

Sara Hamad Hassab Elgawi Mohammed– PhD, MSc, BSc

Khartoum, Sudan

Tel: +249 912864012

Email: hassabelgawish@hotmail.com

Linkedin: <https://www.linkedin.com/in/sara-hassab-elgawi-8857533a>

Director of NAPATA Research & Innovation Center, NAPATA College.

Profile

I graduated from the University of Khartoum, Faculty of Biology, with honor in Zoology. Master's degree in molecular biology from University of Khartoum, Institute of Endemic Diseases. Awarded my PhD in molecular biology, from University of Khartoum, Institute of Endemic Diseases (IEND), worked in drug resistance and molecular diagnosis of *Leishmania Donovanii* parasites. During my PhD study, I was appointed medical research scientist at IEND, and I was one of the key personnel who established the research laboratory for the DNDi organization to study drug sensitivity test for *Leishmania* in Sudan. Also, I worked as senior researcher in clinical trials conducted in Sudan to study *leishmania* candidate vaccine. I have published a number of articles in this field.

Areas of expertise

My research centers on the use of high throughput techniques to study genetics and molecular biology of tropical diseases, we specialize in the leishmaniasis.

Academic Qualifications

- 2010-2013 PhD in Molecular Biology, Institute of Endemic Diseases, University of Khartoum, Sudan
- 2004-2006 Master in Molecular Biology, Institute of Endemic Diseases, University of Khartoum, Sudan
- 1996-2000 Bachelor in Biology; Honor degree (Second Class-Division I) in
- Zoology, Faculty of Biology, University of Khartoum, Sudan

Experience:

Mar 2020- until now. NAPATA College, Khartoum, Sudan

Title: Director of NAPATA Research & Innovation Center.

Seb.2019- until now. NAPATA College, Khartoum, Sudan

Title: Head of Molecular Biology and Genetics Department.

Apr. 2018 - Aug 2019. IBN Khaldon College, Khartoum, Sudan.

Title: Lecturer, Basic Molecular Biology.

Faculty: Molecular Biology

Jan 2018-Mar 2018: Karari University Khartoum, Sudan
Title : Lecturer, tutorial for molecular biology
Faculty : Faculty of Medicine

Jan 2015 – 2016: Al Nilin University Khartoum, Sudan
Title : Lecturer; Advanced Molecular Biology
Faculty : Faculty of Science & Technology

Jan 2013- 2014: University of Science and Technology Khartoum, Sudan
Title : Lecturer ; Biology
Faculty : Faculty of pharmacology

2004 -2013 :University of Khartoum Khartoum, Sudan
Title : Lab Scientist
Faculty : Institute of Endemic Diseases

- ✓ DNA sequencing.
- ✓ Cells growth and maintenances (parasites and human cells lines).
- ✓ Cells and parasites counts under microscopy.
- ✓ Leishmania vaccine development
- ✓ Drug sensitivity test, in vitro and in vivo (using animals).
- ✓ Proteomics
- ✓ Different molecular Biology technique (PCR, qPCR, RFLP, RAPD, Cloning,, SNP, Sothern blotting, microarrays).
- ✓ Diagnostics, Molecular detection and typing of parasites and bacteria.
- ✓ SDS-PAGE, immunoblotting.
- ✓ Extraction of protein, select the protein from gel and elution.
- ✓ Mouse colonies, injection in mice.
- ✓ Data analysis.
- ✓ Bioinformatics (MEGA, BLAST, CodenCod
- ✓

2003-2004: University of Khartoum Khartoum, Sudan
Title: Medical Researcher; Leishmania vaccine trials
Faculty: Institute of Endemic Diseases.

2009- 2010: University of Khartoum. Khartoum, Sudan
Title: Senior medical researcher; IDRI initiates therapeutics vaccine clinical trail in Sudan against leishmaniasis
Faculty: Institute of Endemic Diseases.

2010-2011: University of Khartoum. Khartoum, Sudan
Title: Senior medical researcher; Drug sensitivity test for leishmania

sponsored by DNDi organization
Faculty: Institute of Endemic Diseases.

2013 :University of Sharq Al Nil Khartoum, Sudan
Title : Lecturer ; Cells and Genetics
Faculty : Faculty of medical laboratories

2007- 2008 :University of Alneelain Khartoum, Sudan
Title : Lecturer & Researcher ; Molecular Biology
Faculty : Faculty of Medicine , Alneelain Medical Research Center

Jan 2002-2003 :University of Khartoum Khartoum, Sudan
Title : Teaching Assistant
Faculty : Biology

Honors & Awards:

- UNDP/ World Bank/ WHO special programme for research and training in tropical diseases (TDR) grant support for M. Sc. thesis preparation.
- Ministry of Higher Education research grant, Sudan (2011-2013) support PhD study.
- Drug for Neglected Diseases Initiative grant support drug sensitivity test project. (2010-

Training Courses:

- One month training course in *Leishmania* parasites culture, cells culture, Drug sensitivity test. Center of research and training in skin diseases and leprosy. Iran, April 2003.
- Two months training course on *Leishmania* parasites culture, PCR, SDS-PAGE and immunoplotting at Pasteur Institute, Iran, 25 Jan. – 6 March 2003.
- One month training course in production of inactivated *Leishmania major* vaccine and its quality control, the Razi vaccine and serum research institute. May, 2003
- Bioinformatics and Statistical Genetics course in Khartoum winter School of Bioinformatics and Statistical Genetics, Sudan, 5-12 January 2005.
- Theoretical & Practical Malariology Course. 1st- 9th June 2005, Institute of Endemic Diseases, University of khartoum, Khartoum, Sudan.
- A three months training and work in PCR and sequencing technique, also cloning in Academic Medical center, Amsterdam, Netherland. This courses funded by DNDi organization. April-June 2007.
- The Theoretical and Practical Course “Molecular Biology of *Leishmania*” 27-29 October 2010, Trieste, Italy. (ICGEB).

