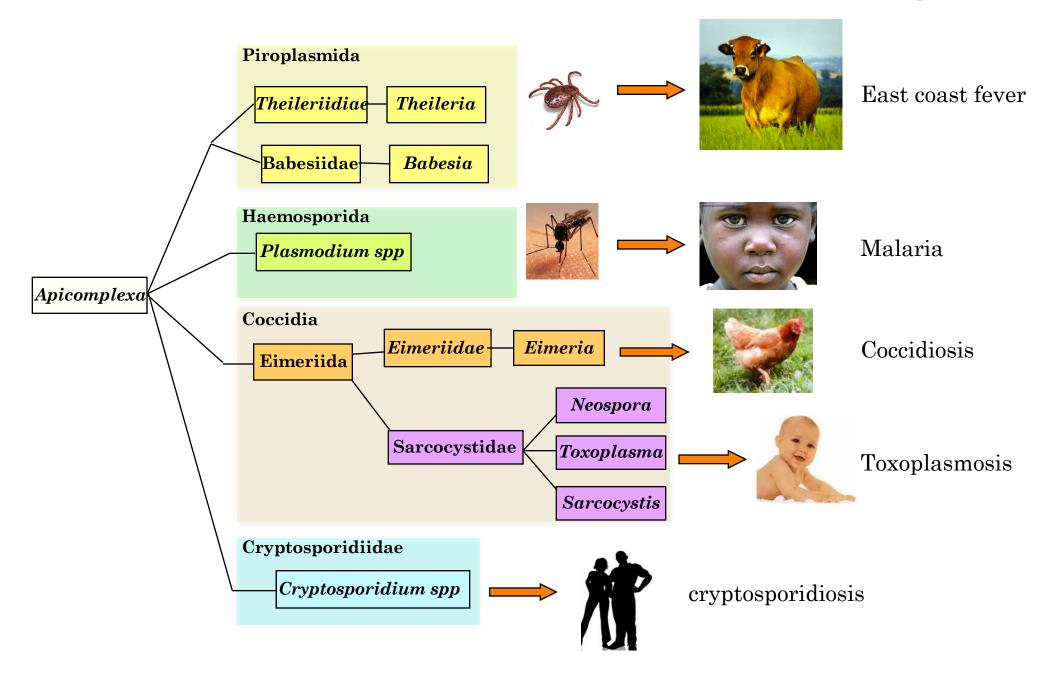
# Aspartyl proteases in *Toxoplasma*gondii and *Plasmodium falciparum*

meBOP-Module II

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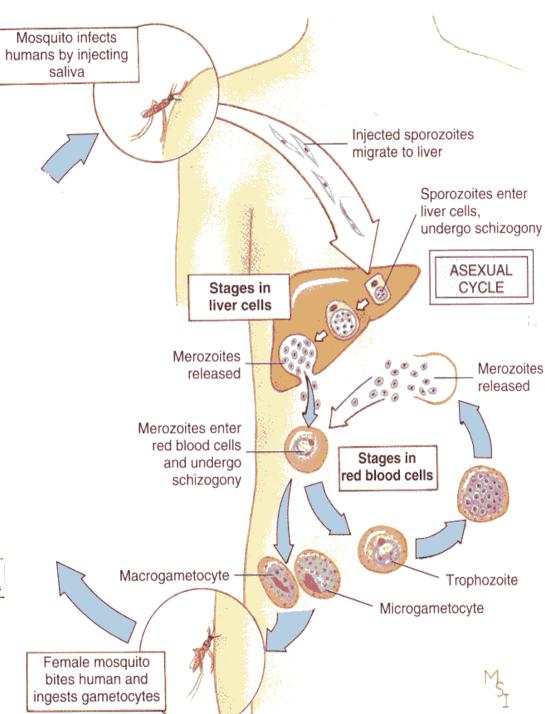
#### Apicomplexans are human and animal pathogens



