

CURRICULUM VITAE

Maha Hussein Elamin, PhD., Associate Professor

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PERSONAL: Sudanese, Fluent in arabic and English, Married, One child.

CURRENT POSITION: Associate Professor, Zoology Department, Center of Sciences and Medical Colleges, Riyadh, KSA.

EDUCATION:

2006 PhD in Medical Parasitology , Gezira University, Sudan.

1992: Msc in Animal Nutrition, Gezira University, Sudan.

1990: Bsc in Veterinary Medicine, Cairo University, Egypt.

AREA OF EXPERTISE:

- Molecular biology
- Molecular Parasitology
- Cancer

TRAINING AND COURSES (King Faisal Specialist Hospital and Research Center):

➤ DNA Repair and Apoptosis- Cancer Research Unit-King Faisal Specialist Hospital and Research Center

- Western blotting techniques
- Tissue culture techniques
- Cytotoxicity Assays
- Cell proliferation Assays
- Flow cytometry techniques
- Cell cycle assays
- Apoptosis assays

➤ The Institute of Nuclear Medicine, Molecular Biology and Oncology, Gezira university, Sudan (INMO).

- RT-PCR techniques.
- Genotyping Techniques.
- Serological Techniques.

ACADEMIC ACTIVITIES:

Supervising Msc. students:

-Title: Effect of the sex of laboratory Wistar rat and Balb/c mice on prevalence and species of gastrointestinal tract helminths.

- Supervisor for Msc. Students, King Saud university, Riyadh, KSA.

-Title: Physiological Effects of Pentostam “Antileishmanial drug” on Wistar Albino Rats .

-Title: Prevalence and Genotype Analysis of *Toxoplasma Gondii* among Some Saudi Pregnant Women in Riyadh City, Saudi Arabia.

-Title: Prevalence of Gastrointestinal Tract Helminths in Domestic Chicken (*Gallus gallus domesticus*) in Riyadh City, Saudi Arabia.

-Title: Antileishmanial activities of Olive Leaves Extract (Oleuropein) on *Leishmania major* promastigotes.

Title: Serological and molecular detection of *Toxoplasma gondii* among Rats in Riyadh Region, Saudi Arabia

- Co Supervisor for Msc Student King Saud university, Riyadh, KSA.

Title: The Diagnosis of Local Cutaneous Leishmaniasis Using Prepared Antigen

COURSES TEACHING EXPERIENCE:

- ZOO 613 (2+1) Parasite Culture. General concepts of parasitology. Basic informations of cell culture. Maintenance of cell and parasite culture. Control of laboratory contamination.
- ZOO 611 (2+0) Applied Entomology and Parasitology.
- ZOO 512 (2+1). general concepts of the physiology of parasites. Metabolic activities in some parasites. Host parasite interaction. Search for reliable drugs for parasite treatment.
- ZOO 511 (1+1). Applied Entomology and Parasitology. general concepts of parasitology. diseases caused by protozoa, and helminthes in man and domestic animals, including zoonotic diseases. Diseases and allergy caused by ectoparasites.
- ZOO 510 (2+1). Advance parasitology. General introduction to parasitology. Predation and parasitism. Nutrition and reproduction in protozoa And

helminthes. Cell structure. Immunology basics. Plasmodium and leishmania cell biology. Drug resistance in protozoa and helminthes. Vaccination against protozoa and helminthes. Control and treatment of parasitic diseases

- ZOO 461 (1+2). Laboratory techniques : Handling of experimental animals. Sample collection from experimental animals. Preparation of tissue sections. Basics of immunology. Serological techniques. DNA structure and function. Structure and function of genes. PCR techniques.
- ZOO 341. (1+1). Tissue culture. Introduction to cell culture. Cell cycle and proliferation. Types of cell culture. Design and facilities in animal cell culture lab. Aseptic techniques. Sterilization and disinfection. Types and constituents of tissue culture media .
- ZOO 212.(2+1). General Parasitology. General structure of protozoa. Luminal protozoa. Blood protozoa. Platy helminthes and Nematodes.
- ZOO 103 (3+1). General Zoology. Structure of animal cell. Structure, function and types of animal tissues. Systematic study of animal Kingdom (Protozoa, Parazoa, Metazoa). Dissection of the frog. Studying the frog different body systems and organs.
- Zoo 145 (2+1).Macromolecules. The animal cell. Metabolism. Cellular respiration. Nucleic acids.Principals of transcription and translation. Cell cycle. Chromosomes and Inheritance. Hoemones and endocrine system.
- 342 (1+1) Molecular biology. Nature and properties of genetic material. DNA as genetic material-RNA as genetic material of some viruses. DNA synthesis and the molecular gene concept. DAN sequence and duplication in chromosomes. The concept of gene expression. Introduction to regulation of gene expression in eukaryotes.

