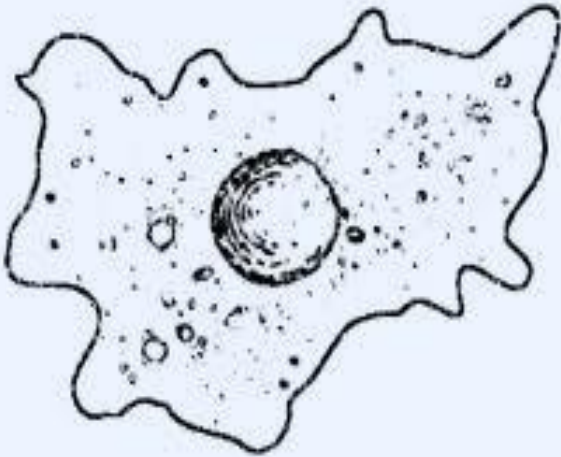


PROTISTA



GOLONGAN

- PROTOZOA
- ALGA
- MYXOMYCOTA

TUJUAN

- Menjelaskan ciri protista
- Menjelaskan penggolongan protista
- Menjelaskan peranan protista

diskusi

PERTANYAAN

1. Apa ciri umum protista?
2. Jelaskan ciri protista tumbuhan!
3. Jelaskan ciri protista hewan!
4. Jelaskan ciri protista fungi!
5. Jelaskan klasifikasi protozoa berdasarkan alat geraknya!
6. Jelaskan peranan protozoa bagi manusia!
7. Jelaskan daur hidup plasmodium sp
8. Apa pengertian dari:
 - Ektoplasma
 - Endoplasma
 - Plasmasol
 - Plasmagel
 - Vakuola makanan
 - Vakuola kontraktil

PERTANYAAN

1. Jelaskan konjugasi pada paramecium!
2. Jelaskan ciri Euglena sp dan Volvox sp sebagai protozoa dan alga!
3. Apa pengertian dari:
 - zoospora
 - zooflagelata
 - fitoflagelata
 - pseudopoda
 - mikronukleus
 - makronukleus
 - singami

PERTANYAAN

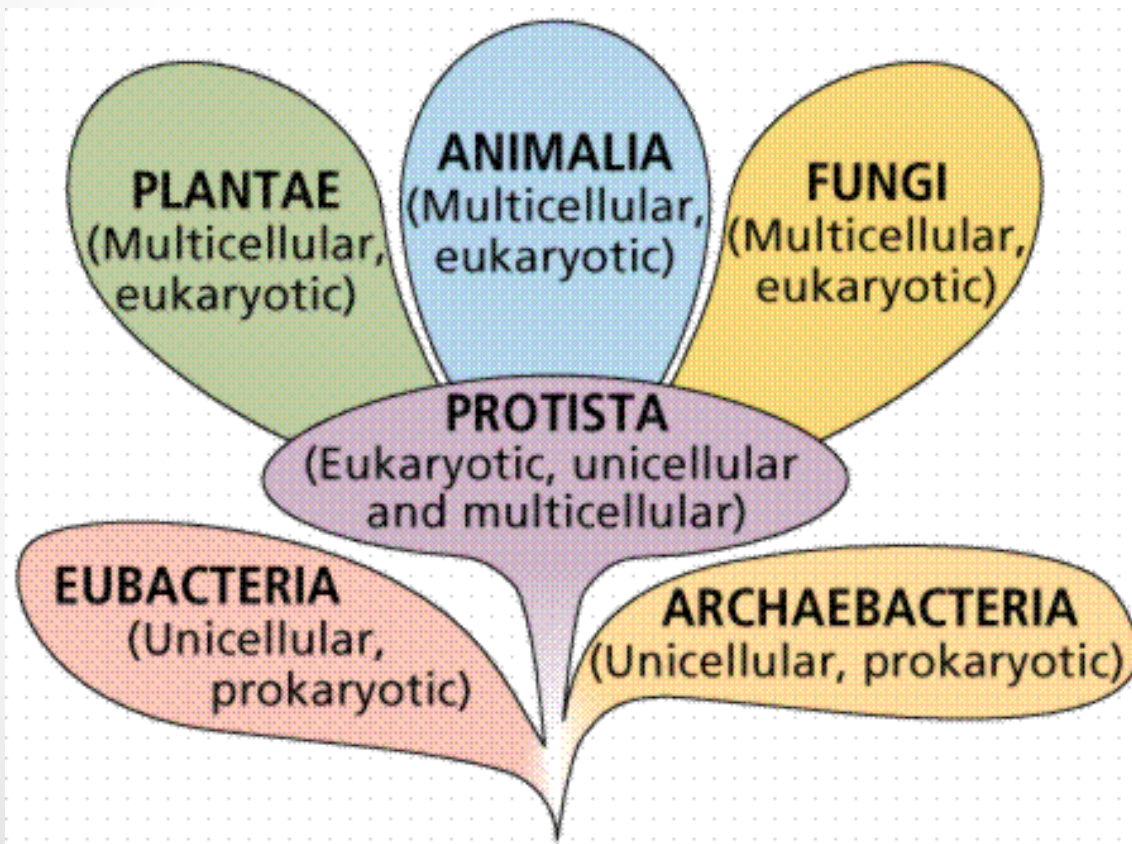
1. Jelaskan siklus hidup jamur lendir!
2. Sebutkan kelompok alga berdasarkan pigmen yang dominan!
3. Berilah contoh jenis alga
 - Satu sel
 - Koloni
 - Multisel (talus)
4. Jelaskan peranan alga
 - Chlorella sp
 - Gracillaria sp
 - Laminaria sp
5. Apa dampak dari protista:
 - Saprolegnia sp
 - Phytophthora sp

6 KINGDOM

- DINDING SEL
- KLOOROFIL

- TANPA DINDING SEL
- TANPA KLOOROFIL

- DINDING SEL
- TANPA KLOOROFIL



CIRI PROTISTA

- **EUKARIOTIK**
- **Heterotrof / autotrof**
- **Monoseluler / multiseluler**
- **Membelah (1 sel)**
- **Habitat : perairan / lembab**

3 GOLONGAN PROTISTA

- **1. PROTISTA MIRIP HEWAN**
- **2. PROTISTA MIRIP TUMBUHAN**
- **3. PROTISTA MIRIP FUNGI**

General Groups of Protists



Rhizopoda
Actinopoda
Foraminifera

Heterotrophs with
no permanent
locomotor apparatus



Pyrrhophyta
Euglenophyta
Chrysophyta
Rhodophyta
Phaeophyta
Chlorophyta

Photosynthetic
protists



Sarcomasti-
gophora
Ciliophora

Heterotrophs
with flagella



Apicomplexa

Nonmotile
spore-formers



Oomycota
Acrasiomycota
Myxomycota

Heterotrophs with
restricted mobility

Protists

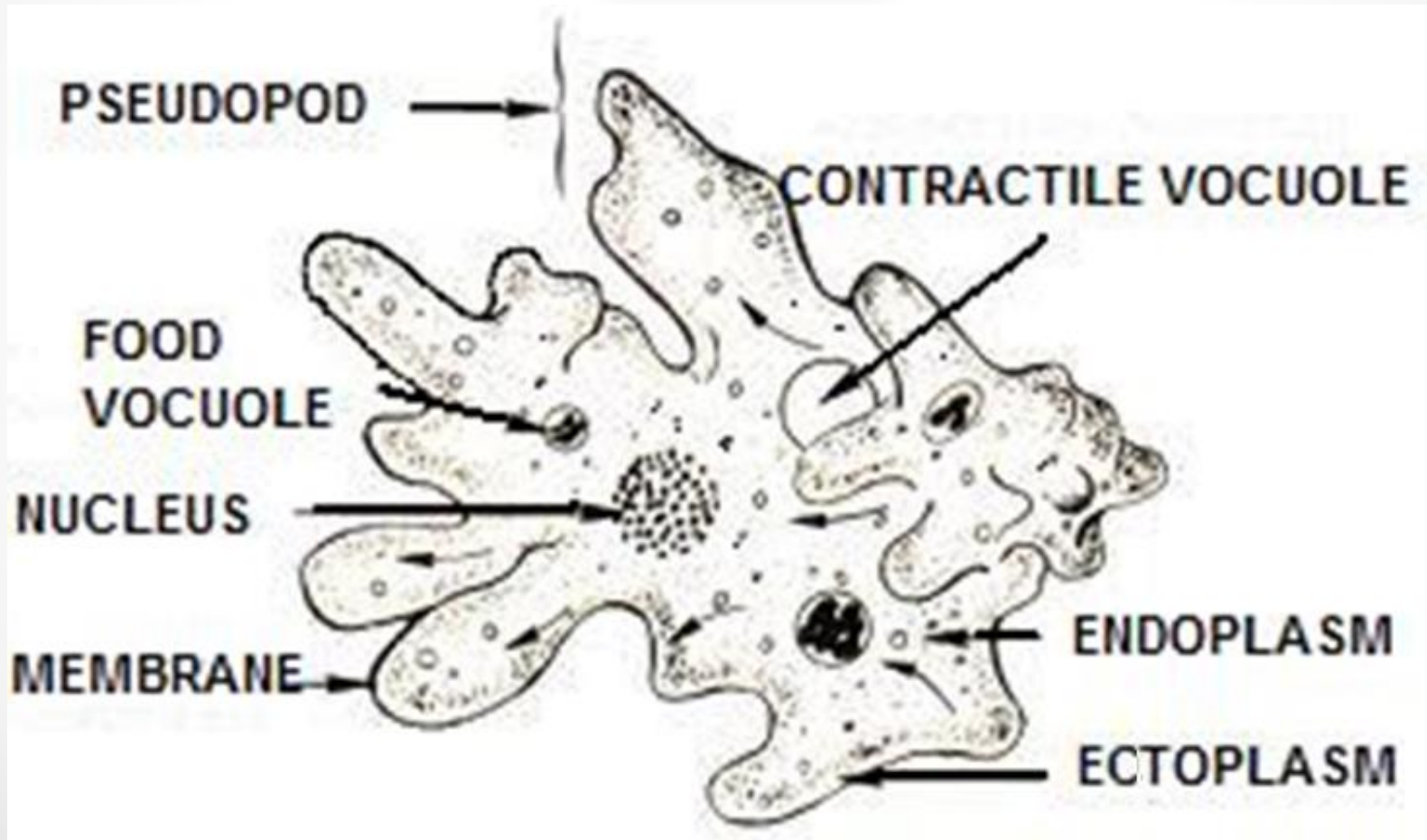
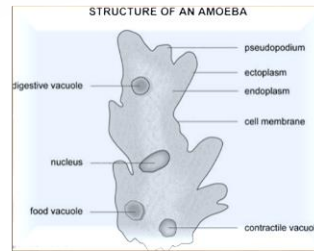
PROTISTA HEWAN (PROTOZOA)

