

## **MIC 061: ZOONOTIC AND VECTORBORNE DISEASES**

### **A. ZOONOSES: Animal ----- human**

#### **MODE OF TRANSMISSION:**

1. Via ingestion – *Salmonella* spp. and *Campylobacter jejuni* – enterocolitis
2. Via inhalation – *C. psittaci* – psittacosis (ornithosis)
3. Via bites – rabies virus

### **B. VECTORBORNE INFECTIONS:**

1. Human – insect---human cycle – malaria- *Plasmodium* spp. (protozoan)
2. Animal ---- insect ----- animal cycle; insect accidentally bites man – usually (but not always) a dead-end host for the pathogen

#### **BACTERIA:**

- a. Relapsing Fever – *Borrelia recurrentis* – ticks – rodents
- b. Lyme Disease – *Borrelia burgdorferi* – ticks- deer, field mice
- c. Plague – *Yersinia pestis* – fleas- rats

#### **VIRUSES:**

- a. Encephalitis – caused by the encephalitis viruses – St. Louis, Eastern and Western encephalitis viruses – mosquitoes – birds

#### **PROTOZOAN:**

- a. African Sleeping Sickness – *Trypanosoma* spp. – tsetse fly-antelope
- b. Chaga's disease (American Trypanosomiasis) – *Trypanosoma cruzi* – Reduviid bug –"kissing bug") -opossum, armadillo



