (2014). Research Field MicroRNAs for early detection of hepatocellular carcinoma (2014).

2. Master degree of Biochemistry & Molecular Biology, Faculty of Medicine/ Benha University/ Egypt (2010). Research Field: Methylation status of RASSF1 gene in plasma of patients with some liver diseases (2010).

3. MB.B.CH. of Medicine and surgery / Benha faculty of medicine/ Benha University, Egypt (very good with honors 2003).

PUBLICATIONS

1-Prevalence of Carbapenem Resistance and Antibacterial Potential of Nanoparticles in *Pseudomonas aeruginosa* Isolated from Burn Units in Egypt. Egyptian Journal of Medical Microbiology. Volume 34, Issue 1 - Serial Number 1, January 2025, Pages 45-53.

2-Alchemilla vulgaris modulates isoproterenol- induced cardiotocicity: interplay of oxidative stress, inflammation, autophagy and apoptosis. Front. Pharmacol. 15:1394557. 2024

3- Urinary NDRG2 and MCM8 Gene Expression as New Noninvasive Biomarkers for Diagnosis and Differentiation between Muscle and Non-Muscle Invasive Bladder Cancer. Biomedical & Pharmacology Journal, March 2023. Vol. 16(1), p. 549-558.

4- Autophagy and Oxidative Balance Mediate the Effect of Carvedilol and Glibenclamide in a Rat Model of Renal Ischemia-Reperfusion Injury. Open Access Macedonian Journal of Medical Sciences. 2022 Feb 5; 10(A): 1402-10

5-Time-dependent expression patterns of inflammatory markers in rat model of lipopolysaccharide-induced acute systemic inflammation. Medical Science 25(118), December 2021.

6- The association between Folate metabolism, C677T and A1298C Polymorphisms of Methylene tetrahydrofolate reductase Gene and the genetic susceptibility of Preeclampsia among a sample of Jordanian pregnant women. Medical Science, 25(110), April 2021.

7- DEFB1 gene polymorphisms modify vitiligo extent and response to NB-UVB phototherapy. Dermatol Ther. 2021 May;34(3):e14921.doi: 10.1111/dth.14921. Epub 2021 Mar 7

8- Nuclear factor - Erythroid 2 - related factor2 Gene Polymorphisms in vitiligo patients. J Clin Aesthet Dermatol. 2021;14(6):14-17.

9- Oxymatrine could protect against triclosan-induced ovarian toxicity in female rats by inhibiting TNF α / P38 MAPK/ Caspase-3 signaling pathway. Egyptian Journal of Occupational Medicine. 2021, 45 (2): 101- 116.

10- Evaluation of (PARP-1) Expression in Gastric Carcinoma by Immunohistochemistry and Quantitative Real-Time PCR and its Relation to HER2 Status. The Medical Journal of Cairo University. Vol. 88, No. 4, September: 1581-1587, 2020.

11- Is there an association between - 2549 Insertion/Deletion Polymorphisms in the Promotor Region of the Gene Encoding for VEGFA as a Risk Factor and the Idiopathic Recurrent Spontaneous Miscarriage in a sample of Jordanian Women? Prensa Med Argent (Genetics), Volume 106:3. 212. 2020.

12- Methylene tetra hydro folate Reductase C677T Polymorphisms as a Risk factor for Polycystic Ovarian Syndrome in a sample of Jordanian women. Prensa Med Argent (Genetics), Volume 106:3. 213. 2020.

13- Leptin exerts a bone protective effect in ovariectomized rats by inhibiting osteoclastogenesis. Bull. Egypt. Soc. Physiol. Sci. 40(1), 166-179. 2020.

14- Evaluation of the clinical value of circulating miR-101, miR-187 and miR-21 in neonatal sepsis diagnosis and prognosis. Egypt J Med Hum Genet 21, 12 (2020). <https://doi.org/10.1186/s43042-020-00052-w>

15- The effect of melatonin on apoptosis in hepatocellular carcinoma cell line: An experimental study. (MJVH) 2019; 4 (2) - pp. 75-79.

16- Costunolide suppresses the metastasis of hepatocellular carcinoma through down regulation of matrix metalloproteinase. Arab. J. Lab. Med. (2018) Vol. 43, No. 3: 439 – 445.

17- Gefitinib versus melatonin as therapeutic agents for induction of apoptosis in HepG2 hepatocellular carcinoma cell lines. Arab. J. Lab. Med. (2018) Vol. 43, No. 3: 895 – 906.

18- Blood Ras-Association Domain family 1-A gene methylation status in some liver diseases. Science Journal, 2011, 8 (2).