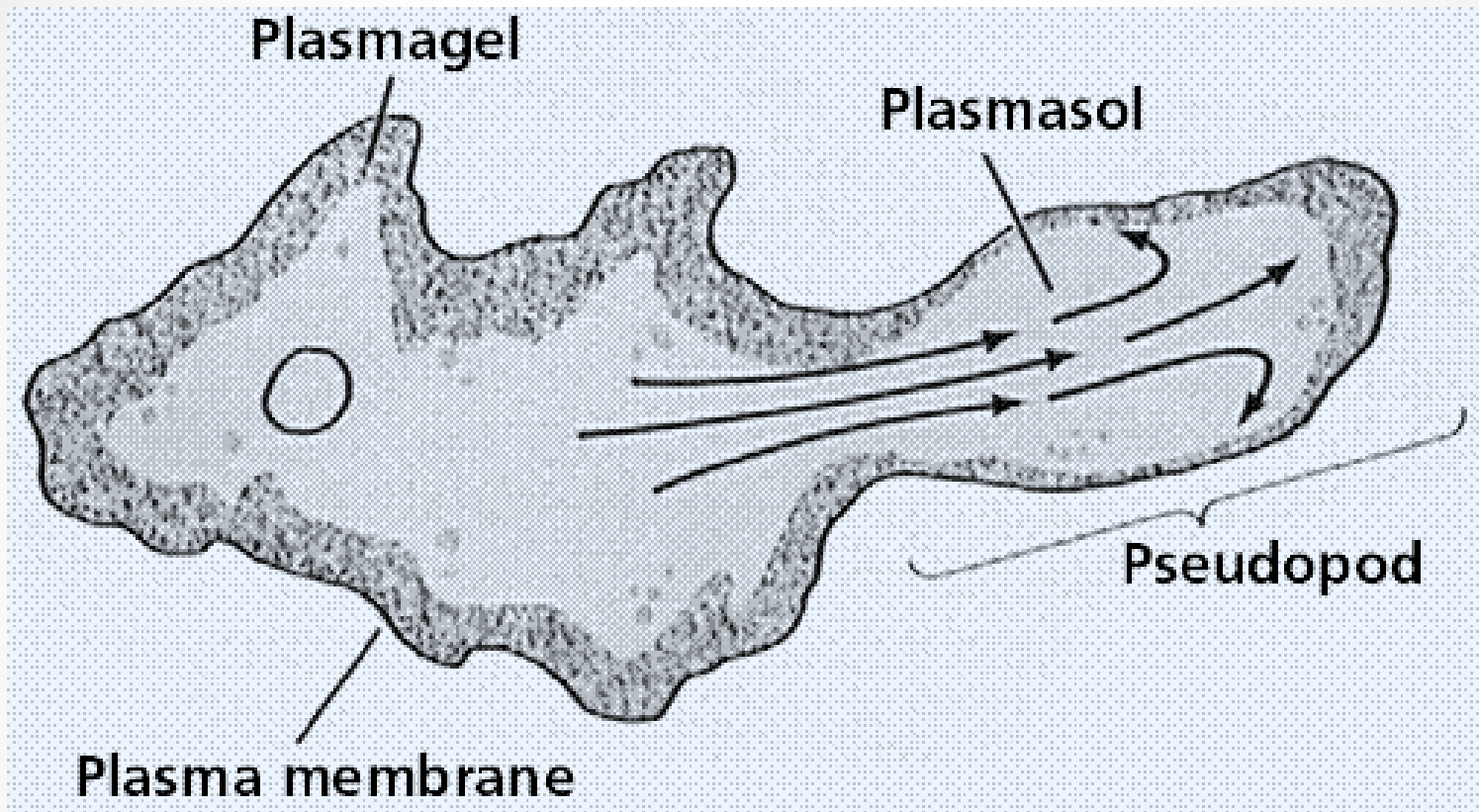
- ❖ RHIZOPODA : pseudopodia
- ❖ CILIATA : silia
- ❖ FLAGELATA : Flagel
- ❖ SPOROZOA : berspora, fase lendir

AMOEBA SP

- Protozoa
- Uniseluler
- Gerak dengan pseudopodia
- Pemakan paramaecium
- Membelah diri
- Gerakan dengan mengatur kepekatan cairan sel:
 - Fase sol : encer
 - Gase gel : pekat

Rhizopoda

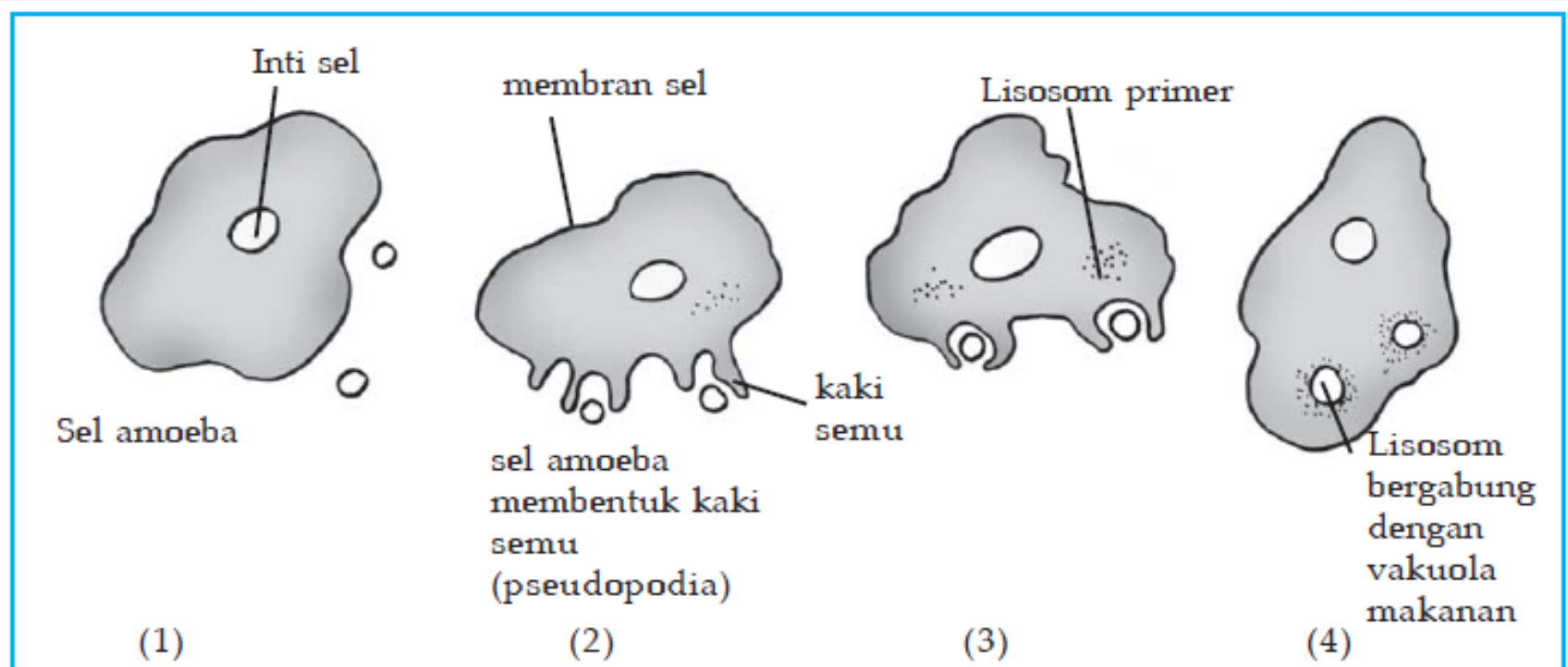




PSEUDOPODIA

<http://www.emc.maricopa.edu/faculty/farabee/biobk/pseudopod.gif>

Fagositosis



Sumber: Ilustrasi Bayu dan Cahyo

Gambar 1.19 Proses fagositosis

REPRODUCTION IN AMOEBIA

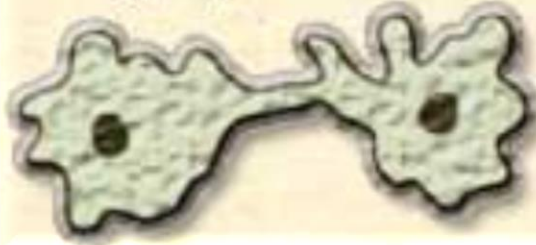


Parent Cell



Nucleus dividing

Cytoplasm divides



Two daughter cells



PEMBELAHAN SEL

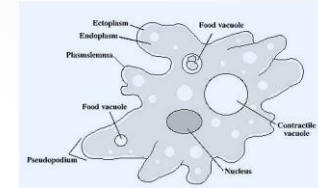
http://www.artscape.us/aquaculture/protozoa/amoeba_reproduction.jpg

CONTOH RHIZOPODA

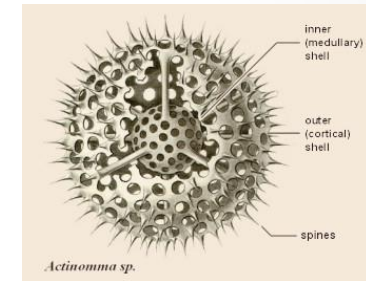
- *Amoeba proteus*
- *Entamoeba histolytica*

Mirip Rhizopoda

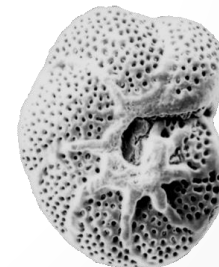
- *Radiolaria sp*
- *Foraminifera sp*



Amoeba



Radiolaria sp



Foraminifera sp

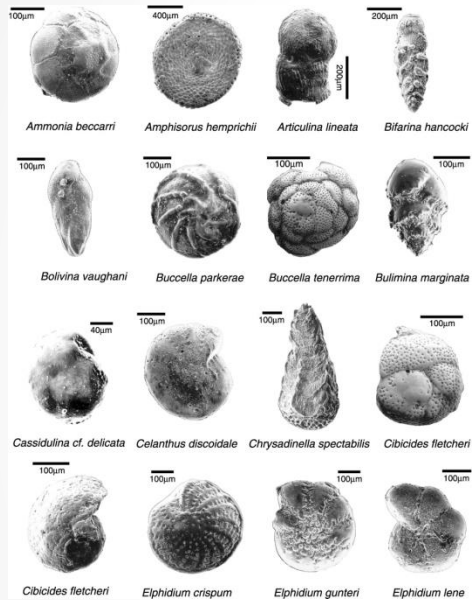
- **Radiolaria**

- *habitat laut*
- *Endapan kerangka membentuk tanah silika → digunakan sebagai alat penggosok*

- **Foraminifera**

- *Habitat laut*
- *Endapan kerangka tubuhnya membentuk globigerina → sebagai petunjuk adanya minyak bumi*

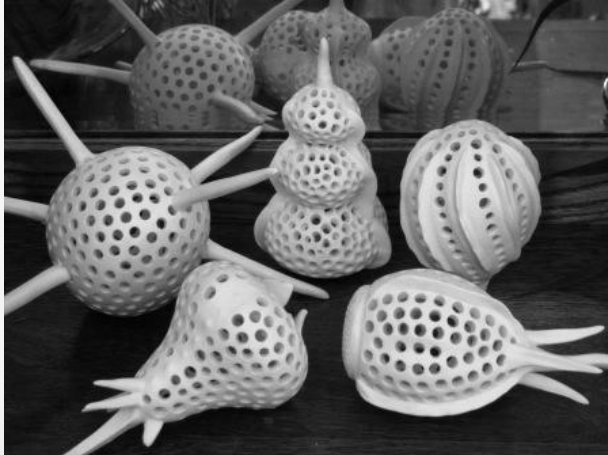
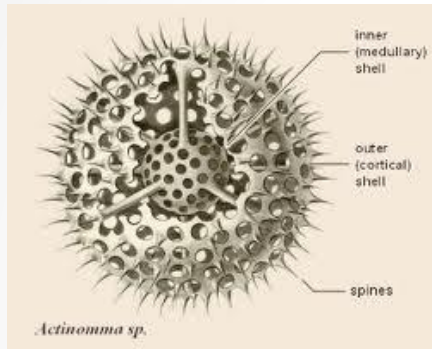
Foraminifera



- *Neogloboquadrina dutertrei*
- *Globorotalia menardii*
- *Globorotalia tumida*
- *Globigerinella calida*

