



Dina Ahmed

lecturer, Medical Parasitology

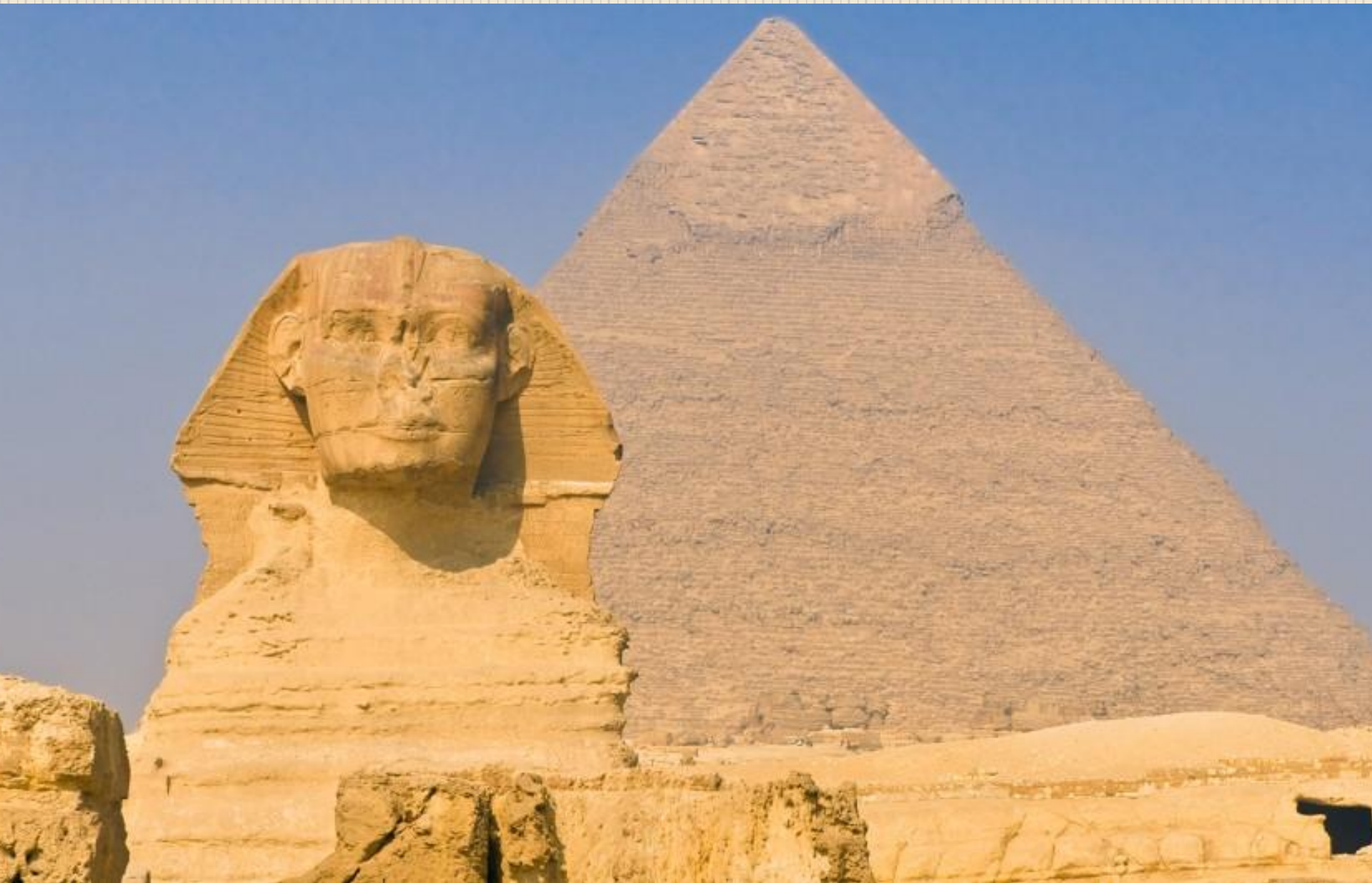
Bachelor degree in Medicine & Surgery

Masters of Medical Sciences

Doctorate degree in Medical Parasitology

Home land: Egypt









Academic & Research Institute:
Department Of Medical Parasitology,
Faculty Of Medicine, Ain Shams
University



Main Research Interests:

- Neglected tropical diseases (vector-borne) surveillance using immunological and molecular approaches.

