



# MALARIA ANCIENT SCOURGE – STILL EVOLVING AND RELEVANT

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# Protozoans

## Ciliophora

*Balantidium coli*

## Apicomplexa

*Trypanosoma gambiense*  
*Trypanosoma rhodesiense*  
*Trypanosoma cruzi*  
*Leishmania spp.*

## Piroplasma

*Plasmodium falciparum*  
*Plasmodium vivax*  
*Plasmodium malariae*  
*Plasmodium ovale*  
*Babesia microti*

## Coccidia

*Isospora belli*  
*Toxoplasma gondii*  
*Sarcocystis spp.*  
*Cryptosporidium parvum*  
*Pneumocystis carinii*

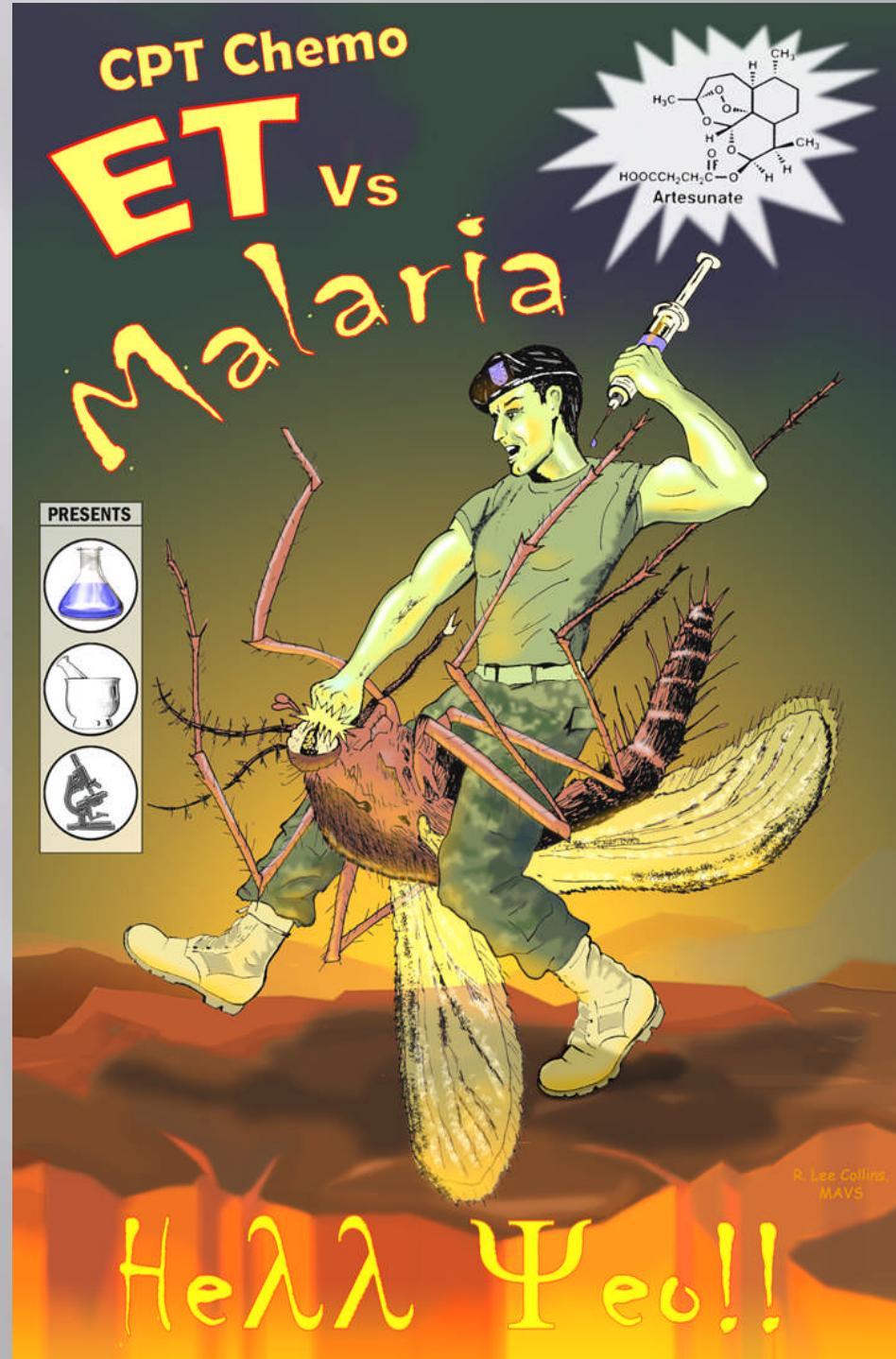
## Kinetoplastida

## Other Flagellates

*Chilimastix mesnili*  
*Giardia lamblia*  
*Trichomonas vaginalis*

## Sarcodina

*Entamoeba histolytica*  
*Entamoeba coli*  
*Endolimax nana*  
*Iodamoeba buetschlii*  
*Naegleria fowleri*





# History

- Chinese writings (2700 BC)
- The Eber's papyrus (1550 BC)
- Hippocrates (described malaria fevers)
- Greek civilizations affected by “bad air”, the rich summered in the highlands
- Malaria in the United States??
  - First military expenditure in 1775 (\$300) for quinine to protect G. Washington's troops
  - In Civil War (1861-65) 50% white and 80% of black troops w/ malaria annually



- 1880-Laveran made first sighting of parasite
- 1902-Ross awarded Nobel Prize (mosquito)
- 1927-Wagner von Jauregg awarded Nobel Prize for treating syphilis with malaria
- 1950-WHO plan for malaria eradication-1955
- mid-1960's, chloroquine-resistant *falciparum*
- Eradication effort declared dead in 1972