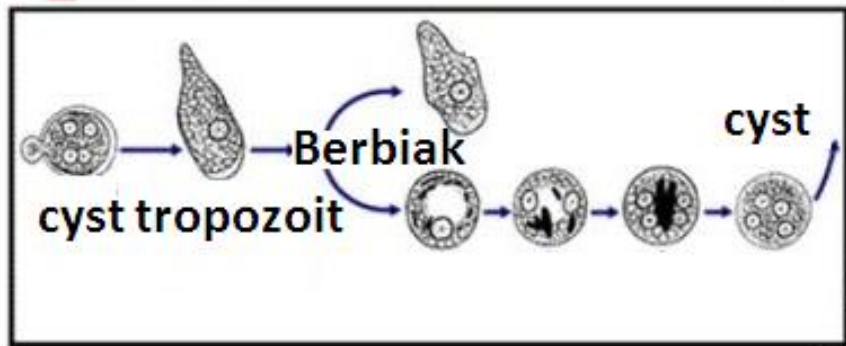
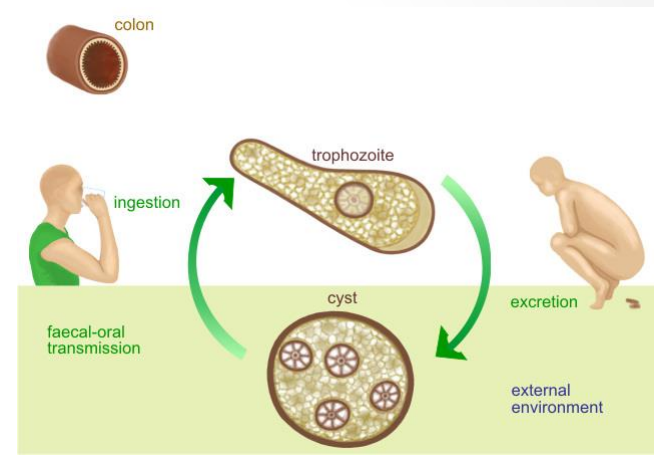
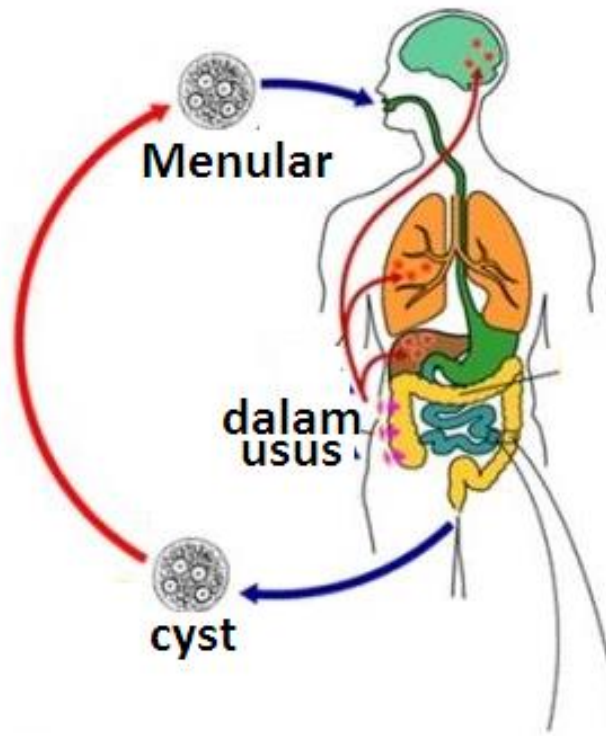
Endapan batuan
GLOBEGERINA

Actinopoda-Radiolaria



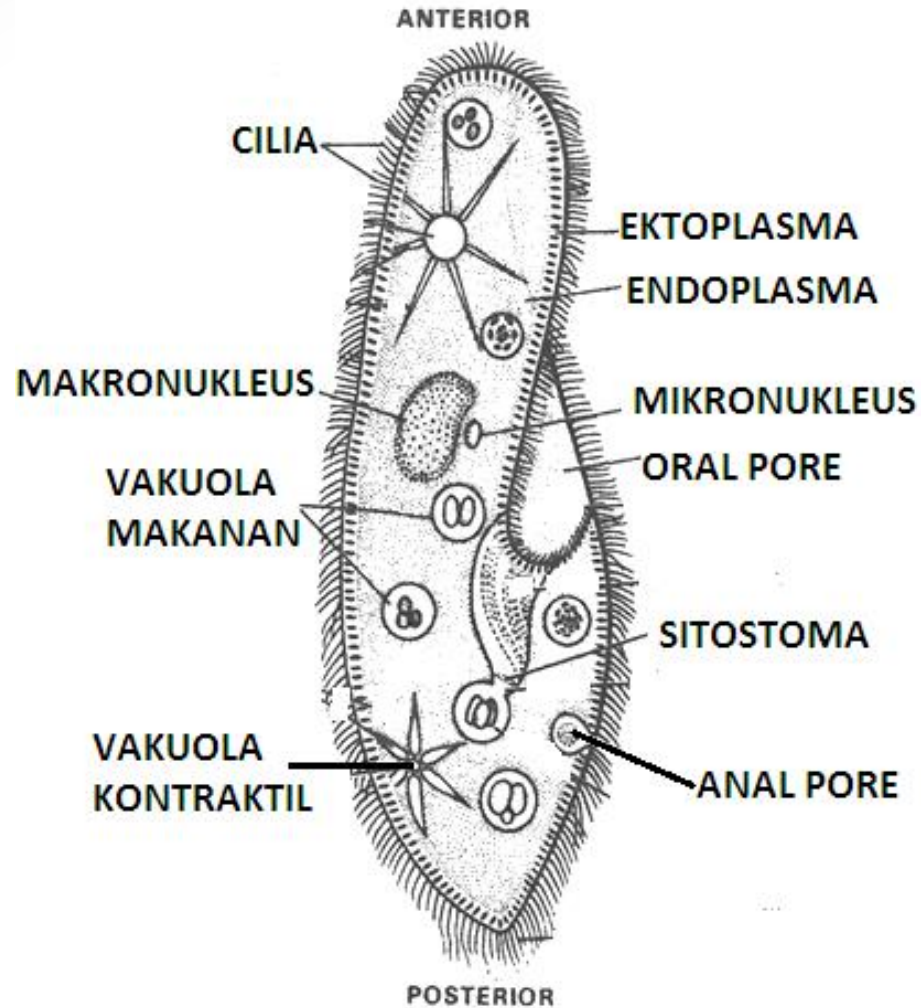
- *Auxoprimum sp*
- *Dictyocoryne truncatum*
- *Lamprocyclus maritimus*
- *Actinomma arcadophorum*
- *Pterocanium sp*

Sebagai bahan alat gosok



SIKLUS
Entamoeba coli

CILIATA



Paramecium caudatum

http://www.2classnotes.com/images/12/science/Zoology/Paramecium_caudatum.gif

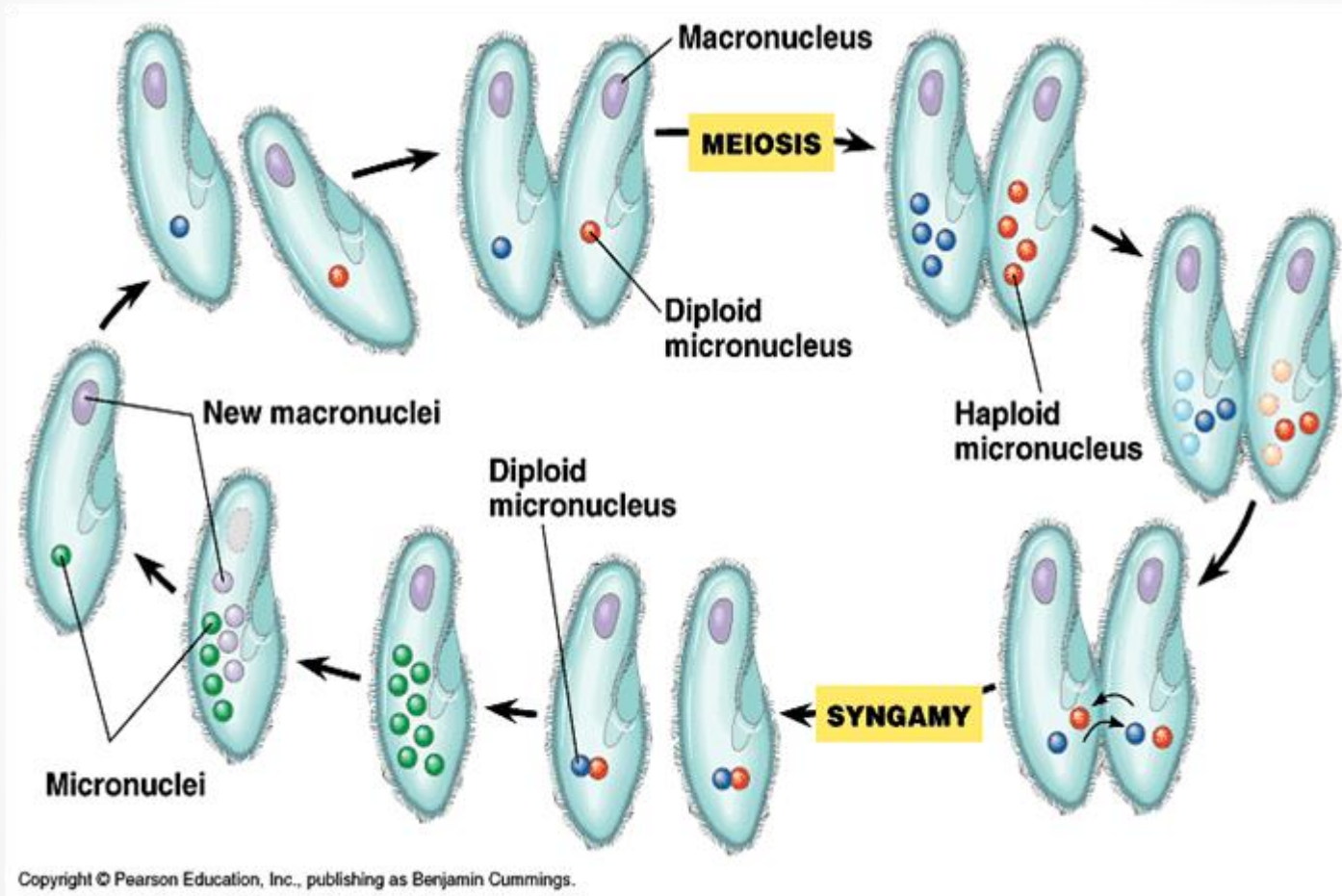
PARAMECIUM

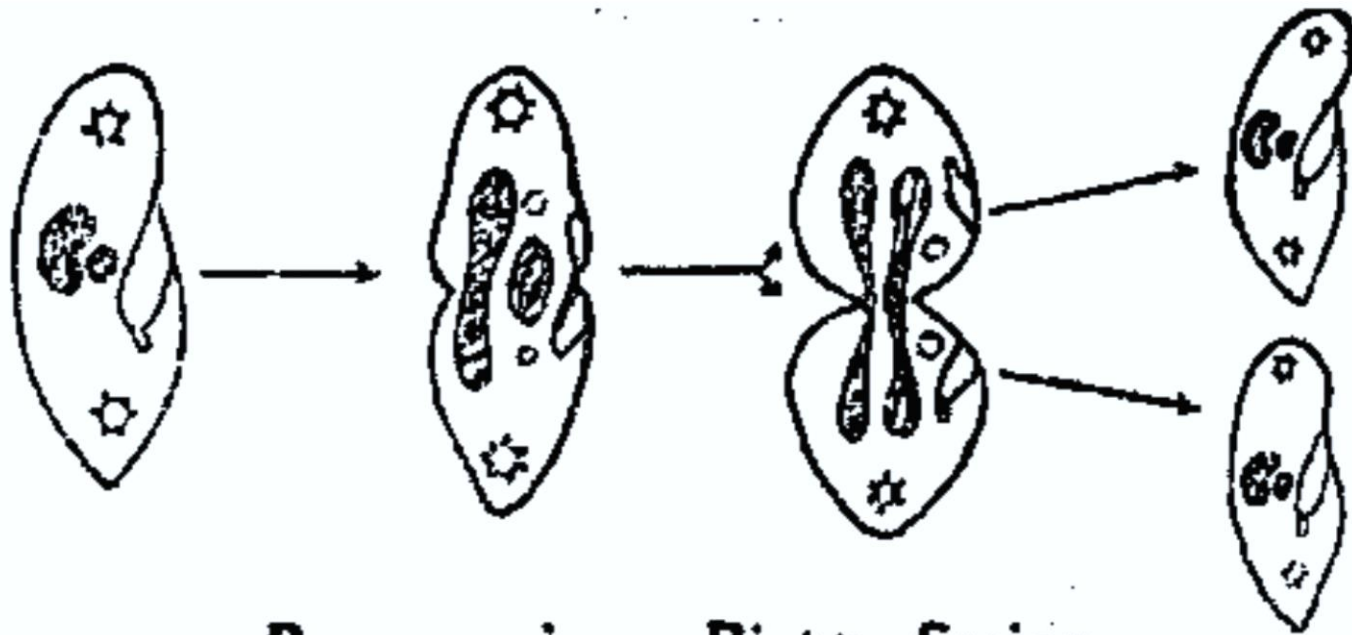
- Protozoa
- Uniseluler
- Bersilia (rambut getar)
- Bisa konjugasi
- Bisa membelah diri
- Makanannya bahan organik

KONJUGASI

1. Yang berfungsi adalah inti kecil
2. Inti kecil membelah membentuk gamet + dan -
3. Pertukaran inti gamet + dengan sel lain
4. Peleburan inti-inti gamet
5. Pembelahan inti, menjadi inti besar dan inti kecil
6. Paramecium membelah diri

