

LEISHMANIA DONOVANI – LIFE CYCLE
(Part-1)



By Dr. Shashi Prabha
HOD , Zoology Dept.
Karim City College

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Leishmania donovani – Lifecycle



*Leishmania is an important pathogenic zooflagellate
It is a haemoflagellate parasite.*

In man it resides in leishmanial form in lymphoid- macrophage cells of the spleen ,liver bone marrow, intestine and lymph glands.

Leishmania – Lifecycle



CLASSIFICATION

Phylum	:	Protozoa
Super class	:	Mastigophora
Class	;	Zoomastigophora
Order	;	Kinetoplastida
Genus	;	Leishmania
Species	;	donovani

Leishmania donovani – Lifecycle



LIFE - CYCLE

- **Leishmania donovani** completes its life cycle in two hosts.
 - Primary host-vertebrate or man
 - Secondary host- it's a vector : female sandfly belonging to the genus phlebotomus.
- **Infectiform- promastigote form present in midgut of female sandfly**

Lifecycle in Man



- The leishmania is transmitted to man by the bite of sandfly
- When it bites it liberates the parasite in the skin wound caused by its proboscis
- The parasites introduced by the sandfly into human body are in the promastigote form.

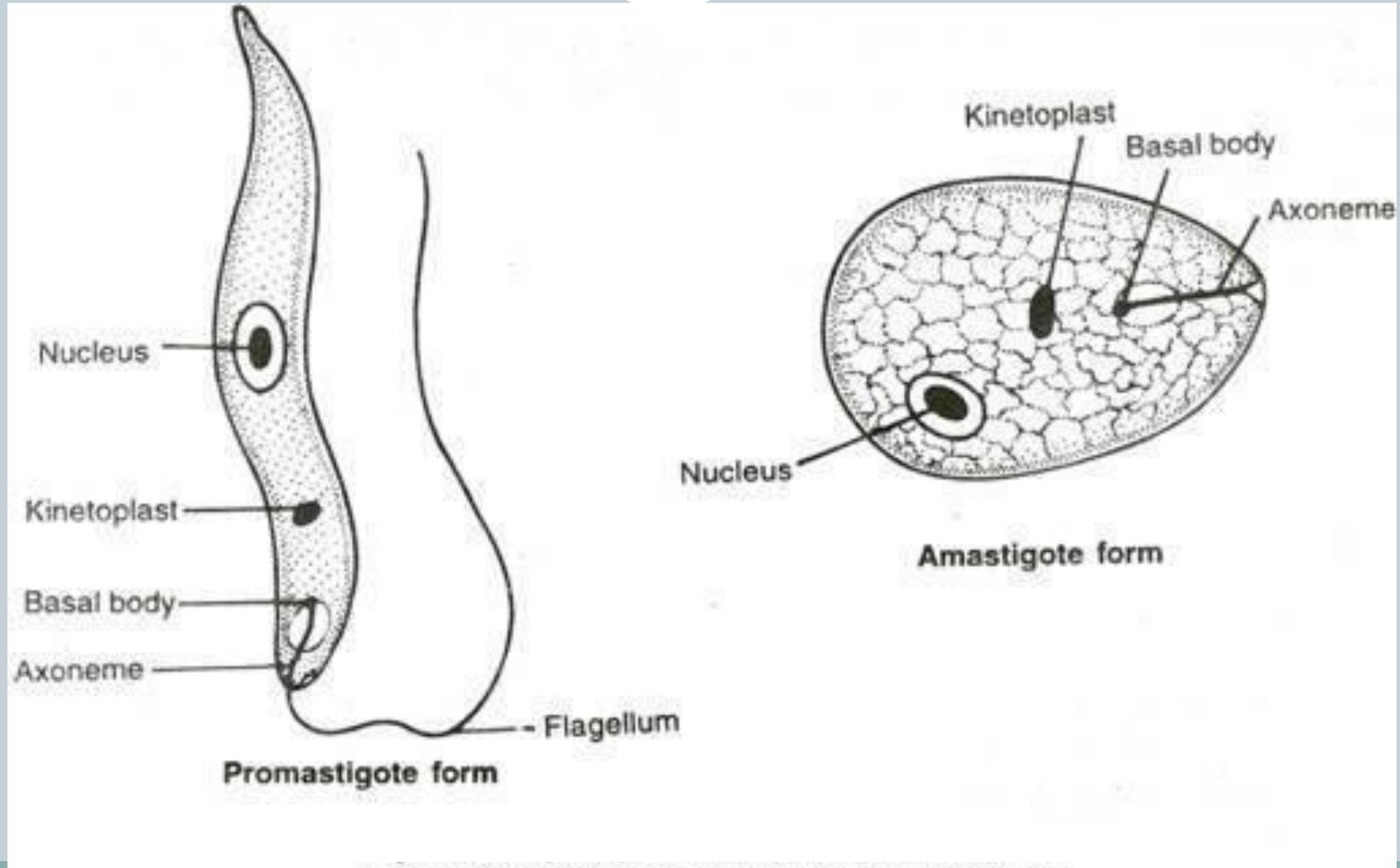
Lifecycle in Man



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- Some of them entering the blood circulation directly become destroyed
- While those entering the cells of reticuloendothelial system changes into amastigote or leishmanial forms

Morphological forms of Leishmania



Thank You