AWARDS:

Organization: King Abdulaziz City for Science and Technology (KACST)

Principal Investigator: Maha Hussein Elamin.

Project title: Role of oleuropein and hydroxytyrosol in breast cancer prevention and treatment.

Award : 1,800,000 Saudi Riyals.

PUBLICATIONS:

1-Maha H. Elamin, PhD; Abdelsalam B. Elmahi, PhD; Maha H. Daghestani, PhD; Ebtesam M. Al-Olayan, PhD; Reem A. Al-Ajmi, PhD; Afrah F. Alkhuriji, PhD; Sherifa S. Hamed, PhD; Manal F. Elkhadragey, PhD. Synergistic Anti-Breast-Cancer Effects of Combined Treatment With Oleuropein and Doxorubicin In Vivo . Manal F El-Khadragy^{1,2,3*}, Ebtesam M Al-Olayan^{1,2}, AAK Abou Arab⁴, Sh E Sebaee³, MA Abou Donia⁴, **Maha H Elamin**¹, Dina M Metwally^{1,2,5}, Rafa Almeer¹, RL Abd-El Aziz³ . Altern Ther Health Med. 2017 Jun 23. pii: AT5644. [Epub ahead of print]

2-Effect of sub lethal concentrations of cadmium and lead on *Oreochromis niloticus*. Biomedical Research 2017; 28 (4):

3-Jawahir Alghamdi, **Maha H Elamin**, Samia Alhabib. Prevalence and genotyping of *Toxoplasma gondii* among Saudi pregnant women in Saudi Arabia. . Saudi Pharmaceutical Journal (2015) xxx, xxx–xxx. [doi:10.1016/j.jsps.2015.05.001](https://doi.org/10.1016/j.jsps.2015.05.001)

4-Khadiga g. adham, Manal h. Farhood, Maha h. daghestani, Nadia a. aleisa, Ahlam a. alKhaliFa, **Maha H. El amin**, Promy VirK, Mai a. al-obei and Eman m. h. al-humaidhi. Metabolic response to subacute and subchronic iron overload in a rat model. Acta Biol Hung. 2015 Dec;66(4):361-73. doi: 10.1556/018.66.2015.4.1.

5-**Maha H. Elamin** and Salyha S. Al-Maliki. Leishmanicidal and Apoptotic Activities of Oleuropein on *Leishmania major*. Int J Clin Pharmacol Ther. 2014. Accepted.

6-**Maha H Elamin**. Genotyping of *Toxoplasma gondii* from Rats (*Rattus rattus*) in Riyadh Region, Saudi Arabia. Korean J Parasitol. 2014. Accepted

7-**Maha H Elamin**. 'Seroprevalence and Molecular Detection of *Toxoplasma gondii* Infection among chicken (*Gallus domesticus*) in Riyadh Region, Saudi Arabia. Wulfenia Journal. 2014. 21(2).

8-Zeinab K Hassan, **Maha H Elamin**, Sawsan Omer, Maha Daghestani , Ebtesam Al-Olayan, Mai Elobeid, Promy Virk. Oleuropein induces apoptosis via p53 pathway on breast cancer cells. Asian Pac J Cancer Prev. 2013; 14 (11): 6739-6742.

9-Osama B Mohammed, Abdulaziz N Alagaili, Mohamed A Sandouka, Sawsan A Omer, **Maha H Elamin**, and Eltyeb ME Abu Elzein. Serosurveillance for some diseases in livestock living within protected areas designated for wildlife reintroduction in Saudi. Afr J Microbiol Res. 2013; 7 (16): 1574-1578.

10-Promy Virk, Mai Elobeid, Sherifa Hamad, Zainab Korany, **Maha H Elamin**, Maha Daghestani, Sawsan Omer, Eibtisam AlOlayan, Muzammil Iqbal Siddiqui and Nada Mohammed Mirghani. Ameliorative effects of *Embilica officinalis* and *Rosmarinus officinalis* on cadmium-induced oxidative stress in Wistar rats. Med Plant Res. 2013; 7 (14): 805-818.