KONJUGASI PARAMAECIUM



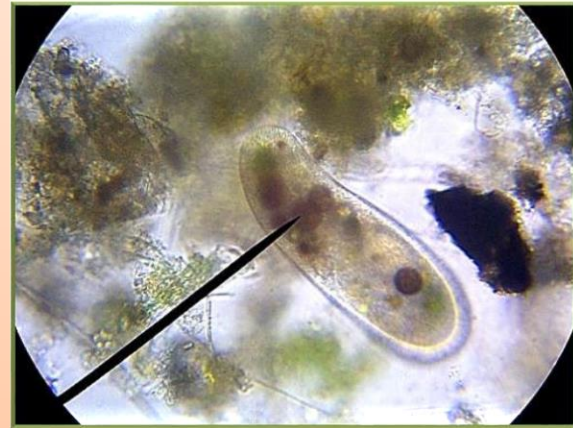


***Paramecium* : Binary fission**

<http://upload.vipulg.com/Biology/603/Chapter8-8.png>

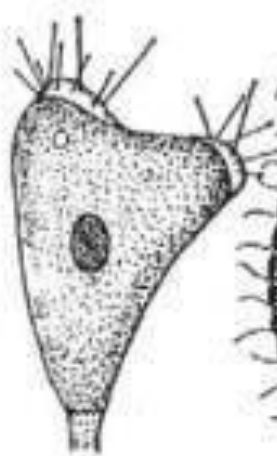
CONTOH CILIATA

- *Paramecium caudatum*
- *Balantidium coli*
- *Stentor sp*
- *Didinium sp*
- *Vorticella sp*
- *dll*

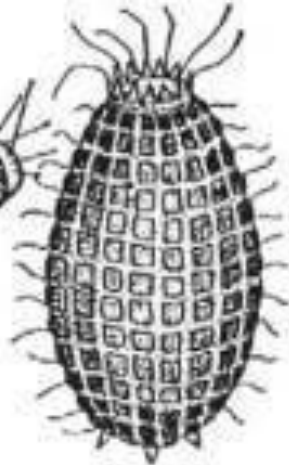


Paramecium sp

CONTOH CILIATA



Acineto



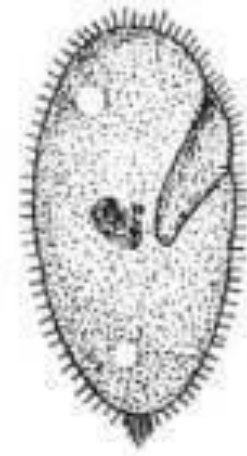
Coleps



Didinium



Bursaria



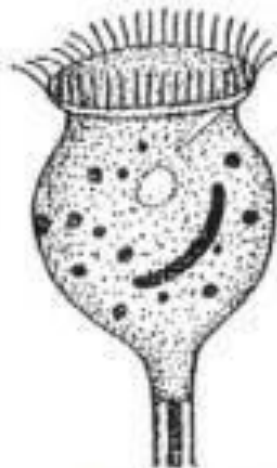
Paramecium



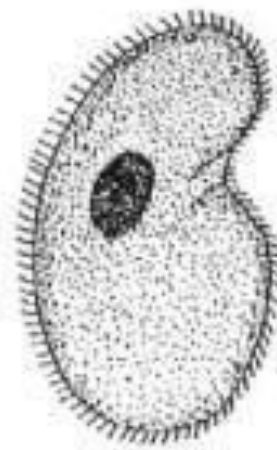
Stylonichia



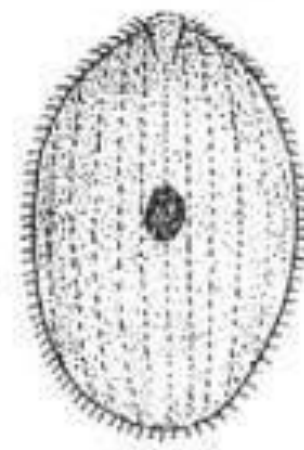
Stentor



Vorticella



Colpoda

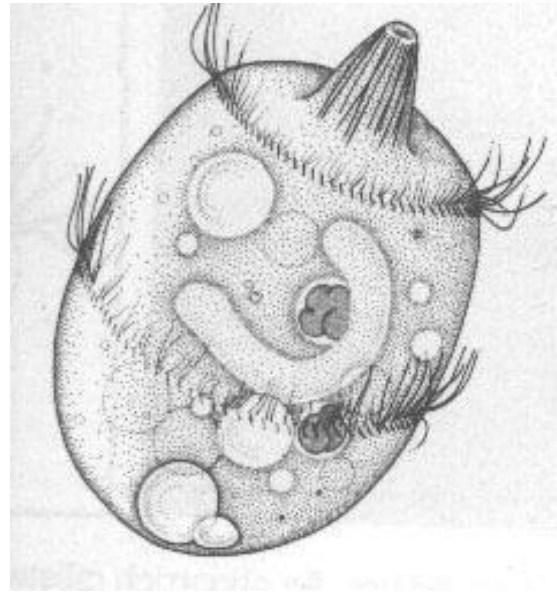


Prorodon

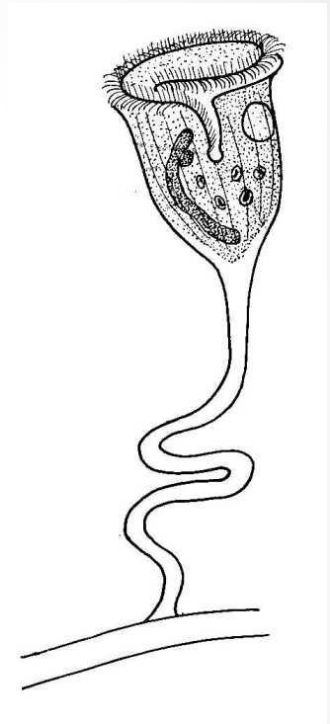


Stentor sp.
Photo by Urrutzurtu

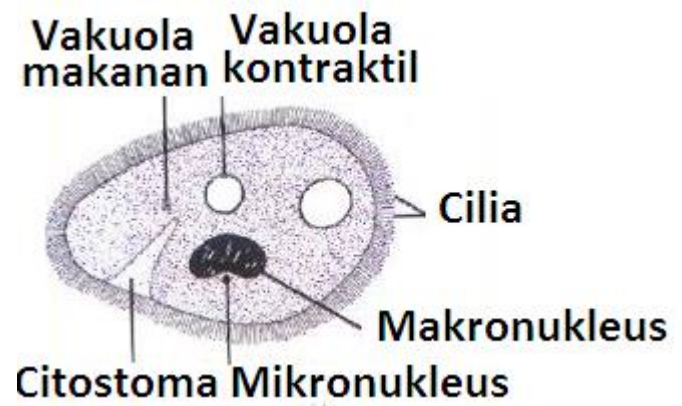
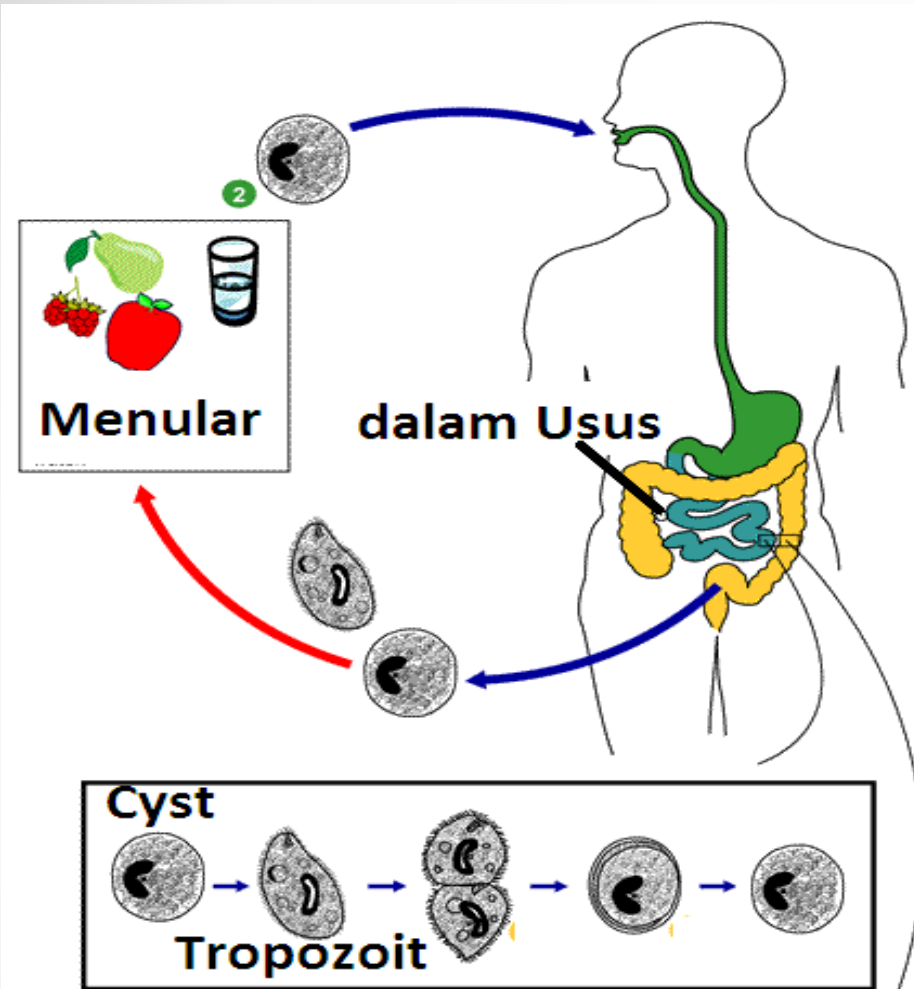
Stentor sp



Didinium sp

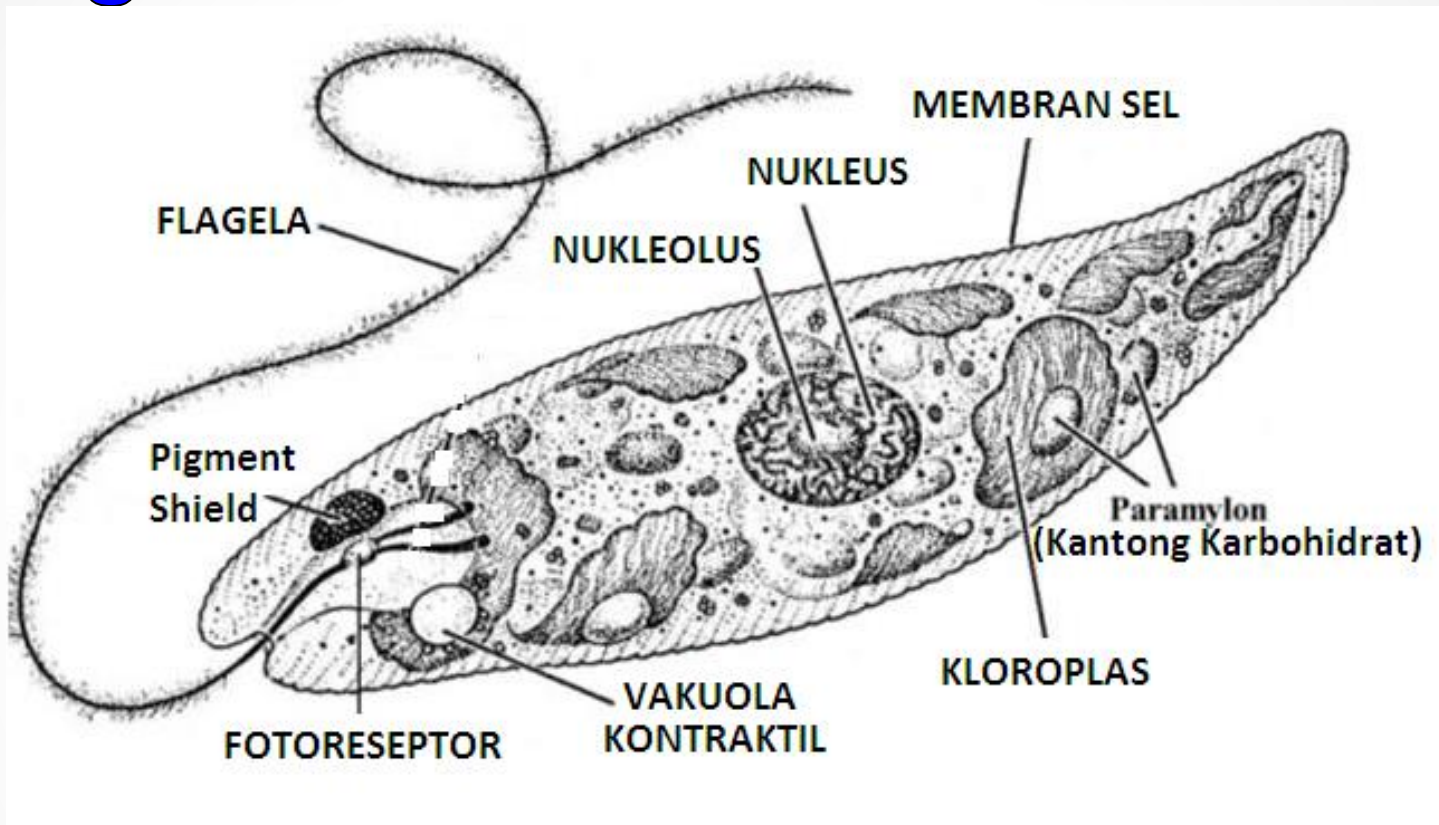


Vorticella sp



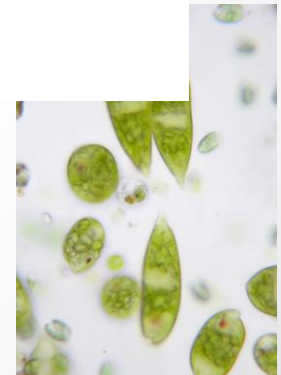
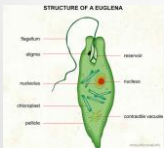
Siklus *Balantidium coli*