Lymphatic Filariasis

GPELF

WHO/TDR

Monitoring of infection levels

**Human
populations**

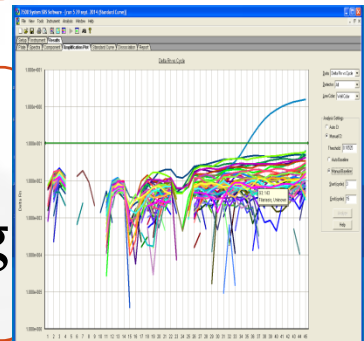
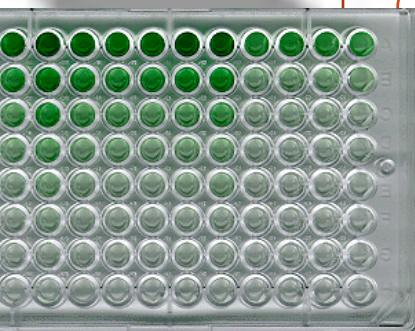
**Mosquito
vectors**

Antigenemia

Dissection

**Antifilarial
antibodies**

**Molecular
xenomonitoring**



Surveillance of lymphatic filariasis 5 years after stopping mass drug administration in Menoufiya Governorate, Egypt

M.A. Moustafa,¹ H.S. Thabet,¹ G.A. Saad,¹ M. El-Setouhy,² M. Mehrez³ and D.M. Hamdy¹

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1-Detection of **CFA** in capillary blood

Immuno-chromatographic Card Test



2-Detection of IgG Ab to the Recombinant Bm14 antigen in plasma (CELISA)



ORIGINAL ARTICLE

Molecular xenomonitoring (MX) and transmission assessment survey (TAS) of lymphatic filariasis elimination in two villages, Menoufyia Governorate, Egypt

**M. A. Moustafa¹ • M. M. I. Salamah¹ • H. S. Thabet¹ • R. A. Tawfik¹ •
M. M. Mehrez² • D. M. Hamdy¹**

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Faculty Of Medicine, Ain Shams University

Molecular Xenomonitoring (MX)

- It is the detection of parasite DNA in mosquitoes by polymerase chain reaction [PCR].
- This method requires **collection of** representative samples of mosquitoes, efficient **isolation of total DNA** from mosquito pools, **amplification** of parasite DNA sequences, and detection of the amplified product (Rao *et al.*, 2006).

World Health Organisation



Parasitology Research and Diagnostic Laboratory Unit :



- Sample analysis for patients for spot diagnosis of different parasitic stages (Stool, Urine, blood, vaginal smear, etc....).
- 1. Staining techniques (e.g. MZN stain for Coccidian, Trichrome and Iron Hx for *Entamoeba histolytica*).
- 2. Stool Concentration techniques (Formol ether, Zn Sulphate).
- 3. Stool culture (e.g. Nematode larvae).

4. Blood film (thin and thick) stained by Geimsa stain for detection of Blood parasites (e.g. microfilaria of *Filarial* nematodes, *Plasmodium* stages,..).
5. Serology for detection of antibodies for diagnosis of Schistosomiasis, fascioliasis and hydatid disease.
6. Urine analysis (e.g. *Enterobius* eggs in females).

Scientific Goals (*PostDoc.*):

Insecticide resistance monitoring in Malaria mosquito vectors

1. *Susceptibility test*
2. *ACE-1 / Kdr*-gene mutation detection

Contributions:

- Entomologist.
- Molecular biologist.
- Bioinformatics.
- Statistics.

Collaborators:

- The Concerned technical unit in WHO/EMRO (**Malaria Control & Elimination**) is interested in funding (Entomological surveillance).
- Molecular Parasitology Dep., **Bernard Nocht Institute (BNI) for Tropical Medicine, Hamburg, Germany.**

Obstacles:

- Authority clearance and administrative delay (**schedule ×**).
- Entomology research institute (**No Partner**).
- Samples exportation (**impossible**).

Thank
You!