Workshops & Conferences:

- ✓ Medical Education series workshop with 42 credit hours carried out during the period 25. Nov. To 30 Dec. 2020. NAPATA College, Sudan, Khartoum .
- ✓ 3rd International Workshop On Good Clinical Practice (GCP), 4-6 May 2003. Organized by UNDP/World Bank/WHO/(TDR). Undersecretary of research, Tehran University of Medical Sciences. Center for Research & Training in Skin Diseases and Leprosy.
- ✓ Good Clinical Practice (GCP) Introductory Course, held in Khartoum, Sudan 26th-27th September 2004. Organized by WHO/TDR/DNDi.
- ✓ Experimental Approaches to Studying Host-Pathogen Interactions, New Delhi, India, 30th October-10th November, 2006. (ICGEB)
- ✓ A Week on Recent Trends on Nanobiotechnology and Nanomedicine, ACT-Summer Schools, (Africa city of technology, Sudan), 13-17 June 2010.
- ✓ 3rd Annual Scientific Conference, "Prospects of Medical Research in Sudan", from 29th November till 3rd December 2005 at El Sharqah Holl, Khartoum, Sudan.

Publications:

- ✓ **Hamad, S.H.**, Khalil, E.A., Musa, A.M., Ibrahim, M.E., Younis, B.M., Elfaki, M.E., El-Hassan, A.M. (2010). *Leishmania donovani*: Genetic diversity of isolates from Sudan characterized by PCR-based RAPD. *Exp.Parasitol.* 125(4):389-393.
- ✓ **Hamad, S.H.**, Khalil, E.A.G., Musa, A.M., Ibrahim, M.E., El-Hassan, A.M. (2010). *Leishmania donovani*: A model of unresponsiveness to Sodium Stibogluconate. *KMJ*.
- ✓ **Sara H Hassabelgawi**; Ahmed M Musa; Eltahir AG Khalil; Tamrat Abebe, Brima M Younis; Mona EE Elthair; Ahmed M EL-Hassan; Asrat Hailu; Aldert Bart.(2011). Probable genetic hybrids between *Leishmania* species in Sudanese isolates. *Journal of Microbiology and Antimicrobials*, 3(6):142-145.
- ✓ **Sara H. Elgawi**, Brima M. Younis, Mona E. E. Elfaki, Ahmed M. Musa, Ahmed M. Elhassan, Eltahir A.G.Khalil.(2014). The Origin of The *Leishmania* Parasite: an African Prospectus.
- ✓ A.M.Musa, E.A.G. Khalil, F.A.Mahgoub, **S. H. Hamad**, A.M.Y. El kadam and A.M. El Hassan.(2005). Efficacy of liposomal amphotericin B (AmBisome) in the treatment of persistent post-kala-azar dermal leishmaniasis (PKDL). *Ann Trop Med Parasitol*; 99(6):563-9.
- ✓ Khalil, E.A., Musa, A.M., **Hamad, S.H.**, Meshasha, A., Gamar Eldawla, I., Elhassan, M.O., Eljaleel, K.A., Younis, B.M., Elfaki, M.E., El-Hassan, A.M.(2008). Revival of a focus of visceral leishmaniasis in central Sudan. *Ann Trop Med Parasitol.* 102(1):79-80.

✓ Musa AM, Khalil EA, Mahgoub FA, Hamad, S.H., Modabber F, Elkadaru AE, Aboud MH, Noazin S, Ghalib HW, El-Hassan AM. (2008). Immunochemotherapy of persistent post-kala-azar dermal leishmaniasis: a novel approach to treatment. *Trans R Soc Trop Med Hyg.* 102(1):58-63

✓ Khalil E. A. G, Elnour A. A. , Musa A. M , Elagib A. A, **Hassab Elgawi S. H**, Ismail W. M. A, ELzaki K. E. (2011). Tuberculous Lymphadenitis: Skin Delayed-Type Hypersensitivity Reaction and Cellular Immune Responses. *WAJM*; **30(3): 193–196.**

✓ **Referees**

Prof. Elzubair Bashir Taha.

Dean of NAPATA College.

e-mail: elzybairbashir@hotmail.com

Prof. Ahmed Mudawi Musa

Department of Clinical Pathology & Immunology

Institute of Endemic Diseases

University of Khartoum

Tel: +249 918043288

Email: musaam2003@uk.ca

Professor/ Babikir Ahmed Mohamed

Pathologist

College of Medicine, Karary University

Omdurman, Sudan

Babikjuba54@gmail.com

Tel:+249912159998

Dr. Aldert Bart

Department of Medical Microbiology

Academic Medical Center

University of Amesterdam

Email: a.bart@amc.uva.nl

Tel: +31 20 566 5466