11-**Maha H. Elamin**, Maha H. Daghestani, Sawsan A. Omer, Mai A Elobeid, Promy Virk, Ebtesam M. Al-Olayan, Zeinab K. Hassan, Osama B. Mohammed, Abdelilah Aboussekhra. Olive oil oleuropein has anti-breast cancer properties with higher efficiency on ER-negative cells. Food Chem Toxicol . 2013; 53: 310–316.

12-**Maha H. Elamin**, Promy Virk, Mai Abdel Rahman Elobeid, Zainab Mohammed Almarhoon, Zeinab Korany Hassan, Sawsan Ali Omer, Nada Mohammed Merghani, Maha Hassan Daghestani and Ebtisam Mohammed Al Olayan. Anti-diabetic effect of *Murraya koenigii* (L) and *Olea europaea* (L) leaf extracts on streptozotocin induced diabetic rats. Pak J Pharm Sci. 2013; 26 (2): 359-365.

13- **Maha H. Elamin** , Zeinab K. Hassan, Sawsan A. Omer, Maha H. Daghestani, Ebtesam M. Al-Olayan, Promy Virk, Mai A Elobeid Osama B. Mohammed.

Apoptotic and Antiproliferative Activity of Olive Oil Hydroxytyrosol on Breast Cancer Cells. J Med Plant Res . 2013; 7(32): 2420-2428.

14- Zeinab K Hassan, **Maha H. Elamin**, , Sawsan A Omer, Maha H Daghestani, Ebtesam M Al-Olayan, Mai A Elobeid, Promy Virk, Osama B Mohammed. Oleuropein Induces Anti-metastatic Effects in Breast Cancer. Asian Pac J Cancer Prev. 2012; 13(9):4555-4559.

15-Sawsan A. Omer, M.A. Elobeid, **Maha H. Elamin**, Z.K. Hassan, P. Virk, M.H. Daghestani, E.M. Al-Olayan, Nadia A. Al-Eisa and Z.M. Almarhoon. Toxicity of Olive Leaves (*Olea europaea* L.) In Wistar Albino Rats. Asian Journal of Animal and Veterinary Advances. 2012; 7(11): 1175-1182.

16-Sawsan A. Omer, Ebtesam M. Al-Olayan, **Maha H. Elamin**, Zeinab K. Hassan, Maha H. Daghestani and Osama B. Mohammed. Experimental Cassia senna intoxication in Lohmann broiler chicks. J Med Plant Res. 2012; 6 (17): 3306-3310.

17-Mai A Elobeid, Zainab M Almarhoon, Promy Virk, Zeinab K Hassan, Sawsan A Omar, **Maha H. Elamin**, Maha H. Daghestani, Ebtesam M. Al-Olayan. Bisphenol A Detection in Various Brands of Drinking Bottled Water in Riyadh, Saudi Arabia Using Gas Chromatography/Mass Spectrometer. Tropical Journal of Pharmaceutical Research (TJPR). 2012; 13 (3): 455-459

18-Sawsan A. Omer , Mai A. Elobeid , Dalia Fouad , Maha H. Daghestani , Ebtesam M. Al-Olayan , **Maha H. Elamin** , Promy Virk and Ameera El-Mahassna. Cadmium Bioaccumulation and Toxicity in Tilapia Fish (*Oreochromis niloticus*).Journal of Animal and Veterinary Advances. 2012; 11(10): 1601-1606.

19-Sawsan A. Omer, Torsten Wronski, Azzam Alwas , **Maha H. Elamin**, Osama B. Mohammed and Hannes Lerp. Evidence for persistence and a major range extension of the Arabian Smooth-coated Otter, *Lutrogale perspicillata maxwelli* (Mustellidae, Carnivora) in Iraq. Folia Zoologica. 2012; 61 (2): 172-176.

20-Zeinab K. Hassan, Mai A. Elobeid, Promy Virk, Sawsan A. Omer, **Maha H. Elamin**, Maha H. Daghestani, and Ebtisam M. AlOlayan. Bisphenol A Induces

Hepatotoxicity through Oxidative Stress in Rat Model. *Oxidative Med Cell Longev*. 2012; Volume 2012, Article ID 194829.

21-**Maha H. Elamin**, Ebtesam M. Al-Olayan, Sawsan A. Omer, Abdulaziz N. Alagaili. Molecular detection and prevalence of *Toxoplasma gondii* in pregnant women in Sudan. *African Journal of Microbiology Research*. 2011; 6 (2) : 308-311.