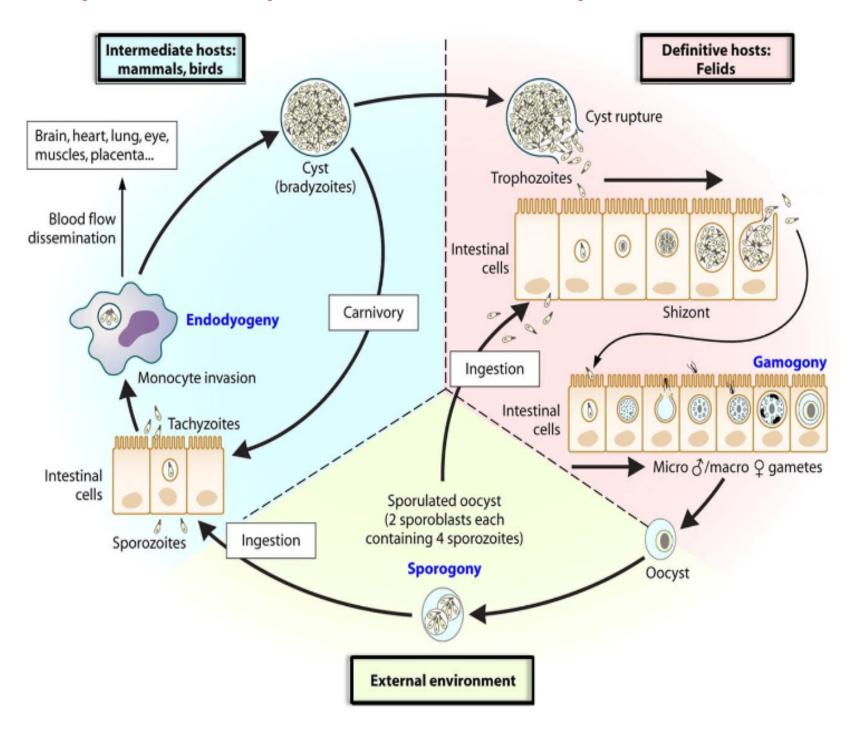
## Life Cycle of *Plasmodium*Human Cycle

humans by injecting saliva Ingested gametocytes Female gamete SEXUAL CYCLE Male gamete Sporozoites develop in oocyst, are released, Fertilization and migrate to Ookinete salivary glands Sporogony occurs Oocysts beneath stomach lining Female mosquito bites human and ingests gametocytes

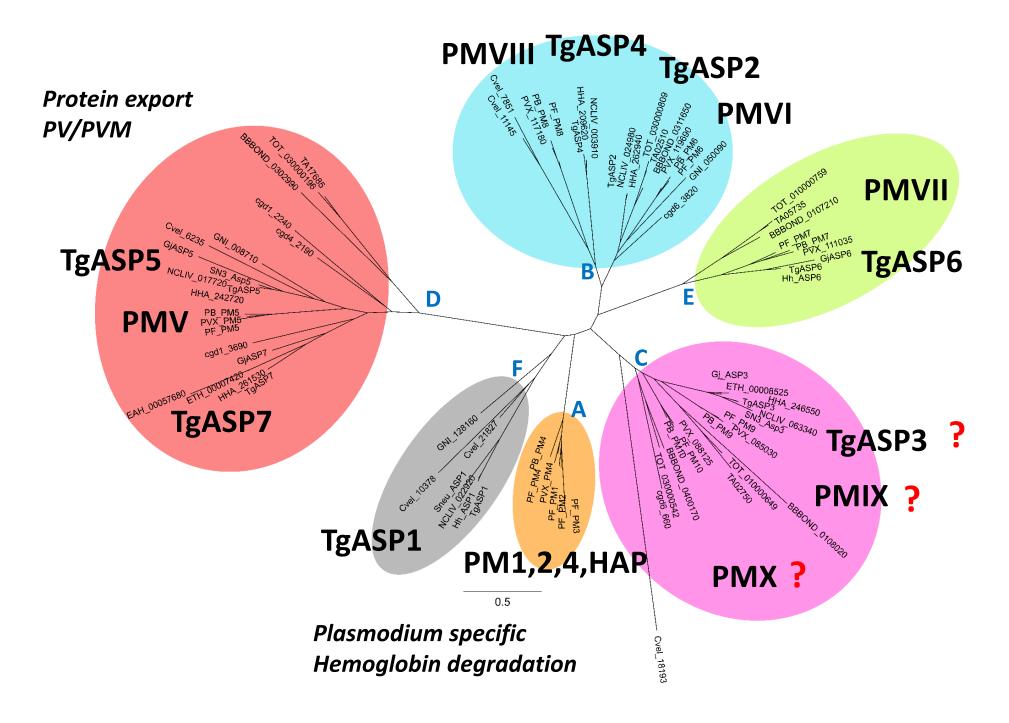
Mosquito infects



### Life Cycle of *Toxoplasma* – Human Cycle



#### Apicomplexan ASPs follow 6 distinct groups



#### ASP3 Knockdown inducible system (Asp3-iKD)

Intracellular parasites

ASP3 Knockout → lytic cycle of parasite (ASP3 play an important role in the life cycle)

ASP3 Knockdown inducible system (Asp3-iKD)

#### ASP3 knockdown displays a severe lytic cycle defect

#### Plaque Assay