Flagellata

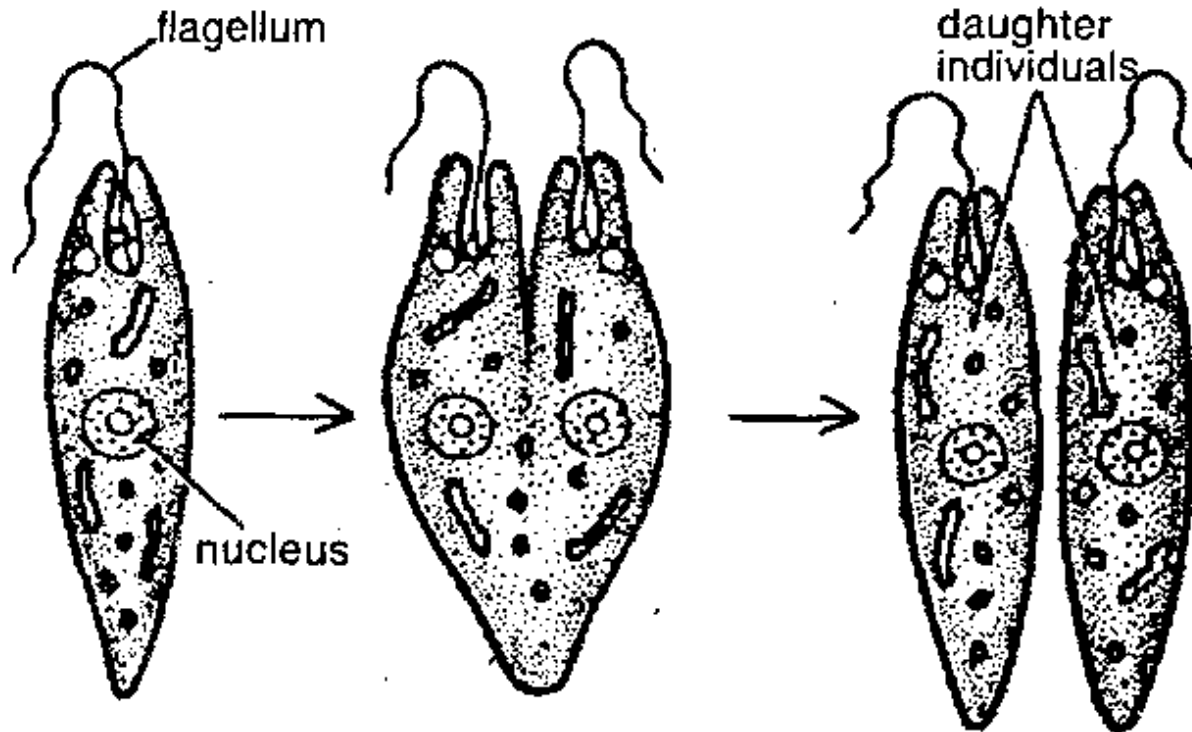


<http://home.arcor.de/lionking16/bio-Dateien/image004.jpg>

[http://biology.touchspin.com/images/euglena.a.diagram.B.jpg](http://biology.touchspin.com/images/euglena.diagram.B.jpg)

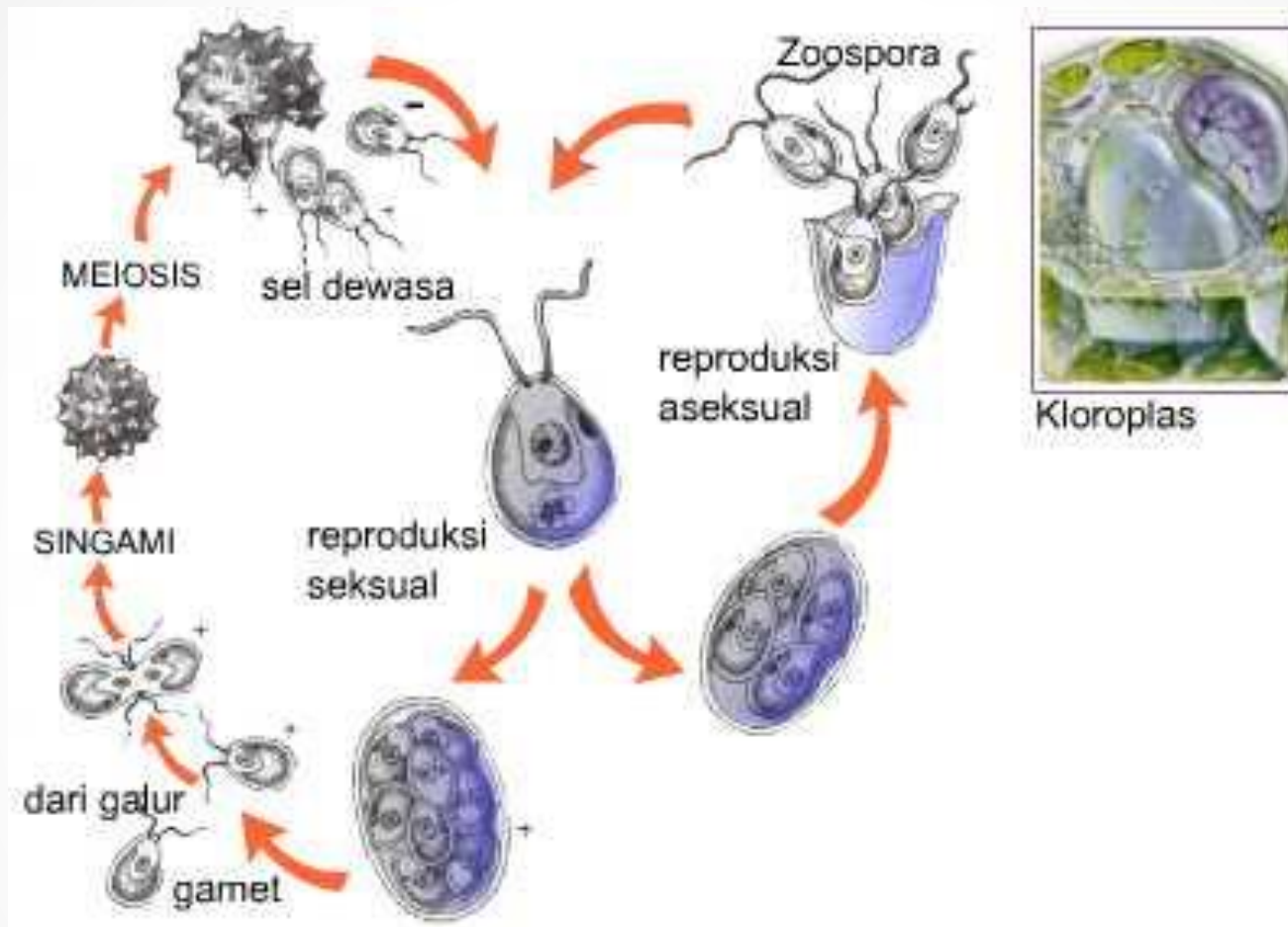


PEMBELAHAN SEL



Longitudinal binary fission in Euglena

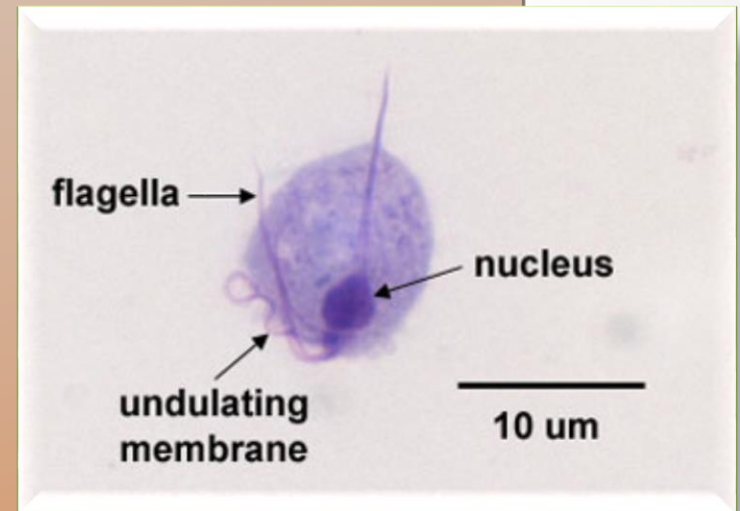
<http://www.tutornext.com/system/files/u80/Chapter%203-41.png>



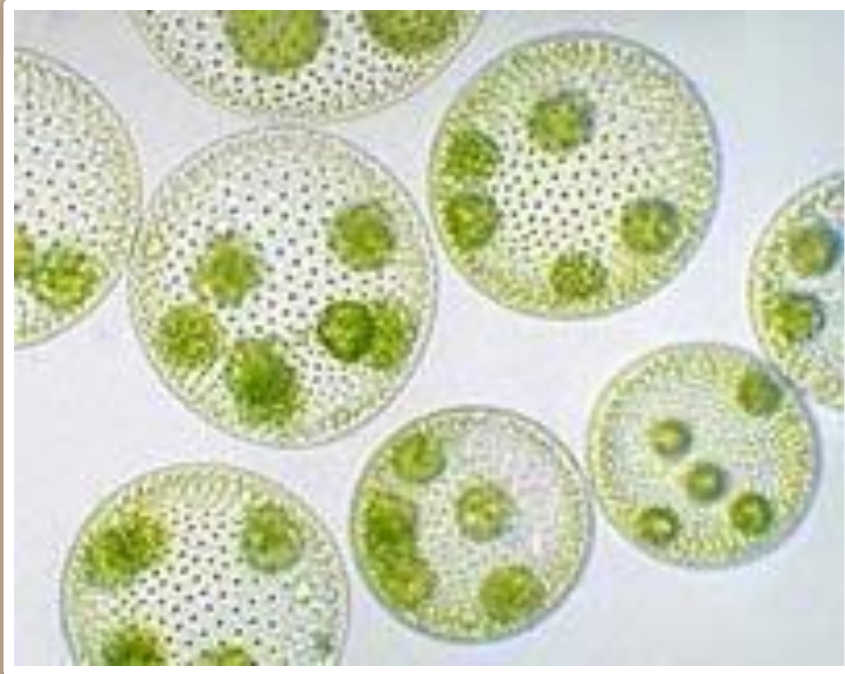
Chlamidomonas sp

CONTOH FLAGELATA

- *Euglena viridis*
- *Volvox globator*
- *Trypanosoma sp*
- *Trichomonas sp*
- dll