****Under Publication:**

Molecular virulence study of Candida species isolated from ICUs patients, Egypt (Publishing)

Gold Nano-Nannochloropsis oculata Modulates Sodium Fluoride-Induced tissue injury

via Nrf2/NF- κ B Crosstalk, Aquaporin Regulation, and Mitochondrial Apoptotic Pathway Inhibition (Publishing)

B- Thesis Supervision:

1- The effect of telomerase inhibition on Alpha- fetoprotein expression in hepatocellular carcinoma cell line. M.Sc. Thesis; Master degree (M.Sc.) in Biochemistry & Molecular Biology 2016. Faculty of Medicine, Benha University, Egypt.

2- Study of interleukin 23 gene polymorphism in allergic patients in Egypt. M.Sc. Thesis; Master degree (M.Sc.) in Ear, Nose & Throat 2016. Faculty of Medicine, Benha University, Egypt.

3- The effect of melatonin on apoptosis in hepatocellular carcinoma cell line, An experimental study. M.Sc. Thesis; Master degree (M.Sc.) in Hepatology 2018. Faculty of Medicine, Benha University, Egypt.

4- The nuclear- factor Erythroid 2- related factor2 (Nrf2) gene polymorphism in Egyptian patients with vitiligo. M.Sc. Thesis; Master degree (M.Sc.) in Skin & Venereal diseases 2018. Faculty of Medicine, Benha University, Egypt.

5- Study of the antigen processing gene (PSMB8) polymorphism in Egyptian patients with vitiligo. M.Sc. Thesis; Master degree (M.Sc.) in Skin & Venereal diseases 2018. Faculty of Medicine, Benha University, Egypt.

6- Serum levels of IL17A and IL17A (A7488) gene polymorphism in alopecia areata. M.Sc. Thesis; Master degree (M.Sc.) in Skin & Venereal diseases 2018. Faculty of Medicine, Benha University, Egypt.

7- TAP1 Gene polymorphisms in alopecia areata. M.Sc. Thesis; Master degree (M.Sc.) in Skin & Venereal diseases 2018. Faculty of Medicine, Benha University, Egypt.

8-Paroxonase-1 (PON192R) Gene polymorphism in Egyptian patients- with vitiligo. M.Sc. Thesis; Master degree (M.Sc.) in Skin & Venereal diseases 2018. Faculty of Medicine, Benha University, Egypt.

9- Evaluation of NORG-2 and Igf-2 Gene expression in urine and their potential use as biomarkers for bladder cancer. M.Sc. Thesis; Master degree (M.D.) in Biochemistry & Molecular Biology 2018. Faculty of Medicine, Benha University, Egypt.

CONFERENCES AND SEMINARS

*1st student research day at Mutah faculty of Medicine, Mutah University, Jordan. 16/4/2024.

*The Fifth International Medical Conference of the Jordanian Medical Syndicate, Karak, and the Thirteenth International Medical Conference of the Faculty of Medicine, Mutah University, Mutah, Jordan , 2023

*UK- Jordan global congress on integrated health care, A joint conference in collaboration with United Research Forum, UK and Mutah University, Dead sea, Jordan, 2022.

*The 1st International symposium on recent advances in treatment of cancer and diabetes, Mutah University, Jordan, 2019.

*The conference of *Improving health care & emergency services in Delta*, Benha University, Egypt, 2013.

*The conference of Molecular Biochemistry in clinical practice, Cairo University, Egypt, 2013.

SKILLS

Biochemical ELISA techniques / Molecular Real time PCR techniques / SPSS software programs / Leadership and team management / Examination of different body tissues by the PCR techniques / Work efficiently under stress

CERTIFICATIONS

Credit Our Systems ,Faculty Development Center, Benha University, 2025

Strategic Planning, Faculty Development Center, Benha University, 2025

Marketting Of Scientific Research, Faculty Development Center, Benha University, 2025

Digital PCR in cancer management. Thermo Fisher Scientific, 22 September 2022.

Question bank program at Benha University 2021.

Utilization of Telemedicine and information technology in health care. 10 February, 2021

Telehealth Experiences and applications: current and future. 24,25 February 2021

Using of technology in active learning program at Benha University 2021.

Course of statistical analysis at Benha University in June, 2021.

Course on designing and using web- based surveys Clinical Research Institute of the American University of Beirut Medical Center, 2020.

The covid- 19 online education program at European Accreditation Council for Continuing Medical Education, 2020.

Scientific research course and scientific research SSPS program at Benha University 2015.

Workshop on clinical applications of real time PCR at Molecular biology unit, Benha University, 2013.

Course of Self-assessment and external review at Benha University in June, 2014

Course of Windows, spreadsheets, Internet & Power point from at Benha University in 2014.

Workshop on genotyping using real time PCR at Molecular biology unit, Benha University, 2013.

Course of Strategic Planning, effective presentation skills at Benha University, Egypt, 2013.

Course of moral & ethical aspects staff members at Benha University 2012.

The course of University staff member preparation, time and meetings management at Benha University 2011.

TOEFL ITP – AMDST Institution. 2010.

LANGUAGE SKILLS

Mother tongue(s): Arabic

Other language(s): English

HOBBIES AND INTERESTS

Reading  Camping & Walking