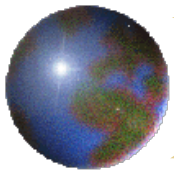


PARASITE EVOLUTION AND THEIR INCIDENCE ON ZOOZOSES

Gilles DREYFUSS, MD, PhD. University of Limoges (France)

INTRODUCTION

- *Specificities of parasites.*
- *Genetics and immunogenicity of parasites.*
- *Relationships between parasites and hosts.*



MECHANISMS OF PARASITE EVOLUTION

- Protozoa.

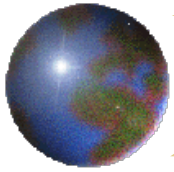
- * Adaptation of parasites to different hosts: intestinal amoebae from soil to liver.
- * Notion of healthy reservoirs: *Giardia intestinalis* in humans (adults versus children).

- Arthropods.

- * Co-evolution in Arthropod borne parasites.

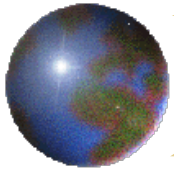
- Helminths.

- * Relationships between host and parasite in intermediate host molluscs.
- * Case of Vertebrates being acting as definitive as well as intermediate hosts.



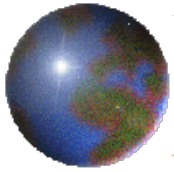
EVOLUTION OF ZONNOSES CONCEPT

- Which animals are involved: domestic, wild, pets?
- Contamination by zoonotic parasites: inevitable or behavioral choice?
- Social human factors implicated during zoonoses.



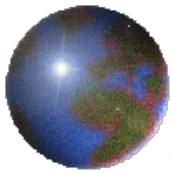
INCIDENCE OF ZONNOSES ON PARASITE EVOLUTION

- Speciation.
- Large and diversified species reservoir.
- Zoonosis: disease with at least 2 different species involved, one of which is man.
- Parasite migrations is a factor of evolution.
- Human migrations as an inducing factor for zoonoses.



CONCLUSION

- Are zoonoses a required phase for parasite development from an exterior life cycle to a strict human parasite?
- Does parasite spreading increase the risk of zoonoses diffusion?
- Does the Red Queen still have a future?



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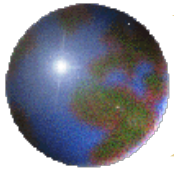
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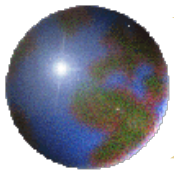
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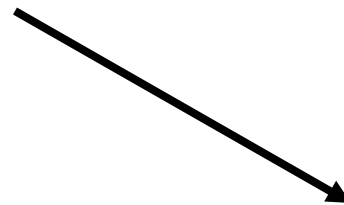
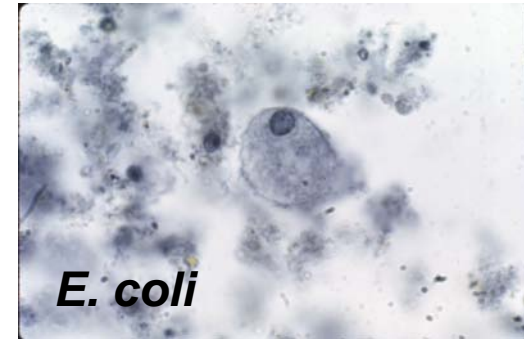
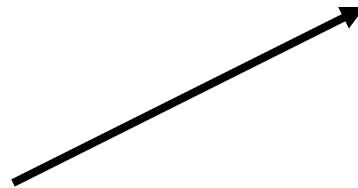
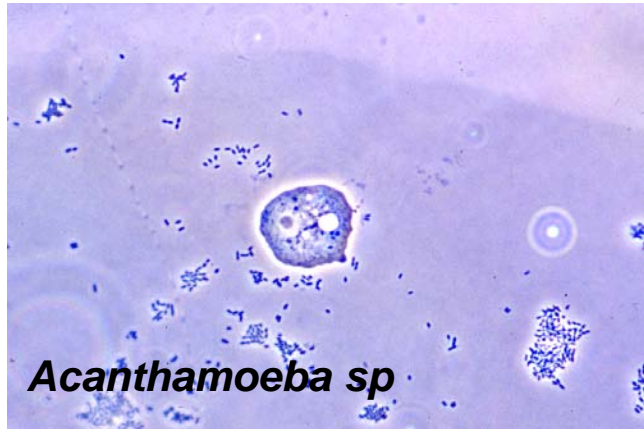
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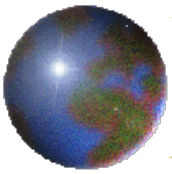
QUITO, March 2012

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PARASITE EVOLUTION AND THEIR INCIDENCE ON ZONOSSES