Trichomonas vaginalis

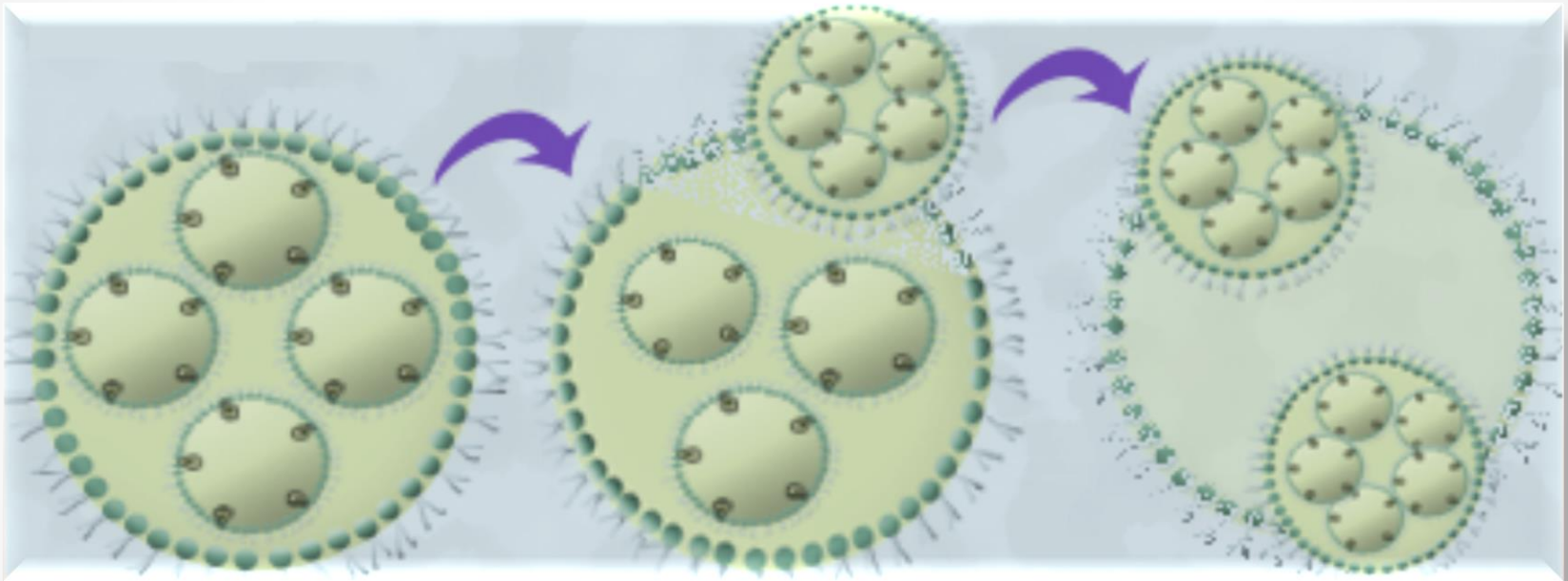


Volvox globator merupakan koloni dari banyak sel-sel yang memiliki flagel. Berbiak dengan cara fragmentasi

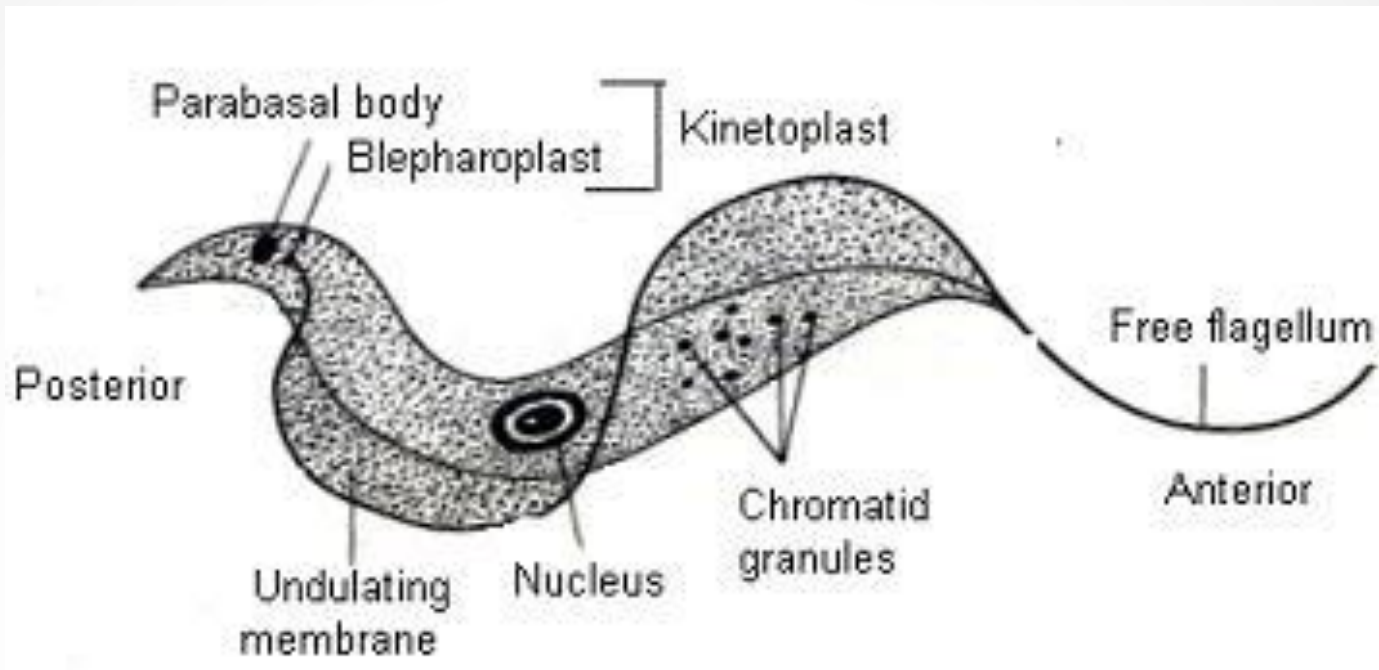
http://image28.webshots.com/29/1/42/12/260814212KSjSGF_ph.jpg

VOLVOX GLOBATOR

FRAGMENTASI



http://www.metamicrobe.com/IMG/volvox_asexual.png



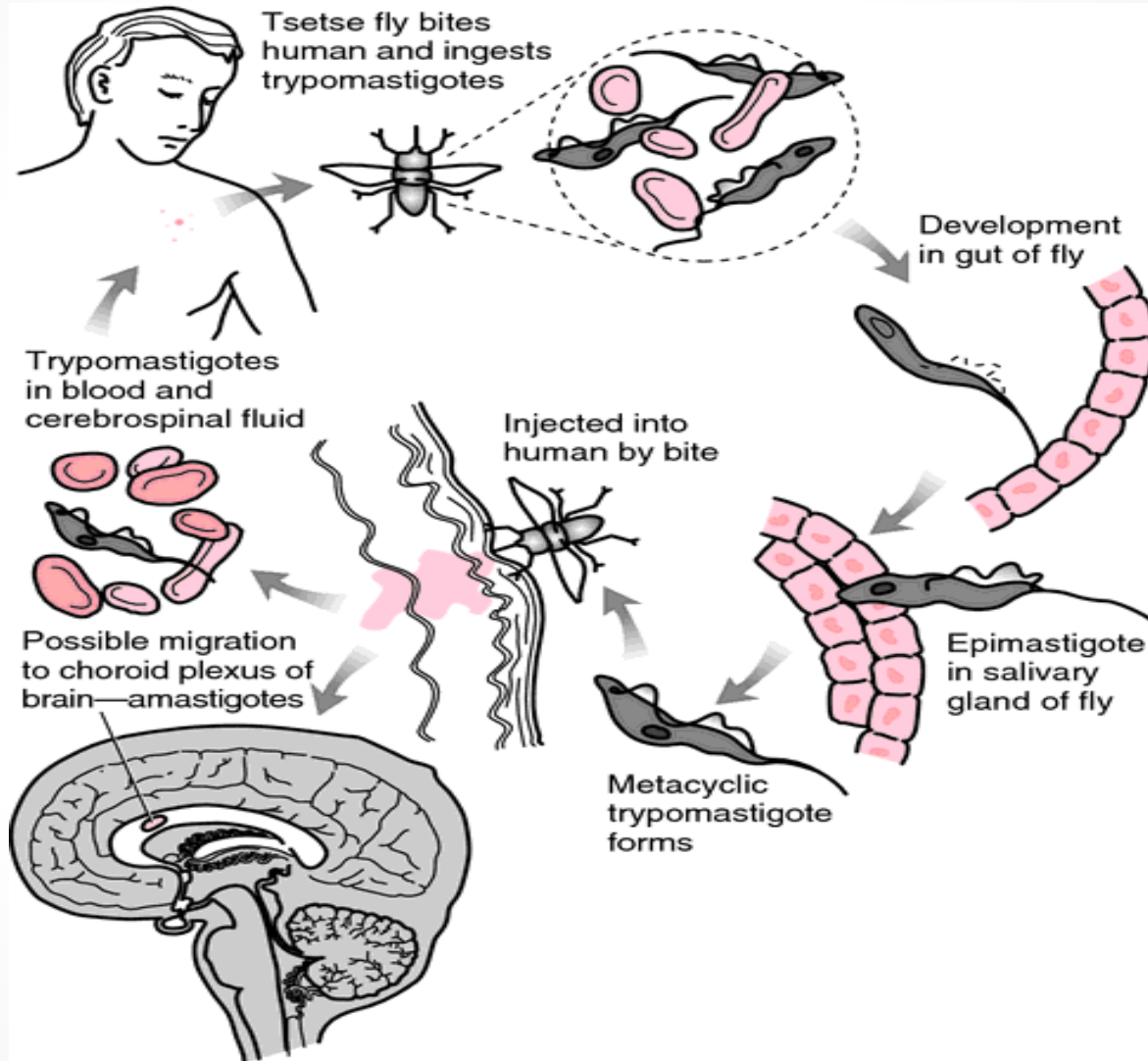
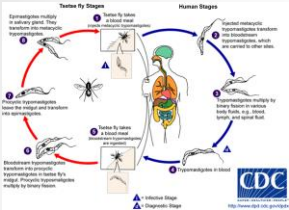
Trypanosoma gambiense



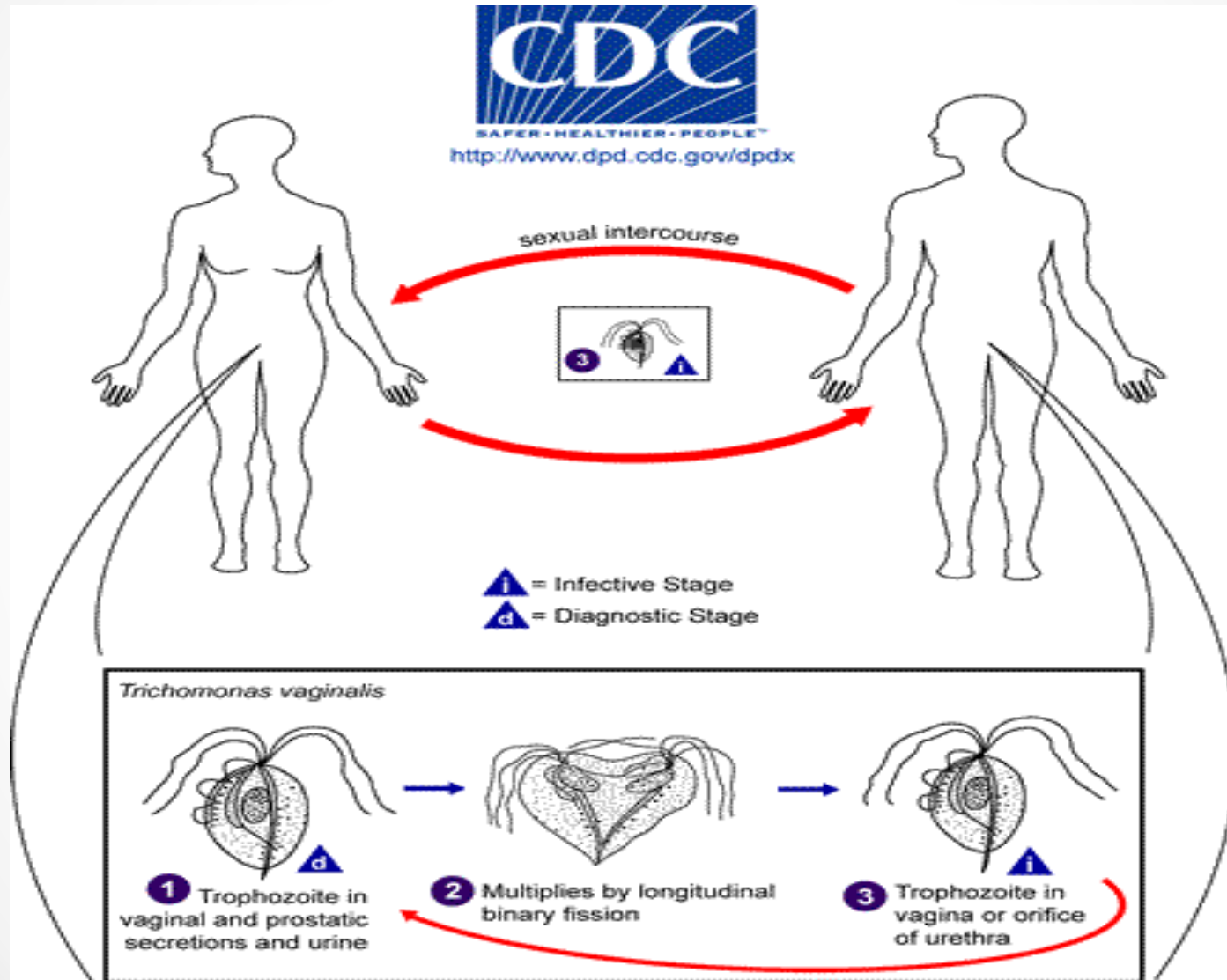
<http://aparasiteworld.blogspot.com/2010/01/trypanosomiasis.html>

