

CURRICULUM VITAE

Dr MAHMOUD BASHIR AGENA BSc, MSc & PhD in Bioscience

Assistant Professor at the Medical Research Centre.

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Professional/Academic Profile:

Result-driven and focused Bioscience/Biomedical researcher with extensive experience in host pathogen interaction and bacterial virulence research at different levels. Alongside the interested in mentioned subjects, I am passionate in deeply investigating the role of human cytoskeletons in infection process and compare different adults and neonatal cell lines. Moreover, the area of exploring the activation of human Toll-like receptors (human-TLRs1-10) as a result of bacterial infection and its role in activation of immune system via production of some of inflammatory cytokines and interleukins will be of high interest. Over years of my research studies, I found that some bacterial strains must be viable and in direct contact with human cell to be able kill the cells. I would have investigated this more deeply using transmission and scanning electric microscope to confirm the role of type secretion system in this process.

In addition, I have the interest in investigating the role of some of natural products including plant extraction in protection from bacterial infection.

Education and Qualifications:

Qualifications obtained	Date of obtained degree	Name and address of Institution
PhD in Biosciences/ Host-pathogen interaction	2018	Nottingham Trent University-Nottingham/ UK (Host-Pathogen interaction/ Bacterial virulence and host immune responses).
MSc in Biosciences/ Mycotoxins.	2009	Az-Zawiya University-Az-Zawiya/ Libya (Mycotoxins in animal feedstuff and its negative impacts on animal and human health)
BSc in Biosciences	1996	University of Tripoli- Tripoli/Libya

WORK EXPERIENCE:

Position, list of duties/responsibilities	Dates employed	Name of employer and address
Head of scientific committee	April 2024- present	Libyan medical research Centre
Member of Biosafety and Bioethics committee at Libyan medical research centre	Aug 2023- present	Libyan journal of medical research
Member of editorial board and head of first pass group at Libyan journal of medical research	2022-present	
Researcher at Libyan medical research centre	2022- present	Biomedical research group
Researcher with Biosciences research group	2018-Aug 2022	Libyan Biotechnology research centre

- **Demonstrator for different biological courses including:**

- Introduction to Microbiology
- Clinical and Public Health Microbiology. 2016-2017 Nottingham Trent University/ Nottingham/UK
- Infectious Diseases & their Control.
- Living Systems.

Researcher with biological control group	2010-2013	Biotechnology research centre - Tripoli/Libya.
• Lecturer of: Fundamentals of biology	2009-2011	Higher Institute of Medical Sciences/ Efren/Libya
• Lecturer of: Cell Biology and Genetics	2009-2010	Tripoli University/faculty of sciences/Qaser Bin Ghashir/ Libya
• Teacher of biological sciences	2000-2009	At several high schools in Az-Zawiya

Reviewer at:

- International Science & Technology Journal.
- Libyan journal of medical research
- Journal of medical sciences.

Peer reviewed publications:

- Determination of Fluoride Concentration in Rosemary (*Rosmarinus officinalis*) using Selective-electrode technique/ Libyan journal of medical research
- Prevalence of anaemia in haemodialysis patients in Northwestern Libya/Libyan journal of medical research
- Inhibition of Aflatoxin B1 by Aqueous extract from Green Cardamom./ ./ Libyan journal of medical research
- Multiplex Determination of K-Antigen and Colanic Acid Capsule Variants of *Cronobacter sakazakii*./ **MDPI ID: genes-3112490**
- The potential role of rpoS and ompR in acid resistance and desiccation tolerance of *Cronobacter malonaticus* strains. **MDPI ID: microbiolres-3399581**
- Distribution of *Fusarium* species and Mycotoxin Fumigating in Libyan Corn used in Animal Feed Industry in West and Southwest of Libya. **Sixth Conference of the Tunisian Society of Microbiology during 22-24th October 2010**
- Comparison of neonatal and adult derived colonic cell lines in investigating *Cronobacter* isolates thought responsible for infant deaths, **School of Science & Technology. The 9th Annual Research (STAR) Conference 6/7th May 2015. Oral presentation and poster.**
- The role of eukaryotic cytoskeleton inhibitors in bacterial invasion to non-malignant neonatal intestinal cell line (H4) compared with Caco-2. **Early career scientists research conference – 13th October 2015 The Royal Society of Medicine, London, UK.**
- Interaction of *Cronobacter* seven type species with non-malignant human fetal primary small intestinal cell line (H4) cells. **The 26th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID 2016) 9 – 12th April 2016 in Amsterdam, Netherlands.**
- Investigation of Pathogenicity and inflammatory role of selected *Cronobacter* isolates from French outbreak 1994 in non-malignant Human intestinal epithelia (H4) cell line. **Microbiology Society Conference/Annual Conference 21 – 24th March 2016, Liverpool - UK.**

- Outer membrane proteins of Escherichia coli K1 and Cronobacter ssp influence interleukin 8 (IL-8) production by H4 and Caco-2 human cell lines. **Microbiology Society Conference/ Annual Conference 2017, 3-6th Apr, Edinburgh, UK.**
- Effect of selenium and ebselen supplementation on Total glutathione (T-SH) in galactose- cataract rats. **4th Maghreb Congress of medical Biology/ Maghreb Federation Of Medical Biology Laboratories Association, Misrata, Libya**

Workshops and Training Courses:

- Training course in isolation and identification of some fungal species belonging to genus Fusarium at Assiut University Mycological Centre (2-28/08/2008).
- The 14th workshop organized by Assiut University mycological centre titled Laboratory techniques for isolation, identification and preservation of fungi during 19-24 November 2011
- Workshop organized by Molecular biology research unit of Assiut University titled From Gene to Protein from 25 to 27/12/2011.
- The 15th workshop organized by Assiut University mycological centre titled Root infection fungi and Mycorrhizae during 17-22 March 2012.
- The workshop organized by Molecular biology research unit of Assiut University titled Enzyme-linked immunosorbent assay (ELISA) Principles and different application in 26/03/2012.
- Workshop organized by Molecular biology research unit of Assiut University titled application of Bioinformatics in Molecular Biology 27/03/2012.

Membership of professional bodies:

- Libyan Society for Research and Scientific Studies
- Libyan Society for Biomedical Research
- Society of industrial microbiology.
- International Society for Mycotoxicology

Former Member:

- Microbiology Society/UK
- Society for Applied Microbiology,
- The Arab Society for plant protection.
- Society of Basic and Applied Mycology (SBAM, Egypt)
- Mediterranean Libyan Water Society.
- Libyan Society for Biochemistry and Molecular Cell Biology