22- **Maha H. Elamin**, Zakia Shinwari, Siti-Faujiah Hendrayani, Hindi Al-Hindi, Essam Al-Shail, Yasser khafaga, Amani Al-kofide, and Abdelilah Aboussekhra. Curcumin inhibits the Sonic Hedgehog signaling pathway and triggers apoptosis in medulloblastoma cells. (Collaboration with KFSH and Research Center-KSA). 2010. *Mol. Carcinog*. 49:302-314.

23 **Maha H. Elamin**, Mohamedani, A., Eljaser, M.H., Elsanosi, M. Genotyping of *Toxoplasma gondii* strains in pregnant women with toxoplasmosis in Gazira State-Central Sudan. *The Arab board of Medical Specializations* . 2008; 9 (1).

PARTICIPATION IN INTERNATIONAL CONFERENCES :

- Signaling by Adhesion Receptors. Gordon research conference. **ME.USA. 24-26 June 2012.**

-Olive oil oleuropein has anti-breast cancer properties with higher efficiency on ER-negative cells.
- Functional Foods and Bioactive Compounds in the Management of Chronic Inflammation: Science and Practical Application. August 20-22, 2013, University of California, **Los Angeles (UCLA),USA.** Apoptotic and antiproliferative activity of olive oil hydroxytyrosol on breast cancer cells.
- World congress on breast cancer. August 3-5, 2015. **Birmingham, UK**

PARTICIPATION IN WORKSHOPS AND TRAINING COURSES IN SAUDI ARABIA:

- Basics of cancer biology: King Saud university, Center of sciences and medical colleges. 24-12-2012.

- Cell Culture Techniques, King Saud university, Center of sciences and medical colleges. 2-1-2013.
- Training course: Fundamentals of molecular biology, Genetic Research Unit. 23-27-2-2013.
- Training course :Fundamentals of Tissue Culture Techniques, Tissue Culture Research Unit.1-4-6-2013.
- Stem cells : King Faisal Specialist Hospital and Research Center
13-15 Nov 2007.
- Research annual report : King Faisal Specialist Hospital and Research Center.
20-22 March 2007.
- Research annual report : King Faisal Specialist Hospital and Research Center.
16-18 March 2009

WORKSHOPS ATTENDED IN RIYADH-SAUDI ARABIA: 2010-2012

- Placental Mesenchymal stem cells from characterization to clinical application: College of medicine. King Saud Bin Abulaziz university for health sciences 16-17 April 2012.
- Patent filing pathway. 19-Nov-2011.
- Obesity and life style. 20-Nov-2011.
- The first annual forum for university teaching 11-12-Sep.2001.
- Principals and applications of flowcytometry. 1-3 May-2011.
- The international day of Intellectual property. 26-April-2011.
- Pharmacogenetics of aspirin resistance in stroke. 20-April-2011
- The day of control of obesity. 25-March-2011.

- Mesoscopic junctions for light energy harvesting and conversion .16-March-2011
- Awareness day of cancer disease.1-March-2011.
- 2-D fluorescence difference gel electrophoresis. 26-Feb-2011
- Molecular engineering of triple emitters for organic light emitting diodes 19-Feb-2011
- The 2nd CAPCR Scientific Meeting natural products and drug discovery. 25-Jan-2011
- Institutional Self Study & Self Evaluation 2010 at CFSCMC. King Saud University, Riyadh, KSA . 22-May-2010.
- Proposal writing: Strategies for success. King Saud University, Riyadh, KSA. 2010.
- Photography .King Saud University, Riyadh, KSA . Nov-2010.
- Cell immunity. King Saud University, Riyadh, KSA .Nov-2010.
- Marketing of research outcomes. King Saud University, Riyadh, KSA .Nov-2010
- Gene expression using quantitative PCR technique. King Saud University, Riyadh, KSA. 5-Oct- 2010.
- Configuration for university teaching. King Saud University, Riyadh, KSA . Oct. 2010
- Using active learning to teach effectivity. Sep. 2010
- Electron microscope techniques. King Saud University, Riyadh, KSA July-2010
- The spread of toxic ant in Saudi Arabia. King Saud University, Riyadh, KSA June- 2010
- Institutional accreditation. June- 2010.

- Self study meeting. King Saud University, Riyadh, KSA .May-2010.
- Education based on output. King Saud University, Riyadh, KSA .May- 2010.
- How to start your project in biotechnology. King Saud University, Riyadh, KSA .April . 2010.
- Plastic surgery under microscope. King Saud University, Riyadh, KSA. March-2010.
- International research committee; Toward the scientific excellence. King Saud University, Riyadh, KSA. Jan-2010.
- Excellence in postgraduate programs. King Saud University, Riyadh, KSA . Jan-2010