● LALAT TSE-TSE

SIKLUS TRYPANOSOMA SP



SIKLUS *Trichomonas* sp



PLASMODIUM SP

- FASE GENERATIF:

- GAMETOSIT
- ZIGOT
- OOKINET
- SPOROKISTA
- SPOROZOIT

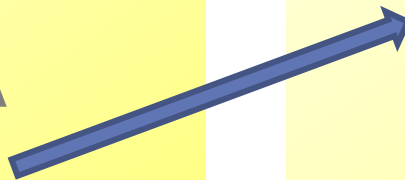
TUBUH NYAMUK

TUBUH MANUSIA

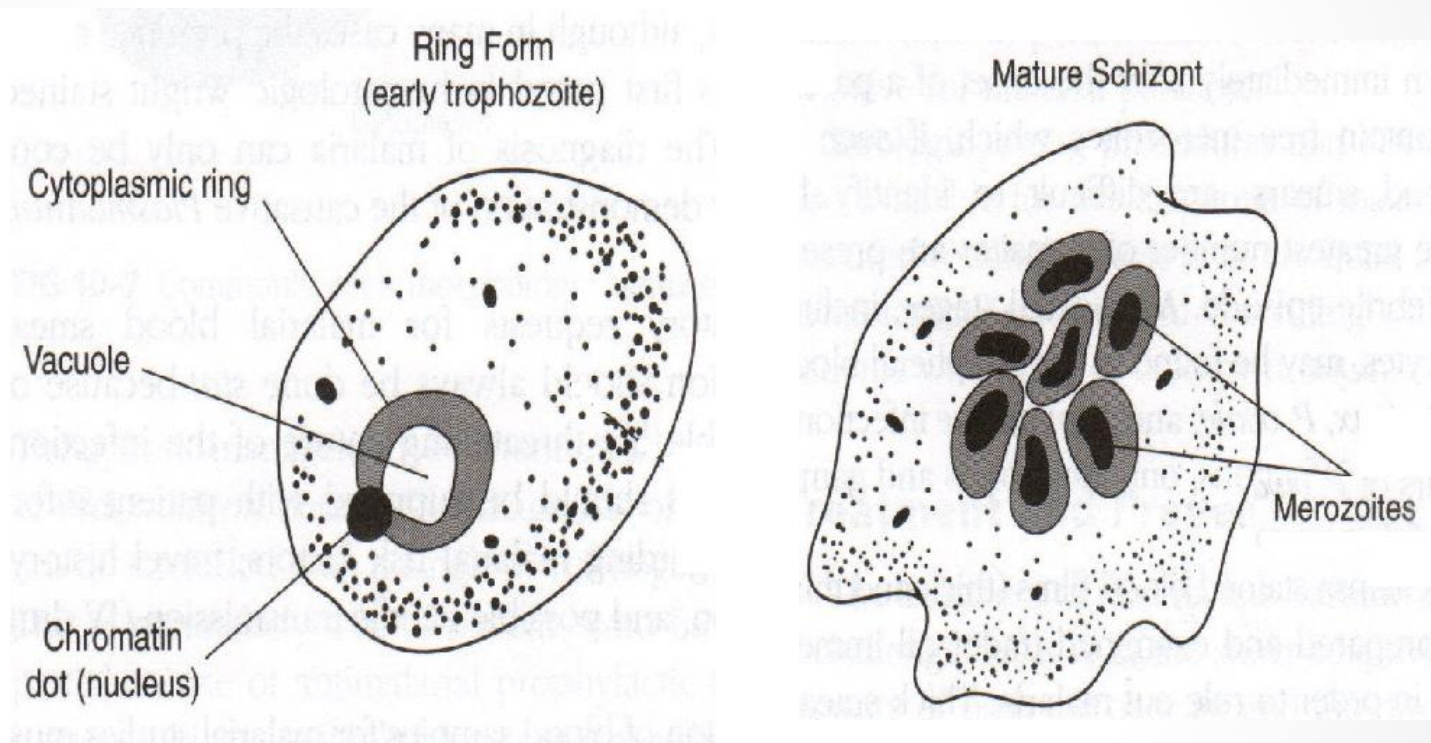
- FASE VEGETATIF:

- TROPOZOIT
- PLASMODIUM
- SKIZON
- MEROZOIT

MENJADI GAMETOSIT

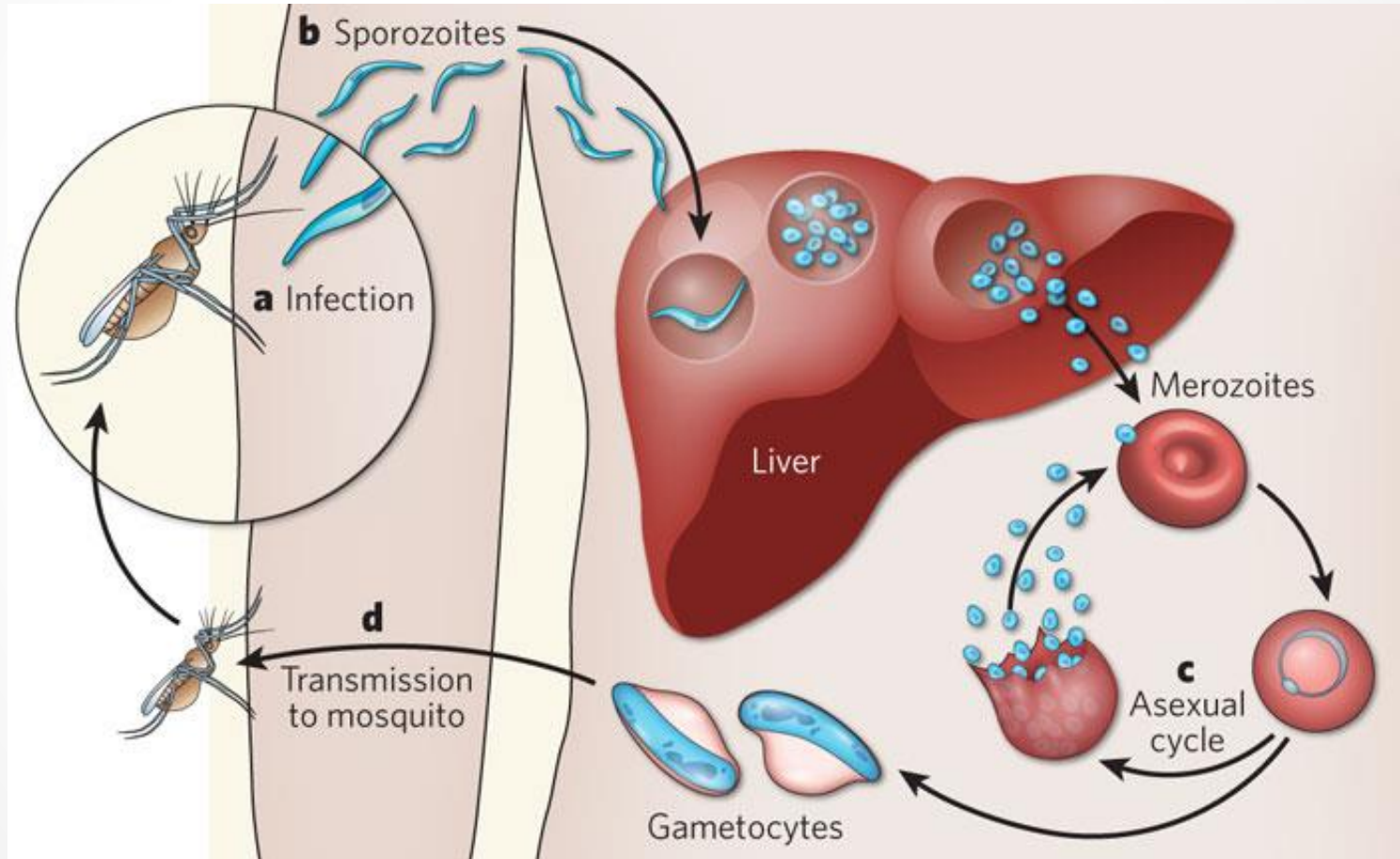


SPOROZOA



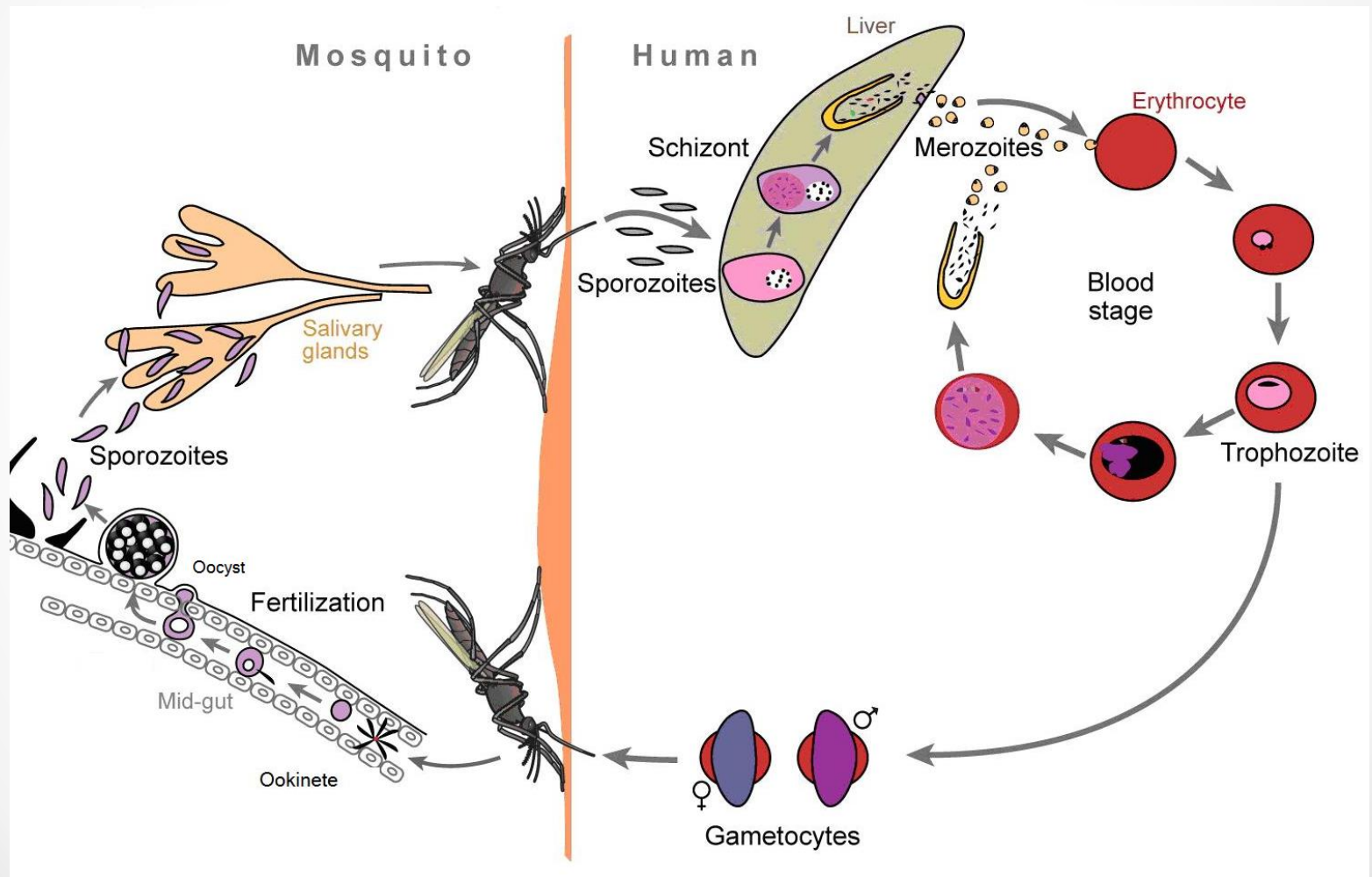
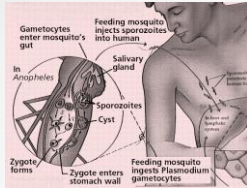
PLASMODIUM SP

SPOROZOITE



SIKLUS Plasmodium sp

54

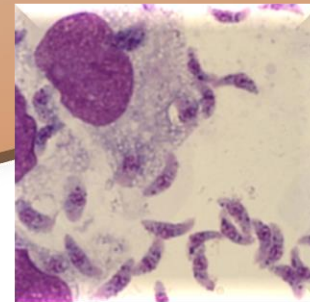


CONTOH SPOROZOA

- *Toxoplasma sp*
- *Plasmodium vivax*
- *Plasmodium falcifarum*
- *Plasmodium ovale*
- *Plasmodium malariae*

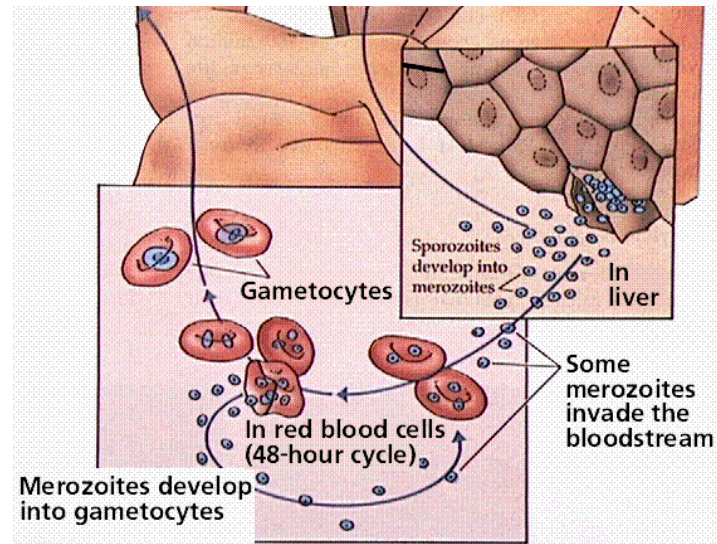
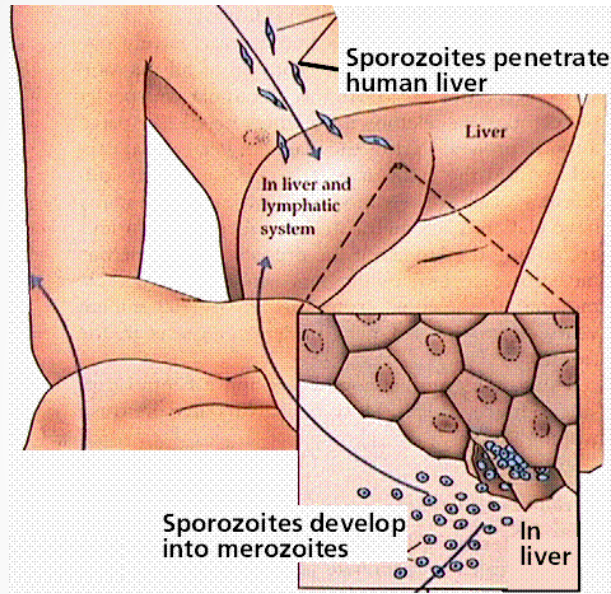


Plasmodium sp



Toxoplasma sp

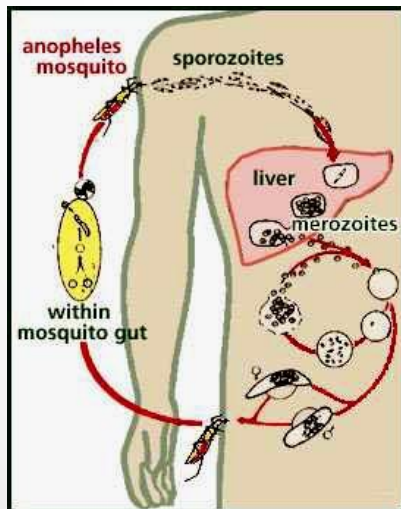
Malaria



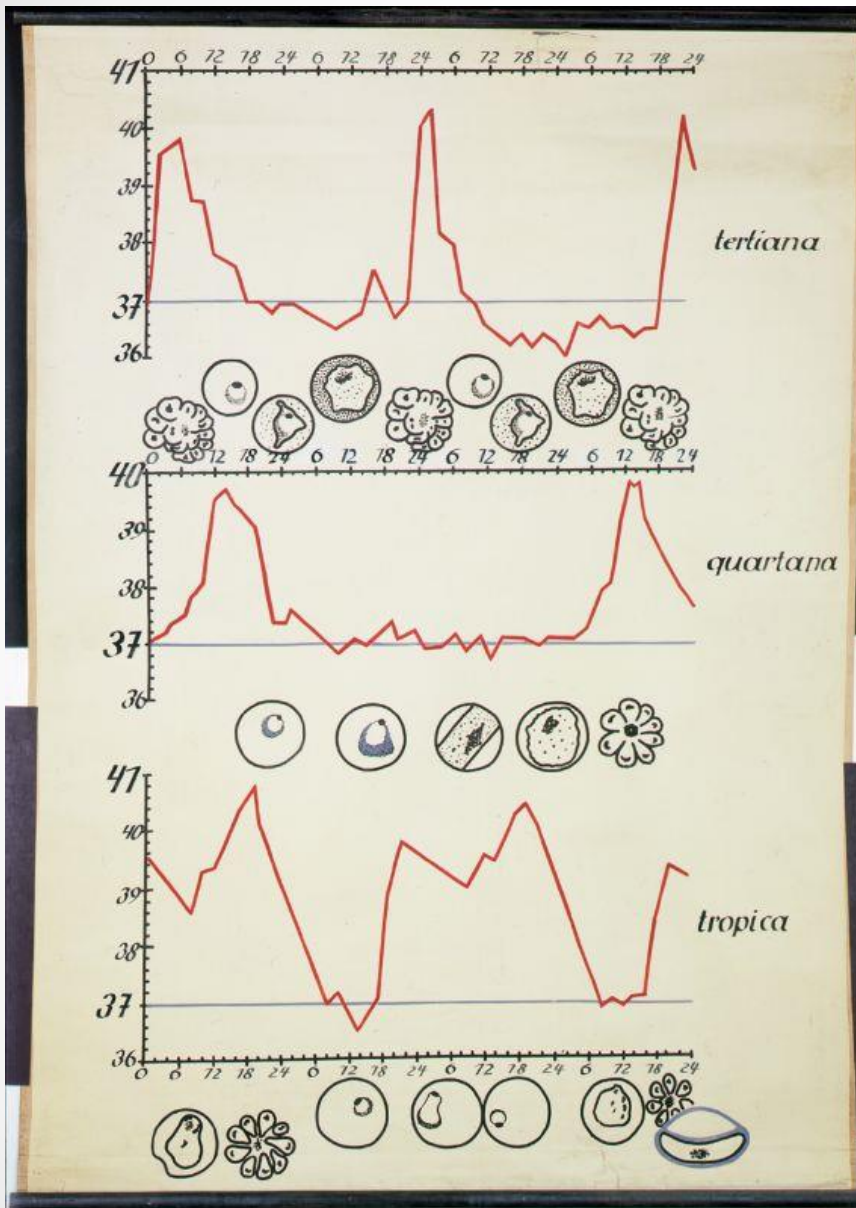
FASE VEGETATIF

JENIS MALARIA

- Malaria TROPIKA → demam setiap hari
- Malaria TERTIANA → selang 2 hari
- Malaria KUARTANA → selang 3 hari



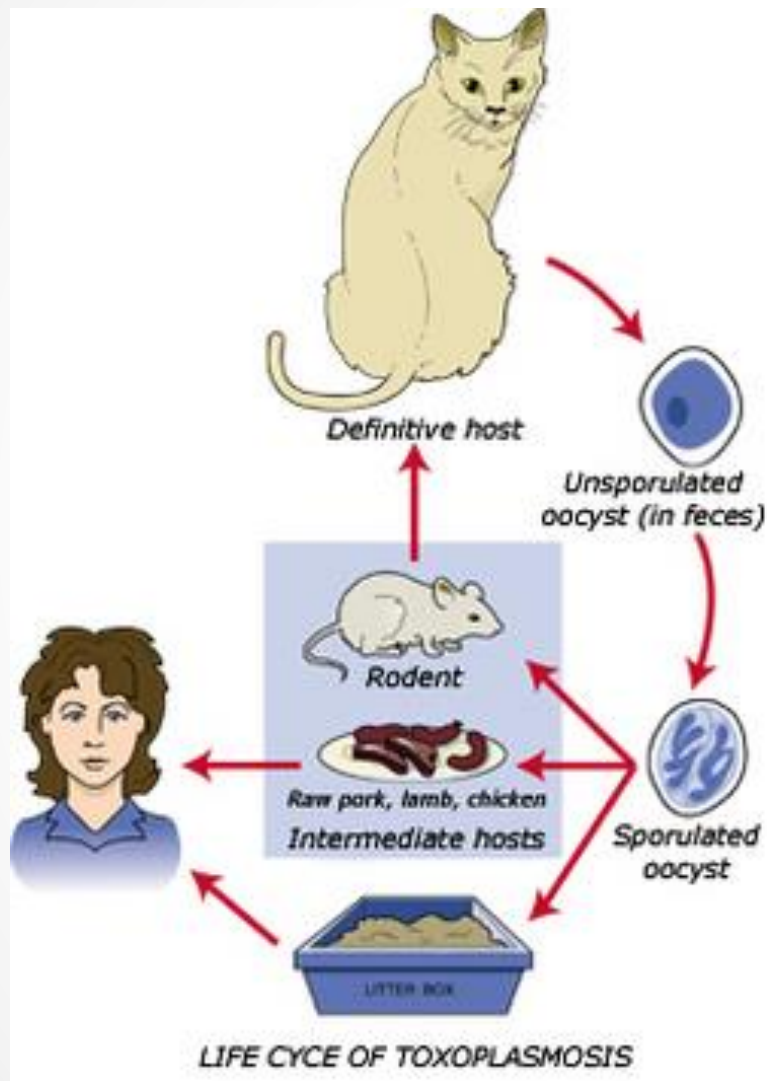
http://www.medicastore.com/apotik_online/image/siklus_malaria.jpg



Pola Demam Malaria

1. Tertiana
2. Kuartana
3. tropika

<http://www.sammlungen.hu-berlin.de/media2/sammlung/dokument/0000/0000/0000/0000/0002/6935/content.800.jpg>



<http://media.tanyadokteranda.com/images/2008/09/toxoplasmosis.jpg>

Protozoa penyebab penyakit

JENIS PROTOZOA	PENYAKIT
<i>Plasmodium sp</i>	Malaria
<i>Toxoplasma sp</i>	Keguguran dan kebutaan
<i>Entamoeba histolytica</i>	Diare
<i>Trypanosoma gambiense</i>	Penyakit tidur → kematian
<i>Trichomonas vaginalis</i>	Penyakit kelamin

TRIMS

UNDER MICROSCOPE

- [AMOEBA](#)
- [EUGLENA](#)
- [PARAMAECIUM](#)
- [VOLVOX](#)
- [FORAMINIFERA](#)
- [Fagocytosis amoeba](#)
- [STENTOR](#)
- [DIDINIUM](#)
- [AMOEBA VS STENTOR](#)